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Releasenotes

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1 Important information

1.1 Product information

For the latest information on our products, go to https://www.boschrexroth.com.

1.2 SafeLogic safety control

All IndraWorks installations that do not contain the "SAFELOGIC" ID in the product description or the type code do not provide any SafeLogic safety control support. These versions are not released for SafeLogic.

- IndraWorks projects containing SafeLogic controls must not be opened with these IndraWorks versions
- SafeLogic controls must not be edited with these IndraWorks versions

Exclusively use IndraWorks installations explicitly released for the SafeLogic safety control to open and edit IndraWorks projects with SafeLogic controls.

These versions are identified by the ID "SAFELOGIC" contained in the product description or the type code:

- SWA-IWORKS-ML*-14VRS-D0-DVD**-SAFELOGIC
- SWA-IWORKS-MTX-14VRS-D0-DVD**-SAFELOGIC

1.3 Changes in the Windows 10 operating system

In previous Windows 10 versions 1607, 1703 and 1709, there is a COM/DCOM memory leak problem (Microsoft REG:118011117447926, OTS: Windows 10 - Memory leak on Windows 10 devices) that was fixed in April 2018 by Microsoft.

IndraWorks Operation can only be used with this buxfix under Windows 10. The known problem "Defdb00197710 SCP server crashes after several days of runtime" does not occur anymore.

The Microsoft bugfix is available or contained in the following Windows 10 versions:

- Windows 10 version 1607 (LTSB) in combination with Microsoft update KB4093120
  - Title of Microsoft update: April 17, 2018—KB4093120 (OS Build 14393.2214)
  - Link: https://support.microsoft.com/en-us/help/4093120/windows-10-update-kb4093120
- Windows 10 version 1803 (or newer version)

For Windows 10 versions 1511, 1703 and 1709, there is no KB number with this bugfix (release: start of May 2018). To debug this problem, update to version 1803.

The behavior and the look and feel of the Windows 10 start menu changed compared to Windows 7. Windows 10 now features flat links, instead of the tree structures of Windows 7. If only an IndraWorks version was installed on the target computer, all links can be found under the start menu "All Apps". However, these links are flat.

If more than one IndraWorks installation is installed on the target computer (parallel installation function), the start menu links are not displayed anymore

under "All Apps". A new link "IndraWorks start menu" is created on the desktop. The installed IndraWorks versions are managed via this link.

Fig. 1-1: IndraWorks start menu

1.4 Information about 14V22 Patch 20

1.4.1 Firmware version 14V22 Patch 20

For IndraMotion ML Version **14V22 Patch 20**, the following firmware versions are provided:

- **FWA-CML25*-MLC-14VRS 14V20.4636.18**
- **FWA-CML45*-MLC-14VRS 14.22.6166.037**
- **FWA-CML65*-MLC-14VRS 14.22.6166.037**
- **FWA-CML75*-MLC-14VRS 14.22.6166.037**
- **FWA-IPC02s-MLC-14VRS 14.22.6166.037**
- **FWA-XM2***-MLC-14VRS 14.22.6166.037**
- **FWA-XM4***-MLC-14VRS 14.22.6166.037**
- **FWA-CML25*-XLC-14VRS 14V20.4636.18**
- **FWA-CML45*-XLC-14VRS 14.22.6166.037**
- **FWA-CML65*-XLC-14VRS 14.22.6166.037**
- **FWA-CML75*-XLC-14VRS 14.22.6166.037**

1.4.2 Version overview of libraries 14V22 Patch 20

The following file includes all libraries released for this build. This build is tested and verified by Bosch Rexroth. Changing the placeholder manually in the library manager to a different version release of the library is not impeded. We want to point that changing the placeholder (by the user) can cause malfunctions, as other combinations are not tested for the controls and are thus not released.

See file <Libraries_VersionOverview_14V22_Patch20.htm>

1.5 Information about 14V22 Patch 19

1.5.1 Firmware version 14V22 Patch 19

For IndraMotion ML Version **14V22 Patch 19**, the following firmware versions are provided:

- **FWA-CML25*-MLC-14VRS 14V20.4636.18**
- **FWA-CML45*-MLC-14VRS 14.22.6086.35**
- **FWA-CML65*-MLC-14VRS 14.22.6086.35**
- **FWA-CML75*-MLC-14VRS 14.22.6086.35**
- **FWA-IPC02s-MLC-14VRS 14.22.6086.35**
- **FWA-XM2***-MLC-14VRS 14.22.6086.35**
- **FWA-XM4***-MLC-14VRS 14.22.6086.35**
- **FWA-CML25*-XLC-14VRS 14V20.4636.18**
- **FWA-CML45*-XLC-14VRS 14.22.6086.35**
- **FWA-CML65*-XLC-14VRS 14.22.6086.35**
- **FWA-CML75*-XLC-14VRS 14.22.6086.35**

1.5.2 Version overview of libraries 14V22 Patch 19

The following file includes all libraries released for this build. This build is tested and verified by Bosch Rexroth. Changing the placeholder manually in the library manager to a different version release of the library is not impeded. We want to point that changing the placeholder (by the user) can cause malfunctions, as other combinations are not tested for the controls and are thus not released.

See file <Libraries_VersionOverview_14V22_Patch19.htm>

1.6 Information about 14V22 Patch18

For release 14V22 Patch 18, only the firmware was changed, compared to release 14V22 Patch 17. No new IndraWorks version is provided.

1.6.1 Firmware version 14V22 Patch18

For IndraMotion ML Version **14V22 Patch18**, the following firmware versions are provided:

- **FWA-CML25*-MLC-14VRS 14V20.4636.18**
- **FWA-CML45*-MLC-14VRS 14.22.6042.34**
- **FWA-CML65*-MLC-14VRS 14.22.6042.34**
- **FWA-CML75*-MLC-14VRS 14.22.6042.34**
- **FWA-IPC02s-MLC-14VRS 14.22.6042.34**
- **FWA-XM2***-MLC-14VRS 14.22.6042.34**
- **FWA-XM4***-MLC-14VRS 14.22.6042.34**
- **FWA-CML25*-XLC-14VRS 14V20.4636.18**
- **FWA-CML45*-XLC-14VRS 14.22.6042.34**
- **FWA-CML65*-XLC-14VRS 14.22.6042.34**
- **FWA-CML75*-XLC-14VRS 14.22.6042.34**

1.6.2 Version overview of libraries 14V22 Patch18

The following file includes all libraries released for this build. This build is tested and verified by Bosch Rexroth. Changing the placeholder manually in the library manager to a different version release of the library is not impeded. We want to point that changing the placeholder (by the user) can cause malfunctions, as other combinations are not tested for the controls and are thus not released.

See file <Libraries_VersionOverview_14V22_Patch17.htm>

1.7 Information about 14V22 Patch17

1.7.1 Firmware version 14V22 Patch17

For IndraMotion ML Version **14V22 Patch17**, the following firmware versions are provided:

- **FWA-CML25*-MLC-14VRS 14V20.4636.18**
- **FWA-CML45*-MLC-14VRS 14.22.5993.33**
- **FWA-CML65*-MLC-14VRS 14.22.5993.33**
- **FWA-CML75*-MLC-14VRS 14.22.5993.33**
- **FWA-IPC02s-MLC-14VRS 14.22.5993.33**
- **FWA-XM2***-MLC-14VRS 14.22.5993.33**
- **FWA-XM4***-MLC-14VRS 14.22.5993.33**
- **FWA-CML25*-XLC-14VRS 14V20.4636.18**
- **FWA-CML45*-XLC-14VRS 14.22.5993.33**
- **FWA-CML65*-XLC-14VRS 14.22.5993.33**
- **FWA-CML75*-XLC-14VRS 14.22.5993.33**

1.7.2 Version overview of libraries 14V22 Patch17

The following file includes all libraries released for this build. This build is tested and verified by Bosch Rexroth. Changing the placeholder manually in the library manager to a different version release of the library is not impeded. We want to point that changing the placeholder (by the user) can cause malfunctions, as other combinations are not tested for the controls and are thus not released.

See file <Libraries_VersionOverview_14V22_Patch17.htm>

1.8 Information about 14V22 Patch16

For release 14V22 Patch 16, only the firmware was changed, compared to release 14V22 Patch 15. No new IndraWorks version is provided.

1.8.1 Firmware version 14V22 Patch16

For IndraMotion ML Version **14V22 Patch15**, the following firmware versions are provided:

- **FWA-CML25*-MLC-14VRS 14V20.4636.18**
- **FWA-CML45*-MLC-14VRS 14V22.5965.32**
- **FWA-CML65*-MLC-14VRS 14V22.5965.32**
- **FWA-CML75*-MLC-14VRS 14V22.5965.32**
- **FWA-IPC02s-MLC-14VRS 14V22.5965.32**
- **FWA-XM2***-MLC-14VRS 14V22.5965.32**
- **FWA-XM4***-MLC-14VRS 14V22.5965.32**
- **FWA-CML25*-XLC-14VRS 14V20.4636.18**
- **FWA-CML45*-XLC-14VRS 14V22.5965.32**
- **FWA-CML65*-XLC-14VRS 14V22.5965.32**
- **FWA-CML75*-XLC-14VRS 14V22.5965.32**

1.8.2 Version overview of libraries 14V22 Patch16

The following file includes all libraries released for this build. This build is tested and verified by Bosch Rexroth. Changing the placeholder manually in the library manager to a different version release of the library is not impeded. We want to point that changing the placeholder (by the user) can cause malfunctions, as other combinations are not tested for the controls and are thus not released.

See file <Libraries_VersionOverview_14V22_Patch16htm>

1.9 Information about 14V22 Patch15

☞ For release 14V22 Patch 15, only the firmware was changed, compared to release 14V22 Patch 14. No new IndraWorks version is provided.

1.9.1 Firmware version 14V22 Patch15

☞ For IndraMotion ML Version **14V22 Patch15**, the following firmware versions are provided:

- **FWA-CML25*-MLC-14VRS 14V20.4636.18**
- **FWA-CML45*-MLC-14VRS 14V22.5945.31**
- **FWA-CML65*-MLC-14VRS 14V22.5945.31**
- **FWA-CML75*-MLC-14VRS 14V22.5945.31**
- **FWA-IPC02s-MLC-14VRS 14V22.5945.31**
- **FWA-XM2***-MLC-14VRS 14V22.5945.31**
- **FWA-XM4***-MLC-14VRS 14V22.5945.31**
- **FWA-CML25*-XLC-14VRS 14V20.4636.18**
- **FWA-CML45*-XLC-14VRS 14V22.5945.31**
- **FWA-CML65*-XLC-14VRS 14V22.5945.31**
- **FWA-CML75*-XLC-14VRS 14V22.5945.31**

1.9.2 Version overview of libraries 14V22 Patch15

☞ The following file includes all libraries released for this build. This build is tested and verified by Bosch Rexroth. Changing the placeholder manually in the library manager to a different version release of the library is not impeded. We want to point that changing the placeholder (by the user) can cause malfunctions, as other combinations are not tested for the controls and are thus not released.

See file <Libraries_VersionOverview_14V22_Patch15.htm>

1.10 Information about 14V22 Patch14

☞ For release 14V22 Patch 14, only the firmware was changed, compared to release 14V22 Patch 13. No new IndraWorks version is provided.

1.10.1 Firmware version 14V22 Patch14

☞ For IndraMotion ML Version **14V22 Patch13**, the following firmware versions are provided:

- **FWA-CML25*-MLC-14VRS 14V20.4636.18**
- **FWA-CML45*-MLC-14VRS 14V22.5939.30**
- **FWA-CML65*-MLC-14VRS 14V22.5939.30**
- **FWA-CML75*-MLC-14VRS 14V22.5939.30**
- **FWA-IPC02s-MLC-14VRS 14V22.5939.30**
- **FWA-XM2***-MLC-14VRS 14V22.5939.30**
- **FWA-XM4***-MLC-14VRS 14V22.5939.30**
- **FWA-CML25*-XLC-14VRS 14V20.4636.18**
- **FWA-CML45*-XLC-14VRS 14V22.5939.30**
- **FWA-CML65*-XLC-14VRS 14V22.5939.30**
- **FWA-CML75*-XLC-14VRS 14V22.5939.30**

1.10.2 Version overview of libraries 14V22 Patch14

☞ The following file includes all libraries released for this build. This build is tested and verified by Bosch Rexroth. Changing the placeholder manually in the library manager to a different version release of the library is not impeded. We want to point that changing the placeholder (by the user) can cause malfunctions, as other combinations are not tested for the controls and are thus not released.

See file <Libraries_VersionOverview_14V22_Patch14.htm>

1.11 Information about 14V22 Patch13

1.11.1 Firmware version 14V22 Patch13

☞ For IndraMotion ML Version **14V22 Patch13**, the following firmware versions are provided:

- **FWA-CML25*-MLC-14VRS 14V20.4636.18**
- **FWA-CML45*-MLC-14VRS 14V22.5885.29**
- **FWA-CML65*-MLC-14VRS 14V22.5885.29**
- **FWA-CML75*-MLC-14VRS 14V22.5885.29**
- **FWA-IPC02s-MLC-14VRS 14V22.5885.29**
- **FWA-XM2***-MLC-14VRS 14V22.5885.29**
- **FWA-XM4***-MLC-14VRS 14V22.5885.29**
- **FWA-CML25*-XLC-14VRS 14V20.4636.18**
- **FWA-CML45*-XLC-14VRS 14V22.5885.29**
- **FWA-CML65*-XLC-14VRS 14V22.5885.29**
- **FWA-CML75*-XLC-14VRS 14V22.5885.29**

1.11.2 Version overview of libraries 14V22 Patch13

☞ The following file includes all libraries released for this build. This build is tested and verified by Bosch Rexroth. Changing the placeholder manually in the library manager to a different version release of the library is not impeded. We want to point that changing the placeholder (by the user) can cause malfunctions, as other combinations are not tested for the controls and are thus not released.

See file <Libraries_VersionOverview_14V22_Patch13.htm>

1.12 Information about 14V22 Patch12

1.12.1 Firmware version 14V22 Patch12

☞ For IndraMotion ML Version **14V22 Patch12**, the following firmware versions are provided:

- **FWA-CML25*-MLC-14VRS 14V20.4636.18**
- **FWA-CML45*-MLC-14VRS 14V22.5885.29**
- **FWA-CML65*-MLC-14VRS 14V22.5885.29**
- **FWA-CML75*-MLC-14VRS 14V22.5885.29**
- **FWA-IPC02s-MLC-14VRS 14V22.5885.29**
- **FWA-XM2***-MLC-14VRS 14V22.5885.29**
- **FWA-XM4***-MLC-14VRS 14V22.5885.29**
- **FWA-CML25*-XLC-14VRS 14V20.4636.18**
- **FWA-CML45*-XLC-14VRS 14V22.5885.29**
- **FWA-CML65*-XLC-14VRS 14V22.5885.29**
- **FWA-CML75*-XLC-14VRS 14V22.5885.29**

1.12.2 Version overview of libraries 14V22 Patch12

☞ The following file includes all libraries released for this build. This build is tested and verified by Bosch Rexroth. Changing the placeholder manually in the library manager to a different version release of the library is not impeded. We want to point that changing the placeholder (by the user) can cause malfunctions, as other combinations are not tested for the controls and are thus not released.

See file <Libraries_VersionOverview_14V22_Patch12.htm>

1.13 Information about 14V22 Patch10

1.13.1 Firmware version 14V22 Patch10

For IndraMotion ML Version **14V22 Patch10**, the following firmware versions are provided:

- **FWA-CML25*-MLC-14VRS 14V20.4636.18**
- **FWA-CML45*-MLC-14VRS 14V22.5866.28**
- **FWA-CML65*-MLC-14VRS 14V22.5866.28**
- **FWA-CML75*-MLC-14VRS 14V22.5866.28**
- **FWA-IPC02s-MLC-14VRS 14V22.5866.28**
- **FWA-XM2***-MLC-14VRS 14V22.5866.28**
- **FWA-XM4***-MLC-14VRS 14V22.5866.28**
- **FWA-CML25*-XLC-14VRS 14V20.4636.18**
- **FWA-CML45*-XLC-14VRS 14V22.5866.28**
- **FWA-CML65*-XLC-14VRS 14V22.5866.28**
- **FWA-CML75*-XLC-14VRS 14V22.5866.28**

1.13.2 VCS reports "The working copy is up to date", although changes have been made in the project

When updating a working copy in the VCS, the message. "The working copy is up to date" is displayed, even though there are changes in the project.

This behavior occurs when selecting the "Team Servers path" and configuring a directory that is below the actual subversion root directory.

As a result dependencies are interpreted incorrectly and modifications made to the project are not recognized.

Always specify only the subversion root directory that is specified by the administrator in the dialog "Select team server"!

1.13.3 Version overview of libraries 14V22 Patch10

The following file includes all libraries released for this build. This build is tested and verified by Bosch Rexroth. Changing the placeholder manually in the library manager to a different version release of the library is not impeded. We want to point that changing the placeholder (by the user) can cause malfunctions, as other combinations are not tested for the controls and are thus not released.

See file <Libraries_VersionOverview_14V22_Patch10.htm>

1.14 Information about 14V22 Patch9

1.14.1 Firmware version 14V22 Patch9

For IndraMotion ML Version **14V22 Patch9**, the following firmware versions are provided:

- **FWA-CML25*-MLC-14VRS 14V20.4636.18**
- **FWA-CML45*-MLC-14VRS 14V22.5833.27**
- **FWA-CML65*-MLC-14VRS 14V22.5833.27**
- **FWA-CML75*-MLC-14VRS 14V22.5833.27**
- **FWA-IPC02s-MLC-14VRS 14V22.5833.27**
- **FWA-XM2***-MLC-14VRS 14V22.5833.27**
- **FWA-XM4***-MLC-14VRS 14V22.5833.27**
- **FWA-CML25*-XLC-14VRS 14V20.4636.18**
- **FWA-CML45*-XLC-14VRS 14V22.5833.27**
- **FWA-CML65*-XLC-14VRS 14V22.5833.27**
- **FWA-CML75*-XLC-14VRS 14V22.5833.27**

1.14.2 Version overview of libraries 14V22 Patch9

The following file includes all libraries released for this build. This build is tested and verified by Bosch Rexroth. Changing the placeholder manually in the library manager to a different version release of the library is not impeded. We want to point that changing the placeholder (by the user) can cause malfunctions, as other combinations are not tested for the controls and are thus not released.

See file <Libraries_VersionOverview_14V22_Patch9.htm>

1.15 Information about 14V22 Patch8

1.15.1 Firmware version 14V22 Patch8

For IndraMotion ML Version **14V22 Patch8**, the following firmware versions are provided:

- **FWA-CML25*-MLC-14VRS 14V20.4636.18**
- **FWA-CML45*-MLC-14VRS 14V22.5822.26**
- **FWA-CML65*-MLC-14VRS 14V22.5822.26**
- **FWA-CML75*-MLC-14VRS 14V22.5822.26**
- **FWA-IPC02s-MLC-14VRS 14V22.5822.26**
- **FWA-XM2***-MLC-14VRS 14V22.5822.26**
- **FWA-XM4***-MLC-14VRS 14V22.5822.26**
- **FWA-CML25*-XLC-14VRS 14V20.4636.18**
- **FWA-CML45*-XLC-14VRS 14V22.5822.26**
- **FWA-CML65*-XLC-14VRS 14V22.5822.26**
- **FWA-CML75*-XLC-14VRS 14V22.5822.26**

1.15.2 Version overview of libraries 14V22 Patch8

☞ The following file includes all libraries released for this build. This build is tested and verified by Bosch Rexroth. Changing the placeholder manually in the library manager to a different version release of the library is not impeded. We want to point that changing the placeholder (by the user) can cause malfunctions, as other combinations are not tested for the controls and are thus not released.

See file <Libraries_VersionOverview_14V22_Patch8.htm>

1.16 Information about 14V22 Patch7 Hotfix 6

☞ For release 14V22 Patch 7 Hotfix 6, only the firmware was changed, compared to release 14V22 Patch 7. No new IndraWorks version is provided.

1.16.1 Archiving of retain data from phase P4 to P0 removed

Up to release 14V22, retain data was backed up upon each phase switching from P2 to P4. This can be used for targeted data restoration by the user.

For release 14V22, this mechanism was extended so that the backup is additionally executed during phase switching from P4 to P0.

Due to access violations to the file system when disabling the control (automatic phase switching from P4 to P0), the mechanism is reverted to the original functionality. Data is backed up during phase switching from P2 to P4.

☞ To update the MLC firmware, we recommend the following to correct a corrupt file system:

1. Create a backup with OEM and user partitions of the XM control with the IndraWorks project archive
2. Reset the XM control to default (factory reset) to format and clean the file system.

   Proceed as follows to reset the XM control to the factory settings:

   - Press the reset button "SF2" when switching on the XM control until the status LED "E" is red and "DIA3" and "DIA4" flash in red
   - Switch the operation mode switch SF1 to the "Clear" position 3 times
   - The status LEDs "E, D, BT, ERR" flash in red → the "factory reset" is now selected
   - Switch the operation mode switch SF1 to the "Clear" position for more than 3 seconds to confirm the "factory reset"
   - The status LEDs "E, D, BT, ERR" flash in red
   - Switch the operation mode switch SF1 to the "Run" position to start the "Factory reset"
   - The "factory feset" is now executed. This might take several minutes and is only completed if the Status LED "E" is green
3. Load the MLC firmware to the XM control via the IndraWorks firmware management
4. Load the application to the XM control (PLC application, Motion configuration...)

1.16.2 Firmware Version 14V22 Patch7 Hotfix 6

☞ For IndraMotion ML version **14V22 Patch7 Hotfix 6**, the following firmware versions are provided:

- **FWA-CML45*-MLC-14VRS 14V22.5606.23**
- **FWA-CML65*-MLC-14VRS 14V22.5606.23**
- **FWA-CML75*-MLC-14VRS 14V22.5606.23**
- **FWA-CML45*-XLC-14VRS 14V22.5606.23**
- **FWA-CML65*-XLC-14VRS 14V22.5606.23**
- **FWA-CML75*-XLC-14VRS 14V22.5606.23**
- **FWA-VP****-MLC-14VRS 14V22.5606.23**
- **FWA-XM2***-MLC-14VRS 14V22.5782.323**
- **FWA-XM4***-MLC-14VRS 14V22.5782.323**

1.16.3 Version overview on libraries 14V22 Patch7 Hotfix 6

☞ The following file includes all libraries released for this build. This build is tested and verified by Bosch Rexroth. Changing the placeholder manually in the library manager to a different version release of the library is not prevented. We want to point out that changing the placeholder (by the user) can sporadically result in malfunctions, as other combinations are not tested for the controls and are thus not released.

See file <Bibliotheken_Versionsuebersicht_14V22_Patch7.htm>

1.17 Information about 14V22 Patch7

☞ There are no changes in content compared to 14V22 Patch 6.

The data medium was newly created for product technical reasons. This also required a new version status.

1.17.1 Firmware version 14V22 Patch7

☞ For IndraMotion ML Version **14V22 Patch7**, the following firmware versions are provided:

- **FWA-CML25*-MLC-14VRS 14V20.4636.18**
- **FWA-CML45*-MLC-14VRS 14V22.5606.23**
- **FWA-CML65*-MLC-14VRS 14V22.5606.23**
- **FWA-CML75*-MLC-14VRS 14V22.5606.23**
- **FWA-VP****-MLC-14VRS 14V22.5606.23**
- **FWA-XM2***-MLC-14VRS 14V22.5606.23**
- **FWA-XM4***-MLC-14VRS 14V22.5606.23**
- **FWA-CML25*-XLC-14VRS 14V20.4636.18**
- **FWA-CML45*-XLC-14VRS 14V22.5606.23**
- **FWA-CML65*-XLC-14VRS 14V22.5606.23**
- **FWA-CML75*-XLC-14VRS 14V22.5606.23**

1.17.2 Version overview of libraries 14V22 Patch7

☞ The following file includes all libraries released for this build. This build is tested and verified by Bosch Rexroth. Changing the placeholder manually in the library manager to a different version release of the library is not impeded. We want to point that changing the placeholder (by the user) can cause malfunctions, as other combinations are not tested for the controls and are thus not released.

See file <Libraries_VersionOverview_14V22_Patch6.htm>

1.18 Information about 14V22 Patch6

1.18.1 Firmware version 14V22 Patch6

☞ For IndraMotion ML Version **14V22 Patch6**, the following firmware versions are provided:

- **FWA-CML25*-MLC-14VRS 14V20.4636.18**
- **FWA-CML45*-MLC-14VRS 14V22.5606.23**
- **FWA-CML65*-MLC-14VRS 14V22.5606.23**
- **FWA-CML75*-MLC-14VRS 14V22.5606.23**
- **FWA-VP****-MLC-14VRS 14V22.5606.23**
- **FWA-XM2***-MLC-14VRS 14V22.5606.23**
- **FWA-XM4***-MLC-14VRS 14V22.5606.23**
- **FWA-CML25*-XLC-14VRS 14V20.4636.18**
- **FWA-CML45*-XLC-14VRS 14V22.5606.23**
- **FWA-CML65*-XLC-14VRS 14V22.5606.23**
- **FWA-CML75*-XLC-14VRS 14V22.5606.23**

1.18.2 Version overview of libraries 14V22 Patch6

☞ The following file includes all libraries released for this build. This build is tested and verified by Bosch Rexroth. Changing the placeholder manually in the library manager to a different version release of the library is not impeded. We want to point that changing the placeholder (by the user) can cause malfunctions, as other combinations are not tested for the controls and are thus not released.

See file <Libraries_VersionOverview_14V22_Patch6.htm>

1.19 Information about 14V22 Patch5 Hotfix 6

☞ For the release 14V22 Patch5 Hotfix 6 only the firmware was changed compared to the release 14V22 Patch 5. No new IndraWorks version was provided.

1.19.1 Firmware version 14V22 Patch5 Hotfix 6

For IndraMotion ML Version **14V22 Patch5 Hotfix 6**, the following firmware versions are provided:

- **FWA-CML45*-MLC-14VRS 14V22.5606.23**
- **FWA-CML65*-MLC-14VRS 14V22.5606.23**
- **FWA-CML75*-MLC-14VRS 14V22.5606.23**
- **FWA-CML45*-XLC-14VRS 14V22.5606.23**
- **FWA-CML65*-XLC-14VRS 14V22.5606.23**
- **FWA-CML75*-XLC-14VRS 14V22.5606.23**
- **FWA-VP****-MLC-14VRS 14V22.5606.23**
- **FWA-XM2***-MLC-14VRS 14V22.5606.23**
- **FWA-XM4***-MLC-14VRS 14V22.5606.23**

1.19.2 Version overview of libraries 14V22 Patch5 Hotfix 6

The following file includes all libraries released for this build. This build is tested and verified by Bosch Rexroth. Changing the placeholder manually in the library manager to a different version release of the library is not impeded. We want to point that changing the placeholder (by the user) can cause malfunctions, as other combinations are not tested for the controls and are thus not released.

See file <Libraries_VersionOverview_14V22_Patch5.htm>

1.20 Information about 14V22 Patch5

1.20.1 Firmware version 14V22 Patch5

For IndraMotion ML Version **14V22 Patch5**, the following firmware versions are provided:

- **FWA-CML25*-MLC-14VRS 14V20.4636.18**
- **FWA-CML45*-MLC-14VRS 14V22.5555.22**
- **FWA-CML65*-MLC-14VRS 14V22.5555.22**
- **FWA-CML75*-MLC-14VRS 14V22.5555.22**
- **FWA-VP****-MLC-14VRS 14V22.5555.22**
- **FWA-XM2***-MLC-14VRS 14V22.5555.22**
- **FWA-XM4***-MLC-14VRS 14V22.5555.22**
- **FWA-CML25*-XLC-14VRS 14V20.4636.18**
- **FWA-CML45*-XLC-14VRS 14V22.5555.22**
- **FWA-CML65*-XLC-14VRS 14V22.5555.22**
- **FWA-CML75*-XLC-14VRS 14V22.5555.22**

1.20.2 Version overview of libraries 14V22 Patch5

The following file includes all libraries released for this build. This build is tested and verified by Bosch Rexroth. Changing the placeholder manually in the library manager to a different version release of the library is not impeded. We want to point that changing the placeholder (by the user) can cause malfunctions, as other combinations are not tested for the controls and are thus not released.

See file <Libraries_VersionOverview_14V22_Patch5.htm>

1.21 Information about 14V22 Patch4 Hotfix 3

For the release 14V22 Patch 4 Hotfix 3 only the firmware was changed compared to the release 14V22 Patch 4. No new IndraWorks version was provided.

1.21.1 Firmware version 14V22 Patch4 Hotfix 3

For IndraMotion ML Version **14V22 Patch4 Hotfix 3**, the following firmware versions are provided:

- **FWA-CML25*-MLC-14VRS 14V20.4636.18**
- **FWA-CML45*-MLC-14VRS 14V22.5481.18**
- **FWA-CML65*-MLC-14VRS 14V22.5481.18**
- **FWA-CML75*-MLC-14VRS 14V22.5481.18**
- **FWA-VP****-MLC-14VRS 14V22.5481.18**
- **FWA-XM2***-MLC-14VRS 14V22.5481.18**
- **FWA-XM4***-MLC-14VRS 14V22.5481.18**
- **FWA-CML25*-XLC-14VRS 14V20.4636.18**
- **FWA-CML45*-XLC-14VRS 14V22.5481.18**
- **FWA-CML65*-XLC-14VRS 14V22.5481.18**
- **FWA-CML75*-XLC-14VRS 14V22.5481.18**

1.21.2 Version overview of libraries 14V22 Patch4 Hotfix 3

The following file includes all libraries released for this build. This build is tested and verified by Bosch Rexroth. Changing the placeholder manually in the library manager to a different version release of the library is not impeded. We want to point that changing the placeholder (by the user) can cause malfunctions, as other combinations are not tested for the controls and are thus not released.

See file <Libraries_VersionOverview_14V22_Patch4.htm>

1.22 Information about 14V22 Patch4 Hotfix 2

For the release 14V22 Patch 4 Hotfix 2 only the firmware was changed compared to the release 14V22 Patch 4. No new IndraWorks version was provided.

1.22.1 Firmware version 14V22 Patch4 Hotfix 2

For IndraMotion ML Version **14V22 Patch4 Hotfix 2**, the following firmware versions are provided:

- **FWA-CML25*-MLC-14VRS 14V20.4636.18**
- **FWA-CML45*-MLC-14VRS 14V22.5458.17**
- **FWA-CML65*-MLC-14VRS 14V22.5458.17**
- **FWA-CML75*-MLC-14VRS 14V22.5458.17**
- **FWA-VP****-MLC-14VRS 14V22.5458.17**
- **FWA-XM2***-MLC-14VRS 14V22.5458.17**
- **FWA-XM4***-MLC-14VRS 14V22.5458.17**
- **FWA-CML25*-XLC-14VRS 14V20.4636.18**
- **FWA-CML45*-XLC-14VRS 14V22.5458.17**
- **FWA-CML65*-XLC-14VRS 14V22.5458.17**
- **FWA-CML75*-XLC-14VRS 14V22.5458.17**

1.22.2 Version overview of libraries 14V22 Patch4 Hotfix 2

The following file includes all libraries released for this build. This build is tested and verified by Bosch Rexroth. Changing the placeholder manually in the library manager to a different version release of the library is not impeded. We want to point that changing the placeholder (by the user) can cause malfunctions, as other combinations are not tested for the controls and are thus not released.

See file <Libraries_VersionOverview_14V22_Patch4.htm>

1.23 Information about 14V22 Patch4 Hotfix 1

For the release 14V22 Patch 4 Hotfix 1 only the firmware was changed compared to the release 14V22 Patch 4. No new IndraWorks version was provided.

1.23.1 Firmware version 14V22 Patch4 Hotfix 1

For IndraMotion ML Version **14V22 Patch4 Hotfix 1**, the following firmware versions are provided:

- **FWA-CML25*-MLC-14VRS 14V20.4636.18**
- **FWA-CML45*-MLC-14VRS 14V22.5405.016**
- **FWA-CML65*-MLC-14VRS 14V22.5405.016**
- **FWA-CML75*-MLC-14VRS 14V22.5405.016**
- **FWA-VP****-MLC-14VRS 14V22.5405.016**
- **FWA-XM2***-MLC-14VRS 14V22.5405.016**
- **FWA-XM4***-MLC-14VRS 14V22.5405.016**
- **FWA-CML25*-XLC-14VRS 14V20.4636.18**
- **FWA-CML45*-XLC-14VRS 14V22.5405.016**
- **FWA-CML65*-XLC-14VRS 14V22.5405.016**
- **FWA-CML75*-XLC-14VRS 14V22.5405.016**

1.23.2 Version overview of libraries 14V22 Patch4 Hotfix 1

The following file includes all libraries released for this build. This build is tested and verified by Bosch Rexroth. Changing the placeholder manually in the library manager to a different version release of the library is not impeded. We want to point that changing the placeholder (by the user) can cause malfunctions, as other combinations are not tested for the controls and are thus not released.

See file <Libraries_VersionOverview_14V22_Patch4.htm>

1.24 Information about 14V22 Patch4

1.24.1 Firmware version 14V22 Patch4

For IndraMotion ML Version **14V22 Patch4**, the following firmware versions are provided:

- **FWA-CML25*-MLC-14VRS 14V20.4636.18**
- **FWA-CML45*-MLC-14VRS 14V22.5351.15**
- **FWA-CML65*-MLC-14VRS 14V22.5351.15**
- **FWA-CML75*-MLC-14VRS 14V22.5351.15**
- **FWA-VP****-MLC-14VRS 14V22.5351.15**
- **FWA-XM2***-MLC-14VRS 14V22.5351.15**
- **FWA-XM4***-MLC-14VRS 14V22.5351.15**
- **FWA-CML25*-XLC-14VRS 14V20.4636.18**
- **FWA-CML45*-XLC-14VRS 14V22.5351.15**
- **FWA-CML65*-XLC-14VRS 14V22.5351.15**
- **FWA-CML75*-XLC-14VRS 14V22.5351.15**

1.24.2 S20-KNX-1: I/O modules KNX module cannot be selected at an XM local

CQ-ID: Defdb00206753

Description: The S20-KNX-1 module cannot be selected for operation at an XM local. Operation is possible in a subsequent installation.

Provide S20-KNX-1 to an XM local

1. . Requirement: IndraWorks 14V22 Patch 3 or Patch 4 and at least firmware version XM*sss-MLC-14V22.5267.014.fw on the control.
2. The required device description files are available in the online product catalog for S20-KNX-1 in the download area or via your customer support at Bosch Rexroth.

   The following device description files are required:
   - IndraControl XM2100-V14.22.34.1.devdesc.xml
   - IndraControl XM4x-V14.22.34.1.devdesc.xml
   - XM_S20IO-V14.22.10.1.devdesc.xml

3. Install the device description files by using the device database in a subsequent installation

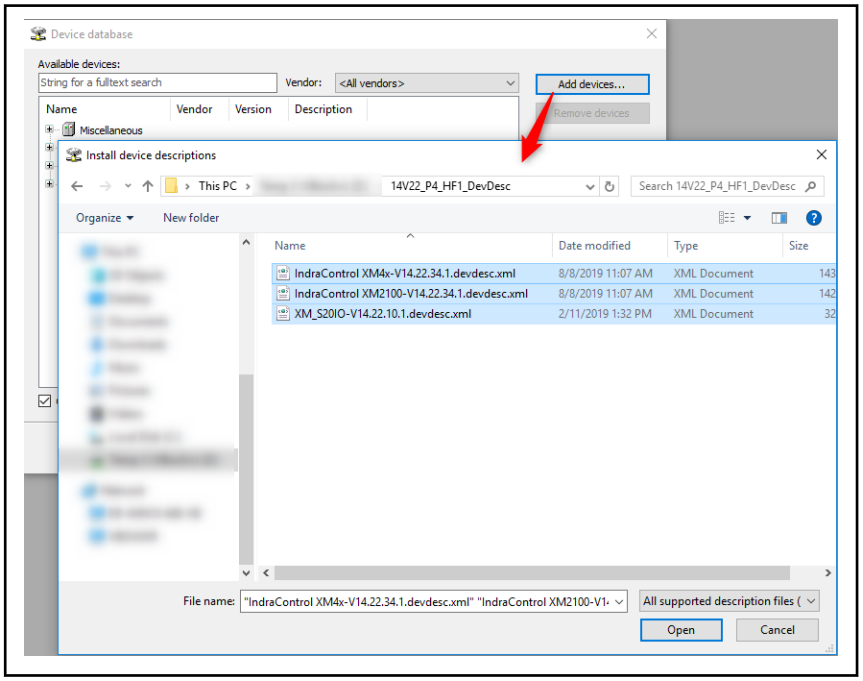

Fig. 1-2: Device database, installing devices in a subsequent installation

Following a successful installation, adjust the firmware release version in the Property dialog of the control:
- XM2x: FWA-XM2sss-MLC-14V22.8
- XM4x: FWA-XM4sss-MLC-14V22.8

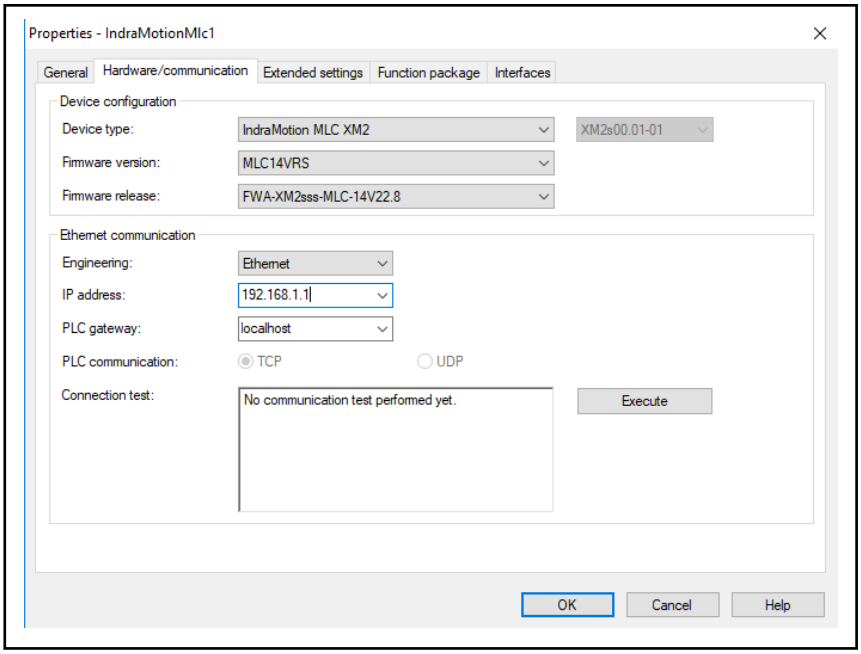

Fig. 1-3: Property dialog of the control – Selecting the firmware release

4. Check version at S20-IO node. On S20_I_O, version 14.22.10.1 can be found on the "Information" tab under version.

   The S20-KNX-1 module can exclusively be selected via the context menu (right-click) of the S20-IO node. The module cannot be selected in the library or the library menu.

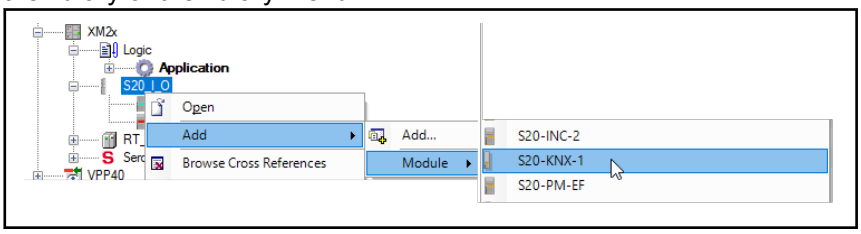

Fig. 1-4: S20-IO node - Selection S20-KNX-1

1.24.3 Version overview of libraries 14V22 Patch4

The following file includes all libraries released for this build. This build is tested and verified by Bosch Rexroth. Changing the placeholder manually in the library manager to a different version release of the library is not impeded. We want to point that changing the placeholder (by the user) can cause malfunctions, as other combinations are not tested for the controls and are thus not released.

See file <Libraries_VersionOverview_14V22_Patch4.htm>

1.25 Information about 14V22 Patch3

1.25.1 AxisInterface: Execute an internal “Delete error” if an external error is deleted

Description: After an error has occurred, the AxisCtrl[].Admin.ClearError input has to be set to TRUE at the axis interface to reenable the selected operating mode and to move the axis again. Different options to delete the error: using the ESC key at the drive does not delete the internally saved error in the axis interface.

Bugfixing: The control structure was extended by the AxisCtrl[].Admin.EnableExtClearError input. If this input is set to TRUE, the AxisInterface does not react to an external “Delete error” and enables the selected operating mode again.

For example, a motion can be triggered by pressing the ESC key at the drive display.

Compatibility:

- If an existing project is changed to 14V22, the new library with the new structure element is used and the input is set to FALSE -> previous behavior
- If a new project is created using GAT wizard 14V22 (applies to all variants), the new input is set to TRUE -> new behavior in the open user part

1.25.2 Firmware version 14V22 Patch3

For IndraMotion ML Version **14V22 Patch3**, the following firmware versions are provided:

- **FWA-CML25*-MLC-14VRS 14V20.4636.18**
- **FWA-CML45*-MLC-14VRS 14V22.5267.14**
- **FWA-CML65*-MLC-14VRS 14V22.5267.14**
- **FWA-CML75*-MLC-14VRS 14V22.5267.14**
- **FWA-VP****-MLC-14VRS 14V22.5267.14**
- **FWA-XM2***-MLC-14VRS 14V22.5267.14**
- **FWA-XM4***-MLC-14VRS 14V22.5267.14**
- **FWA-CML25*-XLC-14VRS 14V20.4636.18**
- **FWA-CML45*-XLC-14VRS 14V22.5267.14**
- **FWA-CML65*-XLC-14VRS 14V22.5267.14**
- **FWA-CML75*-XLC-14VRS 14V22.5267.14**

1.25.3 Version overview of libraries 14V22 Patch3

The following file includes all libraries released for this build. This build is tested and verified by Bosch Rexroth. Changing the placeholder manually in the library manager to a different version release of the library is not impeded. We want to point that changing the placeholder (by the user) can cause malfunctions, as other combinations are not tested for the controls and are thus not released.

See file <Libraries_VersionOverview_14V22_Patch3.htm>

1.26 Notes on 14V22 Patch2

1.26.1 The Profinet devices "S20-PN-BK+" and their modules do not work sporadically in the versions of the 14V22

We recommend to execute the function "Device updated" for the Profinet devices "S20-PN-BK+" created in versions 14V22 R1/R2 und 14V22. After the update is completed, the new GSDML-V2.32-Bosch_Rexroth_AG-S20_PN_BK_plus-20180918.xml is used. When using the function "Shared device" or when using the S20 PROFIsafe modules, execute the function “Update device”.

1.26.2 XM2x, XM4x and VPx do not support the touch probe functionality

The touch probe functionality is not supported by the control hardwares IndraControl XM2x, XM4x and VPx. The function blocks of the touch probe of the ML_PLCopen.library generate the error code: "F0220500, Touch probe no supported by control hardware".

1.26.3 Using the communication interface XF31 in the IndraControl XM42

The use of the communication interface XF31 (prog) is only supported with "First Touch". An explicit selection of the "micro USB" - as it is possible for the IndraControl XM2 target - cannot be selected in IndraWorks. Use the Ethernet interface XF5 as an alternative to programming, commissioning and HMI applications.

1.26.4 Firmware version 14V22 Patch2

The following firmware versions are provided for IndraMotion ML version **14V22 Patch2**:

- **FWA-CML25*-MLC-14VRS 14V20.4636.18**
- **FWA-CML45*-MLC-14VRS 14V22.5256.13**
- **FWA-CML65*-MLC-14VRS 14V22.5256.13**
- **FWA-CML75*-MLC-14VRS 14V22.5256.13**
- **FWA-VP****-MLC-14VRS 14V22.5256.13**
- **FWA-XM2***-MLC-14VRS 14V22.5256.13**
- **FWA-XM4***-MLC-14VRS 14V22.5256.13**
- **FWA-CML25*-XLC-14VRS 14V20.4636.18**
- **FWA-CML45*-XLC-14VRS 14V22.5256.13**
- **FWA-CML65*-XLC-14VRS 14V22.5256.13**
- **FWA-CML75*-XLC-14VRS 14V22.5256.13**

1.26.5 Version overview on the 14V22 Patch2 libraries

☞ The following file includes all libraries released for this build. This build is tested and verified by Bosch Rexroth. Changing the placeholder manually in the library manager to a different version release of the library is not impeded. We want to point that changing the placeholder (by the user) can cause malfunctions, as other combinations are not tested for the controls and are thus not released.

See file <Libraries_VersionOverview_14V22_Patch2.htm>

1.27 Notes on 14V22 Patch1 Hotfix 1

1.27.1 Firmware version 14V22 Patch1 Hotfix 1

☞ The following firmware versions are provided for IndraMotion ML version **14V22 Patch1 Hotfix 1**:

- **MLC-FW: 14V22.5086.8**
- **FWA-CML25*-MLC-14VRS 14V22.5086.8**
- **FWA-CML45*-MLC-14VRS 14V22.5086.8**
- **FWA-CML65*-MLC-14VRS 14V22.5086.8**
- **FWA-CML75*-MLC-14VRS 14V22.5086.8**
- **FWA-CML25*-XLC-14VRS 14V22.5086.8**
- **FWA-CML45*-XLC-14VRS 14V22.5086.8**
- **FWA-CML65*-XLC-14VRS 14V22.5086.8**
- **FWA-CML75*-XLC-14VRS 14V22.5086.8**

1.27.2 Version overview on the 14V22 Patch1 Hotfix 1 libraries

☞ The following file includes all libraries released for this build. This build is tested and verified by Bosch Rexroth. Changing the placeholder manually in the library manager to a different version release of the library is not impeded. We want to point that changing the placeholder (by the user) can cause malfunctions, as other combinations are not tested for the controls and are thus not released.

See file <Libraries_VersionOverview_14V22_Patch1.htm>

1.28 Notes on 14V22 Patch1

1.28.1 IoDrvCIFXProfinetV3DCIA.library is not compatible with the IoDrvCIFXProfinetDCIA.library

When using the library-internal structure of the **"IoDrvCIFXProfinetDCIA.library"** in the PLC user program, a device update on the 14V22 results in compilation errors.

Version 14V22 contains a changed version of the Profinet controller I/O driver. The namespace has also changed. If you are referencing internal variables of the previous driver version **"IoDrvCIFXProfinetDCIA.library"** in your project, compilation errors occur during the project conversion by using the new driver version **"IoDrvCIFXProfinetV3DCIA.library"**. Please adjust the variables to the new namespace in this case.

IoDrvCIFXProfinetDCIA.library -> Namespace: IoPNC_DCIA

IoDrvCIFXProfinetV3DCIA.library -> Namespace: IoDrvCIFXProfinetV3DCIA

1.28.2 Firmware version 14V22 Patch1

The following firmware versions are provided for IndraMotion ML version **14V22 Patch1**:

- **FWA-CML25*-MLC-14VRS 14V20.3936.10**
- **FWA-CML45*-MLC-14VRS 14V22.4898.7**
- **FWA-CML65*-MLC-14VRS 14V22.4898.7**
- **FWA-CML75*-MLC-14VRS 14V22.4898.7**
- **FWA-VP****-MLC-14VRS 14V22.4898.7**
- **FWA-XM2***-MLC-14VRS 14V22.4898.7**
- **FWA-XM4***-MLC-14VRS 14V22.4898.7**
- **FWA-CML25*-XLC-14VRS 14V20.3936.10**
- **FWA-CML45*-XLC-14VRS 14V22.4898.7**
- **FWA-CML65*-XLC-14VRS 14V22.4898.7**
- **FWA-CML75*-XLC-14VRS 14V22.4898.7**

1.28.3 Version overview on the 14V22 Patch1 libraries

The following file includes all libraries released for this build. This build is tested and verified by Bosch Rexroth. Changing the placeholder manually in the library manager to a different version release of the library is not impeded. We want to point that changing the placeholder (by the user) can cause malfunctions, as other combinations are not tested for the controls and are thus not released.

See file <Libraries_VersionOverview_14V22_Patch1.htm>

1.29 Notes on 14V22 R3

1.29.1 Profinet: The Profinet watchdog is set to 0 ms during a project conversion to 14V22

Problem When converting an IndraWorks project with a Profinet I/O configuration from e.g. 14V20 to 14V22, the watchdog time is not applied correctly but set to 0 ms.

Preliminary solution The error results from incorrectly generated 3S Profinet device descriptions of previous CODESYS Engineering versions. The incorrect descriptions

cause the warning "Invalid watchdog !" in the current IndraWorks Engineering.

The easiest way to handle this problem is to manually enter a new and valid watchdog value in the dialog. There is a second option that requires more effort: The PN devices in the current project are deleted and are created again on the basis of the newly available devices in IndraWorks Suite.

1.29.2 Firmware version 14V22 R3

The following firmware versions are provided for the IndraMotion ML version **14V22 R3**:

- **FWA-CML25*-MLC-14VRS 14V20.3936.10**
- **FWA-CML45*-MLC-14VRS 14V22.4597.3**
- **FWA-CML65*-MLC-14VRS 14V22.4597.3**
- **FWA-CML75*-MLC-14VRS 14V22.4597.3**
- **FWA-VP****-MLC-14VRS 14V22.4597.3**
- **FWA-XM2***-MLC-14VRS 14V22.4597.3**
- **FWA-CML25*-XLC-14VRS 14V20.3936.10**
- **FWA-CML45*-XLC-14VRS 14V22.4597.3**
- **FWA-CML65*-XLC-14VRS 14V22.4597.3**
- **FWA-CML75*-XLC-14VRS 14V22.4597.3**

For the firmware release **Properties... ▸ Hardware / Communication** the device version **FWA-******-ML*-14V22.2** or **FWA-******-XL*-14V22.2** is provided.

1.29.3 Version overview on the 14V22 R3 Libraries

The following file includes all libraries released for this build. This build is tested an verified by us. Changing the placeholder manually in the library manager to a different version release of the library is not impeded. We want to point that changing the placeholder (by the user) can cause malfunctions, as other combinations are not tested for the controls and are thus not released.

See file <Libraries_VersionOverview_14V22_R3.htm>

1.30 Notes on 14V22 R2

1.30.1 Firmware version 14V22 R2

☞ The following firmware versions are provided for the IndraMotion ML version **14V22 R2**:

- **FWA-CML25*-MLC-14VRS 14V20.3936.10**
- **FWA-CML45*-MLC-14VRS 14V22.4424.1**
- **FWA-CML65*-MLC-14VRS 14V22.4424.1**
- **FWA-CML75*-MLC-14VRS 14V22.4424.1**
- **FWA-VP****-MLC-14VRS 14V22.4424.1**
- **FWA-XM2***-MLC-14VRS 14V22.4424.1**
- **FWA-CML25*-XLC-14VRS 14V20.3936.10**
- **FWA-CML45*-XLC-14VRS 14V22.4424.1**
- **FWA-CML65*-XLC-14VRS 14V22.4424.1**
- **FWA-CML75*-XLC-14VRS 14V22.4424.1**

☞ For the firmware release **Properties... ▸ Hardware / Communication** the device version **FWA-******-ML*-14V22.1** or **FWA-******-XL*-14V22.1** is provided.

1.30.2 Version overview on the 14V22 R2 Libraries

☞ The following file includes all libraries released for this build. This build is tested an verified by us. Changing the placeholder manually in the library manager to a different version release of the library is not impeded. We want to point that changing the placeholder (by the user) can cause malfunctions, as other combinations are not tested for the controls and are thus not released.

See file <Libraries_VersionOverview_14V22_R2.htm>

1.31 Notes on 14V22 R1

1.31.1 Compatibility mode 14V16 Patch2

☞ Projects created with the version **14V16 Patch2** are not supported by the version **14V22 R1**. Thus, the following message is displayed when opening the project with this project version: “When continuing, the project is converted to the current version, saved under a new name and is subsequently opened. Devices contained in the project have to be adjusted to the latest version release if required and the project has to be checked for correct functionality."

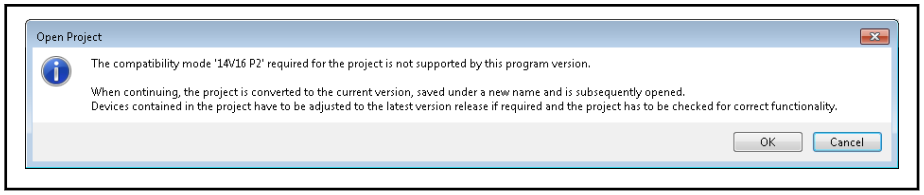

Fig. 1-5: Message about compatibility mode 14V16 Patch2

1.31.2 MLC-H/controller axis

The version 14V22 R1 is not yet released for the MLC-H/controller axis.

1.31.3 Cross communication Sercos II

The version 14V22 R1 is not yet released for the cross communication Sercos II.

1.31.4 Changes upon PLC project comparison

Up to now, the PLC project comparison was "located" in a modal dialog. This included the "structural comparison" and the detailed comparison.

CoDeSys 3.5.12.x improved the 3S PLC comparison. Now, all comparison windows have their window. This window is analog to an editor window. The "structural comparison" and the detailed comparison also open an "editor-like" window. If the structural window is closed, the details windows also disappear. Data is applied when closing the editor after a respective prompt. Editing is not possible with open comparison editors. This is signaled once by a message.

1.31.5 Firmware version 14V22 R1

The following firmware versions are provided for the IndraMotion ML version **14V22 R1**:

- **FWA-CML25*-MLC-14VRS 14V20.3936.10**
- **FWA-CML45*-MLC-14VRS 14V22.4189.0**
- **FWA-CML65*-MLC-14VRS 14V22.4189.0**
- **FWA-CML75*-MLC-14VRS 14V22.4189.0**
- **FWA-VP****-MLC-14VRS 14V22.4189.0**
- **FWA-XM2***-MLC-14VRS 14V22.4189.0**
- **FWA-CML25*-XLC-14VRS 14V20.3936.10**
- **FWA-CML45*-XLC-14VRS 14V22.4189.0**
- **FWA-CML65*-XLC-14VRS 14V22.4189.0**
- **FWA-CML75*-XLC-14VRS 14V22.4189.0**

1.31.6 Version overview on the 14V22 R1 Libraries

☞ The following file includes all libraries released for this build. This build is tested an verified by us. Changing the placeholder manually in the library manager to a different version release of the library is not impeded. We want to point that changing the placeholder (by the user) can cause malfunctions, as other combinations are not tested for the controls and are thus not released.

See file <Libraries_VersionOverview_14V22_R1.htm>

1.32 Notes on 14V20 Patch1

1.32.1 Incompatible changes

Firmware IndraMotion MLC L75

Due to a revision of the CML75 hardware, two firmware variants are temporarily provided for the MLC and XLC firmware with the 14V20 patch 1. Depending on the hardware index of the respective CML75 control, the assigned firmware has to be loaded (refer to the table).

☞ The hardware index of the control can be identified with the type plate. This information is on the sticker can be retrieved from the left side of the control hardware, in the section **MNR**. Contact your Bosch Rexroth partner if you have any questions.

Hardware: CML75.1-NP-900-NA-NNNN-NW (IndraLogic XLC)

Hardware index	Firmware MLC	Firmware XLC
R911173002-**AA***	-	CML75s-XLs-14V20.3936.010.fw
R911173002-**AB***	-	CML75s-XLs-14V20.3936.010.fw
R911173002-**AC***	-	CML75s-XLs-14V20.3936.010.fw
R911173002-**AD*** and above	-	CML75s-XLs-14V20.3752.009.fw

Tab. 1-1: Hardware: CML75.1-NP-900-NA-NNNN-NW (IndraLogic XLC)

Hardware: CML75.1-3P-900-NA-NNNN-NW (IndraMotion MLC/IndraLogic XLC)

Hardware index	Firmware MLC	Firmware XLC
R911173004-**AA***	CML75s-MLs-14V20.3936.010.fw	CML75s-XLs-14V20.3936.010.fw
R911173004-**AB***	CML75s-MLs-14V20.3936.010.fw	CML75s-XLs-14V20.3936.010.fw
R911173004-**AC***	CML75s-MLs-14V20.3936.010.fw	CML75s-XLs-14V20.3936.010.fw
R911173004-**AD*** and above	CML75s-MLs-14V20.3752.009.fw	CML75s-XLs-14V20.3752.009.fw

Tab. 1-2: Hardware: CML75.1-3P-900-NA-NNNN-NW (IndraMotion MLC/IndraLogic XLC)

☞ This difference becomes obsolete for 14V20 patch 2 and it is provided via a firmware version.

Firmware download IndraControl VPB40.4/VPB40.3

The device IndraMotion MLC VPx only supports the hardware platform IndraControl VPB40.4 in the 14V20 firmware and above. The current hard-

ware platform IndraControl VPB40.3 can only be operated with a 14V18 firmware or lower.

Thus, do not download firmware based on 14V20 on the hardware platform IndraControl VPB40.3!

Real-time extension VPx_RT-Ext_MLC-02V08 required for IndraMotion MLC VPx

To operate the target system IndraMotion MLC VPx, an update of the real-time extension VPx_RT-Ext_MLC-02V08 is required as of the firmware of 14V20 patch 1 , as the control does not start otherwise and the initial firmware stops. A separate Windows installation is provided for the update.

Contact your Bosch Rexroth partner for information on how to proceed with the update!

WinStudio: Incompatible change of FindFile() function in 14V18

Description: Incompatible change of FindFile() function in 14V18.

Workaround: By default, this function is executed on the project runtime server even when it is called in a screen on a project thin client, which means it only affects directories and files that are located on the server and all paths must be specified in that context. You can change the default behavior to force this function to be executed on the client where it is called, but if you do so, you must keep in mind that the change will affect not just this function but also several other File functions. To change the behavior of these functions, use a text editor to open your project file (<project name>.app) and then edit the following property:

[Options]

ExecuteFileFunctionsOnClient=1

If you change these functions to be executed on the client, also check the scope of the array that is specified for optTagFilesFound. If the scope is Local, the array will be updated only on the client where this function is executed. If the scope is Server, the array will be updated first on the client where this function is executed and then that update will be sent to the server.

Also, when this function is called on the client (regardless of where it is executed), the array that is specified for optTagFilesFound will be updated only after the entire script (e.g., Command animation) that contains this function is executed.

As an alternative to calling this function on the client — for example, if you need to have the array updated immediately rather than after the entire script is executed — consider creating a Global Procedure that contains this function and any other associated code, and then call the RunGlobalProcedureOnServer function on the client in order to run that procedure.

WinStudio: "Install System” is not possible anymore after downgrading from 14V20 to 14V18

Description: A WinStudio Remote Agent (version 8.0) installed with IndraWorks 14V20 cannot be used to install an older WinStudio Runtime (e.g. IndraWorks 14V18). When trying to connect to the target device using the Remote Agent, an error message is issued and the connection cannot be established. Example: It is tried to transfer the WinStudio Runtime to a target device by installing IndraWorks 14V18. If a Remote Agent of IndraWorks 14V20 is running on the target device, the error response described above is issued.

Workaround: Copy the CEServer.exe from the installation directory of an older version (e.g. IndraWorks 14V18, ..\Rexroth\IndraWorks\WinStudio\Redist\WinCE 5.0\ARMV4I\bin\CEServer.exe) to the HMI device via FTP for example (to the directory "Rexroth\WinStudio\bin") and restart the device. The Remote Agent of IndraWorks 14V18 (version 7.13) is now active again and the runtime can be installed successfully.

1.32.2 Oscilloscope multi-device measurement

The multi-device measurement of the oscilloscope is still faulty.

Known errors:

1. In the case of the multi-device measurement with IndraWorks, the measurement is sporadically not triggered.
2. When a measurement is carried out, there is an impact on the usability of the interface in certain phases of the measurement. The usability of the IndraWorks interface is briefly interrupted, primarily at the end of the measurement when the measurement results are loaded from the physical device to the IndraWorks oscilloscope.

   The following circumstances can have a negative effect on the usability:

   - The PC or control is operated at a high load
   - The oscilloscope measurement is operated with a short measurement duration (size of memory < 500, measurement duration < 1 second) and in the "SingleShot (repeat automatically)" measurement mode
   - Multi-device measurement with many slave devices

1.32.3 Firmware version 14V20 Patch1

☞ The following firmware versions are provided for the IndraMotion ML version **14V20 patch 1**:

- **FWA-CML25*-MLC-14VRS 14V20.3752.10**
- **FWA-CML45*-MLC-14VRS 14V20.3752.10**
- **FWA-CML65*-MLC-14VRS 14V20.3752.10**
- **FWA-CML75*-MLC-14VRS 14V20.3752.10**
- **FWA-VP****-MLC-14VRS 14V20.3752.10**
- **FWA-XM2***-MLC-14VRS 14V20.3752.10**
- **FWA-CML25*-XLC-14VRS 14V20.3752.10**
- **FWA-CML45*-XLC-14VRS 14V20.3752.10**
- **FWA-CML65*-XLC-14VRS 14V20.3752.10**
- **FWA-CML75*-XLC-14VRS 14V20.3752.10**

1.32.4 Version overview on the 14V20 Patch1 libraries

☞ The following file includes all libraries released for this build. This build is tested an verified by us. Changing the placeholder manually in the library manager to a different version release of the library is not impeded. We want to point that changing the placeholder (by the user) can cause malfunctions, as other combinations are not tested for the controls and are thus not released.

See file <Libraries_VersionOverview_14V20_Patch1.htm>

1.33 Notes on 14V20

1.33.1 Firmware version 14V20

☞ The following firmware versions are provided for the IndraMotion ML version **14V20**:

- **FWA-CML25*-MLC-14VRS 14V20.3244.7**
- **FWA-CML45*-MLC-14VRS 14V20.3244.7**
- **FWA-CML65*-MLC-14VRS 14V20.3244.7**
- **FWA-CML75*-MLC-14VRS 14V20.3244.7**
- **FWA-VP****-MLC-14VRS 14V20.3244.7**
- **FWA-XM2***-MLC-14VRS 14V20.3244.7**
- **FWA-CML25*-XLC-14VRS 14V20.3244.7**
- **FWA-CML45*-XLC-14VRS 14V20.3244.7**
- **FWA-CML65*-XLC-14VRS 14V20.3244.7**
- **FWA-CML75*-XLC-14VRS 14V20.3244.7**

1.33.2 Version overview on the 14V20 libraries

☞ The following file includes all libraries released for this build. This build is tested an verified by us. Changing the placeholder manually in the library manager to a different version release of the library is not impeded. We want to point that changing the placeholder (by the user) can cause malfunctions, as other combinations are not tested for the controls and are thus not released.

See file <Libraries_VersionOverview_14V20.htm>

1.34 Notes on 14V20 R2

1.34.1 Extended by the user management functionality

In 14V20, the firmware was extended by the user management functionality for the systems XLC and MLC.

Please note that IndraWorks releases older than 14V20 cannot be used to connect to target systems with the firmware 14V20 or above based on the IndraControl L75, IndraControl XM21/22 and the IndraMotion VPB 40.4.

We recommend to convert the project to the IndraWorks version 14V20 and above.

1.34.2 Adjusting the IndraWorks Engineering editor for screens to the multi-touch design

The configuration to hide F-panels, M-panels and headers was modified in the screen configurator. The entry "< hidden >" was removed from the list fields for the panel selection. Hiding of the panels can only be configured using a checkbox in the "Layout" section.

1.34.3 Firmware version 14V20 R2

The following firmware versions are provided for the IndraMotion ML version **14V20 R2**:

- **FWA-CML25*-MLC-14VRS 14V20.2880.6**
- **FWA-CML45*-MLC-14VRS 14V20.2880.6**
- **FWA-CML65*-MLC-14VRS 14V20.2880.6**
- **FWA-CML75*-MLC-14VRS 14V20.2880.6**
- **FWA-VP****-MLC-14VRS 14V20.2880.6**
- **FWA-XM2***-MLC-14VRS 14V20.2880.6**
- **FWA-CML25*-XLC-14VRS 14V20.2880.6**
- **FWA-CML45*-XLC-14VRS 14V20.2880.6**
- **FWA-CML65*-XLC-14VRS 14V20.2880.6**
- **FWA-CML75*-XLC-14VRS 14V20.2880.6**

1.34.4 Version overview on the 14V20 R2 libraries

The following file includes all libraries released for this build. This build is tested an verified by us. Changing the placeholder manually in the library manager to a different version release of the library is not impeded. We want to point that changing the placeholder (by the user) can cause malfunctions, as other combinations are not tested for the controls and are thus not released.

See file <Libraries_VersionOverview_14V20_R2.htm>

1.35 Notes on 14V18 R3

1.35.1 IndraMotion MLC XM12 support

The target IndraMotion MLC XM12 is not supported anymore in the releases 14V18 R3 and above. Currently, not respective firmware is available.

1.35.2 Firmware version 14V18 R3

The following firmware versions are provided for the IndraMotion ML version **14V18 R3**:

- **FWA-CML25*-MLC-14VRS 14V18.856.0**
- **FWA-CML45*-MLC-14VRS 14V18.856.0**
- **FWA-CML65*-MLC-14VRS 14V18.856.0**
- **FWA-CML75*-MLC-14VRS 14V18.856.0**
- **FWA-VP****-MLC-14VRS 14V18.856.0**
- **FWA-XM2***-MLC-14VRS 14V18.856.0**
- **FWA-CML25*-XLC-14VRS 14V18.856.0**
- **FWA-CML45*-XLC-14VRS 14V18.856.0**
- **FWA-CML65*-XLC-14VRS 14V18.856.0**
- **FWA-CML75*-XLC-14VRS 14V18.856.0**

1.35.3 Version overview on the libraries 14V18 R3

The following file includes all libraries released for this build. This build is tested an verified by us. Changing the placeholder manually in the library manager to a different version release of the library is not impeded. We want to point that changing the placeholder (by the user) can cause malfunctions, as other combinations are not tested for the controls and are thus not released.

See file <Libraries_VersionOverview_14V18_R3.htm>

1.36 Notes on 14V18 R2

1.36.1 Touch probe functionality in the drive, configuration of the measuring signal in the operating mode results in incorrect measuring values

Error screen 1: If the measuring signal changed in the operating mode and if the attribute of the parameter changes as well (e.g. when switching between master axis position and actual position value), an incorrect value is entered into the measuring signal. After another phase switching from P2 to P4, correct values are entered again.

Error screen 2: Configuration of S-0-0132 or S-0-0133 in the cyclic data of the MLC (user-specific container) in phase 2. Phase switching in the operating mode. Selection of the measuring signal for touch probe 2 from S-0-000 to S-0-0051 for example. An incorrect value is then entered into the measuring signal. After another phase switching from P2 to P4, correct values are entered again (e.g factor 10).

Workaround:

1. Configuration of the cyclic touch probe value and selection of the measuring signal in phase 2. Then switching to phase 4 (operating mode).
2. After configuring the touch probe (incl. the measuring signal), switch from phase 2 to phase 4.

1.36.2 Changed handling for offline parameterization of drives (S-/P-parameters)

Supporting offline parameterization for drives (S-/P-parameters)

Due to performance, the offline parameterization of drives can now be selected. That means that the offline parameterization has to be enabled explicitly for drives in the “Properties” dialog of the control **Properties ▸ Advanced settings**.

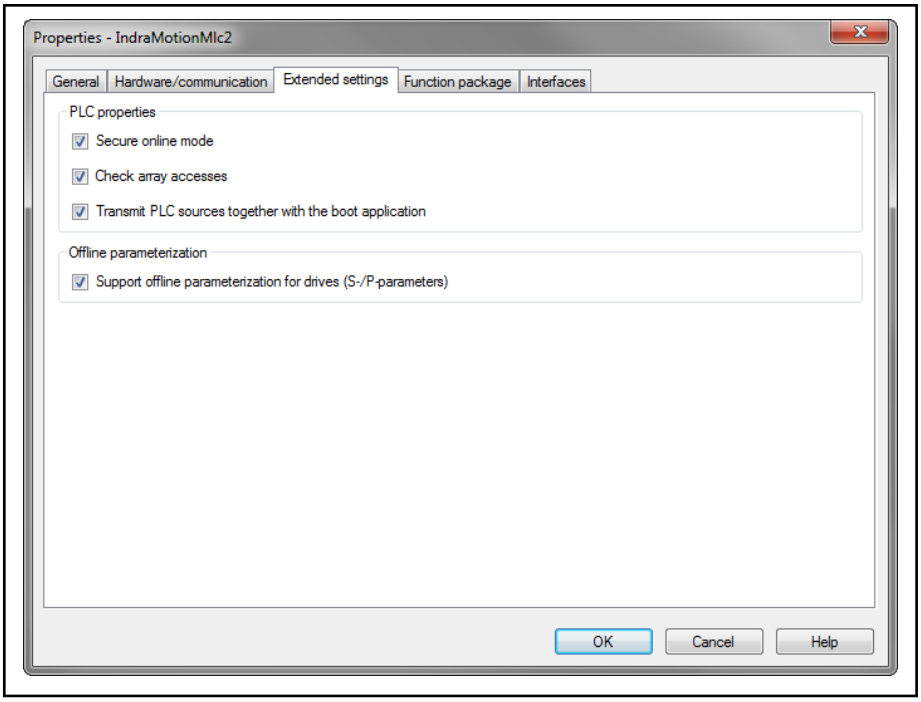

Fig. 1-6: Offline parameterization for drives

If an offline parameterization file is available for this axis (if required **Real axes ▸ Drive x ▸ Parameters ▸ Parameter adjustment...** create adjustment), a drive server is started when opening drive-specific dialogs of the “Axis” node and the parameters of the offline files are visible in the respective dialogs.

The wizard selection for the configuration of the drive is visible when enabling the offline parameterization in the menu under **Add ▸ Real axis ▸ Configuration**.

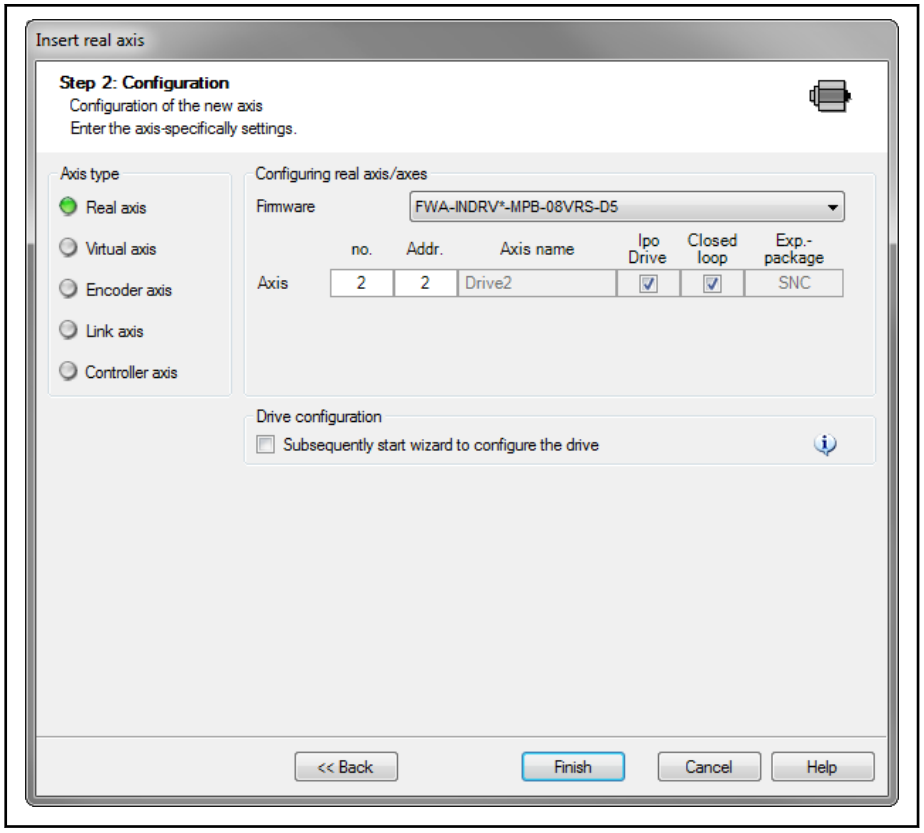

Fig. 1-7: Inserting real axis

If the offline parameterization of the drives is not enabled, the following settings are not possible:

1. When creating a real axis, the drive (entering power section and control section, motor and firmware) cannot be configured.
2. When adjusting the parameters, the adjustment of S-/P-parameters is not provided.

1.36.3 Firmware version 14V18 R2

The following firmware versions are provided for the IndraMotion ML version **14V18 R2**:

- **FWA-CML25*-MLC-14VRS 14V18.853.0**
- **FWA-CML45*-MLC-14VRS 14V18.853.0**
- **FWA-CML65*-MLC-14VRS 14V18.853.0**
- **FWA-CML75*-MLC-14VRS 14V18.853.0**
- **FWA-VP****-MLC-14VRS 14V18.853.0**
- **FWA-XM2***-MLC-14VRS 14V18.853.0**
- **FWA-CML25*-XLC-14VRS 14V18.853.0**
- **FWA-CML45*-XLC-14VRS 14V18.853.0**
- **FWA-CML65*-XLC-14VRS 14V18.853.0**
- **FWA-CML75*-XLC-14VRS 14V18.853.0**

1.36.4 Version overview on the libraries 14V18 R2

☞ The following file includes all libraries released for this build. This build is tested an verified by us. Changing the placeholder manually in the library manager to a different version release of the library is not impeded. We want to point that changing the placeholder (by the user) can cause malfunctions, as other combinations are not tested for the controls and are thus not released.

See file <Libraries_VersionOverview_14V18_R2.htm>

1.37 Notes on 14V18 R1

1.37.1 WebConnector

From IndraWorks 14V18 R1, the service boschrexroth.webconnector runs. It is required to communicate with the WebComposer.

If the WebComposer is not used, disable the service due to security reasons (IT security).

Disable via the following setting:

Control Panel\All Control Panel Items\Administrative Tools\Services\boschrexroth.webconnector -> Context menu "Properties" -> Startuptype: Disabled

1.37.2 No support of the IndraControl L25 for MLC-H applications

☞ As of 14V18, the IndraControl L25 for hydraulic applications (MLC-H) is not supported anymore. The respective configuration dialogs are not available in IndraWorks anymore.

1.37.3 Firmware version 14V18 R1

☞ The following firmware versions are provided for the IndraMotion ML version **14V18 R1**:

- **FWA-CML25*-MLC-14VRS 14V18.844.0**
- **FWA-CML45*-MLC-14VRS 14V18.844.0**
- **FWA-CML65*-MLC-14VRS 14V18.844.0**
- **FWA-CML75*-MLC-14VRS 14V18.844.0**
- **FWA-VP****-MLC-14VRS 14V18.844.0**
- **FWA-XM2***-MLC-14VRS 14V18.844.0**
- **FWA-CML25*-XLC-14VRS 14V18.844.0**
- **FWA-CML45*-XLC-14VRS 14V18.844.0**
- **FWA-CML65*-XLC-14VRS 14V18.844.0**
- **FWA-CML75*-XLC-14VRS 14V18.844.0**

1.38 Notes on 14V14 R2

1.38.1 Updating the device version in 14V14 R2

In 14V14.R2, only one FWA-CMLxx*-ML*-14V14/FWA-XM2sss-MLC-14V14 can be selected. The output window "Messages" informs on the new device version: "A higher device version (14.14.20.0) is available for the control". Go to the “Properties” dialog of the control and press "Refresh device version" to upgrade to 14.14.R2.

The following firmware is available for download:

- 14V14R1: FWA-CMLxx*-ML*-14.14.0599.fw
- 14V14R2: FWA-CMLxx*-ML*-14.14.0602.fw

1.38.2 No compatibility of projects of IndraWorks 13V16 patch 7 and 13V16 patch 9 with IndraWorks 14V14

Projects created with IndraWorks 13V16 patch 7 and 13V16 patch 9 **cannot** be opened with IndraWorks 14V14. Such projects can only be opened and edited with IndraWorks 14V16.

1.39 Notes on 14V14

1.39.1 Firmware and libraries

Updating "old" projects

☞ We recommend to create a project archive when upgrading to the current release!

For a detailed description, refer to the online help under **System IndraLogic XLC/IndraMotion MLC ▸ XLC/MLC Project Conversion**.

1.39.2 Libraries and device descriptions for version releases lower than 13V06

☞ Libraries and device descriptions from version releases lower than 13V06 are not part of the installation anymore! If there are error messages during the project conversions showing that libraries or device descriptions are missing, contact the support.

1.39.3 Warning C0298: Incomplete calculation of the stack consumption due to recursive calls

☞ Due to an error, several PLC compiler warnings can occur "C0298: Calculation of stack consumption incomplete due to recursive calls". These warnings can be ignored.

1.39.4 Operating the module S20-SSI-AO-1/1 at an XM2x control

There are two device description files for the module S20-SSI-AO-1/1 (R911172544): One byte-oriented file and one DWord-oriented file. For the local operation of an XM2x control, it is mandatory to use the DWord-oriented file. Otherwise, unintended swapping and incorrect encoder values are used.

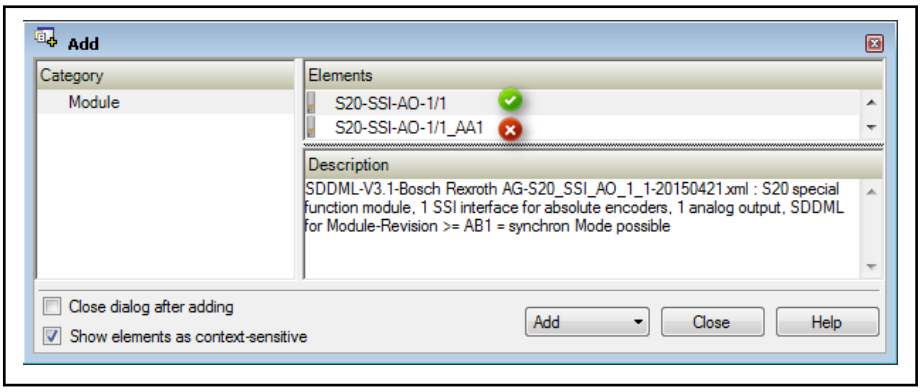

Fig. 1-8: Adding S20-SSI-AO-1/1 modules

1.40 Notes on 14V08

1.40.1 Required adaptations when using the kinematic interface together with GAT decentral

If the "KinInterface" plugin is used in a GAT project, the actions of the different operation modes are automatically extended. To ensure that the kinematics of the individual units do not affect each other when using GAT decentral, the extended program code is added including comments. Thus, it is required to adapt the program code to the actual requirements in the actions "actErrorReaction_entry", "actManual" and "actOff". For more information, refer to the respective actions.

1.41 Notes on 14V06

1.41.1 HydraulicDrive with firmware HDH-06VRS is not supported anymore

A HydraulicDrive with the "FWA-HNC3x*-HDH-06VRS-D5" firmware cannot be selected in MLC 14V06 and higher anymore. The following firmware is available for the HydraulicDrive:

- FWA-HYDRV*-HDB17VRS
- FWA-HYDRV*-HDB18VRS

1.41.2 Sercos: Communication errors do not cause switching to P0

Response to communication errors

In 14V06, options to respond to Sercos communication errors is implemented. Depending on the setting, communication errors or the complete failure of a Sercos device do(es) not cause a Sercos bus switching to P0 anymore.

Sercos settings to respond to communication errors

- **Generate F8 error:** (Compatibility mode, default setting)

In case of communication errors (e.g. invalid AT data), an F8 error (e.g. F80B0016, "Invalid AT data") is output and the Sercos bus stops with all connected devices.

- **Generate F8 error:**

  In case of communication errors, an F5 error (e.g. F50B017A, "Invalid AT data") is output. These F5 errors stop all Motion axes and the corresponding device. The Sercos bus remains in the operating or parameterization mode. PLC devices at the Sercos bus remain ready for operation.

- **Generate F8 error:**

  In case of communication errors, an F2 error (e.g. F20B017D, "Invalid AT data") is output. This F2 error only stops the affected device. The Sercos bus remains in operating or parameterization mode. Motion axes and PLC devices at the Sercos bus remain ready for operation.

Setting error response F2 or F5 error, the response also changes when switching from the parameterization to the operating mode. It is always tried to reach the operating mode, even if the configuration is not matching.

- Missing devices: Even though the error F0140001 "Incorrect device command configuration" occurred, it is still switched. For each missing device, an F5 or F2 error is entered into the diagnostic memory.
- Additional devices: Unconfigured devices contain a default configuration. F0140001 is entered for each additional device and an F0 error is written to the diagnostic memory.
- Disabled device that is physically available: F0140001 and F0140002 "Disabled device that is physically available" is reported to the diagnostic memory.

The control phase is displayed in IndraWorks in the upper part of the toolbar. The Sercos phase is displayed at the Sercos node. Normally, both are the same. The error response setting for F2 or F5 error also cause a change. In case of command switching errors (e.g. limit value violation), the control phase in the toolbar (bb) and the Sercos phase (P2) at the Sercos node can be different. If the Sercos communication fails completely, the control phase (bb) is not equal to the Sercos phase (P0). In these cases, the control phase (e.g. via toolbar) has to be changed to switch the Sercos phase as well.

1.41.3 Updating the PLC Application of GAT or AxisInterface Projects

Update projects created before version 14V06 and containing the AxisInterface or GAT as described in the following.

The following errors and developments are included:

- Defdb00165612 "Error F5180006 during PLC online change when changing the axis interface"
- Support of MC_TorqueControl in MB_AxisInterfaceType01 and MB_AxisInterfaceType02

- Operating modes with cyclic command value specification at MB_AxisInterfaceType02

Procedure for updating the PLC application

The following procedure applies for all GAT variants and the AxisInterface example project.

1. - AxisInterface example: Select right mouse click on folder "AxisInterface" and "Compare" in the project tree
   - GAT compact: Right click on the "GAT" folder and select "Compare" in the project tree
   - GAT (central state machine): Select right mouse click on folder "GAT" and "Compare" in the project tree
   - GAT (decentral state machine): Select right mouse click on folder "GAT" and "Compare" in the project tree
2. Select comparison source in the IndraWorks installation directory (e.g. C:\Program Files\Rexroth\IWS14VRS).
   - AxisInterface example: Select \GatWizard\AxisInterface\Source \AxisInterface.iwx.
   - Select GAT compact: \GatWizard\GatCompact\Source\GATcompact.iwx.
   - GAT (central state machine): Select \GatWizard\GatCentral\Source \GatCentral.iwx.
   - GAT (decentral state machine): Select \GatWizard\GatDecentral \Source\GatDecentral.iwx.
3. Compare all subelements and apply the changes

If the AxisInterface folder and the subelements were used without change, the complete AxisInterface folder can be imported from the IWX file. Procedure as for comparison (but select "Import" instead of "Compare"). Please note to import only the AxisInterface subfolder in case of GAT compact, GAT central and GAT decentral projects.

☞ An update of the following POUs is required for error fixing of Defdb00165612 "Error F5180006 during PLC online change when changing the AxisInterface":

- TE_AxisInterface
- all TE_AXIS_... structures (example TE_AXIS_ADMINISTRATION)

Changes in the AxisInterface are too extensive for online change. A pragma prevents the online change from version 13V12.

1.42 Notes on 14VRS

1.42.1 Robot Control V1 is not supported anymore

This version does not support Robot Control V1 anymore. Projects from 13VRS can still be edited in the compatibility mode of the 13VRS. On the current data carrier, there is no documentation provided for the Robot Control V1. For the documentation, go to the following link: Rexroth IndraMotion MLC 13VRS Functional Description.

1.42.2 Upgrading the compiler from 13VRS to 14VRS

Error message: 'VAR_IN_OUT' parameter ‘variable' of ‘function block’ requires a variable with write access as input

From the compiler version 3.5, constants defined as VAR_IN_OUT, are checked in detail. Add the keyword CONSTANT. For the MLC, this applies to the "AXIS_REF" structure.

Excerpt from the online help:

Type definition

```
(* Structure of PLCopen element AXIS_REF. The AXIS_REF is a structure that contains *)
(* information on the corresponding object.                                         *)
(* It is used as a VAR_IN_OUT CONSTANT in all Motion Control Function Blocks.       *)
TYPE AXIS_REF :
STRUCT
    CntrlNo: CONTROLS := LOCAL_CNTRL;  (* control reference number                  *)
                                       (* Steuerungsnummer, Init: lokale Steuerung  *)
    AxisNo:  OBJECTS  := NO_OBJECT;    (* object reference number                   *)
                                       (* Achsreferenznummer, Init: kein Objekt     *)
END_STRUCT
END_TYPE
```

Functional Description

VAR_IN_OUT CONSTANT is used to transfer information to the respective PLCopen function block from 14VRS.

The AXIS_REF structure contains two 16-bit address elements:

- Control address (element of "CONTROLS")
- Object address (element of "OBJECTS")

Elements can be addressed either via a logical address or via a physical address. In case of a logical address, the element points to a parameter structure with a physical address (e.g. Ethernet address of the control, Sercos address of the drive).

VAR_IN_OUT is used to transfer information up to 13VRS.

VAR_IN_OUT CONSTANT is used to transfer information from 14VRS.

1.42.3 Compiler warning "C0371"

Warning C0371: Access to VAR_IN_OUT ‘variable' declared in 'FB' by external context 'Method'

The warning indicates that VAR_IN_OUT variables are accessed from methods. If your are sure that this warning should not have been issued, disable it via **General module folder ▸ Project settings ▸ Compiler warnings**.

If this warning is issued with regard to Bosch Rexroth libraries, please contact the service.

1.42.4 Information about the Project Conversion of Existing Projects (Library Restructuring)

Due to the introduction of function packages on the control some function blocks (FBs) were moved between PLC libraries and renamed. Please note

the following points for the project conversion of existing projects to version 14:

- During the project conversion of the control to version 14 IndraWorks adds further PLC libraries to the library manager of the PLC application, if necessary. The PLC application can still be compiled without any errors.
- The origin library contain the FBs with the old names, if FBs were renamed and moved. FBs with the old name generate a compiler warning with the note on the new FB name. Replace the origin FB name with the new FB name, if corresponding warnings are output. The following table shows the affected FBs and structures.

Renamed and moved FBs and structures

Version 13 and previous versions		Version 14	
FB / structure name	**Library**	**FB / structure name**	**Library**
MB_ContinuousAdjust-Type01	ML_TechBase	IL_ContinuousAdjustType01	RIL_Utilities
MB_ContinuousAdjust-Type02	ML_TechBase	IL_ContinuousAdjustType02	RIL_Utilities
MB_IncrementalAdjust-Type01	ML_TechBase	IL_IncrementalAdjustType01	RIL_Utilities
ML_InterpolationLinear	ML_TechBase	IL_InterpolationLinear	RIL_Utilities
ML_MaxValue	ML_TechBase	IL_MaxValue	RIL_Utilities
ML_COORD_PAIR_TYPE01	ML_TechBase	IL_COORD_PAIR_TYPE01	RIL_Utilities
MB_GetModuloType01	ML_TechBase	IL_GetModuloType01	RIL_Utilities
MB_GetModuloType02	ML_TechBase	IL_GetModuloType02	RIL_Utilities
MB_GetModuloType03	ML_TechBase	IL_GetModuloType03	RIL_Utilities
MB_GetModuloType04	ML_TechBase	IL_GetModuloType04	RIL_Utilities
ML_TwoPosCtrlType01	ML_TechBase	IL_TwoPosCtrlType01	RIL_LoopControl

Tab. 1-3: Renamed and moved FBs and structures

Important information for the creator of the library:

IndraWorks does **not** insert additional libraries in the library manager below the general module folder. If an existing user library should be reused in version 14, additional libraries must be added in the library manager of the user library, if necessary. Check in the library manager of the user library, if a library is used from the left column of the following table and add the additional libraries from the right column.

Additional required libraries in the general module folder

Previously used library in the existing project	Additional required library(ies) from version 14
ML_TechBase	RIL_LoopControl RIL_Utilities ML_TechMotionBase

ML_TechInterface	ML_TechBase
ML_TechMotion	ML_TechMotionBase

Tab. 1-4: Additional required libraries from version 14

1.42.5 Information on the project conversion of GAT decentral existing projects

PLC applications based on the GAT decentral are automatically updated by IndraWorks during validation after switching the version.

The PLC application is adjusted as follows:

- Deleting the "pfbAxis" input in the VAR_INPUT declaration of the FB_Init method of all units
- Deleting the assignment with input "pfbAxis :=..." in the global variable list of all units
- Inserting the following additional program code after line 21 in the FB_Init method of function block TE_MachineControl:

  arpAxis_gb[uiLoopIndex]:= ADR(fbAxis[uiLoopIndex]);

1.42.6 Information about the Project Conversion of GAT-HMI Applications

From version 14 the PLC variable "ImcStatus" is moved from library "ML_TechInterface" to library "ML_TechBase". The GAT-HMI applications must be adjusted, if they were generated before version 14 and are operated with a control firmware version 14. Proceed with the following modifications:

- Remove the variable "ImcStatus" of library ML_TechInterface from the symbol configuration below the PLC application.
- Insert the variable "ImcStatus" of library ML_TechBase in the symbol configuration below the PLC application.
- Open the BRWS driver sheets below the HMI device in the folder structure "...WinStudio/Variables/Communication/BRWS". Search for text "TechInterface.GLOBAL_IMCINTERFACE.ImcStatus" in the subordinate driver sheets and replace the text with "TechBase.GLOBAL_IMCINTERFACE.ImcStatus".

1.42.7 Boundary Conditions for the Velocity Specification to an Axis in PLCopen Status "Synchronized Motion"

The following conditions apply for an axis calculated in the control (axis with interpolation in the control, virtual axis, encoder axis, controller axis, link axis) creating a command velocity value for a coupled axis (in PLCopen status "Synchronized Motion"):

The velocity specification must not exceed the following maximum value n_{max} (Shannon sampling theorem):

$$n_{max} = 0{,}5 * \text{modulo value} / T_{cyc}$$

with T_{cyc} motion cycle time C-0-0410 "Current motion cycle time" in ms,

Modulo value of the axis (A-0-0045 "Modulo value")

For a modulo value of 360 degree the following applies:

n_{max} = (1000 rpm * 0.5 * 60 ms) / T_{cyc}

Certain cycle times result in the following theoretical velocities:

For 2 ms: 15000 rpm

For 4 ms: 7500 rpm

For 8 ms: 3750 rpm

To reach a certain safety distance to this theoretical values a safety distance is considered. For factor 0.95 the following applies:

For 2 ms: 14250 rpm

For 4 ms: 7125 rpm

For 8 ms: 3563 rpm

This maximum velocity can be achieved via command value specification at the corresponding master axis as well as via gear parameters and offset parameters between master axis and following axis.

Example: Two coupled virtual axes and a real coupled axis:

For T_{cyc} 4ms, a command value of 80 rpm on a virtual master axis VA_1 and an electronic gear calculated on the control (parameter A-0-2720 "Input revolutions", A-0-2721 "Output revolutions" for an axis calculated on the control) on the virtual axis VA2 of 100 (-> command value 8000 rpm for the coupled real axis) this condition is exceeded.

When exceeding the speed error "F5113002 Positioning velocity too high for cycle time" is generated from MLC 14V04.

All axes are best set to standstill!

Possible workaround when reaching the boundary condition:

- Specify a lower command value or adjust the command value specification to the Motion cycle time
- Reduce the motion cycle time
- If required, displacement of the gears calculated in the control to the drive (for an axis with interpolation in the drive)

2 New functions

2.1 Commissioning, CML control startup (as of 14V22)

The first time the control is switched on or after a Compact Flash replacement, an update of the Sercos FPGA can be required on the control. Switching off the voltage supply during the update can result in damage to the CML control. The operator is should therefore execute the update from version 14V22.

1. The diagnostics HW-INIT? is displayed on the CML. Press <Enter> on the control display to update the FPGA. During the update, the control displays HWINIT!. The message PWRCYCLE has to be displayed once the update is completed. After switching the voltage supply of the control on and off again, commissioning of the control can be continued.
2. If the voltage supply of the control is switched off during a pending diagnostics HW-INIT?, the error message F90B0083 is displayed when switching the control on the next time. The diagnostics indicates that an FPGA update has previously been rejected. Please switch the control off and on again! Upon the next startup, the HW-INIT? diagnostics is generated. Proceed as describe under point 1.

2.2 Communication

2.2.1 EtherCAT: PLCopen function blocks for operating an IndraDrive via EtherCat (from 14V22 Patch 2)

FEAT-ID: [FEAT-00072987]

Brief description: The RMB_PLCopenEtherCat_EoS library is intended for a Bosch Rexroth control with an EtherCAT master. This library provides PLCopen function blocks for single axis applications: MB_Home, MB_Stop, MC_MoveAbsolute, MC_MoveAdditive, MC_MoveRelative, MC_MoveVelocity, MC_Power, MC_Reset, MC_Stop, MC_ReadActualPosition, MC_RedAxisError, MC_ReadStatus.

As the PLCopen function blocks of the RMB_PLCopenFieldBus library, the content of the function blocks and data structures (AXIS_REF) with the same name of this library is not identical to the IndraControl XL/MLC Motion PLCopen function blocks. This means, in a control with integrated motion functionality, the Motion function blocks have to be operated separately by using the namespace. Function blocks for parameter communication are not provided by this library. Reading and writing of parameters not in the cyclic I/O exchange, have to be executed with function blocks of the RIL_ETHERCAT library.

2.2.2 EtherCAT interface: Drives on the Rexroth EtherCAT master are supported via IndraWorksDs (from 14V22 Patch 2)

FEAT-ID: [FEAT-00072157]

Brief description: 1. In IndraWorks, you can select IndraDrive => "IndraWorks Ds here" in the context menu of the IndraDrive.

2. In IWDs, you can find the EtherCAT IndraDrive devices on an MLC in the connection selection under "Control".

2.2.3 EtherCAT interface: FMMU/Sync can be set in expert mode (from 14V22 Patch 2)

FEAT-ID: [FEAT-00074473]

Brief description: It is now possible to set the SyncManager in expert mode. Thus, toggling between single and triple buffer mode is possible. This facilitates the operation of an IndraDrive device in FreeRun with SoE.

2.2.4 EtherCAT: Master; default cycle times are set in dependencies of the hardware derivative (from 14V22 Patch 2)

FEAT-ID: [FEAT-00074472]

Brief description: The default cycle times of the EtherCAT bus are set depending on the hardware derivate

2.2.5 EtherCAT: Support for distributed clocks (sync) (from 14V22 Patch 2)

FEAT-ID: [FEAT-00073844]

Brief description: It is now possible to operate devices in Distributed clocks (DC, synchronous) mode. Amongst other, this allows to operate special I/Os, e.g. probes, fast I/Os

2.2.6 EtherCAT: Master; for VPx control extension (from 14V22 Patch 2)

FEAT-ID: [FEAT-00073240]

Brief description: It is now possible to import/export the bus configuration including EtherCAT between VPx and XM projects

2.2.7 EtherCAT: Master; for VPx control (from 14V22 Patch 1)

FEAT-ID: [FEAT-00072285]

Brief description: The EtherCAT master was enabled for VPx controls.

Information: This function is currently only available for prototype customers upon request.

2.2.8 EtherCAT: Master; parameter editor for CoE supplemented by enumerations (from 14V22 Patch 1)

FEAT-ID: [FEAT-00071739]

Brief description: The CoE parameter editor was extended to display and edit enumerations.

2.2.9 EtherCAT: Master; synchronous mode/Distributed Clocks (from 14V22 Patch 1)

FEAT-ID: [FEAT-00069899]

Brief description: EtherCAT devices can now be operated with Distributed Clocks.

Information: This function is implemented as prototype and has to be enabled individually.

2.2.10 RIL_IoLink library with MB_IoLinkDirectValveControlType01 function block (from 14V22)

FEAT-ID: [FEAT-00070582]

Brief description: The library RIL_IoLink includes field bus-independent function blocks to control IO Link devices. The MB_IoLinkDirectValveControlType01 function block actuates an I/O link valve of Bosch Rexroth.

2.2.11 PROFINET I/O controller and device: Update to the new stack version (netX V3) (from 14V22)

FEAT-ID: [FEAT-00069624]

Brief description: The PROFINET I/O stacks (controller and device) were upgraded to a new netX version (V2 => V3).

PROFINET I/O controller: If a Send Clock = 1 ms is configured in a single device, a maximum of 64 devices is supported from compatibility mode 14V22. If a Send Clock > 1 ms is configured for all devices, up to 128 devices are supported. The "Shared Device" configuration is also supported.

Profinet I/O device (control as device): New features from compatibility mode 14V22: IRT with min. cycle time 250 µs (but no synchronous application), MRP client and shared device. Each configured Profinet I/O device requires 8.6 kB of persistent retain data of the IEC program.

2.2.12 Function block MB_SIIIPlcDrivePositioningType01 (from 14V22)

FEAT-ID: [FEAT-00069121]

Brief description: The RMB_SercosIII_Util library contains the new function block MB_SIIIPlcDrivePositioningType01. This supports the "drive-guided positioning" operation mode and therefore other third-party drives can be used as a drive as a PLC device for positioning (e.g. Automata SMC3). Apart from the options of the existing MB_SIIIPlcDrivePosInterpolationType01 function block, the new function block also provides relative or additive positioning and jogging.

2.2.13 Setting I/Os via the IndraWorks Automation Interface (from 14V22)

FEAT-ID: [FEAT-00071108]

Brief description: To be able to set I/O devices in an IndraWorks project via the IndraWorks Automation Interface (AI) such as "Not_used"->"PROFINET I/O controller"or for XM2 devices "Sercos"->"EtherCAT Master", etc., the property "Slot" was added to the existing interface "IIwIo" (namespace"Rexroth.IndraWorks.AI.Plc") in the AI. The property "Slot" returns the newly introduced interface "IIwIoSlot" with which the necessary plug and unplug operations can be executed.

2.2.14 Adding I/Os via the IndraWorks Automation Interface (from 14V22)

FEAT-ID: [FEAT-00070273]

Brief description: To be able to add I/O devices within an IndraWorks project irrespective of the type (master, slave or module) via the IndraWorks Automation Interface (AI), the property "Connectors" was added to the existing interface "IIwIo"(namespace "Rexroth.IndraWorks.AI.Plc"). The property "Connectors" provides a list of all available connectors of the respective I/O; each connector is represented by the interface "IIwIoConnector". Using "IIwIoConnector", one or several I/Os can be added below the current I/O. In case of an "explicit" connector, the connector is represented by an individual node in the IndraWorks project tree. As nodes can be represented in the IndraWorks project tree in the AI by the "IIwProjectElement" interface, the interface "IIwIoExplicitConnector" was introduced as additional support of explicit connectors. The interface is derived from "IIwProjectElement" as well as from "IIwIoConnector".

2.2.15 EtherCAT: Support process data status ("PdStatus") (from 14V22)

FEAT-ID: [FEAT-00069869]

Brief description: In the EtherCat configuration, select if the process data status "PdStatus" is to be displayed in the I/O image of the slave. The PdStatus indicates whether

or not process data is valid. Invalid data is generated in case of a Working-Counter error or if the slave is not in state cyclic communication.

2.2.16 EtherCAT: Messages are entered in the diagnostic logbook of the MLC (from 14V22)

FEAT-ID: [FEAT-00069862]

Brief description: CoE emergency messages are entered in the diagnostic logbook of the MLC

2.2.17 EtherCAT: Dialog "CoE" (from 14V22)

FEAT-ID: [FEAT-00069786]

Brief description: The EtherCAT dialog "CoE" shows the CoE objects (CAN application layer over EtherCAT) of a device. It can be selected if the object descriptions are displayed via the device description (ESI) or online.

2.2.18 RIL_Ethercat.library: FB IL_ECATRemoteSlaveGetErrorCounterPeriod (from 14V22)

FEAT-ID: [FEAT-00067343]

Brief description: The IL_ECATRemoteSlaveGetErrorCounterPeriod function block is available in the RIL_Ethercat.library. For more details refer to the documentation "IndraWorks 14VRS Field Bus Libraries""RIL_Ethercat.library".

2.2.19 EtherCAT: Slave dialog "Online" (from 14V22)

FEAT-ID: [FEAT-00067234]

Brief description: Using the EtherCAT slave dialog "Online", the EtherCat state of the slave devices can be individually switched.

2.2.20 EtherCAT: EoE IP routing (from 14V22)

FEAT-ID: [FEAT-00067162]

Brief description: In the EtherCAT master, an EoE end point (Ethernet over EtherCAT) is supported in the control. This means, IP routing from the eng. port of the XM2 control to the EtherCAT network (EoE) is possible. For more details about the configuration, refer to the documentation "IndraWorks 14VRS Field Buses", chapter "EtherCAT"-> Master dialog EoE.

2.2.21 EtherCAT: Bus scan (scan, compare, create devices) (from 14V22)

FEAT-ID: [FEAT-00067161]

Brief description: For the EtherCAT configuration, the "Bus scan" dialog is available in the context menu of the EtherCAT master. The "Bus scan" dialog shows the currently connected devices and draws a comparison to the existing EtherCAT configuration. It can also automatically apply the found devices to the configuration.

2.2.22 Ethernet field buses PROFINET I/O and EtherNet/IP: New concept for IP channel configuration (from 14V22)

FEAT-ID: [FEAT-00066349]

Brief description: The IP channel for Ethernet-based netX field buses has been thoroughly revised due to the netX upgrade (V2 => V3). From compatibility mode 14V22, the IP channel has to be manually activated for PROFINET I/O controller, PROFINET I/O device, EtherNet/IP scanner and EtherNet/IP adapter, using a separate IP address. The IP channel is supported for the first time in the EtherNet/IP scanner.

2.2.23 XM controls: Cross communication between controls - CrossComm Sercos III (from 14V22)

FEAT-ID: [FEAT-00057783]

Brief description: By using the XFE01.1-FB-01 function module, IndraControl XM controls can also be incorporated in the cross communication between controls. IndraControl L controls with the function module CFL01.1-R3 and IndraControl XM controls can exchange master axis positions in the control link.

2.2.24 OPC UA: Extension of the RIL_OpcUaClient library (from 14V22)

FEAT-ID: [FEAT-00064713]

Brief description: The library is extended by the following RIL_OpcUaClient function blocks: UA_MethodGetHandleList, UA_MethodReleaseHandleList, UA_MethodCall, UA_NodeGetInformation, UA_NamespaceGetIndexList. The MAX_ELEMENTS_xxx constants are provided as editable parameters.

2.2.25 OPC UA: Provision of server functionality (from 14V22)

FEAT-ID: [FEAT-00057510]

Brief description: By redesigning the system firmware, the period of the Sercos phase switching (from P2 to BB) is reduced. The optimization currently considers only the connected drive devices.

2.2.26 Acceleration of parameter synchronization (from 14V20)

FEAT-ID: [FEAT-00069169]

Brief description: By redesigning the system firmware, the period of the Sercos phase switching (from P2 to BB) is reduced. The optimization currently considers only the connected drive devices.

2.2.27 Mapping PLC comments on an OPC UA object description (from 14V20)

FEAT-ID: [FEAT-00064545]

Brief description: The OPC UA server is extended by the property that the PLC comments are displayed as OPC UA object description.

2.2.28 OPC UA: Test variables to test OPC UA clients (from 14V20)

FEAT-ID: [FEAT-00069679]

Brief description: The following nodes were created under Root -> Objects -> Server -> VendorServerInfo -> TestVariables:

- Type: OpcUaType_Int32 Name: "TestVariable_int32"
- Type: OpcUaType_Float Name: "TestVariable_float"
- Type: OpcUaType_String Name: "TestVariable_string"

These nodes are used to test HMI clients for example. No other functionality is in the nodes.

2.2.29 PROFINET: Topology representation in IndraWorks (from 14V20)

FEAT-ID: [FEAT-00061204]

Brief description: A new “Topology” dialog is available for the Profinet I/O controller. This dialog displays the currently connected Profinet devices. The prerequisite is that the Profinet devices provide neighboring information, e.g. the LLDP protocol has to be supported.

2.3 HMI solutions

2.3.1 The IndraMotion Service Tool is replaced by the WebAssistant (from 14V22)

FEAT-ID: [FEAT-00068592]

Brief description: The WebAssistant replaces the IndraMotion Service Tool (IMST) and is included in the firmware. As the IMST, the WebAssistant can also be used on older MLC firmware (from 12V10 and 13V06). Pages created with the WebComposer can be displayed as customer-specific pages in the WebAssistant.

2.3.2 WinStudio: Search function for texts (from 14V22)

FEAT-ID: [FEAT-00064763]

Brief description: A function to search for texts in all assigned WinStudio elements was added to WinStudio. The search function can be called via the entry "Find..." in the WinStudio context menu.

2.3.3 New WinStudio runtime license with 500 variables without functional restriction for VR21 and VH21 devices (from 14V20)

FEAT-ID: [FEAT-00069603]

Brief description: The new license type with 500 tags can be selected in the WinStudio target selection.

2.3.4 Supporting the new series of the IndraControl PR/VR control panels (from 14V20)

FEAT-ID: [FEAT-00069240]

Brief description: The device library is extended by the visualization devices of the new series IndraControl PR/VR.

2.3.5 Windows 7-suitable remote support software (UltraVNC) (from 14V20)

FEAT-ID: [FEAT-00061913]

Brief description: UltraVNC is the preferred remote tool to access an IT terminal device in the production from your workspace computer.

Use the interface of IndraWorks Engineering and IndraWorks Operation to enable and disable the remote support software UltraVNC. The Windows service of the remote support software is started or stopped.

2.3.6 Comparing visualization devices in IndraWorks (from 14V20)

FEAT-ID: [FEAT-00017889]

Brief description: Use the “Compare” function for all elements of a visualization device to show their differences to the other elements. WinStudio elements are an exception. These elements cannot be compared.

2.3.7 HTML5-capable Internet browser control (14V20 and above)

FEAT-ID: [FEAT-00066968]

Brief description: A web browser control was developed that supports the current HTML5/ scripting standards. The “Web Browser Control” can be integrated into WinStudio applications and allows to communicate with the current web application.

2.3.8 WinStudio: New screen group editor to configure screen groups (from 14V20)

FEAT-ID: [FEAT-00049561]

Brief description: The usability of the screen group editor was improved in WinStudio. Additional functions were added when managing screen groups.

2.4 IW Engineering

2.4.1 Multi-device functionality with SafeLogic (from 14V22 patch 1)

FEAT-ID: [FEAT-00072582]

Brief description: The multi-device functionality is supported with SafeLogic by the XLC/MLC system from 14V22 (patch x).

2.4.2 GAT plug-in extension for MLC-H (from 14V22)

FEAT-ID: [FEAT-00071090]

Brief description: Extension by two new elements "PLUGIN CONDITION" and "PLUGIN CALLUP". For more information, refer to the online help.

2.4.3 Introducing the device application with several user applications (from 14V22)

FEAT-ID: [FEAT-00070396]

Brief description: When creating an MLC, a device application can be optionally created. If this option is selected, a device application is created below the logic node in which global variables, libraries and other shared resources are contained. Depending on the hardware, up to 32 user applications can be generated below the device application.

2.4.4 The online adjustment was extended (from 14V22)

FEAT-ID: [FEAT-00070394]

Brief description: During the online adjustment, the PLC compilate adjustment can also be executed if the requirement is met (compatible project) so that a login without online change or a new build is possible. Furthermore, user libraries and device description files are included in the online adjustment.

2.4.5 Creating a control based on the IP address (from 14V20)

FEAT-ID: [FEAT-00068251]

Brief description: After specifying the IP address, the type and the firmware of the XLC/MLC control are identified and all control data to be adjusted (incl. PLC data, source code if available) is applied to the project according to the settings selected for the project adjustment.

2.4.6 Integrating drives into the project comparison and adjustment (from 14V20)

FEAT-ID: [FEAT-00066655]

Brief description: Axes and drives can be adjusted below the Sercos node. Drives can only be applied to the project (adjustment) when the project is offline.

2.5 Motion technology

2.5.1 Microsoft Windows 11 is supported as of IndraWorks ML 14V22 Patch17 (as of 14V22 Patch 17)

Feature number: [FEAT-617424]

Microsoft Windows 11 is supported as of IndraWorks ML 14V22 Patch17.

Overview of supported Windows versions (IndraWorks ML):

- Microsoft Windows 10
- Microsoft Windows 11 (as of IndraWorks ML 12V22 Patch 17)

2.5.2 Support HDM20 (from 14V22 Patch 1)

FEAT-ID: [FEAT-00073139]

Brief description: With this release, the MLC supports the drive firmware variant HDM20 as axis.

2.5.3 Multicore - Parallelization of the Motion Kernel (from 14V22)

FEAT-ID: [FEAT-00069338]

Brief description: From version 14V22, multicore is available to calculate the motion. To enable the multicore features for controls, set bit 23 to 1 in the parameter C-0-0036. When using multicore, the motion calculation is one priority higher than the priority set in parameter C-0-0403. The set priority in parameter C-0-0403 is used to monitor this task. Thus, when using multicore, leave a space of the priority between the motion-synchronous PLC task and the priority of the motion calculation in parameter C-0-0403 to prevent conflicts in the calculation order between these tasks.

The default values for the parameters have been change to comply with this requirement. New projects automatically use these values.

Parameters	Old default value	New default value	Description
C-0-0403	3	4	As the default value for the motion-synchronous task is set to 2, the value for motion calculation has to be set to 4 in the default settings.
C-0-0036	0x0000040	0x00800040	By default, the use of multicore for motion calculation is permitted

2.5.4 MC_Stop,stop without change of the operation mode (from 14V22)

FEAT-ID: [FEAT-00070587]

Brief description: By implementing this feature, the user can influence the motion command behavior MC_Stop in the operating mode specification. The operating mode of the previous motion is inherited by MC_Stop and deceleration in the same operating mode takes place without switching the operating mode.

2.5.5 RegisterController: Reducing the minimum bar code block width to 1 mm (from 14V22)

FEAT-ID: [FEAT-00070579]

Brief description: The minimum bar code block width used to be 2.0 mm. It was reduced to 1 mm.

2.5.6 Function block to record the energy transport in case of combustion gases (from 14V22)

FEAT-ID: [FEAT-00070577]

Brief description: Use the function blocks to determine the energy consumption of consumers of combustion gas in 4EE. A function block with S0 interface is available and a block with interface for the flow rate sensor.

2.5.7 Function block to record the energy transport through compressed air (from 14V22)

FEAT-ID: [FEAT-00070576]

Brief description: Use the function block to measure the energy transport through compressed air in 4EE.

2.5.8 Function block to record the energy consumption using S0 impulses (from 14V22)

FEAT-ID: [FEAT-00070575]

Brief description: Use the function block to determine the energy consumption by analyzing S0 impulses in 4EE.

2.5.9 Function block to record the energy transport through fluids (from 14V22)

FEAT-ID: [FEAT-00070574]

Brief description: Use the function block to measure the energy transport through fluids in 4EE.

2.5.10 Function block for load curve prognosis (from 14V22)

FEAT-ID: [FEAT-00070568]

Brief description: Use the function block to establish a load curve prognosis in energy monitoring 4EE.

2.5.11 Limit values for auxiliary axes (from 14V22)

FEAT-ID: [FEAT-00070272]

Brief description: Use this feature to set additional limit values in the parameters K-0-0028 – K-0-0030 for individual auxiliary axes. These limit values are used to limit the axis motion in space (linear, circular).

2.5.12 Connecting positioning and orientation axes is possible (from 14V22)

FEAT-ID: [FEAT-00070271]

Brief description: One point provides all information on a position of a kinematics. It consists of data of the positioning, orientation, auxiliary and belt axes. The point representation depends on the used kinematics. Only the used axes of a kinematics are shown in the point. For special use cases it may be necessary that the not displayed elements of a point can also be read and written. This feature facilitates the connection of all positioning and orientation axes. The setting is selected in parameter K-0-0099. The default state corresponds to the actual state.

2.5.13 Register control: Porting the central register controller HMI to 1920x1080 pixels (DR0021/VRxx21) (from 14V22)

FEAT-ID: [FEAT-00068804]

Brief description: The central register controller HMI previously existed only for 19" HMI devices in 4:3 format with a resolution of 1280 x 1024 pixels. This central register controller HMI has now been ported for HMI devices with 21" in 16:9 format with a resolution of 1920 x 1080 pixels.

2.5.14 Parameter scaling according to Sercos specification (from 14V22)

FEAT-ID: [FEAT-00065473]

Brief description: The implementation is oriented to the scaling description of the Sercos specification. Parameters already contained in the axis system are extended by the option to parameterize the scaling individually for the following axis types:

- Real axis IPO control (electric, hydraulic)
- Virtual axis
- Controller axis
- SercosDrive

2.5.15 Supporting hexapod kinematics (from 14V20)

FEAT-ID: [FEAT-00069297]

Brief description: The mathematics is provided for a steward platform. IndraWorks can be used for the required parameterization to traverse the hexapods.

2.5.16 Supporting the drive firmware MPx21 with XLC/MLC (from 14V20)

FEAT-ID: [FEAT-00069288]

Brief description: The new drive firmware MPx21 is supported by the XLC/MLC.

2.5.17 Function blocks to support hydraulic axes as PLC devices (from 14V20)

FEAT-ID: [FEAT-00067671]

Brief description: The following function blocks were implemented:

- Function block, mode direct valve control
- Function block, mode force control/direct valve control
- Function block, mode force control/flow rate control
- Function block, mode pressure control/direct valve control
- Function block, mode velocity control

2.5.18 Providing the IndraMotion MLC to target VPB 40.4 (from 14V20)

FEAT-ID: [FEAT-00066955]

Brief description: For this release, the hardware platform IndraControl VPB 40.3 was replaced with the IndraControl VPB 40.4. This system solution is called "IndraMotion MLC VPB 40.4". At the same time, the VPB 40.3 is not supported anymore as target in 14V20 and above.

2.6 PLC technology

2.6.1 RIH_IndraControl_S20_KNX library available for S20-KNX-1 (14V22 Patch 2 and above)

FEAT-ID: [FEAT-00067647]

Brief description: RIH_IndraControl_S20_KNX library available for S20-KNX-1. Officially included in 14V22P2 and above, postinstallation possible with 14V22P1 HF1. HF1 required due to S20-KNX-1 module support.

2.6.2 XMxx acyclic access to PDI objects of locally connected S20 modules (from 14V22)

FEAT-ID: [FEAT-00067647]

Brief description: Use the RIH_IndraControl_S20 library for acyclic read and write access to PDI objects. There are the basic services "IH_S20IOPDIRead" and "IH_S20IOPDIWrite". "IH_S20ComInterface_Type02" combines the basic services and ensures user-friendly reading and writing of PDI objects with default settings. Refer to the data sheets of the respective S20 module for PDI objects.

2.6.3 Comments in the PLC program can be directly translated into multiple languages in IndraWorks Engineering (from 14V22)

FEAT-ID: [FEAT-00070407]

Brief description: Comments in the PLC program can be translated into multiple languages. Double-click on the editor window. Already defined texts for the configured languages are displayed. The editor provides the option to edit translated texts and to add missing translations. The texts to be translated do not have to be exported anymore.

2.6.4 Toggling language-specific PLC comments (from 14V20)

FEAT-ID: [FEAT-00068784]

Brief description: PLC comments can be displayed in different languages. Enable this functionality via the PLC localization data.

2.7 Security

2.7.1 Introducing a user management for VxWorks 6.9-based control systems for improved access protection in automation systems (from 14V20)

FEAT-ID: [FEAT-00070372]

Brief description: In 14V22, the firmware was extended by a group-based user management functionality for the systems XLC and MLC. IndraControl L75, IndraControl XM21/22 as well as IndraMotion VPB40.4 and all other new HW platforms are supported. The user is authorized to add user-defined authorization groups if required. By default, the group "Engineering" is available to ensure basic control Engineering using IndraWorks. It is recommended to include individual users in this group and to remove the user "boschrexroth" .

2.7.2 Integrating the user management acc. to IEC62443-3-3 or IEC62443-4-2 in MLPI (from 14V20)

FEAT-ID: [FEAT-00069281]

Brief description: The mlpi-SDK was extended in all relevant tool boxes by AccessControl functions on the user management.

System requirements: The AccessControl functions are provided on the devices XM2*, VPx* and CML75.

Project planning: MLPI applications can be created using mlpi-SDK. These applications can be used to edit users and passwords on the control via mlpiAccessControl.lib.

Application: User and passwords can be created in MLPI application on the control.

2.7.3 User management on the control acc. to IEC62443-3-3 or IEC62443-4-2 (from 14V20)

FEAT-ID: [FEAT-00069275]

Brief description: Devices are generally provided with an access protection, i.e. people to authorize to obtain access to protected data or functions from devices. Initial user and password on the control is "boschrexroth"/ "boschrexroth" upon delivery. User and password can be edited via the user management.

System requirements: The user management is provided on the devices XM2*, VPx* and CML75.

Project planning: Open the user management via the context menu of the control. The control has to be reachable.

Application: Different users can be created that are provided with own passwords. The authorizations cannot be restricted in 14V20. All users are provided with the same rights on the control.

2.8 Robot Control

2.8.1 Connecting Stäubli SCARA via the uniVAL drive interface (from 14V20)

FEAT-ID: [FEAT-00056202]

Brief description: The drives of a Stäubli SCARA can be created in IndraWorks as "SercosDrive" if the Stäubli robot control is connected to an MLC via Sercos. Thus, a Stäubli kinematics can be operated via the MLC.

2.9 Devices

2.9.1 New control hardware XM42 (from 14V22 patch 1)

FEAT-ID: [FEAT-00055444]

Brief description: Support of the new embedded control hardware IndraControl XM42 for the upper MLC performance segment.

2.10 New functions in 14V20

Connecting Stäubli SCARA via the uniVAL drive interface

The drives of a Stäubli SCARA can be created in IndraWorks as "SercosDrive" if the Stäubli robot control is connected to an MLC via Sercos. Thus, a Stäubli kinematics can be operated via the MLC.

User management acc. to IEC62443-3-3 or IEC62443-4-2 as independent component

Devices are generally provided with an access protection. The access protection ensures that only authorized people can access protected data or functions from devices. People have to authorize to obtain access to protected data or functions from devices.

First login with the user name *indraworks* and the password *indraworks*.

Mapping PLC comments on an OPC UA object description

The OPC UA server is extended by the property that the PLC comments are displayed as OPC UA object description.

Creating a control based on the IP address

After specifying the IP address, the type and the firmware of the XLC/MLC control are identified and all control data to be adjusted (incl. PLC data,

source code if available) is applied to the project as for the presettings made for the project adjustment.

Integrating drives into the project comparison and adjustment

Axes and drives can be adjusted below the Sercos node. Drives can only be applied to the project (adjustment) when the project is offline.

Providing the IndraMotion MLC on the target VPB 40.4

For this release, the hardware platform IndraControl VPB 40.3 was replaced with the IndraControl VPB 40.4. This system solution is called "IndraMotion MLC VPB 40.4". At the same time, the VPB 40.3 is not supported anymore as target in 14V20 and above.

Function blocks to support hydraulic axes as PLC devices

The following function blocks were implemented:

- Function block, mode direct valve control
- Function block, mode force control/direct valve control
- Function block, mode force control/flow rate control
- Function block, mode pressure control/direct valve control
- Function block, mode velocity control

Toggling language-specific PLC comments

PLC comments can be displayed in different languages. Enable this functionality via the PLC localization data.

Supporting the new series of the IndraControl PR/VR control panels

The device library is extended by the visualization devices of the new series IndraControl PR/VR.

Supporting the drive firmware MPx21 with XLC/MLC

The new drive firmware MPx21 is supported by the XLC/MLC.

Supporting hexapod kinematics

The mathematics is provided for a steward platform. IndraWorks can be used for the required parameterization to traverse the hexapods.

New WinStudio runtime license with 500 variables without functional restriction for VR21 and VH21 devices

The new license type with 500 tags can be selected in the WinStudio target selection.

OPC UA client on the control

The PLCopen OPC UA client function blocks allow to exchange data with other controls, superimposed master and management systems or with cloud-based servers via OPC UA.

Acceleration of parameter synchronization

By redesigning the system firmware, the period of the Sercos phase switching (from P2 to BB) is reduced. The optimization currently considers only the connected drive devices.

2.11 New functions in 14V18

Feedbacks have to be configurable between command and actual value path

This feature is used in the XLC/MLC control system to allow the configuration of status bits in the axis status in A-0-0021 as well as in A-0-2121. The configuration is based on the command values of the control or the actual values of the connected drive.

Context menu item for "IndraWorks DS here..." for all Sercos devices

The context menu item **IndraWorks DS here…** is provided for all Sercos devices including third-party devices.

Communication interface to OpCon MES

Implementing the communication interface **OpCon Mes**. A function block library is provided that executes the communication of the telegrams (acc. to the OpCon-XML specification) via TCP/IP with the MES system and creates telegrams to be sent (XML creator) and analyzes received telegrams (XML parser). A basic class is also included. It is derived to create the MES event.

Managing resource files in WinStudio applications

To manage files used in a WinStudio application, the new folder "Resources" was created below. The user can add files supported by a dialog and reference them in the WinStudio application. The files are thus part of the project and are backed up while saving. When transferring the application to a separate target device, the files in the "Resources" folder (as up to now) are included.

Converting IndraWorks projects provided with unknown compatibility mode

IndraWorks can now convert projects with a low compatibility mode to the installed IndraWorks version even if the specific (lower) compatibility mode is unknown.

Supplement of the RIL_SercosIII.library for Sercos devices

The diagnostic function block **IL_SIIIMasterStateDetails** as well as the two function blocks **IL_SIIIGetSercosPhase** and **IL_SIIISetSercosPhase** were added to the RIL_SercosIII.library to read and write the Sercos phase.

Replacing FTP with the safe transmission protocol SFTP

To ensure secure connections between the control and IndraWorks, FTP was replaced with the "Secure File Transfer Protocol" (SFTP). The file can be transferred via an encrypted connection.

Extending the project comparison for Safety objects and for drives

The functionality of the project comparison is extended by the option to compare data from the drive as well as Safety objects from the control to the PC. This comparison (transfer) can either be performed completely (with all data) or selectively (with selected data objects).

IndraWorks user interface "Automation Interface" to configure field bus elements

If it possible to configure field bus I/Os (Sercos, Profibus, Profinet, S20, etc.) via the Automation Interface using I/O parameters. When saving the project, the modified data of the I/O parameters was applied to the project and it is available after opening the project again.

2.12 New functions in 14V16

Firmware update in NRT (None Real Time) mode

Some Sercos devices allow a firmware update only in NRT mode, not in the Sercos phase CP0. The Sercos phase specification is extended by the NRT mode.

Set absolute position for virtual axes

For the virtual axis, such as encoder and link axes, the parameters "A-0-2807, Command: Set absolute position" and "A-0-2806, Reference position" are implemented. These parameters can be used to set the new reference system for the virtual axis.

Function blocks to support hydraulic axes as PLC devices

The following function blocks were implemented:

- Function block, mode closed-loop/open-loop flow rate control

- Function block, mode pressure/closed-loop/open-loop flow rate control
- Function block, mode pressure/swiveling angle control
- Function block, mode swiveling angle slave

2.13 New functions in 14V14 Patch1

Compatibility mode, opening the project

The following options result:

1. **The project has no version ID.**

   This applies to projects created with IndraWorks < version 13.2. There is an automatic conversion into the current format. Subsequently, the project is opened.

2. **The project version is not supported.**

   2.1 The project was created with a higher IndraWorks version. When editing the project, I might become unusable for this version. Thus, opening the project is canceled outputting a respective note.

   2.2 The project was created with an older IndraWorks version. Upon creation, this version release has not yet been known to the higher IndraWorks version. This can be the case if a patch version was created based on a lower IndraWorks version due to debugging for example after there has already been a higher IndraWorks version. This project can be opened, but it is converted into the current version, as it cannot be operated in the compatibility mode.

3. **Opening a project with unknown project version.**

   Project versions with a lower version number, but created after the current IndraWorks version, cannot be operated in compatibility mode. The reason is that the devices and other project settings (e.g. the compiler version) are not known to the current version. However, it is also possible to convert such projects into the current version. The prerequisite is that the project was saved with the extension "xiwp" (zipped file). This format is used by default while saving from **13V06**. However, if the project with an older version was opened and converted, the old directory-based format remains. To convert projects saved that way, load that project using the older IndraWorks installation and save it via “Save as” as file with “xiwp“. When opening such a file in the current IndraWorks version, you are prompted, whether to convert this project into the current version. After confirming and entering a new project name, a copy is created and then opened automatically.

   Note that a recompilation of the PLC program is subsequently required and that a login is not possible without change or via "Online change". Furthermore, it might be required that the greyed out devices have to be converted into a supported device version. Therefore, use the “Properties” dialog of the respective device. To open it, go to the context menu item **Properties**.

   As the changes in the subsequent releases of older versions are not known, compatibility cases can occur in rare cases. Thus, check your project in detail after the successful conversion.

4. **The project version corresponds to the installed IndraWorks version.**

   The project is opened. The compatibility mode is disabled. The complete functional scope of the IndraWorks installation is provided to the user.

5. **The project version corresponds to an older IndraWorks version.**
   The project is opened and edited in compatibility mode.

2.14 New functions in 14V12

Project comparison
The functionality of the project comparison is extended by the option to compare data from the device to the PC. This comparison (transfer) can either be performed completely (with all data) or selectively (with selected data objects).

Supporting 16 kinematics for the XM21/22
The number of kinematics for the XM21/22 is increased to 16.

Overview representation of all parameters of a device
To clearly display the parameters of a device (control (XLC/MLC), axis, kinematics), use the new dialog "Parameter overview". To open it, go to the context menu "Parameters > Parameter overview" of the XLC/MLC controls, axes and kinematics.

GAT: Extension by the event-controlled AxisInterfaceType12
The ML_TechInterface library provides the new function block MB_AxisInterfaceType12. The function block supports the operation modes of the MB_AxisInterfaceType02. However, it operates event-controlled. The event-controlled operating principle leads to faster processing and better performance of the AxisInterface.

GATcompact and AxisInterface also support the MLD from MPx20
The example projects of GATcompact and AxisInterface are now also supported by the drive-integrated MLD from MPX20. The ST code templates as well as the GAT plugins are also supported.

2.15 Funktionserweiterungen in Version 14V12

2.15.1 Software

_Other

Number of knifes for the MB_CrossCutter_Type05 is limited to 10

CQ-ID: Defdb00182980

Severity: K3 - malfunction (no workaround)

Description: Number of knifes was limited to 10. However, this is too less for some applications.

Enhancement: The number of maximum possible knifes was increased to 20.

Engineering / PLC Libraries

IMC interface should check control mode and Sercos phase

CQ-ID: Defdb00182394

Severity: K2 - serious malfunction

Description: The variable ImcStatus.Admin._OpModeAck indicates the control mode.

When setting the parameterizable error reaction to F2 or F5, the control mode and the Sercos phase can be different.

Example: A Sercos slave acknowledges a command for phase switching as negative. The Sercos phase is then 2 and the control mode is 4 or bb.

ImcStatus.Admin._OpModeAck reports bb, but the Sercos axes are not ready. In this state, the IMC interface should not report "bb".

Enhancement: The variable ImcStatus.Admin._OpModeAck now shows the lower value of control mode and Sercos phase.

Additionally, the following new elements were included into the IMC interface:

- ImcStatus.Admin.ControlMode: C-0-0023, bits 27..31

- ImcStatus.Admin.arSercosPhase[0]: C-0-0514, bits 27..31

- ImcCtrl.Admin.arCheckSercos[0]: The Sercos phase of the onboard Sercos interface should be included in the ImcStatus.Admin._OpModeAck calculation. The Sercos phase is not considered anymore when setting this variable to FALSE (as before this extension).

AxisInterface: ParamLevel does not work when the axis is parked

CQ-ID: Defdb00182506

Severity: K3 - malfunction (no workaround)

Description: The input ParamLevel of the AxisInterface does not work when the axis is parked.

It is possible to switch to the parameterization level using the AxisInterface and then to park the axis using the parameter write access.

However, the input ParamLevel cannot be used anymore to exit the parameterization level or to cancel the parking later on.

Enhancement: The input ParamLevel of the AxisInterface is now also operated if an axis is parked.

Further functions such as diagnostics and motion commands are still blocked for the parking axis.

2.16 New functions in 14V10

Supporting the drive firmware MPX20/HDx20

- IndraDrive from version 20V04
  1. The electric drive IndraDrive is supported as Sercos slave in the designs MPB (Basic), MPM (Double-axis), MPC (Advanced), MPE (Economy)
  2. The firmware derivative PSB (intelligent supplier) is connected as PLC device
- HydraulicDrive from 20V04
  1. The hydraulic drive HydraulicDrive is supported as Sercos slave in the designs HDC (HMC device), HDB (IAC device)
  2. The derivatives HPC (pump controller) and DFE (pilot valve with pump controller) are connected as PLC devices

☞ 20V02 is **not** supported.

☞ The offline parameterization for the drive firmware MPx20 and HDx20 is **not** yet supported.

2.17 New functions in 14V08

Finishing of the new control components IndraControl XM21 and XM22

For the controls IndraMotion MLC XM21/XM22, the USB host card and the SD card can now be used to store user data.

Supplementing the control portfolio by the IndraControl L75 and IndraControl VPB40.3 (VPx)

The control portfolio was supplemented by the IndraControl L75 and IndraControl VPB40.3 (VPx).

OCI extension

Extensions of the Open Core Interface (OCI):

- Use of the OEM workbench to create real-time applications in C/C++ by the user
- LabView extension for Robot Control functionality
- LabView for Robot Control
- Support of the simulation language Modelica
- Connection to the MLC to National Instruments cRio
- Programming Language Lua
- Linux libraries for MLPI

MLPI for MATLAB /Simulink

MATLAB

- Comprehensive implementation of the mlpiCore functionality in the mlpi4MATLAB toolbox
- Detailed documentation on each function in the toolbox and command line help.
- Auto completion
- Runnable, open source example on each function
- Transfer of a MATLAB algorithm to the control via one-click

Simulink

- All MATLAB coder-supported functions are available in the mlpi4Simulink library and can also be coded
- Detailed documentation on each function in the toolbox help and block mask
- Runnable example program for each source block
- Windows also as VxWorks Rexroth target

OPC UA data provider

- OPC UA server can be configured using parameters
- Extension of the namespaces of the OPC UA server on the parameter sets "A, C, K, M, N, O", not applicable for the control type CML25

Sequential programming with Lua for Robot Control

Lua benefits:

- Sequential
- Simple and powerful
- Fast
- Small
- Free of charge
- Extendable by C-libraries
- Runs on all platforms

Changes with CoDeSys 3.5

- Less tolerant compiler
- Dialog “Login” extended by "Refresh boot application"
- Extension in "Edit I/O mapping"
- Insertion of ST code in FBB/LD editors
- New function "Memory view"

Sercos, the automation bus

- Communication errors do not cause a switching to P0
- Parameterizable error function
- Up to 253 devices at Sercos and 99 axis objects depending on the control hardware
- Faster parameter backup and restoration
- Performance and changes in compatibility in the function blocks MB_AxisBackup and MB_Restore
- New function blocks in the RIL_SercosIII.library
- Example projects for the controller axis
- Improvement of the PLC configurator for drive, PowerSupply and encoder
- Disabling of PLC devices/modules

Offline Engineering

- Improved offline parameterization
- Revised MLC-H dialogs
- Creation of axes, kinematics and controls based on templates
- Parameter adjustment
- New axis overview

  The display of all axes and their properties can be
  - "edited"
  - "created again"
  - "duplicated"
  - "deleted"
- Seperate drive switching to online
- Multi-firmware download for Sercos devices

Project comparison

- Project data comparison with the corresponding data in the XLC/MLC
- Rough overview on the differences in the comparison overview
- Exact difference in the detailed comparison

Remote Condition Monitoring

The RMB_TechRcm.library provides functions and function blocks to quickly evaluate the states of the connected machines and systems.

Use the function blocks to perform measuring methods and to transfer the determined data to the Generic Data Server (GDS).

4EE - Energy Management

The 4EE Energy Management consists of:

- "EnergyMonitoring" to determine the energy consumption and performance peaks
- "EnergyControl" to reduce the power consumption by disabling consumers that are not required

Benefits for the machine manufacturer:

- A standardized, fast and reliable integration and commissioning of energy-saving functionalities

Benefits for the machine operator:

- Transparency of the energy consumptions of the machine and the components
- Always minimum energy consumption of its machines and systems
- Optional coupling with production control systems (MES)

Automation Interface

New and extended functionality in the Automation Interface

EPLAN data connection

Connecting EPLAN to IndraWorks.

Electronic CAD system for the electric system planning:

- Device and control cabinet design
- Wiring

The round trip support (device and bus topology, I/O mapping) facilitates the work and prevents errors caused by redundant input.

2.18 Project conversion

For changes from version 13VRS to 14VRS see documentation "Rexroth IndraLogic XLC IndraMotion MLC 14VRS Project Conversion" (DOK-XLCMLC-PROCONV*V14-APRS-EN-P, R911341494), section "9 Changes from Version 13VRS to 14VRS".

2.19 New functions of the AxisInterface and GAT

Functional extensions in 14V04

- The performance-optimized AxisInterface (MB_AxisInterfaceType11) is available
- The dialog sequence when adding a new control supports the creation of GAT-based PLC applications
- GAT HMI is updated (Windows 7 style)
- The GAT HMI uses the error and diagnostic memory of the control

Functional extensions in 14V06

- The AxisInterface was extended by the torque control mode
- The AxisInterface function block MB_AxisInterfaceType02 was extended by the operation modes for cyclic command value specifications (cyclic position, velocity and torque control)
- A change in operation mode can also be locked for GAT compact and GAT decentral
- The ST command library is integrated in IndraWorks. Used to insert a user-defined ST program code into the open ST editor via drag&drop

- The name of the module and unit function block can be edited in case of multiple instantiation

3 IndraLogic XLC/IndraMotion MLC 14V22 Patch 20 firmware and software

3.1 Software

3.1.1 Resolved defects

IndraWorks ML / Engineering / _Other

Creating IndraWorks project archive does not work properly with ctrlX DRIVE Profinet (path is too long)

CQ-ID: Defdb00212049

Severity: K3 - malfunction (no workaround)

Description: The creation of an IndraWorks project archive was sporadically incomplete if devices were included whose device description had very long path names.

The project archive was created, but the devices were not included.

IndraWorks ML / Engineering / Drive

Column width IDN cannot be changed in the "Invalid parameters" dialog

CQ-ID: Defdb00211750

Severity: K2 - serious malfunction

Description: In the "Invalid parameters" dialog, the IDN was not completely visible and the column width could not be changed.

IndraWorks ML / Engineering / Periphery

Scan dialog does not recognize CloseLoop package with MPx21V06

CQ-ID: Defdb00210835

Severity: K3 - malfunction (no workaround)

Description: For the drives with export restriction, scanning Sercos below the MLC did not detect that these drives support the ClosedLoop package.

IndraWorks ML / Engineering / PLC Libraries

ImcInterface immediately tries to switch to BB again following an interruption of the ring

CQ-ID: Defdb00212575

Severity: K4 - malfunction

Description: The system is in BB and e.g. a drive fails.

The Sercos ring switches to P0 and an F8 error is triggered.

Depending on the control type, cycle times and task cycle times in the PLC, sporadically, the ImcInterface started a new phase switchover P0->BB when the F8 error occurred.

This could interfere with ongoing error responses.

IndraWorks ML / Engineering / Version Control System

VCS: Change of priority of the SioRouterTask is not saved in the VCS

CQ-ID: Defdb00212311

Severity: K2 - serious malfunction

Description: Changes to the parameters of the extension modules are not taken into account during import.

3.2 Firmware

3.2.1 Resolved defects

MLC Firmware / Axis

F0390011 FPU error

CQ-ID: Defdb00212865

Severity: K3 - malfunction (no workaround)

Description: If a controller axis or kinematic transformation is used from the PLC, an FPU exception error (F0390011 FPU error) may occur even though these exception errors have been disabled in the PLC.

This was caused by incorrect activation of the exception errors in the MLC code of the controller axis/kinematic transformation.

Fixing: This error was debugged. Before returning to the PLC, the FPU exception errors of the PLC are set again in the MLC code of the controller axis/kinematics transformation.

If an encoder axis is assigned to an axis, this axis can no longer be switched to "parked axis"

CQ-ID: Defdb00209763

Severity: K3 - malfunction (no workaround)

Description: If an axis is linked to an encoder axis, the status for this axis is reset from "parked axis" to "active axis" during start-up.

Fixing: The encoder axis correctly displays the status of the linked axis and no longer resets it.

MLC Firmware / IndraMotion Service Tool

Access to WebAssistant fails sporadically

CQ-ID: Defdb00212662

Severity: K2 - serious malfunction

Description: Access to the WebAssistant is sporadically no longer possible.

The connection is only functional again after restarting the control.

Other connections, e.g. Ping, IndraWorks, work.

MLC Firmware / Logic

CPU load increases with every PLC cleanup and login until the watchdog is reached

CQ-ID: Defdb00211647

Severity: K4 - malfunction

Description: The error only occurs in conjunction with a configured safety module. Each time an IEC program is downloaded, memory is allocated to the safety module, which is set as "not cacheable".

This memory remains "not cacheable" with every further download, but is provided as general memory.

Fixing: When releasing the allocated safety module memory (when unloading the program), the released memory is also reset to the default value "cacheable".

MLC Firmware / Motion Functions

Applied cyclic actual values are not displayed correctly in the A-parameters

CQ-ID: Defdb00212172

Severity: K3 - malfunction (no workaround)

Description: If data of the type "Decimal with sign 2 byte" is placed in the cyclic data containers of the A-parameters, it is not displayed correctly.

Fixing: The data is displayed correctly in the cyclic data containers of the A-parameters.

MLC Firmware / OPC UA

OPC UA: Sporadic exception when reading Sercos data via the OPC UA Server

CQ-ID: Defdb00209366

Severity: K3 - malfunction (no workaround)

Description: Sporadically, an exception occurred on the control when it was tried to read Sercos parameters via OPC UA that were not available on the Sercos device connected to the control.

3.2.2 Functional enhancements

MLC Firmware / Core

After an FW update, "A0200017, Hardware changed; Restoring NVRAM" is displayed incorrectly

CQ-ID: Defdb00212874

Severity: K3 - malfunction (no workaround)

Description: After a firmware update, the error message "A0200017, Hardware changed; Restoring NVRAM" is displayed although the hardware has not been replaced.

Enhancement: If a firmware update is carried out on the same hardware, the error does not occur anymore.

4 IndraLogic XLC/IndraMotion MLC 14V22 Patch 19 firmware and software

4.1 Firmware

4.1.1 Resolved defects

XM42 / Other

Improvements to minimize the risk of corrupt files in XM42 controls

CQ-ID: Defdb00212091

Severity: K3 - Malfunction (no workaround)

Description: In individual cases, switching off XM42 controls has resulted in corrupt files. An improvement has therefore been introduced (TRIM deactivation) to reduce the risk of corrupt files.

Corrupt files can result in the following behavior after switching on:

- In some cases, the XM42 control no longer responds after switching on, the LEDs DIA3 and DIA4 light up permanently red and the ON LED on the power connector plug XD1 lights up green.
- Loss of project files (e.g. configuration, parameters or PLC boot project)

For production dates before CW12/2024, see XM42 type plate (FD: 24W12), the firmware of the internal XM42 mSATA memory should also be updated to version S23C22 and, if necessary, the basic firmware should be updated to version 02V05.

An automatic update package with both measures, including instructions, is available via the following link:

https://www.boschrexroth.com/de/de/search.html?q=XM42_AutomaticUpdate&lang=DE&origin=header&num=10&s=download

5 IndraLogic XLC/IndraMotion MLC 14V22 Patch 18 firmware and software

5.1 Firmware

5.1.1 Resolved defects

MLC Firmware / Axis

Automatic IP address assignment by the MLC not unique for double-axis devices

CQ-ID: Defdb00212075

Severity: K3 - malfunction (no workaround)

Description: For double-axis devices, there is only one IP address per device. It is not clear which of the two drive addresses is assigned to the double-axis device as the IP address by the MLC.

MLC Firmware / Import Export

C-0-0509 is missing in the list of operating data to be backed up

CQ-ID: Defdb00211742

Severity: K3 - malfunction (no workaround)

Description: C-0-0509 is not included in the list of parameters required for restoring.

MLC Firmware / Logic

CPU load increases with each PLC cleanup and logon until the watchdog is reached

CQ-ID: Defdb00211647

Severity: K4 - malfunction

Description: The error only occurs in conjunction with a configured safety module. Each time an IEC program is downloaded, memory is allocated for the safety module, which is set as "not cacheable".

This memory remains "not cacheable" with each further download, but is made available as general memory.

Fixing: When releasing the allocated safety module memory (when unloading the program), the released memory is also reset to the default value "cacheable".

6 IndraLogic XLC/IndraMotion MLC 14V22 Patch 17 firmware and software

6.1 Software

6.1.1 Resolved defects

IndraWorks ML / Engineering / Drive

Column width IDN cannot be changed in the "Invalid parameters" dialog

CQ-ID: Defdb00211750

Severity: K2 - serious malfunction

Description: In the "Invalid parameters" dialog, the IDN was not completely visible and the column width could not be changed.

IndraWorks ML / Engineering / GAT

GAT Decentral: Method mMotionCyclic is executed even if the unit is disabled

CQ-ID: Defdb00211197

Severity: K3 - malfunction (no workaround)

Description: The method mMotionCyclic was executed even if the unit was disabled.

IndraWorks ML / Engineering / HMI

WinStudio: Error "Couldn't open file!" when archiving & unpacking recorded trend data

CQ-ID: Defdb00211757

Severity: K2 - serious malfunction

Description: When using a trend object, an error message was sporadically reported when displaying historical data.

WinStudio: Multitouch gestures do not work

CQ-ID: Defdb00211754

Severity: K2 - serious malfunction

Description: When wanting to use the multitouch function, only the “outer" function seemed to work.

If you set multitouch to “internal" function, it was not possible anymore to scroll or zoom in the screen.

WinStudio: Access to indexed driver sheet variables does not work via OPC UA

CQ-ID: Defdb00210822

Severity: K3 - malfunction (no workaround)

Description: The indexed access to WinStudio driver sheet variables does not work correctly via OPC UA. The starting value was only read in once for indexed variables. There is no refresh anymore.

WinStudio: Database editor moved unintendedly when moving the mouse

CQ-ID: Defdb00210944

Severity: K3 - malfunction (no workaround)

Description: When renaming individual variables in the WinStudio variable editor, renaming was completed after refreshing all places of use in the project and by confirming a message. Subsequently, the list was incorrectly moved up and down by moving the mouse (without using the mouse wheel).

WinStudio: No status information in the header of the image script

CQ-ID: Defdb00210914

Severity: K3 - malfunction (no workaround)

Description: The assignment of the opened image scripts to the individual tabs was lost when the available area of the tabs was no longer sufficient and the selection had to be made via the combo box.

WinStudio: User management

CQ-ID: Defdb00211532

Severity: K4 - malfunction

Description: The configuration of Winstudio user data in IndraWorks Engineering was not saved persistently in the project data. After reopening the configuration dialogs, the previously selected settings were lost.

IndraWorks ML / Engineering / Periphery

S20-PB-BK S20-AI4-RTD: Wire break message is missing

CQ-ID: Defdb00210699

Severity: K3 - malfunction (no workaround)

Description: For the module S20-AI4-RTD at the bus coupler S20-PB-BK, it was not possible to activate the wire break detection.

Scan dialog does not recognize CloseLoop package with MPx21V06

CQ-ID: Defdb00210835

Severity: K3 - malfunction (no workaround)

Description: For the drives with export restriction, scanning Sercos below the MLC did not detect that these drives support the ClosedLoop package.

IndraWorks ML / Engineering / PLC Libraries

RIH_IndraControl_S20: IH_S20CntIncType02: Limit Checking (Equal) is not working

CQ-ID: Defdb00211997

Severity: K3 - malfunction (no workaround)

Description: Limit Checking (Equal) does not work.

An error should be generated if SecondLimitValue is greater than Modulo Val. However, an error is generated if both values are equal.

Fixing: Comparision instruction has been changed such that, error shall generate only, when the SecondLimitValue is greater than Moduloval.

RIH_Indracontrol_S20: S20-PM-EF FB aborts with error 16#DF80B000 at S20-PB-BK

CQ-ID: Defdb00211664

Severity: K3 - malfunction (no workaround)

Description: The IH_S20PMEFType02 function block was aborted with error 16#DF80B000 if the S20-PM-EF module was connected to the S20-PB-BK bus coupler.

Fixing: The internal processing of function block IH_S20PMEFType02 has been optimized.

Additionally, 2 new function blocks IH_S20PBPDIRead and IH_S20PBPDIWrite have been added.

MB_MagicBeltType01: Outfeed position is overtraveled in special case after "START_AT_LAST_STEP" without unload handshake

CQ-ID: Defdb00211496

Severity: K4 - malfunction

Description: The MB_MagicBeltType01 function module sets the "TrainReadyToUnload = TRUE" output for one cycle and then proceeds to move the axis immediately without unloading handshake if the function module was interrupted in the following special case and is started with "START_AT_LAST_STEP".

1. Interruption e.g. by STOP_IMMEDIATE or error in state " AUTO_OUTFEED_TRAIN_RDY ". For this interruption, the input is set accordingly: UnloadingTrain = TRUE

2. The application program sets the input UnloadingTrain = FALSE

3. The application program clears errors at the function block (e.g. by Enable = FALSE)

4. The application program starts the function block by Enable = TRUE with the start option "START_AT_LAST_STEP"

5. The next time the outfeed position is reached, the chain axis moves on immediately and does not perform an unload handshake

VPx: NVRAMDataHandler: Startup loop if MLC_NVRAM.bak does not match the boot project

CQ-ID: Defdb00211546

Severity: K4 - malfunction

Description: During startup of the control, a startup loop occurred if the diagnostic file already contained the errors F00C0005/F00C0006 and the library ML_NVRAMHandler was in the project.

IndraWorks ML / Installation

IW setup: Sentinel driver for WinStudio dongle outdated and not accepted by Windows 10

CQ-ID: Defdb00211472

Severity: K4 - malfunction

Description: On newer Windows 10 versions, the dongle driver could not be installed.

Fixing: The dongle driver has been updated to version 7.6.1.

IndraWorks MTX / Engineering / _Other

IndraWorks Engineering in projects with many PLC symbol variables are not functional for minutes following PLC changes

CQ-ID: Defdb00211979

Severity: K3 - malfunction (no workaround)

Description: Until now, when accessing a PLC element, the associated symbol information was always queried as well, even for elements where the symbol information was not required. This resulted in significant delays in IndraWorks Engineering for a large number of PLC symbol variables.

PROFINET I/O controller: Import of PROFINET modules does not work correctly

CQ-ID: Defdb00211953

Severity: K3 - malfunction (no workaround)

Description: A PROFINET configuration with one device 56526_Cube67+_KFG_x_26 was created and exported.

The device was deleted and the export file was imported.

A module configuration was lost in the process.

Fixing: The module that cannot be imported has subelements. These sub-elements are now taken into account during import.

IndraWorks MTX / Engineering / Periphery

IndraWorks Engineering: Incomplete import of a ProfiNet slave device

CQ-ID: Defdb00211279

Severity: K3 - malfunction (no workaround)

Description: When importing a ProfiNet slave device, not all settings were applied. In the I/O image, e.g. the variable declaration, the addresses and the "mapping" were not applied. Reason: for slaves containing direct I/O points, the I/O mapping was not imported.

Winstudio / Engineering

WinStudio, TCP/IP client/server communication: Centralized and decentralized HMIs show different status values

CQ-ID: Defdb00210332

Severity: K3 - malfunction (no workaround)

Description: It is a sporadic TCP/IP communication problem. Different values are shown in the centralized and decentralized HMIs. After restarting the application on the decentralized devices, the values are visualized correctly again.

WinStudio: Screen changes and functions are sometimes delayed

CQ-ID: Defdb00211656

Severity: K3 - malfunction (no workaround)

Description: When switching between individual Winstudio images, functions in image scripts were called with a delay. In addition, the image buildup was delayed.

6.2 Firmware

6.2.1 Resolved defects

MLC Firmware / Axis

Axis error F4037 during synchronization with SyncPhase

CQ-ID: Defdb00211739

Severity: K3 - malfunction (no workaround)

Description: If a GearInPos was commanded on an axis with an active brake that was still active at the time of commanding, a position jump could occur after the brake was released.

MLC Firmware / PROFINET IO

PROFINET I/O controller: Acyclic communication fails when fragmenting the telegram

CQ-ID: Defdb00210732

Severity: K4 - malfunction

Description: If the telegram length exceeds the maximum size during acyclic PROFINET communication, the telegram has to be fragmented. Fragmenting was realized incorrectly in the driver and the corresponding service failed.

MLC Firmware / Sercos

After receiving UDP packets for a longer time, receiving packets is suddenly not possible anymore.

CQ-ID: Defdb00209522

Severity: K2 - serious malfunction

Description: If a PLC task with a higher priority than the network task "tNet0" received asynchronous UDP telegrams on an XM2, the network buffer of the Ethernet interface was sporadically not released.

If all network buffers of an Ethernet interface were occupied, no data could be received via this Ethernet interface anymore.

Fixing: Accesses to a counter variable in the network stack were changed to atomic operations.

In a multicore environment, this has already been changed so that CML75, CML85, XM42, PR41 were not affected.

6.2.2 Functional enhancements

MLC Firmware / _Other

Shutting down the XM42 can cause damage to partitions

CQ-ID: Defdb00211674

Severity: K2 - serious malfunction

Description: When shutting down the IndraControl XM 42 control, the file system was operated in an unsafe state for a short time, which could result in damage to partitions.

Enhancement: To prevent possible damage to the file system when shutting down an IndraControl XM 42 control, the internal data carrier is switched to a safe state beforehand.

In addition, a new initial firmware is created for this control and is provided to customers shortly. If you have any questions, please refer to your contact person at Bosch Rexroth.

MLC Firmware / Logic

Unexpectedly high time required for SysTimeRtcSet with XM2

CQ-ID: Defdb00210715

Severity: K2 - serious malfunction

Description: Accessing blocks on the I2C took considerably longer with XM2 compared to other controllers, e.g. CML65.

This was due to the fact that accesses were realized via a basic access mechanism in which the CPU had to control many substeps itself. Wait situations were solved via a 1 ms tick, even if the wait situation was usually over after about 100 µs.

Accesses to the RealTimeClock module, a temperature sensor, the type plate information, the status LEDs and the operating hours counter were affected.

Enhancement: The accesses have been switched to a "buffer mode", which significantly reduces the number of wait situations.

6.3 Documentation

6.3.1 Resolved defects

IndraWorks ML / Engineering / PLC Libraries

MB_TouchProbeContinous and MB_TouchProbe return undocumented error

CQ-ID: Defdb00210217

Severity: K2 - serious malfunction

Description: The MB_TouchProbeContinous and MB_TouchProbe function blocks return the undocumented error code 16#407.

Fixing: Error code 16#407 with the additional error code 16#0001 "command touch probe cycle (S-0-0170) was not started".

7 IndraLogic XLC/IndraMotion MLC 14V22 Patch 16 firmware and software

7.1 Firmware

7.1.1 Resolved defects

MLC Firmware / Motion Functions

Switching the FlexProfile at target acceleration <> 0 generates jump

CQ-ID: Defdb00211476

Severity: K2 - serious malfunction

Description: Switching between two flex profiles took place with the synchronization mode "SYNC_DIRECT" while the target acceleration was not 0 (e.g. during a deceleration phase).

In the selected mode, a jump occurred in the target acceleration.

Fixing: The jump does not occur anymore in the target acceleration for the "SYNC_DIRECT" synchronization mode in the scenario described.

MLC Firmware / Sercos

After receiving UDP packets for a longer time, receiving packets is suddenly not possible anymore.

CQ-ID: Defdb00209522

Severity: K2 - serious malfunction

Description: If a PLC task with a higher priority than the network task "tNet0" received asynchronous UDP telegrams on an XM2, the network buffer of the Ethernet interface was sporadically not released.

If all network buffers of an Ethernet interface were occupied, no data could be received via this Ethernet interface anymore.

Fixing: Accesses to a counter variable in the network stack were changed to atomic operations.

In a multicore environment, this has already been changed so that CML75, CML85, XM42, PR41 were not affected.

7.1.2 Functional enhancements

MLC Firmware / _Other

Shutdown of the XM42 can lead to damage of partitions

CQ-ID: Defdb00211674

Severity: K2 - serious malfunction

Description: When switching off the IndraControl XM 42 control, the file system was operated in an unsafe state for a short time, which could lead to damage of the partitions.

Enhancement: To prevent possible damage of the file system when switching off an IndraControl XM 42 control, the internal data carrier is switched to a safe state first.

In addition, a new initial firmware will be created for this control, which will be made available to customers very soon. If you have any questions, please contact the Bosch Rexroth customer service department.

MLC Firmware / Logic

Unexpectedly high time required for SysTimeRtcSet with XM2

CQ-ID: Defdb00210715

Severity: K2 - serious malfunction

Description: Accessing blocks on the I2C took considerably longer with XM2 compared to other controllers, e.g. CML65.

This was due to the fact that accesses were realized via a basic access mechanism in which the CPU had to control many substeps itself. Wait situations were solved via a 1 ms tick, even if the wait situation was usually over after about 100µs.

Accesses to the RealTimeClock module, a temperature sensor, the type plate information, the status LEDs and the operating hours counter were affected.

Enhancement: The accesses have been switched to a "buffer mode", which significantly reduces the number of wait situations.

8 IndraLogic XLC/IndraMotion MLC 14V22 Patch 15 firmware and software

8.1 Firmware

8.1.1 Resolved defects

MLC Firmware / PROFINET IO

PROFINET I/O controller: Acyclic communication fails when fragmenting the telegram

CQ-ID: Defdb00210732

Severity: K4 - malfunction

Description: If the telegram length exceeds the maximum size during acyclic PROFINET communication, the telegram has to be fragmented. Fragmenting was realized incorrectly in the driver and the corresponding service failed.

MLC Firmware / Sercos

Loss of power at an axis during Sercos topology change

CQ-ID: Defdb00211416

Severity: K3 - malfunction (no workaround)

Description: During a Sercos topology change from ring to line or line to ring, Motion actively disables the power of an axis in parameter S-0-0134.

9 IndraLogic XLC/IndraMotion MLC 14V22 Patch 14 firmware and software

9.1 Firmware

9.1.1 Resolved defects

MLC Firmware / Axis

SysError page fault at startup with C2C

CQ-ID: Defdb00211003

Severity: K3 - malfunction (no workaround)

Description: If axes with an address greater than 64 are used on a C2C link control, a SysError could sporadically occur when switching the control on.

MLC Firmware / Motion Functions

Switching FlexProfiles at a command velocity of <> 0

CQ-ID: Defdb00211227

Severity: K3 - malfunction (no workaround)

Description: When switching between two FlexProfiles at a transition velocity unequal to 0, a jump in the interpolated acceleration can occur in a cycle.

Fixing: No jump occurs in the acceleration in case of the described transition.

10 IndraLogic XLC/IndraMotion MLC 14V22 Patch 13 firmware and software

10.1 Software

10.1.1 Resolved defects

IndraWorks ML / Engineering / HMI

WinStudio: In the application, ActiveX control elements do not work anymore

CQ-ID: Defdb00210489

Severity: K2 - serious malfunction

Description: Some ActiveX control element were not displayed in WinStudio.

WinStudio is not closed properly when shutting down via UPS

CQ-ID: Defdb00210424

Severity: K3 - malfunction (no workaround)

Description: If a UPS module closed a WinStudio application, the method Graphics_on_End() was not run through. Thus, own commands were not executed when closing the application.

WinStudio: Database problem when refreshing the variables in the editor

CQ-ID: Defdb00210913

Severity: K3 - malfunction (no workaround)

Description: If new variables are created when the database editor is opened, these variables were not immediately visible in the database editor. The variables were only displayed after closing and reopening the editor.

WinStudio: Computer inoperable after using “Search/Replace”

CQ-ID: Defdb00210963

Severity: K2 - serious malfunction

Description: When opening the project properties in WinStudio standalone and when subsequently opening the “Search/Replace” dialog, several error messages are reported.

WinStudio: Display problem when moving trend objects

CQ-ID: Defdb00210974

Severity: K3 - malfunction (no workaround)

Description: When moving a trend object in a WinStudio image, the object was not displayed correctly. Consequently, aligning the object was difficult. Redrawing and the correct representation were only triggered at the end of moving the object.

WinStudio: Display problem with regard to the line number in the script editor (object properties)

CQ-ID: Defdb00210912

Severity: K3 - malfunction (no workaround)

Description: A refresh problem occurred in the object property dialog if the scroll bar was moved to the left or right too quickly. The column containing the line number was not displayed correctly

WinStudio: Error when creating variables after importing screen objects for example

CQ-ID: Defdb00210973

Severity: K3 - malfunction (no workaround)

Description: If WinStudio screen objects were copied from a second project and they contained variables that did not exist in the inserted project, the user was requested to create these variables. An error message occurred and the variables were not created correctly.

WinStudio: Trend control object - application freezes

CQ-ID: Defdb00210404

Severity: K3 - malfunction (no workaround)

Description: In case of an increased display period (e.g. 100 h), the graphic display was sporadically not refreshed completed. I.e., data was missing in the trend display. Additionally, the application performance was very slow or the application stopped responding.

WinStudio: The data type changes to the previous value after the input

CQ-ID: Defdb00210911

Severity: K4 - malfunction

Description: When changing a variable tag in the WinStudio database editor, this tag was reset to the old value when confirming with ENTER. Only after closing the editor and reopening it, the changed data type was applied.

WinStudio: Variable editor view is not refreshed

CQ-ID: Defdb00210943

Severity: K4 - malfunction

Description: If individual entries (variables) were deleted from the WinStudio variable editor, the editor is only refreshed correctly after the variable editor was opened again.

IndraWorks ML / Engineering / Periphery

S20-PB-BK S20-AI4-RTD: Wire break message is missing

CQ-ID: Defdb00210699

Severity: K3 - malfunction (no workaround)

Description: For S20-AI4-RTD at the S20-PB-BK it was not possible to enable the wire break detection.

IndraWorks ML / Engineering / PLC Programming

Error when importing certain Profinet devices

CQ-ID: Defdb00210783

Severity: K3 - malfunction (no workaround)

Description: If the Profinet device was exported from a project and a module of this device was changed and tried to restore its initial state using the import, a warning was issued and the module did not return to the initial state.

No message was issued when updating via VCS (Version Control System) even though the process failed.

IndraWorks ML / Engineering / PLC Safety

SafeLogic: Import with overwriting does not work

CQ-ID: Defdb00210763

Severity: K3 - malfunction (no workaround)

Description: A project created with IndraWorks 14V16 was changed to a "later" version state (e.g. 14V22 Patch 9). The logic I/Os of the I/O modules of the Safe Logic (SL) were then backed up to a file via export.

Changes applied to an I/O module could not be undone by an import with overwriting. The initial settings can only be inserted if the module was deleted from the project before the import.

Winstudio / Engineering

OPC UA communication problem

CQ-ID: Defdb00210333

Severity: K3 - malfunction (no workaround)

Description: After some time, the OPC UA communication between MLC and the HMI devices did not work anymore.

10.1.2 Known issues

IndraWorks ML / Engineering / PLC Safety

Fatal exception when calling the S7-fail-safe configuration tool

CQ-ID: Defdb00210378

Severity: K3 - malfunction (no workaround)

Description: An ET200SP station with F-modules is connected to the MLC via Profinet.

During the F_iPar_CRC calculation via the S7-fail-safe configuration tool, an exception occurs.

IndraWorks ML / Engineering / HMI

WinStudio: Database editor moved unintendedly when moving the mouse

CQ-ID: Defdb00210944

Severity: K3 - malfunction (no workaround)

Description: When renaming individual variables in the WinStudio variable editor, renaming was completed after refreshing all places of use in the project and by confirming a message. Subsequently, the list was incorrectly moved up and down by moving the mouse (without using the mouse wheel).

10.2 Documentation

10.2.1 Resolved defects

MLC Documentation

Working with VCS: The message "The working copy is up-to-date" is incorrect when using library elements

CQ-ID: Defdb00210790

Severity: K4 - malfunction

Description: When working with VCS, the message "The working copy is up-to-date" is shown even though changes were made to the library project.

This malfunction is caused due to an incorrectly created server path, as the subdirectories of the repository were directly specified in the server path.

Fixing: The chapter "VCS-003 - The message "The working copy is up-to-date" is incorrect when using library elements" was supplemented in the documentation "IndraWorks 14VRS Engineering" (DOK-IWORKS-ENGINEE*V14-APRS-EN-P).

IndraWorks ML / Engineering / PLC Libraries

MB_TouchProbeContinous and MB_TouchProbe return undocumented error

CQ-ID: Defdb00210217

Severity: K2 - serious malfunction

Description: The MB_TouchProbeContinous and MB_TouchProbe function blocks returned the undocumented error code 16#407.

11 IndraLogic XLC/IndraMotion MLC 14V22 Patch 12 firmware and software

11.1 Firmware

11.1.1 XM42 / Other

IndraControl XM42 does not boot anymore due to a corrupt file system

CQ-ID: Defdb00210917

Severity: K2 - serious malfunction

Description: Sporadically, the file system of the control can be damages when switching the control off.

Consequence:

- XM42 does not boot anymore.

- The LED displays DIA3 and DIA4 constantly light up red.

- The control has to be replaces and has to be repaired by out service department.

With this bug fix, the file system is protected when switching off and to prevent such damage.

12 IndraLogic XLC/IndraMotion MLC 14V22 Patch 10 firmware and software

12.1 Software

12.1.1 Resolved defects

IndraWorks ML / Engineering / _Other

IW14V22: OPC UA end points cannot be enabled/disabled individually

CQ-ID: Defdb00209211

Severity: K3 - malfunction (no workaround)

Description: The OPC UA end points could not be configured, enabled or disabled individually.

IndraWorks ML / Engineering / Periphery

S20-PB-BK S20-AI4-RTD: Wire break message is missing

CQ-ID: Defdb00210699

Severity: K3 - malfunction (no workaround)

Description: For S20-AI4-RTD at the S20-PB-BK it is not possible to enable the wire break detection.

12.1.2 Known issues

IndraWorks ML / Engineering / Periphery

Scan dialog does not recognize CloseLoop package with MPx21V06

CQ-ID: Defdb00210835

Severity: K3 - malfunction (no workaround)

Description: For the drives with export restriction, scanning Sercos below MLC did not detect that these drives support the ClosedLoop package.

12.1.3 Functional enhancements

Engineering / PLC Libraries

ML_TechMotionBase

CQ-ID: Defdb00210217

Description: The function block MB_DigitalCamSwitchOvs_Type02 has been added to the ML_TechMotionBase library (version 14.22.39.0).

The difference to the MC_DigitalCamSwitchOvs function block is that this new function block allows oversampling rates up to 512 . The associated documentation is available in the library manager.

12.2 Firmware

12.2.1 Resolved defects

_Other

Security: Wind River VxWorks 20210319 safety warning for CVE-2020-35198

CQ-ID: Defdb00210389

Severity: K3 - malfunction (no workaround)

Description: A problem was detected in Wind River VxWorks which can endanger the online security of the Bosch Rexroth control system. This vulnerability with the ID CVE-2020-35198 (Common Enumeration of Vulnerabilities, https://www.cve.org) is also referred to as "BadAlloc" vulnerability.

The calloc() function to request RAM can sporadically have an integer overflow when computing the memory block size. Consequently, the actually assigned memory is smaller than the buffer size specified in the arguments. This results in a damaged memory and in a "Heap overflow" attack.

MLC Firmware / _Other

EIS_WS: The browser cannot establish a connection to the web server

CQ-ID: Defdb00210379

Severity: K3 - malfunction (no workaround)

Description: Entries in the connection management table of the web server are sporadically not released properly when closing a session. This might result in a table overflow. Other connections are then not possible anymore.

MLC Firmware / Sercos

Interferences on the PCI Express Bus cause incorrect periphery accesses

CQ-ID: Defdb00209631

Severity: K2 - serious malfunction

Description: Interferences on the PCI Express Bus of the XM and VPB40.4 controls impair the communication between the control and the connected extension modules. Sporadically, this resulted in the modules XFE01.1-FB-01 and XFE01.1-SY-01 in the XM controls and the extension modules PFC01.1.FB01 and PFC01.1-SY-01 in the VPB40 not being detected anymore during booting of the control. Moreover, the error F5180006 can occur during runtime on the IndraMotion MLC VPB 40.4 target device.

Fixing: Debugging is executed in the FPGA of the relevant interface connection. These files are updated to the hardware during the MLC firmware download. Subsequently, execute a power cycle on the IndraMotion MLC VPB 40.4 target device.

The SafeLogic HW variants XFE01.1-SY-01 and PFC01.1-SY-01 use the FPGA version 0x021D. The SafeLogic HW variant CFL01.1-F1 is not affected, the FPGA version remains 0x0217 here.

12.3 Documentation

12.3.1 Resolved defects

IndraWorks ML / Engineering / PLC Libraries

MB_TouchProbeContinous returns undocumented error

CQ-ID: Defdb00210217

Severity: K2 - serious malfunction

Description: The MB_TouchProbeContinous and MB_TouchProbe function blocks return the undocumented error code 16#407

Fixing: Error code 16#407 with the additional error code 16#0001 "command touch probe cycle (S-0-0170) was not started".

13 IndraLogic XLC/IndraMotion MLC 14V22 Patch 09 firmware and software

13.1 Software

13.1.1 Resolved defects

IndraWorks Ds / Parameter Handling

Motor dialog: Encoder memory field always shows motor of axis 1

CQ-ID: Defdb00202290

Description: If a motor with feedback retain memory was connected to a double axis drive MPM20, the motor type was displayed in the encoder memory of the first axis in the motor dialog of the second axis.

13.2 Firmware

13.2.1 Resolved defects

MLC Firmware / _Other

IndraControl XM42 does not boot anymore due to a corrupt file system

CQ-ID: Defdb00209678

Description: The IndraControl XM42 control does not boot anymore due to corrupt sectors in the boot partition of the internal data carrier. The LEDs DIA3 and DIA4 diagnostics constantly light up red.

Clearance of the data carrier by the user was not possible. The control did not start up after each restart. The Bosch Rexroth Service had to repair the IndraControl XM42.

14 IndraLogic XLC/IndraMotion MLC 14V22 Patch 08 firmware and software

14.1 Software

14.1.1 Resolved defects

IndraWorks ML / _Other

Parameter import does not work

CQ-ID: Defdb00209079

Description: The values of MLC string parameters or of one of their axes or drives backed up in the parameter group cannot be loaded successfully anymore.

IndraWorks ML / Engineering / _Other

IndraWorks Engineering can be closed during saving process

CQ-ID: Defdb00208607

Description: Closing/exiting IndraWorks Engineering during a saving process results in the process not being completed. Consequently, all changes made to the project will be lost.

IndraWorks ML / Engineering / CamBuilder

FlexProfile: FlexStep settings are changed during saving

CQ-ID: Defdb00206063

Description: Motion steps with StepType "FlexStep with absolute slave axis position and absolute master axis position” are not saved correctly.

IndraWorks ML / Engineering / Drive

Loading the basic parameters is not possible if SMO is active in the drive

CQ-ID: Defdb00208218

Description: Loading of the basic parameters of a real axis failed if Safety Engineering was active in the drive.

Fixing: The Safety Engineering parameters are not reset during loading of basic parameters

IndraWorks ML / Engineering / HMI

Communication setup with non-existing DNS server takes a very long time (VR21)

CQ-ID: Defdb00209284

Description: If a DNS server is configured on the VR21 which does not exist or which cannot be contacted during runtime, establishing a connection from the OPC UA communication to VR21 devices can take up to 20 minutes.

WinStudio scripting function "Format("%0.5f"...)" returns two leading zeros in case of values between 0 and 1

CQ-ID: Defdb00207991

Description: If in the WinStudio function “Format()”, the third parameter is specified for definition of the decimal separator, the formatted string starts with two zeros in case of values between 0 and 1.

WinStudio, OPC UA: Variables are not updated

CQ-ID: Defdb00209524

Description: WinStudio variables are sporadically not updated anymore after enabling a previously disabled OPC UA driver sheet.

WinStudio: Ambiguous warnings HMI-00001000 Unable to load file

CQ-ID: Defdb00207929

Description: If there invalid files in the WinStudio project directory, the “Verify application” function reports the invalid data without displaying the name of the incorrect file.

WinStudio: Delayed, very slow start of WinStudio application from 14V22 P5 and P6

CQ-ID: Defdb00209283

Description: When switching the VR device on with IndraWorks 14V22 P5 and P6, it takes unexpectedly long until the WinStudio application is started.

WinStudio: Opening of variable editor is slow when logged in into IndraLogic

CQ-ID: Defdb00209540

Description: When logged in into IndraLogic in IndraWorks Engineering, opening the WinStudio variable editor sporadically takes longer than 1 minute.

WinStudio: The indexed access to OPC UA driver sheets does not work

CQ-ID: Defdb00209240

Description: If a variable (syntax: “{variable}") is contained in an OPC UA driver sheet in an OPC UA item to dynamically generate the item during runtime, the item is not updated.

Example: ns=2;s=Application.GVL_HMI.GV_sHMI.sPrintStation_{iPrintStationNumber}.sRSU.bHeartBeat

IndraWorks ML / Engineering / Motion

IndraWorks exception when simultaneously the Sercos address and the logic axis numbers are changed in the double axis

CQ-ID: Defdb00208754

Description: If the Sercos address and the logic axis number are changed in a double-axis device, an exception can occur if the drive name and the axis name are longer.

IndraWorks ML / Engineering / PLC Libraries

GetPlcVariableType returns an incorrect data type in ENUM

CQ-ID: Defdb00209806

Description: The return value for 1-byte enumeration types is now TYPE_BYTE instead of TYPE_BOOL.

OPC UA client: GetPlcVariableType does not work correctly for enumerations

CQ-ID: Defdb00209855

Description: The return value for 4-byte enumeration types is now TYPE_DWORD instead of TYPE_DINT.

The TYPE_WORD value is returned for 2-byte data sizes instead of TYPE_ENUM.

IndraWorks ML / Engineering / PLC Programming

IndraLogic: The ladder diagram editor sporadically causes IndraWorks exceptions during editing

CQ-ID: Defdb00209005

Description: When editing PLC programs using the ladder diagram (LD), unexpected exceptions and “Assertion failed” error messages.

IndraWorks Engineering: "SystemOutOfMemory” error after multiple PLC project comparison

CQ-ID: Defdb00209219

Description: If a PLC project comparison is executed repeatedly, the error "SystemOutOfMemory” occurred or IndraWorks froze as the RAM was out of memory.

IndraWorks MTX / Engineering / PLC Programming

IndraWorks Engineering, PLC project comparison: Exception after calling the online comparison

CQ-ID: Defdb00205731

Description: When executing the online comparison directly after a PLC program download or an online change in IndraWorks Engineering, an exception is generated when the download of the files required for the comparison has not yet been completed. In particular, this can occur in case of large PLC programs and a high control capacity utilization.

Fixing: After calling the online comparison, the execution is only started if all required data has been loaded to the control. This is displayed in the IndraWorks Engineering status line by the “Transfer of OnlineData completed” text.

14.2 Firmware

14.2.1 Resolved defects

MLC Firmware / _Other

CAN tasks suppress all other tasks, this results e.g. in “F5180005 MOK cycle time exceeded”

CQ-ID: Defdb00208897

Description: The priority of the MCAN task is changed from 0 to 55 to prevent interruption of the Motion kernel.

XM: Drive system time is not set correctly

CQ-ID: Defdb00208226

Description: If the drives are reset in state BB, e.g. automatically when setting the MLC system time, the system time in the drive is subsequently reset to a date in 1970.

MLC Firmware / Core

Error "F3450 CSS Stack error during overload" due to CSAL task with a low priority

CQ-ID: Defdb00209048

Description: The error "F3450 CSS Stack error during overload" occurs if a PLC task runs for a longer time, e.g. 800 ms and the if the time slot is very short for background tasks.

Fixing: The priority of the CSAL task was increased.

Note for use: The numerical value of the priority in the task configuration of task running for a longer time has to be set to greater or equal to 17. Thus, the SioRouter task and the CSAL task can interrupt the PLC task which runs for a longer time.

MLC Firmware / OPC UA

Number of OPC UA items too small

CQ-ID: Defdb00209940

Description: Number of OPC UA MonitoredItems per subscription was limited to 2000. This number was increased to 10 000.

MLC Firmware / Sercos

S20_I_O - Bus synchronization error

CQ-ID: Defdb00209952

Description: If no Sercos slaves are connected to the control and if the S20_I_O is set to cycle-synchronous Serocs, errors occur at S20_I_O when switching to BB. S20_I_O cannot be operated cycle-synchronously to Sercos.

Sercos C2C module at XM4 results in "F80B0017 Failure consumer connection" and other inexplicable errors

CQ-ID: Defdb00209246

Description: In case of an XM4 with enabled C2C module, 85 real axes and a cycle time of 2 ms, the error "F80B0017 Failure consumer connection" occurs when reaching BB.

Fixing: By using the newly implemented parameters C-0-0508 and C-0-509, the Sercos timing has to be adjusted to the system configuration.

Unable to receive UDP packages via the XF1/XF2 port

CQ-ID: Defdb00209408

Description: Due to an incorrect MAC address, receiving of UDP packages via XF1/XF2 ports is not possible.

14.2.2 Functional enhancements

MLC Firmware / Core

The backup mechanism of the nvRAM can result in a corrupt file system of the OEM partition in case of PowerOff of a machine.

CQ-ID: Defdb00209771

Description: When switching from Sercos phase P4 to P0, the nvRAM is backed up in the "MLC_NVRAM.bak" file.

A typical machine shutdown takes places by a PowerOff of drives and control in P4. This means, the Sercos bus is interrupted which also results in switching from P4 to P0.

Writing of the "MLC_NVRAM.bak" file is started and executed until the voltage supply of the control is cut off due to a PowerOff.

Worst case scenario: a corrupt file system on the OEM partition due to an interrupted write process.

Enhancement: The "MLC_NVRAM.bak" is not written anymore when switching from P4 to P0.

MLC Firmware / _Other

Executing when starting the control and during CLEANUP check of the file system of the OEM partition

CQ-ID: Defdb00209424

Description: Errors can occur on the file system for example if writing on files has not yet been completed when shutting down the control.

The USER partition is checked for errors upon each startup and corrected if required. This is not the case for the OEM partition. The OEM partition can also not be checked if there is an official software, e.g. IndraWorks.

Enhancement: The check (and correction if required) of the OEM partition can only be enabled upon control startup via the parameter C-0-0036 (bit 11).

Note: An additional check can increase the time required for the control start-up (depending on the number of files and the folder and a possible trouble-shooting)

The OEM partition is now also additionally checked during control CLEANUP.

15 IndraLogic XLC/IndraMotion MLC 14V22 Patch 06 firmware and software

15.1 Software

15.1.1 Resolved defects

Engineering / HMI

WinStudio OPC-UA variables are not updated after longer runtime

CQ-ID: Defdb00208108

Severity: K2 - serious malfunction

Description: With a WinStudio application running in continuous operation it may happen that after several days individual OPC-UA variables are not updated anymore and the old value is displayed.

Engineering / HMI CE

WinStudio and LDAP: Empty user list after first call of the WinStudio login dialog

CQ-ID: Defdb00208763

Severity: K4 - malfunction

Description: Upon first call of the WinStudio login dialog the available user names are not listed, only an empty list is displayed.

Operation / _Other

Performance problem 14V22 Patch 5: Update of values in WinStudio screens requires much more time than with 14V22 P3.1

CQ-ID: Defdb00208861

Severity: K2 - serious malfunction

Description: The first time a WinStudio screen is displayed after updating from MTX 14V22 Patch 3.1 to MTX 14V22 Patch 5, it may take up to 15 seconds until current values are displayed in the image. Even if the screen is repeatedly open for viewing, it takes 5-8 seconds until the displayed values are updated.

WinStudio screens only show zeros in the decimal places

CQ-ID: Defdb00208814

Severity: K2 - serious malfunction

Description: In case of a display of values with decimal places in WinStudio screens the decimal places are always displayed as "0".

Operation / HMI

IndraControl VR: Start-up difficulties/boot problems

CQ-ID: Defdb00208764

Severity: K2 - serious malfunction

Description: On VR21 devices the star of the WinStudio application sporadically takes several minutes. In this case the operating process is very slow.

15.2 Firmware

15.2.1 Resolved defects

_Other

SafeLogic: Optimization of safe network variable

CQ-ID: Defdb00208908

Severity: K3 - malfunction (no workaround)

Description: Transmission is limited to 24 Ethernet channels (lists) on the standard control. If more than 24 Ethernet channels (lists) are assigned not all UDP telegrams may be sent simultaneously. For UDP telegrams that were not transmitted, the transmission takes place again in the next safety cycle. This results in longer transport time and causes the timeout value to increase.

Fixing: The sending has been optimized to avoid several sending errors in a row. Thus, the watchdog time for the safety network connection only needs to be increased by a few safety cycle times.

During startup safe network variables sporadically do not establish a connection

CQ-ID: Defdb00208605

Severity: K4 - malfunction

Description: When control starts up after PowerOn, sporadically not all safe network variable lists (SNVL) establish a connection. The affected function blocks "NetVarReceiver" display "DiagCode =16#C105". This is an availability problem. The more lists are used, the more probable the problem is to occur.

During startup sporadically not all CSos-devices establish a connection

CQ-ID: Defdb00208990

Severity: K4 - malfunction

Description: When control starts up after PowerOn, sporadically not all CSos-devices establish a connection. Die affected drives report error message F3450_CCS-Stack-error.

The problem may also occur with PROFIsafe-I/O and exchange variables between standard- and safety control. The problem potentially affects all logical I/O of SafeLogic.

16 IndraLogic XLC/IndraMotion MLC 14V22 Patch 05 Hotfix 6 firmware and software

16.1 Firmware

16.1.1 Resolved defects

_Other

During startup safe network variables sporadically do not establish a connection

CQ-ID: Defdb00208605

Severity: K4 - malfunction

Description: When control starts up after PowerOn sporadically not all safe network variable lists (SNVL) establish a connection. The affected function blocks "NetVarReceiver" reports "DiagCode =16#C105". This is an availability problem. The more list are used, the more probable the problem is going to occur.

SafeLogic: Optimization safe network variables

CQ-ID: Defdb00208908

Severity: K3 - malfunction (no workaround)

Description: Transmission is limited to 24 Ethernet channels (lists) in the standard control. If more than 24 Ethernet channels (lists) are occupied, not all UDP telegrams can be sent at the same time. UDP telegrams that have not been sent are resent in the next safety cycle. This leads to an extension of the transport time and causes the timeout value to increase.

Fixing: Sending has been optimized to avoid several sending errors in a row. Thus the watchdog time for the safety network connection only needs to be increased by a few safety cycle times.

During startup sporadically not all CSos devices establish the connection

CQ-ID: Defdb00208990

Severity: K4 - malfunction

Description: When the controller starts up after PowerON, sporadically not all CSos devices establish the communication/connection. The affected drives show the error message F3450_CCS stack error.

The problem can also occur with PROFIsafe I/Os and exchange variables between standard and safety control. It potentially affects all logical I/Os of the SafeLogic.

17 IndraLogic XLC/IndraMotion MLC 14V22 Patch 05 firmware and software

17.1 Software

17.1.1 Resolved defects

IndraWorks ML / _Other

If communication is lost IndraWorks does not respond after closing the device data explorer

CQ-ID: Defdb00208350

Severity: K2 - serious malfunction

Description: IndraWorks does not respond to any user input if IndraWorks was connected to control, the "Device Data Explorer" dialog box was opened and the connection to control outside IndraWorks was subsequently disconnected (pull connector, deactivate network adapter,...) and if the "Device Data Explorer" dialog box was closed when the connection was disconnected.

Automation Interface: After restarting IndraWorks, previously installed device is missing in the device repository

CQ-ID: Defdb00207100

Severity: K3 - malfunction (no workaround)

Description: If a new device was installed in the (global) IndraWorks device repository via the IndraWorks Automation Interface, previously installed device was unknown after a restart of IndraWorks.

IndraWorks ML / Engineering / _Other

"IndraWorks Ds here" does not open the latest Indraworks Ds installation

CQ-ID: Defdb00207475

Severity: K3 - malfunction (no workaround)

Description: For drives that are designed as PLC devices, "Indraworks Ds here" did not open the most recent Indraworks Ds installation on the computer.

Download drive firmware: "Phase switching of Sercos buses to P2 failed"

CQ-ID: Defdb00203972

Severity: K3 - malfunction (no workaround)

Description: Firmware download to devices on Sercos ring of the MLC control failed with a time out error "Phase switching of Sercos buses to P2 failed", if too many devices are connected.

IndraWorks communication error #0x1cc to XM21 via micro-USB after PC energy saving mode

CQ-ID: Defdb00207761

Severity: K3 - malfunction (no workaround)

Description: If the PC with IndraWorks switches to energy saving mode if IndraWorks was logged into the PLC and the PC is then restarted from energy saving mode, the connection between IndraWorks and the device (control) is interrupted and IndraWorks is logged out of the PLC. If this issue had been indicated by

a dialog this dialog sporadically was located on the screen behind the IndraWorks software. IndraWorks did not react to a mouse click as long as the dialog was displayed in the background. This behavior suggested that IndraWorks would not have reacted.

System.OutOfMemoryException after opening and closing the project several times

CQ-ID: Defdb00207340

Severity: K3 - malfunction (no workaround)

Description: After opening and closing several times the IndraWorks project the user memory is not cleared completely. The user memory grows to about 2.9 GByte. An exception error System.OutOfMemoryException occurs.

Parallel accesses for axis interface <-> kinematics interface

CQ-ID: Defdb00206130

Severity: K4 - malfunction

Description: By means of kinematic interfaces several axis are grouped. Via the axis interface one axis of this group is now commanded, e.g. in velocity control.

Incorrect behavior:

- In this status, the kinematic interface continues to acknowledge the selected operation mode.

- Switching the above mentioned axis back to "AB" and trying to group the axis again using the input arKinCtrl_gb[].Admin.RetriggerOpMode does not work. As a result some variables of the kinematic interface are changed cyclically.

Fixing: Bugfixing:

- In this status, the kinematic interface acknowledges as operating mode ModeExternalFb if a grouped axis is being commanded by other means or reports an error.

- Use arKinCtrl_gb[].Admin.RetriggerOpMode input to group the affected axis if the cause has been removed.

TCI: An incomplete TPF file is generated for the PROFIsafe I/Os from Weidmüller

CQ-ID: Defdb00207579

Severity: K4 - malfunction

Description: An incomplete TPF file is generated for the new device tool V2.0.0.3 from Weidmüller.

IndraWorks ML / Engineering / Drive Safety

Dialog for verifying P-0-3221.0.8 is missing

CQ-ID: Defdb00206607

Severity: K2 - serious malfunction

Description: The option for verifying parameter P-0-3221.0.8 (SMO: motor type) is missing.

Fixing: Parameter P-0-3221.0.8, SMO: To verify a motor type use SafeMotion "Mechanics" weighting dialog.

IndraWorks ML / Engineering / HMI

WinStudio: Remote agent 8.1 (CEServer.exe) results in error: Invalid directory in case of "Install system"

CQ-ID: Defdb00208348

Severity: K2 - serious malfunction

Description: After upgrading the Remote Agent to version 8.1, system files are not transmitted to a VR device anymore. Message "Invalid directory" is reported.

WinStudio_ComboBox behaves differently than in ZW14V16

CQ-ID: Defdb00205043

Severity: K2 - serious malfunction

Description: Combo boxes in WinStudio screens are constantly updated and thus cannot be operated anymore.

Winstudio exception error in "alarm" if the "section" column contains more than 7 characters

CQ-ID: Defdb00206820

Severity: K3 - malfunction (no workaround)

Description: When "Alarm" variables are used in a WinStudio screen with more than 7 characters in the "section" field, an exception error occurs at runtime.

WinStudio: Viewer runtime error "Invalid variable" when using linked symbols in VBscript

CQ-ID: Defdb00207633

Severity: K3 - malfunction (no workaround)

Description: If an array variable is used in a linked symbol, where the array index is itself a variable, the editor displays the message "Invalid variable".

Fixing: To make sure the bugfixing is effective the Winstudio function "application verify" has to be called.

CEServer is not compatible with CE6.0

CQ-ID: Defdb00207981

Severity: K4 - malfunction

Description: The remote agent cannot be executed on devices equipped with Windows CE 6.0.

WinStudio 14V22P3: Linked symbol with array variable does not work anymore

CQ-ID: Defdb00206750

Severity: K4 - malfunction

Description: If array variables are used in a linked symbol, where the array index is itself a variable, the respective value is not output.

IndraWorks ML / Engineering / MLC-H

MLC-H, S-0-0037 does not have effect on hydraulic controller axis

CQ-ID: Defdb00207905

Severity: K4 - malfunction

Description: If S-0-0037, velocity command value additive is overwritten to hydraulic controller axis via the parameter editor or with MB_WriteParameter, the written value has not effect.

IndraWorks ML / Engineering / Motion

IndraWorks does not react after connection to control is terminated

CQ-ID: Defdb00208257

Severity: K3 - malfunction (no workaround)

Description: If IndraWorks had been connected to control (motion and/or PLC) IndraWorks sporadically stopped responding to user input, such as mouse clicks, if the connection to control was interrupted.

IndraWorks ML / Engineering / PLC Libraries

Function block IH_DaliProgramShortAddress does not work properly

CQ-ID: Defdb00207357

Severity: K2 - serious malfunction

Description: When configuring the DALI bus with at least two multi-channel DALI ballasts an error occurs in the function block IH_DaliProgramShortAddress. After a framing error the addressing is aborted.

Fixing: The search algorithm is optimized, the framing error is intercepted. Addressing the DALI ballasts is faster now.

IL_StateVariableType01: IL_StateVariableType01: applying invalid input values after an edge change at Enable

CQ-ID: Defdb00205995

Severity: K3 - malfunction (no workaround)

Description: If an incorrect value is entered for TControl the function block reports an error. However, if the Enable input is toggled afterwards, no error is set and the incorrect value of TControl is used.

KNX: Valid flag is not reset if Enable switches to FALSE

CQ-ID: Defdb00208248

Severity: K3 - malfunction (no workaround)

Description: KNX: Valid flag at a DPT function block is not reset if the input Enable is set to FALSE.

KNX: WriteOnce does not work, if ActValue is equal to SetValue to DPT-FB with Threshold

CQ-ID: Defdb00208249

Severity: K3 - malfunction (no workaround)

Description: WriteOnce does not work, if ActValue is equal to SetValue to DPT-FB with Treshold. Even if Treshold is zero.

Fixing: SetValue can be overwritten with WriteOnce, if SetValue is equal to ActValue and greater than/equal to Threshold. To force to write a value the Threshold must be set to zero at WriteOnce.

MB_SmartBeltType01 pushes products on each other in case of negative correction

CQ-ID: Defdb00205815

Severity: K3 - malfunction (no workaround)

Description: Using the function block MB_SmartBeltType01 in case of negative correction may lead to products being pushed on each other instead of being pulled apart if certain parameters are set.

RIL_ModBusTCP: Overflow storage copy

CQ-ID: Defdb00207882

Severity: K3 - malfunction (no workaround)

Description: Affected function block: IL_ModBusTCPReadInputRegisters in RIL_ModBusTCP 14.22.32.1

Error:

The input quantity is the number of read words that are transmitted to the array or structure referenced by the DataAdr input pointer.

However, the function block writes twice the number of words created at input quantity into the data type referenced at DataAdress input pointer. If the data type referenced at DataAdress input pointer is less than twice the number of words as the words to be read at Quantity input, data is written beyond the defined memory space of the referenced data type and may thus overwrite subsequent data.

RMB_TechWinder/MB_DancerCalcControlParamType01: Incorrect output designation

CQ-ID: Defdb00207609

Severity: K5 - non critical problem

Description: The output TControl at the function block MB_DancerCalcControlParamType01 of the library RMB_TechWinder resp MX_TechWinder has a wrong designation. As D value is the component of a PID controller, the correct designation is DControl.

Fixing: Fixed in new Lib-Version RMB_TechWinder/MX_TechWinder 14.22.2.0

IndraWorks ML / Engineering / PLC Programming

During the IndraWorks instantiation the IndraLogic 2G option settings are reset to default

CQ-ID: Defdb00206062

Severity: K4 - malfunction

Description: When changing the IndraWorks or IndraLogic 2G default settings under “Tools/Options”, the settings are often reset to default.

Workaround: 1. IndraLogic 2G options are not all saved in the project but are part of the IndraWorks installation.

2. The modified IndraWorks options are only applied to the open IndraWorks irrespective of whether projects are closed or other projects are opened.

3. Already opened IndraWorks instances continue to work with their respective original or modified option settings.

4. Changed options are saved only when closing IndraWorks.

5. Important: If IndraWorks is used multiple times (parallely), the latest IndraWorks closed is the central file "IndraLogic.opt". The latest IndraWorks closed overwrites the previous settings made in other instances.

F0390002 exception GlobalInit to OnlineChange, PLC-STOP and ResetCold with compiler version 1 R1 and above

CQ-ID: Defdb00206955

Severity: K2 - serious malfunction

Description: An online change may cause an exception error when working on projects that have functional blocks with variables with direct address assignment, as for example BYTE AT %MB10000.

After the online change the variable is treated as local to the function block with the address offset defined by the address. Every write access to the variable (and also the initialization code) results in unexpected overwriting.

Project conversion CMLx5 to XM42 - Profinet controller is deleted with all devices

CQ-ID: Defdb00207889

Severity: K2 - serious malfunction

Description: During project conversion from CMLx5 to MX42 the Profinet controller node is deleted and with it all devices at the local port of the control. All device configurations and I/O declarations are lost.

PLCOpen import adds the GVL/POU to the "common function block" instead of to a folder below the PLC application

CQ-ID: Defdb00205921

Severity: K3 - malfunction (no workaround)

Description: When importing elements created on the basis of PLCopen, the contained elements are sporadically not inserted in the corresponding node in the IndraWorks project tree.

To "Add XLC/MLC control based on an IP" requires a PLC download

CQ-ID: Defdb00206651

Severity: K3 - malfunction (no workaround)

Description: Setting up a control via IP address does not work properly as a download is required when logging in. The setting works only if the data storage of control (OnlineData) is deleted.

IndraWorks ML / Engineering / PLC Safety

SafeLogic: Termination of connection for safe network variables

CQ-ID: Defdb00208326

Severity: K2 - serious malfunction

Description: Safe network variables constantly break the secure connection. Function block "NetVarReceiver” shows "DiagCodes =16#C105" or "DiagCodes = 16#C1FF".

IndraWorks ML / Engineering / Project Handling

"System.OutOfMemoryException" in case of export of the project

CQ-ID: Defdb00207463

Severity: K3 - malfunction (no workaround)

Description: If an attempt is made to export the MLC from a project and if the project occupies more than 1.4 GB user memory upon starting an export, exception error "System.OutOfMemoryException" is reported.

"SystemOutOfMemoryException" with multiple "Save as"

CQ-ID: Defdb00207461

Severity: K3 - malfunction (no workaround)

Description: If "Save as" is executed several times with a project, the amount of RAM used increases with each "Save as" and is not released anymore. With a memory requirement of approximately 2.5 GB, Indraworks becomes extremely slow and unusable, resulting in a "SystemOutOfMemoryException".

Communication settings XM: IP address gray cannot be changed at 192.168.234.234

CQ-ID: Defdb00207891

Severity: K4 - malfunction

Description: Micro USB port could not be selected as engineering interface.

Connecting to Safety is lost when switching online

CQ-ID: Defdb00205200

Severity: K4 - malfunction

Description: If the Safety PLC was logged in and the motion was then switched online, the connection to the Safety PLC was disconnected, if the number of drives to be switched online was to high (approx. 4 to 5 drives and above).

IndraWorks ML / Engineering / Version Control System

In case of IndraWorks WinStudio errors occur during export and version control.

CQ-ID: Defdb00206717

Severity: K2 - serious malfunction

Description: If Winstudio project contains elements with invalid file reference an error occurs during export and versioning.

VCS: Update of double axis not possible

CQ-ID: Defdb00207290

Severity: K3 - malfunction (no workaround)

Description: If the working copy was to be updated in a project under VCS, where e.g. the name of an axis of a dual axis device was changed, an exception error was displayed and an update was not possible.

MLC Firmware / _Other

CML75: Readout operating hour counter (IH_GetOhcCtrl) sporadically requires over 75 ms

CQ-ID: Defdb00208369

Severity: K5 - non critical problem

Description: In the IEC program the operating hour counter of control can be read out via function block "IH_GetOhcCtrl”. Approximately every 30 minutes, a control function that was not asynchronously called lasted about 75 ms. This occurred, if the call was made in a point in time, at which the operating hour value was saved remanently.

17.1.2 Functional enhancements

IndraWorks ML / Engineering / PLC Libraries

AxisInterface: Status output CmdDone is not supported in all operation modes

CQ-ID: Defdb00207292

Severity: K2 - serious malfunction

Description: The output arAxisStatus_gb[].Admin.CmdDone is set, if a command is executed. This includes "Waiting time drive ON" (parameter S-0-0206).

The output may be used to query the end of the waiting time.

However, the output is supported for some of the operation modes.

Enhancement: The output arAxisStatus_gb[].Admin.CmdDone is set by further operation modes:

- Velocity control ModeVel
- Phase synchronization ModeSyncPhase
- Velocity synchronization ModeSyncVel
- Electronic cam ModeSyncCam
- Elektronic motion profile ModeSyncProfile
- Electronic FlexProfile MotionProfile
- Torque control ModeTorque

17.1.3 Known issues

IndraWorks ML / Engineering / HMI

Stability and performance problems when renaming WinStudio variables

CQ-ID: Defdb00201751

Severity: K3 - malfunction (no workaround)

Description: If the request for global renaming is confirmed while renaming WinStudio variables, the process takes several minutes.

WinStudio localization: Startup target language does not work

CQ-ID: Defdb00175124

Severity: K3 - malfunction (no workaround)

Description: If a startup target language is selected in the WinStudio localization dialog among the languages available in the project, the HMI application fails to start with this language.

17.2 Firmware

17.2.1 Resolved defects

IndraWorks ML / Engineering / PLC Libraries

"PivotVelocity" input has no effect on the pre-connected winder function blocks

CQ-ID: Defdb00204176

Severity: K4 - malfunction

Description: "PivotVelocity" input has no effect on the following function blocks:

MB_WinderDancerCtrlType02

MB_WinderTensionCtrlType02

MB_WinderTensionCtrlSpeedType01

IndraWorks ML / Operation / HMI

Profibus diagnostics: 104 devices are supported, of which only 84 are evaluated

CQ-ID: Defdb00207807

Severity: K3 - malfunction (no workaround)

Description: For the diagnostics of Profibus devices storage space for max. 84 Profibus devices was provided.

Fixing: The storage space was extended in order to enable Profibus, so that diagnostics can be created for a Profibus maximum configuration.

MLC Firmware / Axis

ML_IpoImpactControl: Axis executes random interpolation

CQ-ID: Defdb00206714

Severity: K2 - serious malfunction

Description: The functionality ML_IpoImpactControl is used for a controller axis to affect the controller value of the axis.

If the traversing motion has been completed at the time of affecting, the axis traverses back to the last commanded target position after the affecting has been completed.

Fixing: If the traversing motion of the axis is completed at the time of the affecting, the axis remains at the position created by the affecting after the affecting has been completed. The axis does not travel back to the commanded target position.

Unexpected error F2229310 at FlexProfile with position jump and unexpected motion

CQ-ID: Defdb00207908

Severity: K2 - serious malfunction

Description: If a slave axis had been commanded by a FlexProfile with event triggered segment change and this event was triggered at a master position, that cannot be represented exactly as a double value, the entry point for the new segment sporadically could not be found and error "F2229310, Calculation Error in FlexPoint step" was reported.

MLC Firmware / Logic

After warm reset, boot application becomes invalid

CQ-ID: Defdb00207964

Severity: K2 - serious malfunction

Description: The IEC program is suspended on a internal semaphore. Therefore, a reset of errors is not possible. PLC boot project is lost.

XM21: SysError after startup in SF1=STOP and loading the application with SF1=RUN

CQ-ID: Defdb00207890

Severity: K3 - malfunction (no workaround)

Description: If A PLC application is loaded and started via the operation mode switch by switching this switch to RUN, SysError is reported when starting the application. This behavior occurs mainly if I/Os or other third party devices are connected to control.

MLC Firmware / OPC UA

OPC-UA attribute "IsAbstract" for Enums returns zero pointers for MLC

CQ-ID: Defdb00208046

Severity: K2 - serious malfunction

Description: OPC-UA attribute "IsAbstract" does not returns a value for data type enumeration of the PLC but an error. This attribute, however, is "mandatory" for that data type.

RIL_OPCUACLIENT is not able to connect to all OP UA servers with "None" secure connection

CQ-ID: Defdb00208275

Severity: K2 - serious malfunction

Description: The function block UA_Connect from the library RIL_OpcUaClient could not connect to some OPC UA servers if UserIdentityTokenType "UAUITT_Anonymous" was in use.

OPC UA server: ArrayDimensions has to be "ZERO", if the node is not an Array

CQ-ID: Defdb00208216

Severity: K3 - malfunction (no workaround)

Description: For the address space of the PLC the value "0" was delivered for the attribute ArrayDimensions for scalar variable values (attribute ValueRank == -1), which does not comply with the OPC-UA standard.

Now "BadAttributeIdInvalid" is delivered as value.

MLC Firmware / Sercos

SIP connection is interrupted when reading long lists and the system switches to SVC channel

CQ-ID: Defdb00206975

Severity: K2 - serious malfunction

Description: The SIP connection was interrupted when reading long lists (e.g. P-0-0320 or when uploading an oscilloscope measurement) to the drive and the system switched to the service channel.

17.2.2 Known issues

IndraWorks ML / Engineering / _Other

Parameter Sercos II cross connection are not loaded during parameter import

CQ-ID: Defdb00207529

Severity: K3 - malfunction (no workaround)

Description: If you have made a parameter backup of the C parameters with the configuration parameters for the Sercos II cross connection, these are not loaded to the control during parameter import.

Workaround: The configuration parameters for the Sercos II cross connection (C-0-0031, C-0-0700, C-0-0701) must be entered manually with the parameter editor.

17.3 Application

17.3.1 Resolved defects

IndraWorks ML / Engineering / Periphery

IL_SlaveMapListAddEntry: "Entry is already in use"

CQ-ID: Defdb00206805

Severity: K3 - malfunction (no workaround)

Description: After "cold RESET" Profinet is reinitialized. This can be identified in IndraWorks by the fact that the Profinet device and the configured modules are marked with a yellow triangle for a short time.

If the application is started during or before this Profinet initialization phase, the error "Entry is already in use" is reported.

17.4 Documentation

17.4.1 Functional enhancements

IndraWorks ML / Online-Help

Online help/documentation: MLC Backup & Restore is not sufficiently documented

CQ-ID: Defdb00207102

Severity: K5 - non critical problem

Description: The procedure of how to create a system backup for an XM control was not sufficiently described in the documentation or online help.

Enhancement: Supplement of the following chapters to MLC functional description:

3.3.10 Initial firmware

• Creating a backup using FirstTouch

• Restoring a backup using FirstTouch

3.4.14 "Backing and restoring"

18 IndraLogic XLC/IndraMotion MLC 14V22 Patch 04 Hotfix 3 firmware

18.1 Firmware

18.1.1 Resolved defects

Axis

Error: F2229232, "Invalid master axis control number"

CQ-ID: Defdb00207472

Severity: K3 - malfunction (no workaround)

Description: If an MB_Phasing is executed on an axis that is not in synchronous mode, error F2229232 "Invalid master axis control number" occurs despite a valid value in A-0-0200 "Default master axis".

Motion Functions

Axis accelerated with simultaneous MC_Stop and MB_PhasingSlave

CQ-ID: Defdb00207806

Severity: K2 - serious malfunction

Description: If at the same time the phase offset of the MB_PhasingSlave (A-0-2750) is changed via the AxisInterface and the axis is switched to ModeAH (MC_Stop), the axis accelerates extremely fast, although the axis is in the "Stopping" state, and travels against the mechanical fixed stop.

Sercos

C2C: Error F2067 "Synchronization to master communication incorrect"

CQ-ID: Defdb00207724

Severity: K3 - malfunction (no workaround)

Description: During phase switching, error F2067 "Synchronization to master communication incorrect" occurs with a cycle time of 1 ms in the drive.

19 IndraLogic XLC/IndraMotion MLC 14V22 Patch 04 Hotfix 2 firmware

19.1 Software

19.1.1 Resolved defects

Logic

PLC logs out automatically during operation after certain time

CQ-ID: Defdb00206695

Severity: K2 - serious malfunction

Description: During operation it happened sporadically that the gateway communication to the PLC was interrupted. As a result IndraLogic was logged out and OPC-DA communication was interrupted.

Upon reconnection the communication to the PLC was restored.

19.2 Firmware

19.2.1 Resolved defects

MLPI

MLPI: mlpiSystemGetDateAndTimeUtc() returns sporadically wrong values

CQ-ID: Defdb00206431

Severity: K3 - malfunction (no workaround)

Description: Two errors occurred during the system time (C-0-0050):

- The system time (parameter C-0-0050) was incorrectly sporadically set to "Saturday, January 1, 2000 12:00:00am" (corresponds to the value "01BF53EB:256D4000" of the parameter). This time was returned by functions via which the system time was read out (e.g. mlpiSystemGetDateAndTimeUtc()).

- The returned value of the functions via which the system time was read out (e.g. mlpiSystemGetDateAndTimeUtc()) did not display any error in this case.

20 IndraLogic XLC/IndraMotion MLC 14V22 Patch 04 Hotfix 1 firmware

20.1 Firmware

20.1.1 Resolved defects

Axis

Axis accelerates in case of MC_Stop

CQ-ID: Defdb00207607

Severity: K1 - safety relevant function

Description: If a real axis is in phase-synchronous operation with another axis and is stopped with active jerk limitation, it can happen that the axis first accelerates strongly before the deceleration to standstill is carried out.

Sercos

Control configuration cannot be loaded with Sercos II record

CQ-ID: Defdb00203411

Severity: K2 - serious malfunction

Description: If there is a project with Sercos II cross communication and with cycle times set to 8 ms in the project, the configuration cannot be loaded to the control if the control address is set higher than 32 for the link axis and if the control was set to a lower cycle time before. An exception occurs indicating that a parameter is higher than the maximum value.

Inserted R3 cross link with deactivated Sercos II cross linked axes results in F9240006 SysError MMH

CQ-ID: Defdb00207072

Severity: K3 - malfunction (no workaround)

Description: If link axes and a CrossComm Sercos III (CFL01.1-R3) module are configured in a project, a system error F9240006 occurs when switchover to BB.

20.1.2 Known isssues

Motion Functions

Axis accelerated with simultaneous MC_Stop and MB_PhasingSlave

CQ-ID: Defdb00207806

Severity: K2 - serious malfunction

Description: If at the same time the phase offset of the MB_PhasingSlave (A-0-2750) is changed via the AxisInterface and the axis is switched to ModeAH (MC_Stop), the axis accelerates extremely fast, although the axis is in the "Stopping" state, and travels against the mechanical fixed stop.

21 IndraLogic XLC/IndraMotion MLC 14V22 Patch 04 firmware and software

21.1 Firmware

21.1.1 Resolved defects

_Other

XM42: Corrupt data after interrupted startup -> new power reset via SF2

CQ-ID: Defdb00206796

Severity: K2 - serious malfunction

Description: When pressing the RESET button SF2 during startup, the remanent data was sporadically declared unvalid in case of a short time window (<2 sec.)during a subsequent startup.

Fixing: Only after the critical time window has passed, it is expected that mechanisms required for remanent data work.

Motion Functions

F5180005 Motion kernel exceeded cycle time following an update to 14V22

CQ-ID: Defdb00206555

Severity: K4 - malfunction

Description: When using multicore, the motion kernel can sporadically exceed the cycle time, if a motion-synchronous task with a priority directly above the motion kernel is used.

Fixing: In case of multicore controls (L75, XM4), a priority distance of 1 between the motion calculation (C-0-0403) and other (PLC)tasks commanding the motion has to be ensured. Otherwise, the error F5180005 Motion kernel exceeded cycle time can occur.

Thus, bugfix Defdb00206555 changes the default value of C-0-0403 from 3 to 4, to continue to use priority 2 of the motion task (PLC) without any modifications.

Users with existing project thus have to check the existing parameterization of C-0-0403 and correct it, if required. When loading the basic parameters, the corrected C-0-0403 is loaded by fixing Defdb00206555.

Sercos

C2C: 1 ms cycle time for XM42 cannot be set in FW

CQ-ID: Defdb00206526

Severity: K2 - serious malfunction

Description: In parameter C-0-0700, the value 1 ms cannot be selected for the hardware XM-42.

22 IndraLogic XLC/IndraMotion MLC 14V22 Patch 03 firmware and software

22.1 Software

22.1.1 Resolved defects

MLC Firmware / Core

Error code: "F36001C; MLPI: Incorrect data stream synchronization”

CQ-ID: Defdb00206121

Severity: K3 - malfunction (no workaround)

Description: Error occurred during communication with the control via MLPI: "F36001C; MLPI: Incorrect data stream synchronization”.

Fixing: When deleting a shell contact, the link to this shell context was deleted for all tasks, not only for the task that has been found first.

23 IndraLogic XLC/IndraMotion MLC 14V22 Patch 02 firmware and software

23.1 Software

23.1.1 Resolved defects

_Other

POU comparison does not take options into consideration

CQ-ID: Defdb00203946

Severity: K3 - malfunction (no workaround)

Description: In a POU comparison, the set options are not taken into consideration in the overview. A POU can be displayed as unequal even though these POUs are equal, taking the enabled option “Ignore bookmark...” into consideration.

IndraWorks Engineering / Installation

OPC.DA: Connection from client to server cannot be established

CQ-ID: Defdb00203642

Severity: K2 - serious malfunction

Description: On a PC, on which IndraWorks is installed for the first time and if version 14V22 is used, .NET-based OPC.DA clients cannot connect to the OPC server.

IndraWorks Engineering / Periphery

PROFINET configurator evaluates the GSDML entries incorrectly

CQ-ID: Defdb00205122

Severity: K4 - malfunction

Description: The RT class cannot be set to the required RT class 1 anymore.

IndraWorks ML / _Other

AI: Error "System.ArgumentException : Invalid IDN ' 0-0-1500.0.128 '"

CQ-ID: Defdb00204325

Severity: K3 - malfunction (no workaround)

Description: If the command "ioModule.HasIoUserParameters()” is called via the IndraWorks Automation Interface on some Sercos I/O modules such as the module "BK: DI8 DO4”, the error "System.ArgumentException : Invalid IDN ' 0-0-1500.0.128 “ was reported.

Fixing: Depending on the module, the "ioModule.HasIoUserParameters()” command returns “true” or “false”.

AI: Exception when querying I/Os that do not support the I/O user parameters

CQ-ID: Defdb00204327

Severity: K3 - malfunction (no workaround)

Description: When querying I/Os generally not supporting I/O user parameters by means of the AI command "HasIoUserParameters()" via the IndraWorks Automation Interface, the exception "System.InvalidOperationException occurs: There is an error in XML document (76, 2)".

Fixing: “False” is returned for I/O generally not supporting the I/O user parameters.

AI: Handling of numbers with signs for I/O user parameters does not work correctly

CQ-ID: Defdb00204300

Severity: K3 - malfunction (no workaround)

Description: For example, if the I/O user parameter “P-1-0128.0.0” with a bit width of 4 bits is written with the number "16#10" (= 16 decimal) via the Automation Interface, no error is output by IndraWorks as "16#10" (= 16 decimal) cannot be represented with 4 bits.

Fixing: An ArgumentException is now reported by IndraWorks if an I/O user parameter is written with a value via the Automation Interface that cannot be represented with the maximum bit width valid for this parameter.

Image pool “Embedding in project” is incorrect

CQ-ID: Defdb00158325

Severity: K3 - malfunction (no workaround)

Description: There are three different options in the image pool to add an image to the image pool.

1. Image file: Saving of link
2. Image file: Saving of link and embedding in the project
3. Image file: Embedding in project

If the image pool and the visualization is exported from project A in which the images of the image pool are insert and when importing the image pool and the visualization in project B, no images are available anymore if the original images have been moved or deleted on the computer.

If an image with "Saving of link" has been inserted in the project, the behavior is correct.

If an image with "Saving of link and embedding in the project" or “Embedding in project” has been inserted in the project, the behavior is incorrect. In both cases, the image should be available for import as it has been “embedded” in the project.

This behavior is also important for Version Control as the images are not contained in the project when calling a project on a computer on which the project has not been created (images are not available).

Fixing: If one of the following options is selected when inserting an image, a format is selected during the import (XML) containing information about the image as well as the image itself:

2. Image file: Saving of link and embedding in the project or
3. Image file: Embedding in project

Upon the next import, the contained image(s) are imported; subsequently, the image information is imported.

Thus, the image is available. This also applied to the Version Control.

Note: In order for changes to become active, each image has to be selected and the link has to be set to “embedded”. In case of Version Control, this means check out and check in.

MultiDevice: After changing the control, the device editor is not connected to the control anymore

CQ-ID: Defdb00203600

Severity: K4 - malfunction

Description: If the IP address of the control has changed and if subsequently the device editor of the control or the device editor of the Safety function module is opened, no data could be read out of the device by these editors. The device name of the Safety function module cannot be changed either.

IndraWorks ML / Engineering / _Other

Axis interface type 11: for ModeTorque, command values only become active upon each second change

CQ-ID: Defdb00204470

Severity: K2 - serious malfunction

Description: In case of the event-controlled axis interface (function blocks Type11 and Type12), a change of the following inputs in ModeTorque:

- arAxisCtrl_gb[].TorqueMode.Torque

- arAxisCtrl_gb[].TorqueMode.TorqueRamp

the values are only applied upon each second change.

AI: Exception when accessing the symbol configuration if “Support calls to functions, FBs, methods and programs” is active

CQ-ID: Defdb00204795

Severity: K3 - malfunction (no workaround)

Description: If the option “Support calls to function, Fbs, methods and programs” is selected in IndraWorks in the PLC symbol configuration editor under “Settings” (available from IndraWorks project version 14V22) and if subsequently the PLC symbol configuration is accessed via the IndraWorks Automation Interface, an exception is reported in the Automation Interface client application.

AI: I/O mapping does not work for Ethercat EK1110

CQ-ID: Defdb00203759

Severity: K3 - malfunction (no workaround)

Description: By using the IndraWorks Automation Interface, the I/O channels of an Ethercat slave of type “Ethercat EK1110” could not be mapped.

AI: I/O mapping does not work for Ethercat EK1122_0080

CQ-ID: Defdb00203760

Severity: K3 - malfunction (no workaround)

Description: By using IndraWorks Automation Interface, the I/O channels of an Ethercat slave of type "EK1122_0080” could not be mapped.

AI: I/O mapping does not work in Ethercat EK1101-0080

CQ-ID: Defdb00203764

Severity: K3 - malfunction (no workaround)

Description: By using IndraWorks Automation Interface, the I/O channels of an Ethercat slave of type "EK1101-0080” could not be mapped.

MLC-UI: Device explorer: Unhandled exceptions in case of insufficient space of target partition

CQ-ID: Defdb00203634

Severity: K3 - malfunction (no workaround)

Description: If a user tries to transmit a file to a partition of the control without available space by using the device data explorer, an unhandled exception occurs.

TCI: A corrupt TPF file has been generated for PROFINET I/Os by Weidmüller

CQ-ID: Defdb00200748

Severity: K3 - malfunction (no workaround)

Description: A corrupt TPF file has been generated for PROFINET I/Os by Weidmüller. The message “No module selected” is displayed in the “Weidmüller Safety Configurator”.

MLC device data backup from version 14 not possible in a “partially synchronized” state

CQ-ID: Defdb00204402

Severity: K4 - malfunction

Description: MLC device data backup is not possible in a “partially synchronized” state.

IndraWorks ML / Engineering / CamBuilder

Cam explorer transmits values incorrectly

CQ-ID: Defdb00204990

Severity: K2 - serious malfunction

Description: When downloading cams to point table parameters of the control, an automatically calculated hub is used during the download of the cam table explorer of the control. In the download via “Cam Pool”, this hub can be specified. This results in different table values in the parameters of the control.

Fixing: The hub saved in the CamBuilder is used for both methods. Thus, the resulting values are identical in the parameter.

The CamBuilder mirrors the cam profile during the import and changes the scaling

CQ-ID: Defdb00204479

Severity: K3 - malfunction (no workaround)

Description: During the import of a cam table parameter file in which the first point and the last point are not identical and the last point is smaller than the first point, the cam is inverted after the import.

FlexProfile: FlexStep settings are changed when saving

CQ-ID: Defdb00206063

Severity: K3 - malfunction (no workaround)

Description: Motion steps with StepType "FlexStep with absolute slave axis position and absolute master axis position" are not saved correctly.

IndraWorks ML / Engineering / Drive

Offline parameterization with MPx21 does not work

CQ-ID: Defdb00206057

Severity: K2 - serious malfunction

Description: The drives with a firmware MPx-21 could not be parameterized offline.

Parameter names in P-parameters of third party manufacturers are incorrect

CQ-ID: Defdb00205582

Severity: K3 - malfunction (no workaround)

Description: In case of drives of third party manufacturers, the name of the P-parameters is displayed incorrectly at some positions.

IndraWorks ML / Engineering / GAT

GAT: Axis assignment triggers an “unexpected exception"

CQ-ID: Defdb00205678

Severity: K3 - malfunction (no workaround)

Description: An unexpected exception was triggered after adding the axes in the "Axis assignment” dialog.

AxisInterface: E00D0004 in case of quick change SyncAcceleration, SyncVelocity or AngleOffset

CQ-ID: Defdb00203771

Severity: K4 - malfunction

Description: If one of the following values changes in quick succession, this results in the warning E00D0004 “Acyclic communication still active":

- arAxisCtrl_gb[].SyncMode.SyncAcceleration
- arAxisCtrl_gb[].SyncMode.SyncVelocity
- arAxisCtrl_gb[].SyncMode.AngleOffset

Fixing: By adjusting the actions TE_AxisInterface.actSyncAccVel or TE_AxisInterface.actAngleOffset, the problem was fixed.

The actions are contained in the user program part in the AxisInterface example project or in all GAT variants.

GAT shows “old” errors if a new error is entered during a “Clear error” operation

CQ-ID: Defdb00204496

Severity: K4 - malfunction

Description: Errors are entered with one of the mSetAppError(), mSetFBError() or mSetExternalDiag() methods. If a second error is already entered during a “Clear error” operation, the first error continues to be displayed.

Fixing: Initially, the first error is displayed and after “Clear error”, the second error is displayed.

IndraWorks ML / Engineering / HMI

WinStudio on VR21: Freezing of the app for a minute during loading of a recipe

CQ-ID: Defdb00204563

Severity: K2 - serious malfunction

Description: Loading of WinStudio recipes with many variables sporadically takes up to one minute on Windows CE devices.

VPP40 does not execute the Winstudio command RunVBScript()

CQ-ID: Defdb00204497

Severity: K3 - malfunction (no workaround)

Description: In the WinStudio viewer, VB script functions are not executed if these functions are declared in a global procedure.

Fixing: For newly created procedures, the error was fixed. In case of existing projects, the function “Verify application” has to be executed once.

WinStudio 500 tags license only supports 300 tags

CQ-ID: Defdb00205349

Severity: K3 - malfunction (no workaround)

Description: On VR21 devices, only 300 tags are enabled instead of the intended 500 tags during activation of the WinStudio 0.5k license.

WinStudio project import deletes the variable list during saving

CQ-ID: Defdb00203718

Severity: K3 - malfunction (no workaround)

Description: When exporting a visualization device of type "VR3x" or "VR4x" all WinStudio variables are deleted.

WinStudio: RdFileN() is not yet scaled

CQ-ID: Defdb00170778

Severity: K3 - malfunction (no workaround)

Description: The WinStudio file browser (internal command RdFileN) is not adjusted according to the scaling settings in the project.

WinStudio: "DeleteOlderFiles" function cannot be executed

CQ-ID: Defdb00200796

Severity: K4 - malfunction

Description: The WinStudio function “DeleteOlderFiles” used to delete files that are older than the transmitted date cannot be used.

Fixing: The following entry has to be added to the app file:

[Options]

ExecuteFileFunctionsOnClient=1

Furthermore, please note that the used date format as well as the date separator corresponds to the date parameter when calling the function “DeleteOlderFiles”. The date format and the date separator can be changed in the “Localization” editor.

WinStudio: Safety group error

CQ-ID: Defdb00205588

Severity: K4 - malfunction

Description: When switching the visualization device off during a running WinStudio application, files of the WinStudio user management can sporadically be damaged so that the WinStudio application can subsequently not be started anymore.

IndraWorks ML / Engineering / MLC-H

MH_HydrControl: Evaluation SercosSlaveStatus in the adaption module is not ideal

CQ-ID: Defdb00204354

Severity: K4 - malfunction

Description: If a terminal reports a diagnostic message (e.g. cable break), BK+ has the status “Diagnostics available”. Result: all axes go into error state with their I/Os at the same bus coupler. Error message: “Position encoder error”.

Fixing: The diagnostic message is ignored. Only the bits reporting an error of the bus coupler or a failure of the terminal are evaluated. If a signal is invalid, the axis evaluates the signal using an error code from which the substitute value is provided.

IndraWorks ML / Engineering / Periphery

IndraWorks: Incorrect import of PROFINET device

CQ-ID: Defdb00201956

Severity: K2 - serious malfunction

Description: After the import is completed, incorrect values are contained in the default values. The I/O bit level cannot be accessed.

IndraWorks ML / Engineering / PLC Libraries

MB_MagicBeltType01: Trains can sporadically collide in case of jerk-limited movements.

CQ-ID: Defdb00204559

Severity: K2 - serious malfunction

Description: If a jerk-limited movement is enabled (MaxMoveJerk > 0 or MaxOutfeedJerk > 0), trains can sporadically collide upon a stop.

This behavior occurs if the interval between strains is smaller than the braking distance at stop time. The braking distance is extended due to the jerk limitation.

Fixing: Upon a stop, the trains are always decelerated with MaxMoveAcceleration without jerk limitation to avoid collisions.

MagicBelt FB: Starting order of three trains in the starting option "Start_at_last_Step” can result in collision errors

CQ-ID: Defdb00203955

Severity: K3 - malfunction (no workaround)

Description: The starting order of three trains in the starting option "Start_at_last_Step” can result in collision errors if all three trains have been stopped using the option "Stop_Immediate" and if at this point, the trains have been synchronize with InfeedAxis. In this train sequence, the last train is synchronized first and collides with the leading train. In this case, collision monitoring reports an error.

MagicBelt: Synchronous jogging results in the error “Command in stopping rejected”

CQ-ID: Defdb00204030

Severity: K3 - malfunction (no workaround)

Description: Synchronous jogging results in the error “Command in stopping rejected”.

Fixing: The defect has been resolved.

MB_SIIIPlcDriveType01: ClearError is also executed if Enable = FALSE

CQ-ID: Defdb00204317

Severity: K3 - malfunction (no workaround)

Description: The MB_SIIIPlcDriveType01 function block or all function blocks derived from this function block (all function blocks with prefix MB_SIIIPlcDrive..., e.g. MB_SIIIPlcDriveVelocityType01) results in ClearError, even if Enable is FALSE.

Fixing: ClearError is only executed if Enable is TRUE.

Function block MB_MagicBeltType01: Synchronized jogging causes an error if InfeedType= FEED_SYNCHRONIZED

CQ-ID: Defdb00203367

Severity: K4 - malfunction

Description: The function block MB_MagicBeltType01 reports the error "F_RELATED_TABLE, Add1 = 16#3, Add2 = 16#0" at the first chain if synchronized jogging (SingleAxisJog=FALSE) is started via JogPlus or JogNeg and if InfeedType = FEED_SYNCHRONIZED is specified.

This behavior does not result if InfeedType= FEED_INDEXED.

MB_MagicBeltType01: Start if AllowNegDirection = TRUE is not possible in all cases

CQ-ID: Defdb00204753

Severity: K4 - malfunction

Description: The error occurs if "GeneralSettings.AllowNegDirection = TRUE”.

If the distance between the last train and the FirstInfeedPosition is smaller than the distance of the second last train on the shortest distance, the function block cannot be started.

KinInterface: CmdDone output in ModeCoordStopping is only set for one cycle

CQ-ID: Defdb00204870

Severity: K5 - non critical problem

Description: In ModeCoordStopping, the CmdDone output is only set for one cycle.

An acknowledgment query is thus unnecessarily complex.

Fixing: The CmdDone output remains set until a different operating mode is selected.

MB_DigitalCamSwitchOVS disables the outputs to 0 too early

CQ-ID: Defdb00205988

Severity: K2 - serious malfunction

Description: If the parameterized time “OnCompensation” is higher than the “OffCompensation” for a cam (by taking the “TimeDefinitions” sign into consideration), the output up to a Sercos cycle is sporadically disabled too early.

IndraWorks ML / Engineering / PLC Programming

The IL user management inhibits creating of hidden Safety objects on the standard page during login

CQ-ID: Defdb00205134

Severity: K2 - serious malfunction

Description: If a user is not authorized to add objects to an application, it is not possible to log in a standard application in a project with SafetyFM if new “Auxiliary objects” that are not visible in IndraWorks have to be created.

PNIO: IL_PNIOStoreTopology does not always work

CQ-ID: Defdb00203954

Severity: K4 - malfunction

Description: If a timeout error occurs in the IL_PNIODeviceSetIP, IL_PNIOAssignName, IL_PNIOGet(Ex), IL_PNIODeviceResetToDefaul function blocks, all other function blocks, including IL_PNIOCheckTopology are subsequently inhibited.

IndraWorks ML / Engineering / Robot Control

Kinematic interface (event-controlled) is not available anymore

CQ-ID: Defdb00204174

Severity: K2 - serious malfunction

Description: The GAT plug-in kinematic interface is only provided in the standard variant without event control.

Existing projects can still be used.

RoCo V2: Exception when grouping a kinematics

CQ-ID: Defdb00203515

Severity: K3 - malfunction (no workaround)

Description: During grouping of a kinematics, an exception occurs if one of the configured axes is in “continuous motion”.

IndraWorks ML / Engineering / Technology

AxisInterface: AxisData_HMI is not refreshed in an encoder or a link axis

CQ-ID: Defdb00203502

Severity: K4 - malfunction

Description: The AxisData_HMI structure is only refreshed for active and commandable axes by the TE_AxisInterface function block.

Fixing: The TE_AxisInterface function block now also refreshes the AxisData_HMI structure in case of encoder or link axes.

The function block is contained in the user program part in the AxisInterface example project or in all GAT variants.

MLC Firmware / OPC UA

OPC UA server: Method calls return BadTimeout

CQ-ID: Defdb00203313

Severity: K4 - malfunction

Description: The method call of the CpyCertificatesFromRejectedToCerts_1 method returns a BadTimeout. However, the call is executed.

MLC Firmware / PROFINET IO

Function block "IL_PNIODeviceStateDetailsXMAC” always reports an error message

CQ-ID: Defdb00203456

Severity: K3 - malfunction (no workaround)

Description: The function block “IL_PNIODeviceStateDetailsXMAC” in the RIL_ProfinetIODevice.library is not supported anymore from 14V22 patch 1.

Currently, the function block is incorrectly aborted with the following error:

Additional 1 = 16#00000003 Additional 2 = 16#800A0012 Error table: “Specified buffer is too small”

Fixing: The function block is aborted with the following error:

Additional 1 = 16#00000003

Additional 2 = 16#800A0011

Error table: “Driver function not available”

23.1.2 Functional enhancements

IndraWorks ML / Engineering / GAT

KinInterface: Error when selecting ModeCoordAB or ModeCoordAH during a movement

CQ-ID: Defdb00205002

Severity: K3 - malfunction (no workaround)

Description: Before being able to resolve a grouping, the state diagram of a kinematics defines that StandStill has to be reach from a movement vis Stopping. KinInterface does not take this behavior into consideration. If ModeCoordAB or ModeCoordAH is selected during a motion, the error "F229940A, command in 'Group Moving' rejected” and/or "F2229364, axis in standstill” occurs.

Enhancement: KinInterface does not take the state machine into consideration during the transition to ModeCoordAB or ModeCoordAH and goes to StandStill via Stopping.

GAT decentral: TE_MachineControl calling order mIOMapping() --> mDataHandler()

CQ-ID: Defdb00204407

Severity: K5 - non critical problem

Description: The calling order mIOMapping() --> mDataHandler() in the TE_MachineControl function block could cause problems.

A user implements commands in mIOMapping(). These commands use variables (e.g. pointers), initialized in mDataHandler().

Enhancement: The calling order is not first mDataHandler(), then mIOMapping().

GAT: Application errors cannot be deleted externally

CQ-ID: Defdb00205168

Severity: K6 - functional enhancement

Description: If an application error is entered using the mSetAppError() method, this error can only be cleared using the “ClearError” GAT input.

Enhancement: If the “LogError” input is set, the application error is also entered in the diagnostic logbook of the control. In this case, the application error can be cleared in IndraWorks with “Clear error”.

GAT central: changed from Library ML_TechTemplate 14.22.32.0

GAT decentral: changed in TE_ErrorHandling and TE_ErrorHandling.mClearError

GAT compact: changed in Method Machine.mErrorHandling

IndraWorks ML / Engineering / Motion

MB_PilgrimStepCalcType01 reports error if FormatLength > CircPrintUnit

CQ-ID: Defdb00204357

Severity: K3 - malfunction (no workaround)

Description: The function block MB_PilgrimStepCalcType01 checks the inputs for the condition FormatLength > CircPrintUnit and if this condition is violated, the error 16#2261 is reported.

Enhancement: This check was removed.

In case of FormatLength > CircPrintUnit, correct functioning cannot be ensured across the entire value range.

23.1.3 Known issues

IndraWorks D/MLD / Periphery

Multiple axis SDDML can only be used with the first axis in IndraWorks Suite

CQ-ID: Defdb00205404

Severity: K2 - serious malfunction

Description: IndraDrive HMD01 can only be selected using the subdevice 01 via the libraries/periphery. The subevice 02 cannot be selected via the libraries/periphery.

Workaround: Use the “Add” command at the Sercos node to select and add both subdevices 01 and 02 of IndraDrive HMD01. This also applies to other multiple axis modules that have been installed but that cannot be selected via the device library.

IndraWorks ML / Engineering / _Other

After the re-installation of IndraWorks, creating a control takes approximately 5-6 minutes

CQ-ID: Defdb00205910

Severity: K3 - malfunction (no workaround)

Description: If a new project is opened after having installed IndraWorks 14V22 patch 2 and if a control is created, the first attempt to create a control takes up to 5-6 minutes, sometimes longer, due to the initialization steps that have to be run through.

Workaround: Please wait for the initialization to be completed!

IndraWorks ML / Engineering / Drive

The selection of a drive function package triggers an unexpected exception.

CQ-ID: Defdb00206100

Severity: K3 - malfunction (no workaround)

Description: If a new drive function package is selected in the drive, e.g. “Basic configuration/Function packages->Optional function package-> SNC synchronization", an exception is reported after “Enable” is completed. IndraWorks has to be closed via the task manager.

IndraWorks ML / Engineering / HMI

WinStudio: No password case sensitivity

CQ-ID: Defdb00191735

Severity: K6 - functional enhancement

Description: By default, the user password is not case sensitive in WinStudio. If the option “Enable case sensitivity” is selected, this only applied to newly created users.

Stability and performance problems while renaming tags

CQ-ID: Defdb00201751

Severity: K3 - malfunction (no workaround)

Description: If the request for global renaming is confirmed while renaming WinStudio variables, the process takes several minutes.

IndraWorks ML / Engineering / PLC Programming

IndraLogic: PLCOpen import adds the GVL to the “General Module Folder” instead of to a folder below the PLC application

CQ-ID: Defdb00205921

Severity: K3 - malfunction (no workaround)

Description: When importing elements created on the basis of PLCopen, the contained elements are sporadically not inserted in the corresponding node in the IndraWorks project tree.

Workaround: After the import of objects created in PLCOpen format, please verify if the objects have been inserted in the IndraWorks project tree as expected. If this is not the case, the objects can be moved manually.

Optionally, data can be exported/imported on the basis of the “Standard export file”.

During the IndraWorks instantiation, the IndraLogic 2G option settings are reset to default.

CQ-ID: Defdb00206062

Severity: K4 - malfunction

Description: When changing the IndraWorks or IndraLogic 2G default settings under “Tools/Options”, the settings are often reset to default.

Workaround: 1. Not all IndraLogic 2G options are saved in the project. They belong to the IndraWorks installation.

2. The changed IndraWorks options are only applied to the open IndraWorks irrespective of whether projects are closed or others are opened.

3. Already parallely open IndraWorks instances continue working with the original or changed option settings.

4. Changed options are saved when IndraWorks is closed.

5. Important: If IndraWorks is used multiple times (parallely), the latest IndraWorks closed is the central file "IndraLogic.opt". The latest IndraWorks closed overwrites the previous settings made in other instances.

MLC Firmware / Logic

DataSource: A connection error (F0391090) occurs upon the application start

CQ-ID: Defdb00200629

Severity: K3 - malfunction (no workaround)

Description: An additional license check prevents use of the DataServer.

23.2 Firmware

23.2.1 Resolved defects

IndraWorks ML / Engineering / PLC Libraries

OPC UA Client function block UA_NamespaceGetIndexList results in a PageFault

CQ-ID: Defdb00203818

Severity: K3 - malfunction (no workaround)

Description: During the communication between two MLCs using RIL_OpcUaClient 14.22.03, a PageFault occurs in the client when calling the UA_NamespaceGetIndexList function block.

RIH_Safety_ProfinetIO: Internal variable ReadRecordIdx is not reset

CQ-ID: Defdb00205914

Severity: K3 - malfunction (no workaround)

Description: In the function blocks IH_PNIOAck_PSDx_Inline() and IH_PNIOAck_PSDx_S20() to acknowledge PROFIsafe diagnostics, the internal variable ReadRecordIdx was not reset. Changing the PROFINET device during a running operation resulted in runtime errors in the PLC program.

MLC Firmware / Core

IndraMotion MLC VPx: Changing the default settings for operation without UPS or external UPS

CQ-ID: Defdb00204505

Severity: K3 - malfunction (no workaround)

Description: If no USV or if an external USV is used, the control always starts with the error F0200046 (error in USV connection).

Fixing: To allow for a successfully completed booting action if no UPS or an external UPS is used, the error F0200046 is changed to a message A0200046 (Rexroth UPS is not available).

The user is responsible for the correct use of a UPS and successful backup of the remanent data.

MLC Firmware / EtherCAT

ECAT: EtherCAT master reports F03A200D in the error diagnostic memory

CQ-ID: Defdb00203966

Severity: K3 - malfunction (no workaround)

Description: If not PLC boot application is contained on the control, the master reports the error code F03A200D "EMIO_UpdateCyclicDataMappingWithStack NULL” during the control start-up in the error diagnostic memory.

ECAT: Incorrect process data status if the master does not have a connection

CQ-ID: Defdb00204451

Severity: K3 - malfunction (no workaround)

Description: If the master does not have a connection, the process data status of the cyclic input image indicates that the input data and output data are valid if the master is in state “operational”.

ECAT: OP switching time of EtherCAT master is too long

CQ-ID: Defdb00203988

Severity: K3 - malfunction (no workaround)

Description: When operating the EtherCAT master in DC (distributed clocks) and if this master tries to switch in OP, it can take up to a minute.

MLC Firmware / EtherNet/IP

VPx,XM4: Missing support for EthernetIP adpater via Engineering port

CQ-ID: Defdb00205108

Severity: K4 - malfunction

Description: For XM4 and VPx, no eds files were available for the EtherNet/IP adapter via the Engineering port.

The firmware reports an incorrect VendorDeviceID and an incorrect firmware string.

MLC Firmware / Logic

Device data cannot be completely restored from the project archive

CQ-ID: Defdb00204401

Severity: K3 - malfunction (no workaround)

Description: In case of a device backup, all partitions of the MLC compact flash is archived. On the system partition, the IndraMotion Service Tool has been updated by the current WebAssistant.

When restoring the archive to get data for the new control, the system partition is not restored correctly. Following an update, neither the IMST nor the WebAssistant is available.

The RIL_OpcUaClient cannot connect to the OPC UA server of the IoT Gateway

CQ-ID: Defdb00201357

Severity: K3 - malfunction (no workaround)

Description: The UA_Connect function block of the RIL_OpcUaClient library cannot connect to the OPC UA server of the IoT Gateway. The function block can currently only establish unencrypted connections to a server. If the UserIdentityTokenType "UAUITT_Anonymous” is used to log in to the OPC UA server of the IoT Gateway, an error occurs with the error code "BadIdentiyTokenInvalid". Reason: this login type is not transmitted to the server.

MLC Firmware / Motion Functions

FlexProfile in case of a backward rotating, translatory absolute scaled master does not work anymore

CQ-ID: Defdb00205394

Severity: K2 - serious malfunction

Description: If a rotary modulo scaled axis is synchronized to a linear absolute scaled master axis, where the master position is greater than the theoretically set modulo value in A-0-0045, this can result in an offset during the detection of segment limits.

FlexProfile: F5113002 during profile switching no. 2

CQ-ID: Defdb00204588

Severity: K3 - malfunction (no workaround)

Description: If for an axis using FlexProfile, the switching position of the profile change lies exactly on a segment limit (segment change) and if the master shows a modulo overflow in the same cycle, the error "F5113002, Command velocity too high for cycle time" is reported.

FlexProfile: F5113002 during profile switching no. 3

CQ-ID: Defdb00205968

Severity: K3 - malfunction (no workaround)

Description: If in a Motion cycle the modulo overflow of the master as well as the end of provile occurs in an axis using the FlexProfile in single ExecutionMode, the error "F5113002, Command velocity too high for cycle time" can sporadically occur.

MLC Firmware / OPC UA

OPC UA Client: FFunction blocks work incorrectly

CQ-ID: Defdb00202035

Severity: K2 - serious malfunction

Description: Disconnect:

Calling with a previously valid handle:

- No "Done" is reported
- No "Error" is reported
- No "Busy" is reported

ReadList:

If the connection has been disconnected due to interruptions that were too long, ReadList returns a Done even though no connection is established. Write and MethodCall return PLCOpenUA_Bad_Connection as error.

OPC UA Client: UA_ReadList only allows lists up to max. 32 nodes

CQ-ID: Defdb00204696

Severity: K2 - serious malfunction

Description: If a value greater than 32 is assigned to input "NodeHdlCount", the error PLCopenUA_Bad_InParamFailed or 16#A0000307 is returned.

No nodes are read.

OPC UA Client: UaNodeGetInfoList returns non-compliant errors

CQ-ID: Defdb00202088

Severity: K2 - serious malfunction

Description: If nodes are read out with UaNodeGetInfoList, the elements NodeGetInfoErrorIDs partially contain the error BadAttributeIdInvalid.

"BadAttributeIdInvalid 16#80350000 The attribute is not supported for the specified Node"

According to "Spec", other values should be returned.

The OPC UA server only supports symbols with a max. of 100 characters

CQ-ID: Defdb00202345

Severity: K2 - serious malfunction

Description: If the symbols are too long, these symbols cannot be communicated. The reason, however, is not obvious to the programmer.

OPC UA Client: SysError F9240005 after incorrect IEC programming

CQ-ID: Defdb00202962

Severity: K3 - malfunction (no workaround)

Description: Due to an incorrect state machine, the UA_Connect function block is called alternately with Execute := TRUE and Execute := FALSE.

If the code is running for 1-2 minutes, SysError F9240005 occurs which does not prouce any entry in the ExcLog.dat.

The control display also freezes with the error code.

OPC UA Client: UA_NodeGetInformation is sporadically incorrect

CQ-ID: Defdb00203166

Severity: K3 - malfunction (no workaround)

Description: The OPC UA client function block freezes in state "Ua_NodeGetInformation”.

No Ready is reported.

MLC Firmware / RobotControl

F1299535 during the synchronization of a PTP movement

CQ-ID: Defdb00204621

Severity: K3 - malfunction (no workaround)

Description: During the synchronization of a PTP movement in connection with an adaptive motion to a belt, the error "F1299535, Belt area in processing exceeded” can be triggered. The error is supported if synchronization is to take place to a belt value that is much larger than the current value.

Fixing: The compensation movement of adaptive motion was executed with very low axis limit values during the PTP movement. Now, the kinematic limit values are used for this movement.

RoCo: "Adaptive Motion" - Loss of memory

CQ-ID: Defdb00205786

Severity: K3 - malfunction (no workaround)

Description: If a robot is cyclically synchronized to a belt using “Adaptive Motion”, the user memory capacity that is reserved is increased over time.

Fixing: An additional motion is generated for “Adaptive Motion”. The memory for this command has not been released anymore. After the error has been fixed, the memory is released again.

RoCo: PTP synchronization motion results in a deviation vertical to the belt direction

CQ-ID: Defdb00205858

Severity: K3 - malfunction (no workaround)

Description: The reason for this error is a direct PTP motion used to synchronize to a belt. Subsequently, traversing takes place PTP-belt synchronously. Due to a belt-synchronous absolute motion, a deviation vertical to the belt direction occurs.

Synchronization fails after a relative desynchronization

CQ-ID: Defdb00204639

Severity: K3 - malfunction (no workaround)

Description: The synchronization of a movement and the adaptive motion to a belt fails if the previous movement was a relative desynchronization of the belt.

MLC Firmware / Sercos

C2C: XM2 as master. F80B0017 in master communication during phase switching

CQ-ID: Defdb00204549

Severity: K2 - serious malfunction

Description: The cycle source for the drive ring was interrupted by C2C during switching.

23.2.2 Known issues

MLC Firmware / _Other

The control configuration cannot be loaded with Sercos II link

CQ-ID: Defdb00203411

Severity: K2 - serious malfunction

Description: If there is a project with Sercos II cross communication and with cycle times set to 8 ms in the project, the configuration cannot be loaded to the control if the control address is set higher than 32 for the link axis and if the control was set to a lower cycle time before. An exception results showing that a parameter is higher than the maximum value.

Workaround: 1. Load a project with control addresses lower than 32 for the link axis to the control.

2. Set the cycle times to 8 ms.

3. Switch to operating mode for an active cycle time.

4. Load the right project to the control.

23.3 Documentation

23.3.1 Resolved defects

MLC Firmware / Motion Functions

Documentation of parameter A-0-2808 incomplete

CQ-ID: Defdb00204318

Severity: K3 - malfunction (no workaround)

Description: The information that parameter A-0-2808 is not intended for cyclic writing is missing in the documentation. Cyclic writing results in an offset between the original master axis and the encoder axis or the link axis of the MLC.

24 IndraLogic XLC/IndraMotion MLC 14V22 Patch 01 Hotfix 1 firmware

24.1 Firmware

24.1.1 Resolved defects

Uncontrolled axis movement although stopping state

CQ-ID: Defdb00204597

Severity: K1 – safety relevant function

Description: An axis is at standstill after executing a flex profile. Subsequently, the command stop is commanded. If the offset parameter A-0-2610 is changed while the stop command is active, the offset change can sporadically result in an axis movement if the operating mode for the drive is being switched.

Fixing: The axis movement during an active stop command due to an incorrect offset change is prevented.

Workaround: Wait until the stop command reports status Done before changing the offset parameter.

Transport Layer Security Handshake Timeout is too short

CQ-ID: Defdb00204461

Severity: K3 – malfunction (no wokaround)

Description: The timeout of the TLS handshake in the MLPI server was too small and failed at high latency times as they occur in the VPN tunnel.

RIL_OpcUaClient cannot connect to UA server of IoT gateway

CQ-ID: Defdb00201357

Severity: K3 – malfunction (no wokaround)

Description: The UA_Connect function block of the RIL_OpcUaClient library cannot connect to the OPC UA server of the IoT gateway. The function block can currently only establish unencrypted connections to a server. If the UserIdentityTokenType uses "UAUITT_Anonymous" to register at the OPC UA server of the IoT gateway, an error is reported with the error code "BadIdentiyTokenInvalid". Reason: This registration type is not transmitted to the server.

Closing of WebComposer screen results in F9240005 page fault

CQ-ID: Defdb00195599

Severity: K3 – malfunction (no wokaround)

Description: When closing the WebCompser screen, page fault F9240005 occurred. This error could sporadically be reproduced with other OPC UA clients; in case of an interrupted connection via CloseSecureChannel.

SVC error code 0x7015 is not supported by XLC/MLC

CQ-ID: Defdb00192774

Severity: K3 – malfunction (no wokaround)

Description: The new SVC error code 0x7015, "request again" was not supported by the XLC/MLC. The error code 0x7015 can basically reported at any time by any Sercos device.

Velocity jump during FlexProfile switching

CQ-ID: Defdb00200471

Severity: K3 – malfunction (no workaround)

Description: If a profile with ProfileEntry "SLAVE_CURRENT_MASTER_CURRENT" and SyncType "SYNC_DIRECT" is switched at a switching position, a velocity jump occurs at the switching point.

25 IndraLogic XLC/IndraMotion MLC 14V22 Patch 01 firmware and software

25.1 Software

25.1.1 Resolved defects

Engineering / _Other

IW: Exception when setting the system time in the status menu of the VPx control

CQ-ID: Defdb00201498

Severity: K2 - serious malfunction

Description: An exception occurred when trying to set the system time on the VPx.

For VPx, the Windows operating system governs the RTC. Thus, the control time cannot be set on the VPx.

Fixing: The button “Set system time” was disabled in the status menu of the VPx control.

“Add XLC/MLC control on the basis of an IP address...” cannot be used for a converted existing project

CQ-ID: Defdb00201820

Severity: K3 - malfunction (no workaround)

Description: The functionality “Add XLC/MLC control on the basis of an IP address...” can sporadically not be used for a converted existing project

The diagnostic dialog for the MLC logbook causes an unexpected, high communication load in offline mode

CQ-ID: Defdb00194823

Severity: K4 - malfunction

Description: The diagnostic dialog for the MLC logbook caused an unexpected, high communication load in offline mode.

Simulation: Error when transmitting the data to the control to start the online comparison

CQ-ID: Defdb00202346

Severity: K5 - non critical problem

Description: The following error message is reported in simulation mode when logging in to the PLC program: “Error when transmitting data to the control for online comparison”.

Engineering / GAT

GAT central and GAT decentral: Online change does not work in UserData structure

CQ-ID: Defdb00202323

Severity: K3 - malfunction (no workaround)

Description: The error affects GAT central and GAT decentral.

After an online change with changes to the UserData structure, the UserData structure data within the unit do not match the data in the global UserData variables anymore.

Fixing: The online change is now prevented by the following pragma in the UserData structure:

{attribute 'signature_flag' := '16777216'}

In case of newly created GAT projects, this pragma is automatically entered in the UserData structure.

In case of existing GAT projects, this pragma has to be manually entered in the UserData structure to debug the error.

AxisInterface: Incorrect reaction to error in ModeCoordinated

CQ-ID: Defdb00202310

Severity: K4 - malfunction

Description: If an error occurs when changed from ModeCoordinated to ModeAB, the AxisInterface did not react anymore to operating mode default settings.

GAT Wizard: Approximately 170, 000 unnecessary symbols are inserted in the symbol file during WinStudio visualization import

CQ-ID: Defdb00202234

Severity: K4 - malfunction

Description: If a WinStudio HMI is inserted in a GAT decentral, the entire function block "fbTE_MachineControl_gb” is inserted in the symbol configuration with approximately 170, 000 unnecessary symbols.

Fixing: The "fbTE_MachineControl_gb" function block is not inserted in the symbol configuration anymore.

Engineering / HMI

Exiting the WinStudio runtime via the Engineering tool takes a long time

CQ-ID: Defdb00201832

Severity: K3 - malfunction (no workaround)

Description: The WinStudio runtime environment reaction time is sporadically very slow when existing the runtime environment remotely (in an Engineering environment).

Multiple minimized IndraWorks projects with opened WinStudio editor can only be maximized after multiple attempts

CQ-ID: Defdb00199718

Severity: K3 - malfunction (no workaround)

Description: If IndraWorks Engineering is minimized while a WinStudio editor is open, IndraWorks Engineering can sometimes only be maximized after multiple clicks.

Process variable browser: Invalid root node if this node is defined in the OPC-UA driver sheet

CQ-ID: Defdb00202224

Severity: K3 - malfunction (no workaround)

Description: IndraWorks Engineering: If the OPC-UA configuration name contains an IP address, the process variable browser is not initialized correctly.

HMI: WebComposer visualization, IndraWorks Engineering crash

CQ-ID: Defdb00203603

Severity: K2 - serious malfunction

Description: Opening the variable editors and script editors in the WebComposer results in an exception and ultimately in an IndraWorks Engineering crash.

Opening the process variable editor in the “Text” attribute in the “WebComposer properties” window results to the same problem described above.

This applies to existing as well as to newly created projects.

Engineering / Oscilloscope

MLC oscilloscope multi-device measurement: IndraWorks cannot be operated when connecting devices

CQ-ID: Defdb00200688

Severity: K2 - serious malfunction

Description: If 64 axes are operated at an L75 and if it is tried to connect the oscilloscope multi-device measurement with 5 axes and the L75 as trigger device, the IndraWorks oscilloscope remains in the dialog “Configure signals”. IndraWorks cannot be operated anymore and has to be exited in the Task Manager. IndraWorks cannot be operated anymore and has to be closed in the Task Manager.

Oscilloscope does not trigger in case of multi-device measurement

CQ-ID: Defdb00202490

Severity: K3 - malfunction (no workaround)

Description: The oscilloscope does not trigger in case of multi-device measurement, irrespective of whether “Manual trigger”, “Automatic trigger” or “Signal trigger” is selected.

Engineering / Periphery

Error message "Error adjusting config: The project handle 0 is invalid"

CQ-ID: Defdb00202443

Severity: K3 - malfunction (no workaround)

Description: Sporadically, the error message "Error adjusting config: The project handle 0 is invalid” was reported in connection with Profinet modules.

PNIO: In case of a man. set PLC output address (no 4-byte alignment), data is missing in the PNIO output data

CQ-ID: Defdb00200743

Severity: K4 - malfunction

Description: If the %Q address is changed to a “non 4 byte address” (alignment) in the PLC output image, PLC output data can be missing in the Profinet I/O controller (mainly if 4 byte data types are contained in the output structures).

Engineering / PLC Libraries

Exception when executing IL_PNIOIoLinkRestoreDevice with BlockMode "BLOCK_CHECK"

CQ-ID: Defdb00202952

Severity: K3 - malfunction (no workaround)

Description: If it is tried to restore a parameter file with the IL_PNIOIoLinkRestoreDevice function block, an exception can occur.

MB_DigitalCamSwitchOvs function block: Hysteresis is not functioning correctly

CQ-ID: Defdb00202363

Severity: K3 - malfunction (no workaround)

Description: It is not possible to specify a hysteresis for the MB_DigitalCamSwitchOvs function block. However, this hysteresis does not function correctly, in particular during standstill.

MB_SmartBeltType01: Incorrect correction in case of a delayed master axis

CQ-ID: Defdb00202850

Severity: K3 - malfunction (no workaround)

Description: If the master axis is delayed while a product is being corrected, this correction can sporadically be incorrect. The product was corrected at an incorrect position. The problem occurred if the master axis velocity changed by more than 10%.

IL_SIIICommand and MB_Command: Timeout too short during reading of Sercos data status

CQ-ID: Defdb00201221

Severity: K4 - malfunction

Description: In case of certain commands (e.g. P-0-4085 in IndraDrive), the device needs some time from the activation of the command until the command is actually active.

If this time is too long (>30mSec), the function blocks report the error “Parameter is no command”.

Fixing: Now, the Timeout input (IL_SIIICommand) or a fixed timeout of two seconds (MB_Command) is used to verify that the command is active.

If this timeout is exceeded, the Timeout error (F_RELATED_TABLE, Additional1 = 16#00000015, Additional2 = 16#00000001) is reported.

Engineering / PLC Safety

"SSDx” modules are inserted multiple times

CQ-ID: Defdb00202444

Severity: K3 - malfunction (no workaround)

Description: If the “SSDx” modules are added via the Sercos dialog “Scan bus configuration”, sporadically, modules have been inserted multiple times.

Device scan: Profinet I/O link master cannot be imported

CQ-ID: Defdb00200677

Severity: K3 - malfunction (no workaround)

Description: Scan and import of the connected device does not work.

Exceptions are reported for each submodule.

The device conversion process of 14V22 P2 has been changed for Safety devices

CQ-ID: Defdb00203303

Severity: K3 - malfunction (no workaround)

Description: Converting a control (here VPx) from 20VRS to 22VRS takes more than 50 minutes for projects with many Safety devices (>80).

Fixing: The pinning display is performed first at the Safety objects. The pinning display is shown at the Safety application when all libraries are loaded.

Individual function blocks with "_TO_" in the name cannot be used

CQ-ID: Defdb00160410

Severity: K4 - malfunction

Description: If the name of a function block contains the character string "_TO_", this function block cannot be used in the program.

Engineering / Technology

IW: Technology node does not show any instance paths

CQ-ID: Defdb00200888

Severity: K5 - non critical problem

Description: If a process controller function block (e.g. MB_TensionControlLoadCellType01) is used in a function block that is instantiated multiple times, the technology node does not itemize these instance paths.

Fixing: In case of ambiguous names in a group, the instance names are also displayed.

Logic

IndraLogic: Insufficient memory on the device

CQ-ID: Defdb00203362

Severity: K2 - serious malfunction

Description: If the following conditions are met, the message “Download failed: Insufficient memory on the device" might be displayed upon the download or the online change of an application:

1. An application with VAR RETAIN or VAR PERSISTENT RETAIN has already been loaded to the control.

If an application is then loaded to the control that uses VAR RETAIN or VAR PERSISTENT RETAIN as well and if its application name differs from the one of the application on the control, the download fails showing the message window “Download failed: Insufficient memory on the device" and an entry in the error/diagnostic memory "F0390002 Allocate retain area failed, no memory: [Application], 2, 130048, 0x0120".

2. The included VAR RETAIN or VAR PERSISTENT RETAIN boot application was not loaded upon control boot (XM control: SF1 switch position in STOP, CML control: Option in BOOT stop menu).

If an application is then loaded to the control that uses VAR RETAIN or VAR PERSISTENT RETAIN as well, the download fails showing the message window “Download failed: Insufficient memory on the device" and an entry in the error/diagnostic memory "F0390002 Allocate retain area failed, no memory: [Application], 2, 130048, 0x0120".

In both cases, the remanent PLC memory on the control can only be deleted by executing the command "Reset origin device [device name]" in the context menu of the device node. Remanent PLC data is deleted. When executing the command, the following entry might be displayed in the error/diagnostic memory "F53A0002 Reset unknown from application ‘[Application name]' (completed?)".

The command "Reset origin device [device name]" in the context menu of the device node does NOT correspond to the command "Reset origin" in the "Debug" menu or to “Delete application from device" in the context menu of the

application node. These commands cannot be used in the mentioned error case.

PLC Library

IL_HighResTimeTick or IL_HighResTimeDiff returns an incorrect result on a CML65

CQ-ID: Defdb00202267

Severity: K3 - malfunction (no workaround)

Description: A high-resolution TimerTick always depends on the hardware as the frequency is deduced from the processor cycle.

As the value is only returned as 32 bit value, this value always overflows after a certain time.

This, only a max. time of 3 seconds can be measured using this TimerTick.

This information is entered in the documentation of the library functions.

25.1.2 Functional enhancements

Engineering / PLC Libraries

AxisInterface: Execute a internal “Delete error” if an external error is deleted

CQ-ID: Defdb00201934

Severity: K6 - functional enhancement

Description: After an error has occurred, the AxisCtrl[].Admin.ClearError input has to be set to TRUE at the axis interface to reenable the selected operating mode and to move the axis again.

Different options to delete the error: using the ESC key at the drive does not delete the internally saved error in the axis interface.

Enhancement: The control structure was extended by the AxisCtrl[].Admin.EnableExtClearError input. If this input is set to TRUE, the AxisInterface does not react to an external “Delete error” and enables the selected operating mode again.

Information: For example, a motion can be triggered by pressing the ESC key at the drive display.

25.1.3 Known issues

_Other

The “Device data Explorer” generated an error message if the case sensitivity is changed

CQ-ID: Defdb00201450

Severity: K4 - malfunction

Description: When changing the case sensitivity of a file name on an XM in the “Device data Explorer”, the following error message is displayed: "Error renaming file 'xxxx.txt' to XXXX.txt' ; General failure (server should provide error description). Error code: 4"

The error message “The entered name is invalid” is displayed on an L65 in case of the same action.

Engineering / PLC Libraries

Function block MB_MagicBeltType01: Synchronized jogging causes an error at InfeedType= FEED_SYNCHRONIZED

CQ-ID: Defdb00203367

Severity: K4 - malfunction

Description: The function block MB_MagicBeltType01 reports the error "F_RELATED_TABLE, Add1 = 16#3, Add2 = 16#0" at the first chain if synchronized jogging (SingleAxisJog=FALSE) is started via JogPlus or JogNeg and if InfeedType= FEED_SYNCHRONIZED is synchronized.

This behavior does not result with InfeedType= FEED_INDEXED.

IoDrvCIFXProfinetV3DCIA.library is not compatible with the IoDrvCIFXProfinetDCIA.library

CQ-ID: Defdb00203326

Severity: K4 - malfunction

Description: When using the library-internal structure of the IoDrvCIFXProfinetDCIA.library in the PLC user program, a device update on the 14V22 results in compilation errors.

Workaround: Version 14V22 contains a changed version of the Profinet controller I/O driver. The namespace has also changed.

If you are referencing internal variables of the previous driver version (IoDrvCIFXProfinetDCIA.library) in your project, compilation errors occur during the project conversion by using the new driver version (IoDrvCIFXProfinetV3DCIA.library).

Please adjust the variables to the new namespace in this case.

Engineering / PLC Programming

After the connection has been interrupted, a PLC login with MLC firmware 13 is not possible anymore

CQ-ID: Defdb00203297

Severity: K2 - serious malfunction

Description: If the network connection to the control was interrupted and restored again in the combination IndraWorks14VRS and MLC FW 13VRS, the PLC can subsequently not be logged in anymore.

The MLC can be logged in again after switching it off and on again.

Going online with the PLC is not possible without PLC program download

CQ-ID: Defdb00203537

Severity: K3 - malfunction (no workaround)

Description: If a project is for example loaded from 14V20 patch 2 via “Adding XLC/MLC control based on an IP..." to IndraWorks 14V22, going online with the PLC is not possible without a prior PLC program download.

PROFINET IO

Function block "IL_PNIODeviceStateDetailsXMAC” always issues an error message

CQ-ID: Defdb00203456

Severity: K3 - malfunction (no workaround)

Description: The function block IL_PNIODeviceStateDetailsXMAC in the RIL_ProfinetIO-Device.library is not supported anymore from14V22 patch 1.

Currently, the function block is incorrectly aborted with the following error:

Additional 1 = 16#00000003

Additional 2 = 16#800A0012

Error table: “Specified buffer is too small”

Installation

OPC.DA: Connection from client to server cannot be established

CQ-ID: Defdb00203642

Severity: K2 - serious malfunction

Description: On a PC, containing only a reinstallation of IndraWorks 14V22, .NET-based OPC.DA clients cannot connect to the OPC server.

Workaround: Workaround: Copy data of the “System32” subdirectory of the IndraWorks installation directory (usually "C:\Program Files (x86)\Rexroth\IndraWorks\System32”) to the "C:\Windows\syswow64" directory (64-bit operating system) or to the "C:\Windows\system32" (32-bit operating system).

25.2 Firmware

25.2.1 Resolved defects

_Other

Safety: No communication possible with the Safety module below the VPP

CQ-ID: Defdb00201851

Severity: K2 - serious malfunction

Description: Logging in to a Safety control is not possible at an VPP with Safety function module.

Axis

MC_Stop with stop in the current operating mode does not report Done

CQ-ID: Defdb00200162

Severity: K2 - serious malfunction

Description: The configuration of the bits 5, 6 and 7 in A-0-0007 for a controller axis ensures that MC_Stop is executed in the current operation mode.

The axis stops if an MC_Stop was commanded after a MoveVelocity. The function block does not report a “Done” and the axis remains in the “Stopping” state.

MLC TouchProbe: Incorrect measured value

CQ-ID: Defdb00202069

Severity: K3 - malfunction (no workaround)

Description: If a master axis position (A-0-2650, A-0-2651, A-0-2656) was configured in parameter M-0-0006, the modulo value of the master axis is not taken into consideration during the calculation of measured values.

Fixing: If a master axis position (A-0-2650, A-0-2651, A-0-2656) is configured in parameter M-0-0006, the modulo value of the master axis is now taken into consideration during the calculation of measured values.

Due to debugging, the control probe behavior has changed with regard to the following aspects:

- When leaving Sercos phase 4, the touch probe is disabled (M-0-0024) and the release is reset (M-0-0405). Reason: Data such as modulo, scaling etc. can only be read out in Sercos phase 4

- Up till now, the touch probe was enabled during switching from Sercos phase 3 to 4. Now, the touch probe is not enabled anymore (M-0-0024), as required data such as modulo, scaling etc. cannot be read out yet at this point in time. The user has to manually enable the touch probe after reaching phase 4 (M-0-0024).

If a master axis position (A-0-2650, A-0-2651, A-0-2656) was configured in M-0-0006, the touch probe (M-0-0024) can only be enabled if the slave axis is in a synchronization operating mode (error message 0xE0337008 “Invalid operating data…")

- In case of an enabled touch probe (M-0-0024), M-0-0006 is read-only (error message 0xF00A700C “Operating data currently read-only...”)

Core

Load parameters “current” cannot be used for multi-processor controls

CQ-ID: Defdb00202717

Severity: K3 - malfunction (no workaround)

Description: The parameters "C-0-0415, CPU load, current" and "C-0-0465, CPU load per core, current" could not be used anymore on multi-core controls to record and reasonably display the control load with the PLC trace or the oscilloscope function.

The function of C-0-0415 changed when the multi-core controls were introduced. The load of a kernel is not displayed anymore, but the arithmetic average of the CPU loads of all kernels.

The parameter C-0-0465 cannot be recorded with the oscilloscope, as it is a list parameter.

Fixing: The parameters "C-0-0415, CPU load, current" and “C-0-0416, CPU load, maximum” and “C-0-0417, CPU load, minimum” display only the load of kernel 0, as this kernel is generally loaded the most. Thus, this parameter can be oscilloscoped again or recorded in the PLC trace with regard to the control load.

TaskViewer CML75: Measurement results in IndraWorks exception

CQ-ID: Defdb00201837

Severity: K3 - malfunction (no workaround)

Description: When using the TaskViewer in large projects, the TaskViewer sporadically reported an exception.

XLC/MLC: Missing diagnostic information in the error memory

CQ-ID: Defdb00202696

Severity: K3 - malfunction (no workaround)

Description: To diagnose in case of an error, the following information has to be entered into the error memory upon each MLC firmware boot:

- Serial number

- Part number/index
- Type code

Fixing: Upon each boot process, the diagnostics "A00C0010: Device information: <TypeCode>, <Serialnumber>, <Part number>, <Partindexnumber>" is entered in the error memory.

EtherCAT

ECAT: Control reports F03A200D "More as 1 SyncManager available"

CQ-ID: Defdb00203004

Severity: K3 - malfunction (no workaround)

Description: For some configured EtherCAT devices, the control reports F03A200D "More as 1 SyncManager available" in the diagnostic memory.

Logic

CML75: Loss of persistent data if boot project download was aborted

CQ-ID: Defdb00200892

Severity: K2 - serious malfunction

Description: If the boot project download was aborted, the Persistent Variable List remains invalid even after a new completed download.

IMST: Writing an S-/P-parameter to the drive via EISWS always results in "error:518"

CQ-ID: Defdb00180116

Severity: K3 - malfunction (no workaround)

Description: IMST cannot write parameters of drives with a Sercos address unequal to the logic address.

IndraLogic: Resetting an exception in the PLC user program is not possible via “Reset” or “Cold reset”

CQ-ID: Defdb00201908

Severity: K4 - malfunction

Description: After an exception has occurred in the IEC user program (e.g. division by 0, pointer access to a forbidden address,...), the PLC program can usually be reset via the IndraLogic command “Reset” or “Reset cold”. In the 14V22, the error message "IEC-Task Taskname failed to delete" can be issued when executing this command. In this case, restart the control.

Motion Functions

AxisData[].Axis_inPosition Bit is not set correctly in MC_MoveAdditive and MC_MoveRelative

CQ-ID: Defdb00200840

Severity: K3 - malfunction (no workaround)

Description: An MC_MoveAdditive or an MC_MoveRelative is commanded for a real axis with interpolation in the drive. The “Done” bit of the function block and the Axis_InPosition bit of the AxisData structure are analyzed. The Axis_InPosition bit is set delayed by one Motion cycle.

Errors in the valve direct control in operations without encoder

CQ-ID: Defdb00200493

Severity: K3 - malfunction (no workaround)

Description: If the direct valve control is enabled in operation without encoder, the error "F2229274, Command rejected, no position reference" even if no encoder is required during the direct valve control.

OPC UA

OPC UA server: Individual elements of multi-dimensional arrays cannot be read anymore

CQ-ID: Defdb00201795

Severity: K2 - serious malfunction

Description: Individual elements of multi-dimensional arrays cannot be accessed in case of blank spaces in the node ID.

PROFINET IO

Profinet controller: Second topology file is not read in

CQ-ID: Defdb00201734

Severity: K3 - malfunction (no workaround)

Description: If two Profinet controllers are available at a control, the second topology file cannot be read in.

Sercos

S/IP communication is not active

CQ-ID: Defdb00202440

Severity: K3 - malfunction (no workaround)

Description: After an IndraWorks project has been converted to 14V22, the S/IP communication to the drives was not active anymore.

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26.1 Software

26.1.1 Resolved defects

_Other

Error in online comparison in compatibility version smaller than 14V20

CQ-ID: Defdb00201279

Severity: K3 - malfunction (no workaround)

Description: If a project is opened with version 14V18 or 14V20 and is not converted, it is incorrectly displayed that a project with version 14V20 is available on the control and the comparison is not executed correctly.

Offline simulation not possible

CQ-ID: Defdb00199619

Severity: K3 - malfunction (no workaround)

Description: No master communication could be selected during the offline simulation.

S20: Field bus diagnostics unclear, item 3 - Sercos

CQ-ID: Defdb00200860

Severity: K3 - malfunction (no workaround)

Description: If a Sercos I/O slave or an I/O module reports an error or a warning, the IndraWorks Explorer at the Sercos master node was not informed about this error/this warning (if logged in).

Fixing: If an I/O device of the Sercos master reports an error or a warning, information regarding the error/warning is displayed in the IndraWorks Project Explorer at the Sercos master node (if logged in).

SafeMotion machine acceptance: If a different axis is selected, IndraWorks Engineering did not respond anymore

CQ-ID: Defdb00200505

Severity: K3 - malfunction (no workaround)

Description: During the SafeMotion machine acceptance and when switching to a different axis, IndraWorks Engineering did not respond to inputs anymore.

If the oscilloscope configuration has already been loaded for a drive via “Open oscilloscope” and if a different axis was selected in the drop-down menu, a malfunction occurs in IndraWorks Engineering when calling “Open oscilloscope” again. This malfunction could only be fixed by exiting IndraWorks Engineering.

Documentation

PNIO: Controller generates a high control load (as maintenance takes place during the PNIO data exchange)

CQ-ID: Defdb00200781

Severity: K3 - malfunction (no workaround)

Description: The runtime of the Profinet I/O controller can result in a higher control load as it is waited during the Profinet I/O data exchange with the netX (-> blocks control).

This is also the case if no device is configured.

Engineering / _Other

Online comparison does not disconnect SSH connections anymore

CQ-ID: Defdb00201400

Severity: K2 - serious malfunction

Description: After executing the online comparison multiple times, FTP connection errors occur, e.g. during login or opening of the device explorer.

DevApp: Disabled axes are not applied to the IndraWorks project during adjustment

CQ-ID: Defdb00200348

Severity: K3 - malfunction (no workaround)

Description: During an online comparison of a control with disabled axes (online), these axes cannot be applied to the project, even though they are labeled as unequal.

Fixing: The S-/P-parameters of disabled drives cannot be accessed. Thus, information required to apply these drives to the project is missing.

The drive and the drive axis below are thus displayed as “not comparable”. This indicates that these drives cannot be applied to the project.

Drive firmware download: <Open file> dialog does not open

CQ-ID: Defdb00193121

Severity: K3 - malfunction (no workaround)

Description: The dialog to select a file did not open upon firmware download.

Engineering / CamBuilder

Incorrect "MasterAxisVelocity" conversion in the CamBuilder

CQ-ID: Defdb00196778

Severity: K3 - malfunction (no workaround)

Description: Cam characteristics:

Master axis scaling = translatory

Slave axis scaling = translatory

If the motion step editor for the velocity of the master axis uses a formula, the MasterAxisVelocity is incorrectly calculated when the function block is created. The conversion factor to rpm is missing.

Target position incorrect after cam import and starting point<>target position and starting point and target position<>0

CQ-ID: Defdb00199973

Severity: K4 - malfunction

Description: The target position is incorrect if a cam was imported or uploaded from the device with the following properties:

1. Starting point is <> 0

AND

2. Target position is <> 0

AND

3. Target position <> Starting point

Engineering / Drive

Dialog “Local I/O” bit selection cannot be reached anymore

CQ-ID: Defdb00199677

Severity: K4 - malfunction

Description: If the column width of column one, two or three was increased in the “Local I/O” dialog, a scrollbar was displayed. The column to select a bit was not visible anymore.

Exception when changing the analog output analysis

CQ-ID: Defdb00199680

Severity: K4 - malfunction

Description: If the analysis was changed due to the analog output assignment of the data format (e.g. from hexadecimal to decimal), an initial change of the analysis was not applied.

Engineering / GAT

AxisInterface: No reaction to input ParamLevel

CQ-ID: Defdb00200812

Severity: K3 - malfunction (no workaround)

Description: The axis was switched to parameter mode via the ParamLevel = TRUE input. The axis is switched from PM->OM with ParamLevel = FALSE.

When switching from PM->OM, ParamLevel = TRUE is used to request the parameter mode again. The parameter mode request is not executed.

When actuating ParamLevel from a faster task or a task with a higher priority, sporadically, a request was not executed.

Command "Set absolute measuring” is not applied for controller axes

CQ-ID: Defdb00199491

Severity: K4 - malfunction

Description: The command “Set absolute measurement” can be initiated for real and virtual axes via the input AxisCtrl[].Admin.SetAbsRef of the AxisInterface.

This input does not apply for controller axes.

Fixing: As of the library ML_TechInterface 14.22.10.0, the command S-0-0447 “Set absolute measuring” for controller axes is triggered with the input AxisCtrl[].Admin.SetAbsRef if the parameter system of the controller axis is active (AxisData[].Axis_PLCParaSysActive).

PhaseShift is not reliably applied to the AxisInterface

CQ-ID: Defdb00197564

Severity: K4 - malfunction

Description: If the PhaseShift value is changed directly after activating the operation mode, the new value is not applied to A-0-2710.

Engineering / HMI

WinStudio: HMI.WebBrowserCtrl returns an exception when opening the "Property Pages"

CQ-ID: Defdb00198098

Severity: K3 - malfunction (no workaround)

Description: When using the HMI.WebBrowserCtrl in WinStudio standalone (not in IndraWorks), an exception is reported in the development environment when opening the "Property Pages".

WinStudio: Runtime configuration of user management prevents closing of IndraWorks project

CQ-ID: Defdb00200684

Severity: K3 - malfunction (no workaround)

Description: When enabling the option “Close project” for the standard user in the WinStudio user management under runtime settings, the message “Your user group is not authorized to close the project” when trying to close the IndraWorks project.

IndraWorks requires a lot of time when adding a high number of elements to a driver sheet

CQ-ID: Defdb00199503

Severity: K4 - malfunction

Description: Adding a high number of elements (>200) from the process variable browser to a WinStudio driver sheet using the TagWizard requires multiple minutes.

WinStudio Runtime - Keypad input -> Error box "Value out of Range" is not scaled

CQ-ID: Defdb00165634

Severity: K4 - malfunction

Description: When entering an incorrect value into the input field of a WinStudio screen, a dialog is displayed that can be acknowledged only with a lot of difficulties on the touch devices due to their small size.

Fixing: The following entries in the WinStudio project file (.app) can be used to scale the size on the just described message:

[Options]

EnableCustomMessageBox=1

MBHorz=800

MBVert=480

Engineering / HMI CE

The user cannot use the WinStudio remote LogWin and the remote database spy

CQ-ID: Defdb00199685

Severity: K3 - malfunction (no workaround)

Description: The user cannot use the WinStudio remote LogWin and the remote database spy, as user name and password are queried in the login mask, but this data is not known to the user.

Engineering / Oscilloscope

IndraWorks MLC oscilloscope multi-device measurement

CQ-ID: Defdb00197251

Severity: K2 - serious malfunction

Description: When a measurement is carried out, there is an impact on the usability of the interface in certain phases of the measurement. The usability of the IndraWorks interface is briefly interrupted, primarily at the end of the measurement when the measurement results are loaded from the physical device to the IndraWorks oscilloscope.

The following circumstances can have a negative effect on the usability:

- The PC or control is operated at a high load

- The oscilloscope measurement is operated with a short measurement duration (size of memory < 500, measurement duration < 1 second) and in the "SingleShot (repeat automatically)" measurement mode

- Multi-device measurement with many slave devices

Engineering / Periphery

Error during transmission using Profinet in case of bit-by-bit addressing

CQ-ID: Defdb00198485

Severity: K4 - malfunction

Description: When accessing only one byte of an output word (e.g. via %QX or %QB), the word is incorrectly transmitted (byte is inverted).

Engineering / PLC Libraries

Function block IL_SetDateTime reports unexpected and empty error code if CrossComm Sercos III card is configured as master

CQ-ID: Defdb00198170

Severity: K2 - serious malfunction

Description: The function block IL_SetDateTime can only be executed if the control is not a link device or if the control is a link device and a link master at the same time. If the control is configured as slave, the function block has to report an error. Also refer to the parameter C-0-0701 Configuration of C2C CrossCom (bit 0: Single control or link device; bit 1: Slave or master in the link).

Bit 4 (single or double ring) was incorrectly checked instead of bit 1 in the function block implementation. I.e. if the control was configured as link master, but single ring was set, the function block reported an error, even though there was not error.

“Adjust” function blocks display incorrect output status during preset to limit value

CQ-ID: Defdb00200426

Severity: K3 - malfunction (no workaround)

Description: In case of function blocks:

- IL_ContinuousAdjustType01

- IL_ContinuousAdjustType02

- IL_IncrementalAdjustType01

if a preset is executed on a value that is exactly on a limit value.

One of the HighLimitActive or LowLimitActive outputs only becomes active if the Preset input is removed or when the matching input Inc or Dec is set to exit the limit value.

Fixing: Now, the HighLimitActive or LowLimitActive outputs are set immediately when executing the preset.

AxisInterface: ModeAB is sporadically not acknowledged in the status

CQ-ID: Defdb00200857

Severity: K3 - malfunction (no workaround)

Description: Via the control structure, it is switched from any operating mode to ModeAB. When switching to Ab, the power at the drive is cut (bb). Sporadically, no ModeAB is acknowledged in the state.

MB_AxisInterfaceType11: AxisStatus "ProfileActiveSet" is not updated

CQ-ID: Defdb00201709

Severity: K3 - malfunction (no workaround)

Description: The AxisStatus "ProfileActiveSet" output is not updated and always remains at 0.

Program IL_SIIIParameterBackup to be more fault-tolerant

CQ-ID: Defdb00201508

Severity: K3 - malfunction (no workaround)

Description: When using the IL_SIIIParameterBackup function block, inputs in the generated parameter file are sporadically corrupt in case of incorrectly implemented Sercos devices.

Fixing: The function block was changed. Now it can also work faultlessly with corrupt Sercos devices.

AxisInterface: Structural element arAxisStatus_gb[xx].Diag.Number briefly returns to 0

CQ-ID: Defdb00196159

Severity: K4 - malfunction

Description: If there is an axis error, it is briefly displayed correctly via arAxisStatus_gb[xx].Diag.Number at first.

The number for multiple PLC cycles returns to 0 and then shows the correct value again.

KinInterface: Drive remains at AF when selecting ModeCoordAb

CQ-ID: Defdb00201721

Severity: K4 - malfunction

Description: When switching a kinematics, e.g. to ModeCoordPosDirRel, an error occurs at the kinematics if, for example, an axis is not referenced.

The affected axis with error goes into state “Ab”.

When specifying ModeCoordAB, sporadically, part of the axis kinematics does not switch to “Ab” anymore.

MB_AllocCyclicParameter returns incorrect error code

CQ-ID: Defdb00201368

Severity: K4 - malfunction

Description: If all optional cyclic parameters are already assigned and if one more parameter should be assigned, an error is returned with "ACCESS_ERROR".

However, expected and documented is "RESSOURCE_ERROR" with Add1 = 0xF216, Add2 = 0.

Engineering / PLC Programming

Connection test with IndraLogic does not work with VPN/Remote

CQ-ID: Defdb00200013

Severity: K3 - malfunction (no workaround)

Description: VPN connects IndraWorks to the system. The IndraLogic connection test always fails. The control responds always. A connection can only be established after multiple attempts.

Engineering / PLC Safety

SafetyData: Sporadically, the "InputByte0” of the safe I/Os is "0"

CQ-ID: Defdb00200581

Severity: K3 - malfunction (no workaround)

Description: Input values of Csos input devices are sporadically read out as 0 via SafetyData.

Using variables via the input wizard causes compilation errors

CQ-ID: Defdb00187377

Severity: K4 - malfunction

Description: The error occurs if variables were mapped to logic I/Os of an instance and if these variables are then inserted after the instance call via the input wizard, e.g. in case of ProfiSafeHost instances.

The variable name is inserted with the preceding object name and dot (Object.Variable). The “Safety” application cannot be compiled anymore.

Engineering / Project Handling

When converting a L65 to XM22, the Safety module is not replaced correctly

CQ-ID: Defdb00199382

Severity: K3 - malfunction (no workaround)

Description: When converting L-controls to XM/VPx controls, the Safety module is not replaced correctly.

Engineering / Version Control System

Incorrect mapping of the logic I/Os after opening the project via VCS

CQ-ID: Defdb00198988

Severity: K3 - malfunction (no workaround)

Description: When opening a project from the version control, the logic I/O points were mapped in a wrong sequence.

Installation

Setup: Incomplete installation in case of special services of third party manufacturers

CQ-ID: Defdb00200479

Severity: K3 - malfunction (no workaround)

Description: Incomplete IndraWorks installation if services could not be stopped during the installation and when using an administrator account.

Logic

System error F5180006 “Cycle time exceeded” after “Reset “Reset cold” or “Login with download”

CQ-ID: Defdb00198992

Severity: K3 - malfunction (no workaround)

Description: If certain conditions are met, the system error F5180006 can result at the MLC control. This is the case for example if the PLC is switched to stop (using the command Stop, Reset, Download).

This error can only result if there are PLC tasks in the user project with a priority higher than the priority of the Motion kernel and if these PLC tasks use I/O.

Online-Help

Describing the options when loading cam tables to the drive

CQ-ID: Defdb00193901

Severity: K5 - non critical problem

Description: When loading cam tables from the CamPool to the drive, a note text is displayed that has to be extended.

Fixing: The note text is extended as follows:

“The generated table values are values in percent of the hub transferred at the SyncFBs. The maximum distance in the cam corresponds to 100%.”

Operation / HMI

WinStudio Web Browser Control: Focus problem in touch control

CQ-ID: Defdb00199366

Severity: K4 - malfunction

Description: Input fields in the browser window cannot be focused (correctly) anymore via touch control. this means, after an input field has been selected, no value can be entered via the touch pad or the keyboard anymore.

26.1.2 Functional enhancements

Engineering / GAT

GAT wizard should not delete MotionTask

CQ-ID: Defdb00198928

Severity: K6 - functional enhancement

Description: Currently, the GAT wizard deletes the MotionTask for these variants upon creation:

- AxisInterface example

GATcompact

Enhancement: The MotionTask is not deleted anymore when creating AxisInterface example and GATcompact.

26.1.3 Known issues

Engineering / Motion

C2C: The message C-0-0778 cannot be written when changing from slave to master

CQ-ID: Defdb00200358

Severity: K3 - malfunction (no workaround)

Description: Up to now, a change in the C2C configuration (master <--> slave) did not cause a control reboot. Thus, there were no problems when writing the C2C command configuration (C-0-0778).

Engineering / Periphery

PNIO: In case of a man. set PLC output address (no 4-byte alignment), data is missing in the PNIO output data

CQ-ID: Defdb00200743

Severity: K4 - malfunction

Description: If the %Q address is changed to a “non 4 byte address” (alignment) in the PLC output image, PLC output data can be missing in the Profinet I/O controller (mainly if 4 byte data types are contained in the output structures).

Workaround: Workaround: Always set the data structures to 4 bytes addresses (alignment).

Engineering / PLC Libraries

AxisInterface: Execute “Delete internal error” if an external error is deleted

CQ-ID: Defdb00201934

Severity: K6 - functional enhancement

Description: After an error has occurred, the AxisCtrl[].Admin.ClearError input has to be set to TRUE at the axis interface to reenable the selected operating mode and to move the axis again.

Different options to delete the error: using the ESC key at the drive does not delete the internally saved error in the axis interface.

Engineering / PLC Programming

Compile warning: “Critical bus cycle time,...”

CQ-ID: Defdb00199878

Severity: K3 - malfunction (no workaround)

Description: The bus cycle task is “unspecified” in the default setting.

From 14V22, the bus cycle task has to be >= (2 * smallest configured Send Clock)

Otherwise, a watchdog exception can occur during a Profinet data exchange. A compiler warning "Critical bus cycle time,..." is displayed in IndraWorks.

An external CIFX event is currently not supported for a bus-synchronous PLC processing.

Instruction on the error message on persistent variables does not resolve them

CQ-ID: Defdb00199914

Severity: K3 - malfunction (no workaround)

Description: If the persistent variable area is changed multiple times while editing, the following error message is shown quickly:

"C0415: Insufficient global data memory: Variable "xyz", xxxxBytes. (Incremental compilation can cause a memory fragmentation. Execute “Create" “Clean" to force the re-allocation of all data and the code.)"

“Cleaning” does not resolve the error.

The library "#VisuUtils" could not be opened

CQ-ID: Defdb00201425

Severity: K3 - malfunction (no workaround)

Description: If the project converted from 14V18 is opened with 14V22 R2, the following message is displayed: “The library "#VisuUtils" could not be opened. Reason: The placeholder status “VisuUtils” could not be resolved.”

Engineering / PLC Safety

Device scan: Profinet I/O link master cannot be imported

CQ-ID: Defdb00200677

Severity: K3 - malfunction (no workaround)

Description: Scan and import of the attached device does not work.

Exceptions are reported for each submodule.

Project Handling

Profinet: The Profinet watchdog is set to 0 ms during a project conversion to 14V22

CQ-ID: Defdb00199992

Severity: K4 - malfunction

Description: When converting an IndraWorks project with a Profinet I/O configuration from e.g. 14V20 to 14V22, the watchdog time is not applied correctly but set to 0 ms.

S20 Digital input modules

Bus coupler S20-S3-BK: S20-DIDO-8/1 module voltage supply errors are only displayed as "0x3400"

CQ-ID: Defdb00197246

Severity: K3 - malfunction (no workaround)

Description: For a S20 Sercos bus coupler (S20-S3-BK), voltage supply errors at the attached S20-DIDO-8/1 I/O modules are not textually interpreted as voltage supply errors. A "0x3400 Manufacturer specific code" is indicated instead. The misinterpretation results, as an “8” (manufacturer-specific” is placed at the beginning of the diagnostics code 0x8F340005DF0100FF in S-0-1500.0.32 (IO Diagnostic Message). “0” would be correct.

26.2 Firmware

26.2.1 Resolved defects

_Other

Profinet I/O devices are not detected while switched on

CQ-ID: Defdb00189926

Severity: K3 - malfunction (no workaround)

Description: It is possible that the Profinet I/O devices are not detected while switched on.

Sytronix axis starts up despite AB commanding after a Sercos failure and subsequent startup

CQ-ID: Defdb00200642

Severity: K1 - safety relevant function

Description: If a traversing command is executed for a controller axis and the Sercos connection fails in this particular moment, the control identifies an error and returns to the Sercos phase 0.

If the connection is established again and the control goes into the “Ready for operation” state after clearing the error, the traversing command is executed again and the controller axis continues moving (with the old command).

Fixing: If the Sercos connection fails during a traversing command for a controller axis and the bus goes into phase 0, no traversing command applies anymore after reaching the state “ready for operation” and the controller axis remains in its position.

Oscilloscope requires approximately 3.0 minutes to connect, if 5 real drives are configured

CQ-ID: Defdb00200513

Severity: K2 - serious malfunction

Description: If parameters of real drives are configured in the oscilloscope for visualization, establishing a connection can sporadically take several minutes, depending on the number of real drives.

A PLC warning occurs after CLEANUP

CQ-ID: Defdb00199750

Severity: K3 - malfunction (no workaround)

Description: After a CLEANUP (deleting of NvRam memory, deleting of user data including the boot applications), the following warning occurred after booting (applies to all MLC-FW targets):

E0390017

[1/2] Retain size in config changed, or retain area got corr

[2/2] upted. Config=0x1fe00, Physical=0x0

Parameter "C-0-0023 (Bit "24";"26") incorrect

CQ-ID: Defdb00199662

Severity: K3 - malfunction (no workaround)

Description: For the parameter C-0-0023 (system status) only one bit of the bits 24, 25 and 26 is active from which category a message (error, message, warning) was issued last. The bits of all pending message types have to be set.

The same behavior results for the parameter C-0-0650 (Diagnostics, status word) for bit 0 (message), bit 1 (warning), bit 2 (class 0 error), bit 3 (classes 1..9 error).

An effect is for example that the Error LED (ERR) is partially controlled incorrectly on the XM2.

SysFileAsync/SysDirAsync: TimeOut always results when multiple jobs run simultaneously

CQ-ID: Defdb00196622

Severity: K3 - malfunction (no workaround)

Description: If the libraries SysFileAsync/SysDirAsync are used in the PLC project and if multiple Async services are started parallely, a timeout error resulted.

Axis

MLC L75 system error F9180003 after 49.71 days of continuous operation by tick overflow

CQ-ID: Defdb00200768

Severity: K2 - serious malfunction

Description: On controls with a multicore CPU, the error "F9180003, Axis incorrectly registered" occurs after continuous operation of 49.71 days if the control is in state "Ready for operation".

System error "F9240006" in the FlexProfile if the master axis stops in the time-controlled segment

CQ-ID: Defdb00198457

Severity: K2 - serious malfunction

Description: If the current master velocity is 0 when a segment changes and if the master changes at the same time, an exception can result in the coprocessor.

"F5180005 Cycle time exceeded" Motion Kernel for IpoDrive

CQ-ID: Defdb00197669

Severity: K3 - malfunction (no workaround)

Description: If a motion command is triggered for a real axis with interpolation in the drive within two motion cycles after triggering the motion command "MoveAbsolute" and if that motion command uses another operation mode, the error "F5180005 Cycle time exceeded Motion Kernel" is sporadically generated.

Fixing: The transition from the motion command "MoveAbsolute" to a motion command using another operation mode is possible without an exceeded cycle time.

MLC with IndraDrive, MB_GetCyclicParameterHandle (ML_TechMotionBase) does not provide any handle

CQ-ID: Defdb00199029

Severity: K3 - malfunction (no workaround)

Description: When retrieving the user-defined containers (e.g. A-0-0520) via direct variables in the PLC, it is possible that the upper 32 bits are not initialized correctly. Thus, the function block MB_GetCyclicParameterHandle does not correctly identify parameters assigned in the containers.

Parameter number for cyclically configured bits are not read out correctly

CQ-ID: Defdb00200876

Severity: K3 - malfunction (no workaround)

Description: When reading out the user-defined bit container (e.g. A-0-0560) via direct variables to the PLC, sporadically, the 32 bits were not initialized correctly. Thus, the function block MB_GetCyclicParameterHandle does not correctly identify parameters assigned in the containers.

Parameter scaling, A-0-0036, incorrect after reboot

CQ-ID: Defdb00199717

Severity: K3 - malfunction (no workaround)

Description: If “Parameter scaling” is configured for the acceleration data of an axis and the respective exponent or factor changes, the parameter A-0-0036 (jerk limit value, bipolar) can contain a wrong value after control restart.

Command value jump when commanding MC_Stop on a real axis

CQ-ID: Defdb00198780

Severity: K4 - malfunction

Description: If, for a real axis with the configuration “IpoControl”, the motion command "MC_MoveVelocity” is commanded first and then “MC_Stop”, a jump can result in the parameter A-0-0150 “Position command value” after the velocity v = 0 has been reached.

Synchronization (master axis range > Modulo) does not work for the FlexProfile

CQ-ID: Defdb00196879

Severity: K4 - malfunction

Description: If a FlexProfile is used and the master axis range is greater than the master modulo and the MasterOffset of the ML_FlexProfil function block is greater than the master modulo, the correct SlavePosition is not approached.

Core

Application starts with outdated NVRAM data

CQ-ID: Defdb00190203

Severity: K2 - serious malfunction

Description: If NVRAM data cannot be written back to the CF card when switching off the control, consistent, but maybe outdated data is copied to the RAM when switching on the control.

The error "F00C0006: Error remanent data; last backup restored or “F00C0005: Remanent data error; data deleted” occurred.

Depending on the application, this can result in a malfunction. Counters, operating hour counters or axis positions for example do not correspond to their actual value anymore.

Even specific parameters (A-parameters) might have changed after the latest switch-off.

Fixing: It is now possible to keep the PLC boot application(s) in the STOP state using the parameter C-0-0405 when either the error “F00C0005: Remanent data error; data deleted” or the error “F00C0006: Last backup restored”, occurred. Thus, an automatic program restart with wrong remanent data is impeded.

CML controls: Switching off during the Sercos FPGA update

CQ-ID: Defdb00201234

Severity: K2 - serious malfunction

Description: Too early switch off of CML control during commissioning sporadically results in a corruption of the Sercos FPGA flash content during an update (if “HW-INIT” is switched off). The control does not start up correctly and has to be send in for repair.

Fixing: During commissioning, the safety prompt “HW-INIT?” is displayed prior to the update. This prompt has to be confirmed with Enter to be able to execute a Sercos FPGA flash update (display: "HW-INIT!".

However, this only applies when replacing the CF card.

The following cases are covered: User has a CF card that

- is of a different HW

- was created of an image.

Automatic backup of remanent control data when switching from P4 to P2

CQ-ID: Defdb00198181

Severity: K3 - malfunction (no workaround)

Description: Currently, the MLC system firmware backs up the remanent control data when switching from phase 2 to phase 4 by executing the command C-0-1002, Command: Back up MC and Plc retain data. To provide the most current data possible to the customer if retain data is lost or when creating an XM2 backup, there has to be backup as well when switching from P4 to P2.

Fixing: In addition to the automatic backup of remanent data when switching from the phase P2 to P4, remanent data is now also backed up when leaving phase P4. Thus, it is also more probable that a current backup of the remanent data is stored when there is an NVRAM error (F00C0005, F00C0006).

XM/VPx: Control does not start anymore after switch on

CQ-ID: Defdb00200733

Severity: K3 - malfunction (no workaround)

Description: If the OEM partition is almost full, sporadically, the control did not start anymore upon the next reboot as the Interface.ini file could not be written anymore. A user diagnostics is almost impossible.

Fixing: Writing on the Interface.ini was reduced so that the problem does not occur during a regular control restart.

However, it is still recommended to check the memory load of the OEM partition by checking the logbook for the warning “E0200006: Available memory (OEM) at minimum”.

XM: LED STA sporadically shows an incorrect value

CQ-ID: Defdb00201215

Severity: K3 - malfunction (no workaround)

Description: When using the SF1 switch (STOP/RUN), the PLC application status is displayed in the STA-LED

Green -> RUN

Red -> STOP

Sporadically, the STA-LED state is displayed incorrectly, e.g. red even though the PLC application is running.

In particular, the problem occurs in case of status changes in short intervals.

FPGA update on a Sercos extension module is not reliable for an XM2

CQ-ID: Defdb00195555

Severity: K4 - malfunction

Description: If another FPGA version was loaded to a Sercos extension module on an XM2 control, the update was incorrect. It was only updated during the MLC startup after an automatic reboot check. The MLC firmware then continues booting. A manual reboot was required to complete the update. The LED DIA2 is on in the state "HW-INIT".

New startup in the diagnostic log cannot be uniquely identified

CQ-ID: Defdb00195686

Severity: K4 - malfunction

Description: A new control startup cannot be uniquely identified in the MLC firmware log.

Fixing: A new control startup can now be identified uniquely. The first message output when starting the MLC firmware is:

A00C0009: BOOT START, system starts booting

Exception/watchdog in the PLC program can exceed the Motion cycle time

CQ-ID: Defdb00196608

Severity: K5 - non critical problem

Description: When an IEC exception occurs and the cycle times are set low at the same time, it was possible that the cycle time exceeded in the MotionKernel.

Import Export

Axis state A-0-0024 is affected by the parameter import

CQ-ID: Defdb00199302

Severity: K3 - malfunction (no workaround)

Description: After control switch-on, the axis state (A-0-0024) has the same value as at the time upon the parameter file import for the respective axis.

Logic

IndraLogic: Resetting an exception in the PLC user program is not possible via “Reset” or “Cold reset”

CQ-ID: Defdb00199416

Severity: K2 - serious malfunction

Description: After an exception has occurred in the IEC user program (e.g. division by 0, pointer access to a forbidden address,...), the PLC program can usually be reset via the IndraLogic command “Reset” or “Reset cold”. In the 14V22, the error message "IEC-Task Taskname failed to delete" can be issued when executing this command. In this case, restart the control.

MLPI

MLPI does not support 99 axes

CQ-ID: Defdb00201576

Severity: K5 - non critical problem

Description: In the MLPI4COM tool box, the maximum number of axes is limited to 64 as the previous hardware could not support more axes.

Fixing: The change only becomes active with the new MLPI-SDK from version 1.27.1 and higher.

The limit of the maximum number of axes for the MLPI4COM tool box was increased to 253. The actually simultaneously created axes still depend on the hardware.

Motion Functions

User-defined value incorrectly initialized in the cyclic channel

CQ-ID: Defdb00196995

Severity: K3 - malfunction (no workaround)

Description: If the parameter S-0-0000 is configured in a user-defined cyclic actual value data container (e.g. A-0-0521), the container is disabled and no value is returned while reading.

Fixing: 0 is returned in the case described.

OPC UA

HMI via OPC UA at the ports X7E3/4 (IP channel) does not work

CQ-ID: Defdb00189382

Severity: K3 - malfunction (no workaround)

Description: The OPC UA server is not available via the IP channel of the NetX interfaces (e.g. X7E3/4).

PROFINET IO

TCP/IP connection problems between the L65 control and the Profinet IndraDrive

CQ-ID: Defdb00190711

Severity: K3 - malfunction (no workaround)

Description: By changing the IP channel, the Gateway address in the IndraDrive has to be set as well to the IP address of the IP channel.

The Gateway address of the Profinet device has to be set to the IP channel address as well if required.

RobotControl

Wrong motion of relative belt desynchronization

CQ-ID: Defdb00196613

Severity: K2 - serious malfunction

Description: In case of a relative desynchronization from a belt, it was queried only once for the complete synchronous phase. It was queried at the beginning of the belt velocity. Thus, this phase does not respond when changing the belt velocity. This applies primarily when the belt direction is changed.

Fixing: The complete synchronous phase of the relative belt desynchronization checks the current belt velocity in each cycle.

Axes with addresses above 64 cannot be added to the kinematics

CQ-ID: Defdb00198661

Severity: K3 - malfunction (no workaround)

Description: The list parameter K-0-0008 is limited to 64 (maximum value). Thus, no axes with an address above 64 can be added to a kinematics. All controls supporting more than 64 axes are affected.

Fixing: The maximum value of the parameter K-0-0008 is increased to 253. Thus, axes with a higher address can also be assigned to a kinematics.

Error when resynchronizing from a belt to a rotative belt

CQ-ID: Defdb00196925

Severity: K3 - malfunction (no workaround)

Description: If it is directly resynchronized from a belt-synchronous motion with the motion type MoveJump to a rotative belt, a wrong point is approached. This point is moved by the first synchronous motion of the commanding end point.

Memory leak when using "adaptive Motion"

CQ-ID: Defdb00200109

Severity: K3 - malfunction (no workaround)

Description: If “adaptive Motion” is used for the belt-synchronous motion, the message, E0200000: Available working memory (RAM) at minimum, is displayed after a certain time.

Sercos

C2C: Axis position offset in case of mixed operation with 13VRS, 14V12 and 14V20

CQ-ID: Defdb00200452

Severity: K2 - serious malfunction

Description: If an MLC firmware 14V22 was operated with older MLC firmware versions in a C2C link, a constant position offset occurs in the axes operated with an MLC firmware 14V22 controls and the axes of controls operated with older versions.

CrossCom Sercos II, link axis: A-0-0021 bit 30 (master axis valid) is always TRUE

CQ-ID: Defdb00199592

Severity: K2 - serious malfunction

Description: Bit 30 in A-0-0021 is not supported for CrossCom Sercos II. The bit is only relevant in the C2C link with Sercos III.

The actual error of CrossCom Sercos II was that the error message “Link ring - Master axis position incorrect AT” (F0280006) was not displayed when the master axis data was invalid.

Sercos II link: System error F9240005 occurs in "CSI_S2_ISR_MA0"

CQ-ID: Defdb00199602

Severity: K2 - serious malfunction

Description: Making the control startup parallel, timing problems after a control reset could have sporadically caused an incorrect initialization that caused a system error “F9240005 Exception, Page Fault”.

System error F9240006 in startup to P4 after creating link axes

CQ-ID: Defdb00198232

Severity: K2 - serious malfunction

Description: If link axes are created in an executable Sercos II link in the parameterization mode, the subsequent startup into the operating mode is aborted with the system error F9240006 (co-processor error).

This problem occurs in all controls at the link master as well as at the link slave.

XM/VPx: System tick is not correct with regard to Sercos interrupt

CQ-ID: Defdb00201453

Severity: K2 - serious malfunction

Description: In Sercos phase 4 (operating mode), the system tick for Sercos cycle times smaller than one millisecond is not correct with regard to the Sercos interrupt. Consequently, no optimized processing of the Motion calculation is possible.

After removal from the primary master Rx, the bit “Cyclic exchange link data" is not present anymore

CQ-ID: Defdb00198391

Severity: K3 - malfunction (no workaround)

Description: Due to an incorrect status analysis in the link master “Status”, the bit “Cyclic exchange link data" is deleted in the parameter "C2C, Function module, status" (C-0-0714).

Changes in transmission power at function module CFL01.1Q2 not effective

CQ-ID: Defdb00199585

Severity: K3 - malfunction (no workaround)

Description: If the transmission power was changed in the parameter C-0-0502, this transmission power did not affect the FO sender.

It was possible to change the parameter, but not the transmission power.

MLC SercosDrive axis with Diax04-Antrieb always shows a warning

CQ-ID: Defdb00197993

Severity: K3 - malfunction (no workaround)

Description: Warnings are not handled correctly for the function module Sercos II, SercosDrive (e.g., Diax04; EcoDrive) and EcoDrive Cs devices. Warnings are pending continuously on the MLC even if the drive does not display any warnings anymore. Warnings displayed at the drive sporadically are not displayed in MLC.

Sercos II link system error F0280007, Deviating cycle time cannot be deleted at the slave, cyclic exchange continuous running

CQ-ID: Defdb00198461

Severity: K3 - malfunction (no workaround)

Description: This error response resulted due to the incorrect initialization of the link slave if the secondary ring was interrupted first and if the primary ring was interrupted subsequently after a ring healing.

Sercos II link: Link slave cannot be included into the link after voltage reset

CQ-ID: Defdb00198524

Severity: K3 - malfunction (no workaround)

Description: This error response resulted due to the incorrect initialization of the link slave. Even after the attempt of ring healing, the status bits “Link transmission fault” and “Redundancy not available” remained active.

The problem could have only been fixed by a voltage reset at the master.

Sercos: CP4 with minimum configuration is not always possible, even though F2 error response is enabled

CQ-ID: Defdb00199282

Severity: K3 - malfunction (no workaround)

Description: If the F2 error reaction is enabled and drives with enabled CIP Safety are configured, phase switching to P4 is not possible if not all configured drives with enabled Safety at Sercos are connected.

System error F9200017 "HW-Watchdog" in case of missing function module Sercos II CrossCom

CQ-ID: Defdb00199766

Severity: K3 - malfunction (no workaround)

Description: If the function module for CrossComm was removed on an operational system with two Sercos II function modules for master communication and CrossComm, the new startup was canceled with system error F9420017 "HW-Watchdog". This behavior occurred at the slave and at the master.

Diax drives cannot be operated at Sercos II

CQ-ID: Defdb00197575

Severity: K4 - malfunction

Description: If Diax drives or EcoDrive drives are connected to the MLC via the Sercos II function module, these drives do not completely responds to Motion commands of the control.

Cause:

S-0-0135 bit 3 (drive follows command value specification) is not yet supported by this drive firmware.

Fixing: The file “DIAX.ini” is used to inform the MLC firmware not to analyze S-0-0135 bit 3 for these drives.

Information:

Troubleshooting is only effective if the “Sercos Drive” axes were added to the IndraWorks project via the “Scan bus configuration” functionality using the new MLC firmware and the new IndraWorks user interface.

26.2.2 Known issues

_Other

The error message F0200040, Temperature monitoring, is displayed sporadically

CQ-ID: Defdb00198024

Severity: K3 - malfunction (no workaround)

Description: If the control is strongly loaded (CPU load closed to 100%), it was possible that the error "F0200040: Incorrect temperature monitoring, hardware failure possible” was issued, even though that is incorrect.

Axis

Incorrect values when reading-user-defined actual value container

CQ-ID: Defdb00197350

Severity: K3 - malfunction (no workaround)

Description: If S-parameters with the attribute “2Byte signed decimal” (e.g. S-0-0082) are assigned to the user-defined cyclic actual value containers (A-0-0520 et seq.) and a PLC project is loaded, the correct value is not provided when reading the respective A-parameter (e.g. A-0-0521).

Motion Functions

IndraWorks communication strongly increases the Motion actual value detection or the command value generation

CQ-ID: Defdb00200483

Severity: K2 - serious malfunction

Description: The time required for the actual value detection and the command value generation can increase strongly for multi-core controls due to communication load. It is then possible that the error "F5180005, Cycle time exceeded for Motion kernel" results.

Workaround: Setting bit 23 in the parameter C-0-0036 can restrict the motion calculation to one kernel on the multi-core control. The error does not result when limiting the Motion calculation to one kernel.

Errors in the valve direct control in operations without encoder

CQ-ID: Defdb00200493

Severity: K3 - malfunction (no workaround)

Description: If the direct valve control is enabled in operation without encoder, the error "F2229274, Command rejected, no position reference" even if no encoder is required during the direct valve control.

Velocity jump during FlexProfile switching

CQ-ID: Defdb00200471

Severity: K3 - malfunction (no workaround)

Description: If a profile with ProfileEntry "SLAVE_CURRENT_MASTER_CURRENT" and SyncType "SYNC_DIRECT" is switched at a switching position, a velocity jump occurs at the switching point.

RobotControl

Path limitation incorrect due to auxiliary axes

CQ-ID: Defdb00198173

Severity: K2 - serious malfunction

Description: As soon as a specific value was exceeded for the velocity limit value of the auxiliary axis, the path velocity is not limited anymore.

This exceeds the velocity limit value of the auxiliary axis.

Sercos

Reading parameters during booting results in a “Page fault”

CQ-ID: Defdb00200223

Severity: K4 - malfunction

Description: If a Sercos parameter is read during the control startup, the exception “Page Fault” sporadically occurs.

26.3 Documentation

26.3.1 Resolved defects

Engineering / HMI

IndraWorks WebComposer/WebConnector: Security problem after "Vulnerability Scan"

CQ-ID: Defdb00199236

Severity: K4 - malfunction

Description: If a WebComposer commissioning visualization is created in an IndraWorks project or a project is opened in IndraWorks containing such a one, the WebConnector service is started and the ports 15000(HTTP/WS) und 15001(HTTPS/TLS) are opened.

Fixing: Additional notes in the Security Guideline to start the WebConnector service if a WebComposer object is created in an IndraWorks project or opened in an IndraWorks project containing a created WebComposer object.

An active firewall is recommended for the PC.

Engineering / PLC Programming

Sercos block I/O module R-ILB S3 24 DI16 DIO16/F byte mapping does not work

CQ-ID: Defdb00199397

Severity: K4 - malfunction

Description: The example in the documentation is not operational as only the first byte out of two bytes is mapped in the I/O image.

Fixing: The documentation was adjusted accordingly to only use data with the correct data type in the I/O area.

27 IndraLogic XLC/IndraMotion MLC 14V22.204.0 R2 firmware and software

27.1 Software

27.1.1 Resolved defects

_Other

Offline simulation not possible

CQ-ID: Defdb00199619

Severity: K3 - malfunction (no workaround)

Description: No master communication could be selected during the offline simulation.

Documentation

PNIO: Controller generates a high control load (as maintenance takes place during the PNIO data exchange)

CQ-ID: Defdb00200781

Severity: K3 - malfunction (no workaround)

Description: The runtime of the Profinet I/O controller can result in a higher control load as it is waited during the Profinet I/O data exchange with the netX (-> blocks control).

This is also the case if no device is configured.

Engineering / _Other

DevApp: Disabled axes are not applied to the IndraWorks project during adjustment

CQ-ID: Defdb00200348

Severity: K3 - malfunction (no workaround)

Description: During an online comparison of a control with disabled axes (online), these axes cannot be applied to the project, even though they are labeled as unequal.

Fixing: The S-/P-parameters of disabled drives cannot be accessed. Thus, information required to apply these drives to the project is missing.

The drive and the drive axis below are thus displayed as “not comparable”. This indicates that these drives cannot be applied to the project.

Drive firmware download: <Open file> dialog does not open

CQ-ID: Defdb00193121

Severity: K3 - malfunction (no workaround)

Description: The dialog to select a file did not open upon firmware download.

Engineering / CamBuilder

Incorrect "MasterAxisVelocity" conversion in the CamBuilder

CQ-ID: Defdb00196778

Severity: K3 - malfunction (no workaround)

Description: Cam characteristics:

Master axis scaling = translatory

Slave axis scaling = translatory

If the motion step editor for the velocity of the master axis uses a formula, the MasterAxisVelocity is incorrectly calculated when the function block is created. (The conversion factor to rpm is missing.)

Target position incorrect after cam import and starting point<>target position and starting point and target position<>0

CQ-ID: Defdb00199973

Severity: K4 - malfunction

Description: The target position is incorrect if a cam was imported or uploaded from the device with the following properties:

1. Starting point is <> 0

AND

2. Target position is <> 0

AND

3. Target position <> Starting point

Engineering / Drive

Dialog “Local I/O” bit selection cannot be reached anymore

CQ-ID: Defdb00199677

Severity: K4 - malfunction

Description: If the column width of column one, two or three was increased in the “Local I/O” dialog, a scrollbar was displayed. The column to select a bit was not visible anymore.

Engineering / GAT

AxisInterface: No reaction to input ParamLevel

CQ-ID: Defdb00200812

Severity: K3 - malfunction (no workaround)

Description: The axis was switched to parameter mode via the ParamLevel = TRUE input. The axis is switched from PM->OM with ParamLevel = FALSE.

When switching from PM->OM, ParamLevel = TRUE is used to request the parameter mode again. The parameter mode request is not executed.

When actuating ParamLevel from a faster task or a task with a higher priority, sporadically, a request was not executed.

Command "Set absolute measuring” is not applied for controller axes

CQ-ID: Defdb00199491

Severity: K4 - malfunction

Description: The command “Set absolute measuring” can be initiated for real and virtual axes via the input AxisCtrl[].Admin.SetAbsRef of the AxisInterface.

This input does not apply for controller axes.

Fixing: As of the library ML_TechInterface 14.22.10.0, the command S-0-0447 “Set absolute measuring” for controller axes is triggered with the input AxisCtrl[].Admin.SetAbsRef if the parameter system of the controller axis is active (AxisData[].Axis_PLCParaSysActive).

PhaseShift is not reliably applied to the AxisInterface

CQ-ID: Defdb00197564

Severity: K4 - malfunction

Description: If the PhaseShift value is changed directly after activating the operation mode, the new value is not applied to A-0-2710.

Engineering / HMI

WinStudio: Runtime configuration of user management prevents closing of IW project

CQ-ID: Defdb00200684

Severity: K3 - malfunction (no workaround)

Description: When enabling the option “Close project” for the standard user in the WinStudio user management under runtime settings, the message “Your user group is not authorized to close the project” when trying to close the IndraWorks project.

IndraWorks requires a lot of time when adding a high number of elements to a driver sheet

CQ-ID: Defdb00199503

Severity: K4 - malfunction

Description: Adding a high number of elements (>200) from the process variable browser to a WinStudio driver sheet using the TagWizard requires multiple minutes.

WinStudio Runtime -- Keypad input --> Error box "Value out of Range" is not scaled

CQ-ID: Defdb00165634

Severity: K4 - malfunction

Description: When entering an incorrect value into the input field of a WinStudio screen, a dialog is displayed that can be acknowledged only with a lot of difficulties on the touch devices due to their small size.

Fixing: The following entries in the WinStudio project file (.app) can be used to scale the size on the just described message:

[Options]

EnableCustomMessageBox=1

MBHorz=800

MBVert=480

Engineering / HMI CE

The user cannot use the WinStudio remote LogWin and the remote database spy

CQ-ID: Defdb00199685

Severity: K3 - malfunction (no workaround)

Description: The user cannot use the WinStudio remote LogWin and the remote database spy, as user name and password are queried in the login mask, but this data is not known to the user.

Engineering / Oscilloscope

IndraWorks MLC oscilloscope multi-device measurement

CQ-ID: Defdb00197251

Severity: K2 - serious malfunction

Description: When a measurement is carried out, there is an impact on the usability of the interface in certain phases of the measurement. The usability of the IndraWorks interface is briefly interrupted, primarily at the end of the measurement when the measurement results are loaded from the physical device to the IndraWorks oscilloscope.

The following circumstances can have a negative effect on the usability:

- The PC or control is operated at a high load

- The oscilloscope measurement is operated with a short measurement duration (size of memory < 500, measurement duration < 1 second) and in the "SingleShot (repeat automatically)" measurement mode

- Multi-device measurement with many slave devices

Engineering / Periphery

Error during transmission using Profinet in case of bit-by-bit addressing

CQ-ID: Defdb00198485

Severity: K4 - malfunction

Description: If only one byte of an output word is accessed (e.g. via %QX or %QB), the word is transferred incorrectly (byte interchanged).

Engineering / PLC Libraries

Function block IL_SetDateTime reports unexpected and empty error code if CrossComm Sercos III card is configured as master

CQ-ID: Defdb00198170

Severity: K2 - serious malfunction

Description: The function block IL_SetDateTime can only be executed if the control is not a link device or if the control is a link device and a link master at the same time. If the control is configured as slave, the function block has to report an error. Also refer to the parameter C-0-0701 Configuration of C2C CrossCom (bit 0: Single control or link device; bit 1: Slave or master in the link).

Bit 4 (single or double ring) was incorrectly checked instead of bit 1 in the function block implementation. I.e. if the control was configured as link master, but single ring was set, the function block reported an error, even though there was not error.

AxisInterface: ModeAB is sporadically not acknowledged in the status

CQ-ID: Defdb00200857

Severity: K3 - malfunction (no workaround)

Description: Via the control structure, it is switched from any operating mode to ModeAB. When switching to Ab, the power at the drive is cut (bb). Sporadically, no ModeAB is acknowledged in the state.

AxisInterface: Structural element arAxisStatus_gb[xx].Diag.Number briefly returns to 0

CQ-ID: Defdb00196159

Severity: K4 - malfunction

Description: If there is an axis error, it is briefly displayed correctly via arAxisStatus_gb[xx].Diag.Number at first.

The number for multiple PLC cycles returns to 0 and then shows the correct value again.

Engineering / PLC Programming

Connection test with IndraLogic does not work with VPN/Remote

CQ-ID: Defdb00200013

Severity: K3 - malfunction (no workaround)

Description: VPN connects IndraWorks to the system. The IndraLogic connection test always fails. The control responds always. A connection can only be established after multiple attempts.

Engineering / PLC Safety

SafetyData: Sporadically, the "InputByte0” of the safe I/Os is "0"

CQ-ID: Defdb00200581

Severity: K3 - malfunction (no workaround)

Description: Input values of Csos input devices are sporadically read out as 0 via SafetyData.

Using variables via the input wizard causes compilation errors

CQ-ID: Defdb00187377

Severity: K4 - malfunction

Description: The error occurs if variables were mapped to logic I/Os of an instance and if these variables are then inserted after the instance call via the input wizard, e.g. in case of ProfiSafeHost instances.

The variable name is inserted with the preceding object name and dot (Object.Variable). The “Safety” application cannot be compiled anymore.

Engineering / Project Handling

When converting a L65 to XM22, the Safety module is not replaced correctly

CQ-ID: Defdb00199382

Severity: K3 - malfunction (no workaround)

Description: When converting L-controls to XM/VPx controls, the Safety module is not replaced correctly.

Engineering / Version Control System

Incorrect mapping of the logic I/Os after opening the project via VCS

CQ-ID: Defdb00198988

Severity: K3 - malfunction (no workaround)

Description: When opening a project from the version control, the logic I/O points were mapped in a wrong sequence.

Installation

Setup: Incomplete installation in case of special services of third party manufacturers

CQ-ID: Defdb00200479

Severity: K3 - malfunction (no workaround)

Description: Incomplete IndraWorks installation if services could not be stopped during the installation and when using an administrator account.

Logic

System error F5180006 “Cycle time exceeded” after “Reset “Reset cold” or “Login with download”

CQ-ID: Defdb00198992

Severity: K3 - malfunction (no workaround)

Description: If certain conditions are met, the system error F5180006 can result at the MLC control. This is the case for example if the PLC is switched to stop (using the command Stop, Reset, Download).

This error can only result if there are PLC tasks in the user project with a priority higher than the priority of the Motion kernel and if these PLC tasks use I/O.

Online-Help

Describing the options when loading cam tables to the drive

CQ-ID: Defdb00193901

Severity: K5 - non critical problem

Description: When loading cam tables from the CamPool to the drive, a note text is displayed that has to be extended.

Fixing: The note text is extended as follows:

“The generated table values are values in percent of the hub transferred at the SyncFBs. The maximum distance in the cam corresponds to 100%.”

27.1.2 Functional enhancements

Engineering / GAT

GAT wizard should not delete MotionTask

CQ-ID: Defdb00198928

Severity: K6 - functional enhancement

Description: Currently, the GAT wizard deletes the MotionTask for these variants upon creation:

- AxisInterface example

GATcompact

Enhancement: The MotionTask is not deleted anymore when creating AxisInterface example and GATcompact.

27.1.3 Known issues

_Other

S20: Field bus diagnostics unclear, item 3 - Sercos

CQ-ID: Defdb00200860

Severity: K3 - malfunction (no workaround)

Description: If a Sercos I/O slave or an I/O module reports an error or a warning, the IndraWorks Explorer at the Sercos master node was not informed about this error/this warning (if logged in).

Engineering / GAT

GATBackroundTask, GATMotionSyncTask, GATProgTask: Invalid core number

CQ-ID: Defdb00199406

Severity: K3 - malfunction (no workaround)

Description: There are the following error messages when opening a 14V18 GAT archive in an 14V20:

- GATBackroundTask: Invalid core number. Change core number, delete task or insert it again.

- GATMotionSyncTask: Invalid core number. Change core number, delete task or insert it again.

- GATProgTask: Invalid core number. Change core number, delete task or insert it again.

Engineering / Motion

C2C: The message C-0-0778 cannot be written when changing from slave to master

CQ-ID: Defdb00200358

Severity: K3 - malfunction (no workaround)

Description: Up to now, a change in the C2C configuration (master <--> slave) did not cause a control reboot. Thus, there were no problems when writing the C2C command configuration (C-0-0778).

Engineering / Oscilloscope

MLC oscilloscope multi-device measurement IndraWorks cannot be operated when connecting devices

CQ-ID: Defdb00200688

Severity: K2 - serious malfunction

Description: If 64 axes are operated at an L75 and if it is tried to connect the oscilloscope multi-device measurement with 5 axes and the L75 as trigger device, the IndraWorks oscilloscope remains in the dialog “Configure signals”. IndraWorks cannot be operated anymore and has to be exited in the Task Manager.

Engineering / Periphery

PNIO: In case of a man. set PLC output address (no 4-byte alignment), data is missing in the PNIO output data

CQ-ID: Defdb00200743

Severity: K4 - malfunction

Description: If the %Q address is changed to a “non 4 byte address” (alignment) in the PLC output image, PLC output data can be missing in the Profinet I/O controller (mainly if 4 byte data types are contained in the output structures).

Workaround: Workaround: Always set the data structures to 4 bytes addresses (alignment).

Engineering / PLC Libraries

MB_AllocCyclicParameter returns incorrect error code

CQ-ID: Defdb00201368

Severity: K4 - malfunction

Description: If all optional cyclic parameters are already assigned and if one more parameter should be assigned, an error is returned with "ACCESS_ERROR".

However, expected and documented is "RESSOURCE_ERROR" with Add1 = 0xF216, Add2 = 0.

Engineering / PLC Programming

Compile warning: “Critical bus cycle time,...”

CQ-ID: Defdb00199878

Severity: K3 - malfunction (no workaround)

Description: The bus cycle task is “unspecified” in the default setting.

From 14V22, the bus cycle task has to be >= (2 * smallest configured Send Clock)

Otherwise, a watchdog exception can occur during a Profinet data exchange. A compiler warning "Critical bus cycle time,..." is displayed in IndraWorks.

An external CIFX event is currently not supported for a bus-synchronous PLC processing.

Instruction on the error message on persistent variables does not resolve them

CQ-ID: Defdb00199914

Severity: K3 - malfunction (no workaround)

Description: If the persistent variable area is changed multiple times while editing, the following error message is shown quickly:

"C0415: Insufficient global data memory: Variable "xyz", xxxxBytes. (Incremental compilation can cause a memory fragmentation. Execute “Create" “Clean" to force the re-allocation of all data and the code.)"

“Cleaning” does not resolve the error.

The library "#VisuUtils" could not be opened

CQ-ID: Defdb00201425

Severity: K3 - malfunction (no workaround)

Description: If the project converted from 14V18 is opened with 14V22 R2, the following message is displayed: “The library "#VisuUtils" could not be opened. Reason: The placeholder status “VisuUtils” could not be resolved.”

Project Handling

Profinet: The Profinet watchdog is set to 0 ms during a project conversion to 14V22

CQ-ID: Defdb00199992

Severity: K4 - malfunction

Description: When converting an IndraWorks project with a Profinet I/O configuration from e.g. 14V20 to 14V22, the watchdog time is not applied correctly but set to 0 ms.

S20 Digital input modules

Bus coupler S20-S3-BK: S20-DIDO-8/1 module voltage supply errors are only displayed as "0x3400"

CQ-ID: Defdb00197246

Severity: K3 - malfunction (no workaround)

Description: For a S20 Sercos bus coupler (S20-S3-BK), voltage supply errors at the attached S20-DIDO-8/1 I/O modules are not textually interpreted as voltage supply errors. A "0x3400 Manufacturer specific code" is indicated instead. The misinterpretation results, as an “8” (manufacturer-specific” is placed at the beginning of the diagnostics code 0x8F340005DF0100FF in S-0-1500.0.32 (IO Diagnostic Message). “0” would be correct.

27.2 Firmware

27.2.1 Resolved defects

_Other

Sytronix axis starts up despite AB commanding after a Sercos failure and subsequent startup

CQ-ID: Defdb00200642

Severity: K1 - safety relevant function

Description: If a traversing command is executed for a controller axis and the Sercos connection fails in this particular moment, the control identifies an error and returns to the Sercos phase 0.

If the connection is established again and the control goes into the “Ready for operation” state after clearing the error, the traversing command is executed again and the controller axis continues moving (with the old command).

Fixing: If the Sercos connection fails during a traversing command for a controller axis and the bus goes into phase 0, no traversing command applies anymore after reaching the state “ready for operation” and the controller axis remains in its position.

Oscilloscope requires approximately 3.0 minutes to connect, if 5 real drives are configured

CQ-ID: Defdb00200513

Severity: K2 - serious malfunction

Description: If parameters of real drives are configured in the oscilloscope for visualization, establishing a connection can sporadically take several minutes, depending on the number of real drives.

Parameter "C-0-0023 (bits "24";"26") incorrect

CQ-ID: Defdb00199662

Severity: K3 - malfunction (no workaround)

Description: For the parameter C-0-0023 (system status) only one bit of the bits 24, 25 and 26 is active from which category a message (error, message, warning) was issued last. The bits of all pending message types have to be set.

The same behavior results for the parameter C-0-0650 (Diagnostics, status word) for bit 0 (message), bit 1 (warning), bit 2 (class 0 error), bit 3 (classes 1..9 error).

An effect is for example that the Error LED (ERR) is partially controlled incorrectly on the XM2.

SysFileAsync/SysDirAsync: TimeOut always results when multiple jobs run simultaneously

CQ-ID: Defdb00196622

Severity: K3 - malfunction (no workaround)

Description: If the libraries SysFileAsync/SysDirAsync are used in the PLC project and if multiple Async services are started parallely, a timeout error resulted.

Profinet I/O devices are not detected while switched on

CQ-ID: Defdb00189926

Severity: K3 - malfunction (no workaround)

Description: It is possible that the Profinet I/O devices are not detected while switched on.

Axis

MLC L75 system error F9180003 after 49.71 days of continuous operation by tick overflow

CQ-ID: Defdb00200768

Severity: K2 - serious malfunction

Description: On controls with a multicore CPU, the error "F9180003, Axis incorrectly registered” occurs after continuous operation of 49.71 days if the control is in state “Ready for operation”.

System error “F9240006” in the FlexProfile if the master axis stops in the time-controlled segment

CQ-ID: Defdb00198457

Severity: K2 - serious malfunction

Description: If the current master velocity is 0 when a segment changes and if the master changes at the same time, an exception can result in the coprocessor.

“F5180005 Cycle time exceeded” Motion Kernel for IpoDrive

CQ-ID: Defdb00197669

Severity: K3 - malfunction (no workaround)

Description: If a motion command is issued for a real axis with interpolation in the drive two motion cycles within issuing the motion command "MoveAbsolute” and if that motion command uses another operation mode, it is possible that the error “F5180005 Cycle time exceeded Motion Kernel" is generated.

Fixing: The transition from the motion command "MoveAbsolute" to a motion command using another operation mode is possible without an exceeded cycle time.

MLC with IndraDrive, MB_GetCyclicParameterHandle (ML_TechMotionBase) does not provide any handle

CQ-ID: Defdb00199029

Severity: K3 - malfunction (no workaround)

Description: When retrieving the user-defined containers (e.g. A-0-0520) via direct variables in the PLC, it is possible that the upper 32 bits are not initialized correctly. Thus, the function block MB_GetCyclicParameterHandle does not correctly identify parameters assigned in the containers.

Parameter number for cyclically configured bits are not read out correctly

CQ-ID: Defdb00200876

Severity: K3 - malfunction (no workaround)

Description: When reading out the user-defined bit container (e.g. A-0-0560) via direct variables to the PLC, sporadically, the 32 bits were not initialized correctly.

Thus, the function block MB_GetCyclicParameterHandle does not correctly identify parameters assigned in the containers.

Parameter scaling, A-0-0036, incorrect after reboot

CQ-ID: Defdb00199717

Severity: K3 - malfunction (no workaround)

Description: If “Parameter scaling” is configured for the acceleration data of an axis and the respective exponent or factor changes, the parameter A-0-0036 (jerk limit value, bipolar) can contain a wrong value after control restart.

Command value jump when commanding MC_Stop on a real axis

CQ-ID: Defdb00198780

Severity: K4 - malfunction

Description: If, for a real axis with the configuration “IpoControl”, the motion command "MC_MoveVelocity” is commanded first and then “MC_Stop”, a jump can result in the parameter A-0-0150 “Position command value” after the velocity v = 0 has been reached.

Synchronization (master axis range > Modulo) does not work for the FlexProfile

CQ-ID: Defdb00196879

Severity: K4 - malfunction

Description: If a FlexProfile is used and the master axis range is greater than the master modulo and the MasterOffset of the ML_FlexProfil function block is greater than the master modulo, the correct SlavePosition is not approached.

Core

Application starts with outdated NVRAM data

CQ-ID: Defdb00190203

Severity: K2 - serious malfunction

Description: If NVRAM data cannot be written back to the CF card when switching off the control, consistent, but maybe outdated data is copied to the RAM when switching on the control.

The error “F00C0006: Remanent data error; last backup restored” or the error “F00C0005: Remanent data error; data deleted”, occurred.

Depending on the application, this can result in a maloperation. Counters, operating hour counters or axis positions for example do not correspond to their actual value anymore.

Even specific parameters (A-parameters) might have changed after the latest switch-off.

Fixing: It is now possible to keep the PLC boot application(s) in the STOP state using the parameter C-0-0405 when either the error “F00C0005: Remanent data error; data deleted” or the error “F00C0006: Last backup restored”, occurred. Thus, an automatic program restart with wrong remanent data is impeded.

Automatic backup of remanent control data when switching from P4 to P2

CQ-ID: Defdb00198181

Severity: K3 - malfunction (no workaround)

Description: Currently, the MLC system firmware backs up the remanent control data when switching from phase 2 to phase 4 by executing the command C-0-1002, Command: Back up MC and Plc retain data. To provide the most current data possible to the customer if retain data is lost or when creating an XM2 backup, there has to be backup as well when switching from P4 to P2.

Fixing: In addition to the automatic backup of remanent data when switching from the phase P2 to P4, remanent data is now also backed up when leaving phase P4. Thus, it is also more probable that a current backup of the remanent data is stored when there is an NVRAM error (F00C0005, F00C0006).

XM/VPx: Control does not start anymore after switch on

CQ-ID: Defdb00200733

Severity: K3 - malfunction (no workaround)

Description: If the OEM partition is almost full, sporadically, the control did not start anymore upon the next reboot as the Interface.ini file could not be written anymore. A user diagnostics is almost impossible.

Fixing: Writing on the Interface.ini was reduced so that the problem does not occur during a regular control restart.

However, it is still recommended to check the memory load of the OEM partition by checking the logbook for the warning “E0200006: Available memory (OEM) at minimum”.

XM: LED STA sporadically shows an incorrect value

CQ-ID: Defdb00201215

Severity: K3 - malfunction (no workaround)

Description: When using the SF1 switch (STOP/RUN), the PLC application status is displayed in the STA-LED

Green -> RUN

Red -> STOP

Sporadically, the STA-LED state is displayed incorrectly, e.g. red even though the PLC application is running.

In particular, the problem occurs in case of status changes in short intervals.

FPGA update on a Sercos extension module is not reliable for an XM2

CQ-ID: Defdb00195555

Severity: K4 - malfunction

Description: If another FPGA version was loaded to a Sercos extension module on an XM2 control, the update was incorrect. It was only updated during the MLC startup after an automatic reboot check. The MLC firmware then continues booting. A manual reboot was required to complete the update. The LED DIA2 is on in the state "HW-INIT".

New startup in the diagnostic log cannot be uniquely identified

CQ-ID: Defdb00195686

Severity: K4 - malfunction

Description: A new control startup cannot be uniquely identified in the MLC firmware log.

Fixing: A new control startup can now be identified uniquely. The first message output when starting the MLC firmware is:

A00C0009: BOOT START, system starts booting

Exception/watchdog in the PLC program can exceed the Motion cycle time

CQ-ID: Defdb00196608

Severity: K5 - non critical problem

Description: When an IEC exception occurs and the cycle times are set low at the same time, it was possible that the cycle time exceeded in the MotionKernel.

Import Export

Axis state A-0-0024 is affected by the parameter import

CQ-ID: Defdb00199302

Severity: K3 - malfunction (no workaround)

Description: After control switch-on, the axis state (A-0-0024) has the same value as at the time upon the parameter file import for the respective axis.

Motion Functions

User-defined value incorrectly initialized in the cyclic channel

CQ-ID: Defdb00196995

Severity: K3 - malfunction (no workaround)

Description: If the parameter S-0-0000 is configured in a user-defined cyclic actual value data container (e.g. A-0-0521), the container is disabled and no value is returned while reading.

Fixing: 0 is returned in the case described.

OPC UA

HMI via OPC UA at the ports X7E3/4 (IP channel) does not work

CQ-ID: Defdb00189382

Severity: K3 - malfunction (no workaround)

Description: The OPC UA server is not available via the IP channel of the NetX interfaces (e.g. X7E3/4).

PROFINET IO

TCP/IP connection problems between the L65 control and the Profinet IndraDrive

CQ-ID: Defdb00190711

Severity: K3 - malfunction (no workaround)

Description: By changing the IP channel, the Gateway address in the IndraDrive has to be set as well to the IP address of the IP channel.

The Gateway address of the Profinet device has to be set to the IP channel address as well if required.

RobotControl

Wrong motion of relative belt desynchronization

CQ-ID: Defdb00196613

Severity: K2 - serious malfunction

Description: In case of a relative desynchronization from a belt, it was queried only once for the complete synchronous phase. It was queried at the beginning of the belt velocity. Thus, this phase does not respond when changing the belt velocity. This applies primarily when the belt direction is changed.

Fixing: The complete synchronous phase of the relative belt desynchronization checks the current belt velocity in each cycle.

Axes with addresses above 64 cannot be added to the kinematics

CQ-ID: Defdb00198661

Severity: K3 - malfunction (no workaround)

Description: The list parameter K-0-0008 is limited to 64 (maximum value). Thus, no axes with an address above 64 can be added to a kinematics. All controls supporting more than 64 axes are affected.

Fixing: The maximum value of the parameter K-0-0008 is increased to 253. Thus, axes with a higher address can also be assigned to a kinematics.

Error when resynchronizing from a belt to a rotative belt

CQ-ID: Defdb00196925

Severity: K3 - malfunction (no workaround)

Description: If it is directly resynchronized from a belt-synchronous motion with the motion type MoveJump to a rotative belt, a wrong point is approached. This point is moved by the first synchronous motion of the commanding end point.

Memory leak when using "adaptive Motion"

CQ-ID: Defdb00200109

Severity: K3 - malfunction (no workaround)

Description: If “adaptive Motion” is used for the belt-synchronous motion, the message, E0200000: Available working memory (RAM) at minimum, is displayed after a certain time.

Sercos

C2C: Axis position offset in case of mixed operation with 13VRS, 14V12 and 14V20

CQ-ID: Defdb00200452

Severity: K2 - serious malfunction

Description: If an MLC firmware 14V22 was operated with older MLC firmware versions in a C2C link, a constant position offset occurs in the axes operated with an MLC firmware 14V22 controls and the axes of controls operated with older versions.

CrossCom Sercos II, link axis: A-0-0021 bit 30 (master axis valid) is always TRUE

CQ-ID: Defdb00199592

Severity: K2 - serious malfunction

Description: Bit 30 in A-0-0021 is not supported for CrossCom Sercos II. The bit is only relevant in the C2C link with Sercos III.

The actual error of CrossCom Sercos II was that the error message “Link ring - Master axis position incorrect AT” (F0280006) was not displayed when the master axis data was invalid.

Sercos II link: System error F9240005 occurs in "CSI_S2_ISR_MA0"

CQ-ID: Defdb00199602

Severity: K2 - serious malfunction

Description: Making the control startup parallel, timing problems after a control reset could have sporadically caused an incorrect initialization that caused a system error “F9240005 Exception, Page Fault”.

System error F9240006 in startup to P4 after creating link axes

CQ-ID: Defdb00198232

Severity: K2 - serious malfunction

Description: If link axes are created in an executable Sercos II link in the parameterization mode, the subsequent startup into the operating mode is aborted with the system error F9240006 (co-processor error).

This problem occurs in all controls at the link master as well as at the link slave.

After removal from the primary master Rx, the bit “Cyclic exchange link data" is not present anymore

CQ-ID: Defdb00198391

Severity: K3 - malfunction (no workaround)

Description: Due to an incorrect status analysis in the link master “Status”, the bit “Cyclic exchange link data" is deleted in the parameter "C2C, Function module, status" (C-0-0714).

Changes in transmission power at function module CFL01.1Q2 not effective

CQ-ID: Defdb00199585

Severity: K3 - malfunction (no workaround)

Description: If the transmission power was changed in the parameter C-0-0502, this transmission power did not affect the FO sender.

It was possible to change the parameter, but not the transmission power.

MLC SercosDrive axis with Diax04-Antrieb always shows a warning

CQ-ID: Defdb00197993

Severity: K3 - malfunction (no workaround)

Description: Warnings are not handled correctly for the function module Sercos II, SercosDrive (e.g., Diax04; EcoDrive) and EcoDrive Cs devices. Warnings are pending continuously on the MLC even if the drive does not display any warnings anymore. Warnings displayed at the drive sporadically are not displayed in MLC.

Sercos II link system error F0280007, Deviating cycle time cannot be deleted at the slave, cyclic exchange continuous running

CQ-ID: Defdb00198461

Severity: K3 - malfunction (no workaround)

Description: This error response resulted due to the incorrect initialization of the link slave if the secondary ring was interrupted first and if the primary ring was interrupted subsequently after a ring healing.

Sercos II link: Link slave cannot be included into the link after voltage reset

CQ-ID: Defdb00198524

Severity: K3 - malfunction (no workaround)

Description: This error response resulted due to the incorrect initialization of the link slave. Even after the attempt of ring healing, the status bits “Link transmission fault” and “Redundancy not available” remained active.

The problem could have only been fixed by a voltage reset at the master.

System error F9200017 "HW-Watchdog" in case of missing function module Sercos II CrossCom

CQ-ID: Defdb00199766

Severity: K3 - malfunction (no workaround)

Description: If the function module for CrossComm was removed on an operational system with two Sercos II function modules for master communication and CrossComm, the new startup was canceled with system error F9420017 "HW-Watchdog”. This behavior occurred at the slave and at the master.

Diax drives cannot be operated at Sercos II

CQ-ID: Defdb00197575

Severity: K4 - malfunction

Description: If Diax drives or EcoDrive drives are connected to the MLC via the Sercos II function module, these drives do not completely responds to Motion commands of the control.

Cause:

S-0-0135 bit 3 (drive follows command value specification) is not yet supported by this drive firmware.

Fixing: The file “DIAX.ini” is used to inform the MLC firmware not to analyze S-0-0135 bit 3 for these drives.

Information:

Troubleshooting is only effective if the “Sercos Drive” axes were added to the IndraWorks project via the “Scan bus configuration” functionality using the new MLC firmware and the new IndraWorks user interface.

27.2.2 Known issues

_Other

The error message F0200040, Temperature monitoring, is displayed sporadically

CQ-ID: Defdb00198024

Severity: K3 - malfunction (no workaround)

Description: If the control is strongly loaded (CPU load closed to 100%), it was possible that the error "F0200040: Incorrect temperature monitoring, hardware failure possible” was issued, even though that is incorrect.

Axis

Incorrect values when reading-user-defined actual value container

CQ-ID: Defdb00197350

Severity: K3 - malfunction (no workaround)

Description: If S-parameters with the attribute “2Byte signed decimal” (e.g. S-0-0082) are assigned to the user-defined cyclic actual value containers (A-0-0520 et seq.) and a PLC project is loaded, the correct value is not provided when reading the respective A-parameter (e.g. A-0-0521).

MC_Stop does not provide a “Done” for a controller axis in the operation mode “Velocity”

CQ-ID: Defdb00200485

Severity: K3 - malfunction (no workaround)

Description: If the option “Drive ramps in velocity control” is selected on an MLC controller axis in the parameter A-0-0007 (axis configuration) via the bits 6..7 (selection of drive operation mode for the PLCopen function block MC_Stop), the “Done” output is not set at the MC_Stop function block.

Core

CML controls: Switching off during the Sercos FPGA update

CQ-ID: Defdb00201234

Severity: K2 - serious malfunction

Description: Too early switch off of CML control during commissioning sporadically results in a corruption of the Sercos FPGA flash content during an update (if “HW-INIT” is switched off). The control does not start up correctly and has to be send in for repair.

Logic

IndraLogic: Resetting an exception in the PLC user program is not possible via “Reset” or “Cold reset”

CQ-ID: Defdb00199416

Severity: K2 - serious malfunction

Description: After an exception in the IEC user program (e.g. division by 0, pointer access to a forbidden address,...), the PLC program can usually be reset via the IndraLogic command “Reset” or “Reset cold”. In the 14V22, the error message "IEC-Task Taskname failed to delete" can be issued when executing this command. In this case, restart the control.

Motion Functions

IndraWorks communication strongly increases the Motion actual value detection or the command value generation

CQ-ID: Defdb00200483

Severity: K2 - serious malfunction

Description: The time required for the actual value detection and the command value generation can increase strongly for multi-core controls due to communication load. It is then possible that the error "F5180005, Cycle time exceeded for Motion kernel” results.

Workaround: Setting bit 23 in the parameter C-0-0036 can restrict the motion calculation to one kernel on the multi-core control. The error does not result when limiting the Motion calculation to one kernel.

Errors in the valve direct control in operations without encoder

CQ-ID: Defdb00200493

Severity: K3 - malfunction (no workaround)

Description: If the direct valve control is enabled in operation without encoder, the error "F2229274, Command rejected, no position reference” even if no encoder is required during the direct valve control.

Velocity jump during FlexProfile switching

CQ-ID: Defdb00200471

Severity: K3 - malfunction (no workaround)

Description: If a profile with ProfileEntry "SLAVE_CURRENT_MASTER_CURRENT" and SyncType "SYNC_DIRECT" is switched at a switching position, a velocity jump occurs at the switching point.

RobotControl

Path limitation incorrect due to auxiliary axes

CQ-ID: Defdb00198173

Severity: K2 - serious malfunction

Description: As soon as a specific value was exceeded for the velocity limit value of the auxiliary axis, the path velocity is not limited anymore.

This exceeds the velocity limit value of the auxiliary axis.

27.3 Documentation

27.3.1 Resolved defects

Engineering / HMI

IndraWorks WebComposer/WebConnector: Security problem after "Vulnerability Scan"

CQ-ID: Defdb00199236

Severity: K4 - malfunction

Description: If a WebComposer commissioning visualization is created in an IndraWorks project or a project is opened in IndraWorks containing such a one, the WebConnector service is started and the ports 15000(HTTP/WS) und 15001(HTTPS/TLS) are opened.

Fixing: Additional notes in the Security Guideline to start the WebConnector service if a WebComposer object is created in an IndraWorks project or opened in an IndraWorks project containing a created WebComposer object.

An active firewall is recommended for the PC.

Engineering / PLC Programming

Sercos block I/O module R-ILB S3 24 DI16 DIO16/F byte mapping does not work

CQ-ID: Defdb00199397

Severity: K4 - malfunction

Description: The example in the documentation is not operational as only the first byte out of two bytes is mapped in the I/O image.

Fixing: The documentation was adjusted accordingly to only use data with the correct data type in the I/O area.

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28.1 Software

28.1.1 Resolved defects

_Other

Offline simulation not possible

CQ-ID: Defdb00199619

Severity: K3 - malfunction (no workaround)

Description: No master communication could be selected during the offline simulation.

Engineering / _Other

Drive firmware download: <Open file> dialog does not open

CQ-ID: Defdb00193121

Severity: K3 - malfunction (no workaround)

Description: The dialog to select a file did not open upon firmware download.

Engineering / CamBuilder

Incorrect "MasterAxisVelocity" conversion in the CamBuilder

CQ-ID: Defdb00196778

Severity: K3 - malfunction (no workaround)

Description: Cam characteristics:

Master axis scaling = translatory

Slave axis scaling = translatory

If the motion step editor for the velocity of the master axis uses a formula, the MasterAxisVelocity is incorrectly calculated when the function block is created. (The conversion factor to rpm is missing.)

Target position incorrect after cam import and starting point<>target position and starting point and target position<>0

CQ-ID: Defdb00199973

Severity: K4 - malfunction

Description: The target position is incorrect if a cam was imported or uploaded from the device with the following properties:

1. Starting point is <> 0

AND

2. Target position is <> 0

AND

3. Target position <> Starting point

Engineering / Drive

Dialog “Local I/O” bit selection cannot be reached anymore

CQ-ID: Defdb00199677

Severity: K4 - malfunction

Description: If the column width of column one, two or three was increased in the “Local I/O” dialog, a scrollbar was displayed. The column to select a bit was not visible anymore.

Engineering / GAT

Command "Set absolute measuring” is not applied for controller axes

CQ-ID: Defdb00199491

Severity: K4 - malfunction

Description: The command “Set absolute measuring” can be initiated for real and virtual axes via the input AxisCtrl[].Admin.SetAbsRef of the AxisInterface.

This input does not apply for controller axes.

Fixing: As of the library ML_TechInterface 14.22.10.0, the command S-0-0447 “Set absolute measuring” for controller axes is triggered with the input AxisCtrl[].Admin.SetAbsRef if the parameter system of the controller axis is active (AxisData[].Axis_PLCParaSysActive).

PhaseShift is not reliably applied to the AxisInterface

CQ-ID: Defdb00197564

Severity: K4 - malfunction

Description: If the PhaseShift value is changed directly after activating the operation mode, the new value is not applied to A-0-2710.

Engineering / HMI

IndraWorks requires a lot of time when adding a high number of elements to a driver sheet

CQ-ID: Defdb00199503

Severity: K4 - malfunction

Description: Adding a high number of elements (>200) from the process variable browser to a WinStudio driver sheet using the TagWizard requires multiple minutes.

WinStudio Runtime -- Keypad input --> Error box "Value out of Range" is not scaled

CQ-ID: Defdb00165634

Severity: K4 - malfunction

Description: When entering an incorrect value into the input field of a WinStudio screen, a dialog is displayed that can be acknowledged only with a lot of difficulties on the touch devices due to their small size.

Fixing: The following entries in the WinStudio project file (.app) can be used to scale the size on the just described message:

[Options]

EnableCustomMessageBox=1

MBHorz=800

MBVert=480

Engineering / PLC Libraries

Function block IL_SetDateTime reports unexpected and empty error code if CrossComm Sercos III card is configured as master

CQ-ID: Defdb00198170

Severity: K2 - serious malfunction

Description: The function block IL_SetDateTime can only be executed if the control is not a link device or if the control is a link device and a link master at the same time. If the control is configured as slave, the function block has to report an error. Also refer to the parameter C-0-0701 Configuration of C2C CrossCom (bit 0: Single control or link device; bit 1: Slave or master in the link).

Bit 4 (single or double ring) was incorrectly checked instead of bit 1 in the function block implementation. I.e. if the control was configured as link master, but single ring was set, the function block reported an error, even though there was not error.

AxisInterface: Structural element arAxisStatus_gb[xx].Diag.Number briefly returns to 0

CQ-ID: Defdb00196159

Severity: K4 - malfunction

Description: If there is an axis error, it is briefly displayed correctly via arAxisStatus_gb[xx].Diag.Number at first.

The number for multiple PLC cycles returns to 0 and then shows the correct value again.

Engineering / PLC Programming

Connection test with IndraLogic does not work with VPN/Remote

CQ-ID: Defdb00200013

Severity: K3 - malfunction (no workaround)

Description: VPN connects IndraWorks to the system. The IndraLogic connection test always fails. The control responds always. A connection can only be established after multiple attempts.

Engineering / PLC Safety

Using variables via the input wizard causes compilation errors

CQ-ID: Defdb00187377

Severity: K4 - malfunction

Description: The error occurs if variables were mapped to logic I/Os of an instance and if these variables are then inserted after the instance call via the input wizard, e.g. in case of ProfiSafeHost instances.

The variable name is inserted with the preceding object name and dot (Object.Variable). The “Safety” application cannot be compiled anymore.

Engineering / Version Control System

Incorrect mapping of the logic I/Os after opening the project via VCS

CQ-ID: Defdb00198988

Severity: K3 - malfunction (no workaround)

Description: When opening a project from the version control, the logic I/O points were mapped in a wrong sequence.

28.1.2 Functional enhancements

Engineering / GAT

GAT wizard should not delete MotionTask

CQ-ID: Defdb00198928

Severity: K6 - functional enhancement

Description: Currently, the GAT wizard deletes the MotionTask for these variants upon creation:

- AxisInterface example

GATcompact

Enhancement: The MotionTask is not deleted anymore when creating AxisInterface example and GATcompact.

28.1.3 Known issues

Fieldbus

PNIO: Controller generates a high control load (as it is waited during the PNIO data exchange)

CQ-ID: Defdb00200781

Severity: K3 - malfunction (no workaround)

Description: The runtime of the Profinet I/O controller can result in a higher control load as it is waited during the Profinet I/O data exchange with the netX (-> blocks control).

This is also the case if no device is configured.

Workaround: The bus cycle task of the Profinet I/O controller has to be set to a larger value. A minimum of one Profinet I/O device has to be configured with a “Send Clock” of 1 ms at the Profinet I/O controller.

Engineering / Oscilloscope

MLC oscilloscope multi-device measurement IndraWorks cannot be operated when connecting devices

CQ-ID: Defdb00200688

Severity: K2 - serious malfunction

Description: If 64 axes are operated at an L75 and if it is tried to connect the oscilloscope multi-device measurement with 5 axes and the L75 as trigger device, the IndraWorks oscilloscope remains in the dialog “Configure signals”. IndraWorks cannot be operated anymore and has to be exited in the Task Manager.

IndraWorks MLC oscilloscope multi-device measurement

CQ-ID: Defdb00197251

Severity: K2 - serious malfunction

Description: When a measurement is carried out, there is an impact on the usability of the interface in certain phases of the measurement. The usability of the IndraWorks interface is briefly interrupted, primarily at the end of the measurement when the measurement results are loaded from the physical device to the IndraWorks oscilloscope.

The following circumstances can have a negative effect on the usability:

- The PC or control is operated at a high load

- The oscilloscope measurement is operated with a short measurement duration (size of memory < 500, measurement duration < 1 second) and in the "SingleShot (repeat automatically)" measurement mode

- Multi-device measurement with many slave devices

Engineering / Periphery

PNIO: In case of a man. set PLC output address (no 4-byte alignment), data is missing in the PNIO output data

CQ-ID: Defdb00200743

Severity: K4 - malfunction

Description: If the %Q address is changed to a “non 4 byte address” (alignment) in the PLC output image, PLC output data can be missing in the Profinet I/O controller (mainly if 4 byte data types are contained in the output structures).

Workaround: Workaround: Always set the data structures to 4 bytes addresses (alignment).

Engineering / PLC Programming

Persistent variables are re-initialized after online change

CQ-ID: Defdb00200277

Severity: K2 - serious malfunction

Description: If a change in the persistent variable list is applied to the control via online change, WITHOUT updating the boot project, the complete persistent variable list is initialized again after a control restart. No error is entered into the error memory/diagnostic memory. Depending on the configuration, the boot applications start with the initialized, persistent variables.

This problem affects only changes in the persistent variable list, but not changes made in the VAR_RETAIN area.

If changes are applied to the control via download and not via online change WITHOUT updating the boot project, the application is loaded with a retain data mismatch after a control restart and remains in the STOP state. A “Cold reset” is required to switch the application to the “RUN” state. Note that all remanent data is initialized again with a “Cold reset”.

Compile warning: “Critical bus cycle time,...”

CQ-ID: Defdb00199878

Severity: K3 - malfunction (no workaround)

Description: The bus cycle task is “unspecified” in the default setting.

From 14V22, the bus cycle task has to be >= (2 * smallest configured Send Clock)

Otherwise, a watchdog exception can occur during a Profinet data exchange. A compiler warning "Critical bus cycle time,..." is displayed in IndraWorks.

An external CIFX event is currently not supported for a bus-synchronous PLC processing.

Instruction on the error message on persistent variables does not resolve them

CQ-ID: Defdb00199914

Severity: K3 - malfunction (no workaround)

Description: If the persistent variable area is changed multiple times while editing, the following error message is shown quickly:

"C0415: Insufficient global data memory: Variable "xyz", xxxxBytes. (Incremental compilation can cause a memory fragmentation. Execute “Create" “Clean" to force the re-allocation of all data and the code.)"

“Cleaning” does not resolve the error.

Engineering / GAT

GATBackroundTask, GATMotionSyncTask, GATProgTask: Invalid core number

CQ-ID: Defdb00199406

Severity: K3 - malfunction (no workaround)

Description: There are the following error messages when opening a 14V18 GAT archive in an 14V20:

- GATBackroundTask: Invalid core number. Change core number, delete task or insert it again.

- GATMotionSyncTask: Invalid core number. Change core number, delete task or insert it again.

- GATProgTask: Invalid core number. Change core number, delete task or insert it again.

Project Handling

Profinet: The Profinet watchdog is set to 0 ms during a project conversion to 14V22

CQ-ID: Defdb00199992

Severity: K4 - malfunction

Description: When converting an IndraWorks project with a Profinet I/O configuration from e.g. 14V20 to 14V22, the watchdog time is not applied correctly but set to 0 ms.

S20 Digital input modules

Bus coupler S20-S3-BK: S20-DIDO-8/1 module voltage supply errors are only displayed as "0x3400"

CQ-ID: Defdb00197246

Severity: K3 - malfunction (no workaround)

Description: For a S20 Sercos bus coupler (S20-S3-BK), voltage supply errors at the attached S20-DIDO-8/1 I/O modules are not textually interpreted as voltage supply errors. A "0x3400 Manufacturer specific code" is indicated instead. The misinterpretation results, as an “8” (manufacturer-specific” is placed at the beginning of the diagnostics code 0x8F340005DF0100FF in S-0-1500.0.32 (IO Diagnostic Message). “0” would be correct.

28.2 Firmware

28.2.1 Resolved defects

_Other

Parameter "C-0-0023 (bits "24";"26") incorrect

CQ-ID: Defdb00199662

Severity: K3 - malfunction (no workaround)

Description: For the parameter C-0-0023 (system status) only one bit of the bits 24, 25 and 26 is active from which category a message (error, message, warning) was issued last. The bits of all pending message types have to be set.

The same behavior results for the parameter C-0-0650 (Diagnostics, status word) for bit 0 (message), bit 1 (warning), bit 2 (class 0 error), bit 3 (classes 1..9 error).

An effect is for example that the Error LED (ERR) is partially controlled incorrectly on the XM2.

Profinet I/O devices are not detected while switched on

CQ-ID: Defdb00189926

Severity: K3 - malfunction (no workaround)

Description: It is possible that the Profinet I/O devices are not detected while switched on.

Axis

System error “F9240006” in the FlexProfile if the master axis stops in the time-controlled segment

CQ-ID: Defdb00198457

Severity: K2 - serious malfunction

Description: If the current master velocity is 0 when a segment changes and if the master changes at the same time, an exception can result in the coprocessor.

“F5180005 Cycle time exceeded” Motion Kernel for IpoDrive

CQ-ID: Defdb00197669

Severity: K3 - malfunction (no workaround)

Description: If a motion command is issued for a real axis with interpolation in the drive two motion cycles within issuing the motion command "MoveAbsolute” and if that motion command uses another operation mode, it is possible that the error “F5180005 Cycle time exceeded Motion Kernel" is generated.

Fixing: The transition from the motion command "MoveAbsolute" to a motion command using another operation mode is possible without an exceeded cycle time.

MLC with IndraDrive, MB_GetCyclicParameterHandle (ML_TechMotionBase) does not provide any handle

CQ-ID: Defdb00199029

Severity: K3 - malfunction (no workaround)

Description: When retrieving the user-defined containers (e.g. A-0-0520) via direct variables in the PLC, it is possible that the upper 32 bits are not initialized correctly. Thus, the function block MB_GetCyclicParameterHandle does not correctly identify parameters assigned in the containers.

Parameter scaling, A-0-0036, incorrect after reboot

CQ-ID: Defdb00199717

Severity: K3 - malfunction (no workaround)

Description: If “Parameter scaling” is configured for the acceleration data of an axis and the respective exponent or factor changes, the parameter A-0-0036 (jerk limit value, bipolar) can contain a wrong value after control restart.

Command value jump when commanding MC_Stop on a real axis

CQ-ID: Defdb00198780

Severity: K4 - malfunction

Description: If, for a real axis with the configuration “IpoControl”, the motion command "MC_MoveVelocity” is commanded first and then “MC_Stop”, a jump can result in the parameter A-0-0150 “Position command value” after the velocity v = 0 has been reached.

Synchronization (master axis range > Modulo) does not work for the FlexProfile

CQ-ID: Defdb00196879

Severity: K4 - malfunction

Description: If a FlexProfile is used and the master axis range is greater than the master modulo and the MasterOffset of the ML_FlexProfil function block is greater than the master modulo, the correct SlavePosition is not approached.

MLC L75 System error F9180003 after 49.71 days of continuous operation due to tick overflow

CQ-ID: Defdb00200768

Severity: K2 - serious malfunction

Description: On controls with a multicore CPU, the error "F9180003, Axis registered incorrectly" occurred after 49.71 days if the control is in state "Ready for operation'.

Core

Application starts with outdated NVRAM data

CQ-ID: Defdb00190203

Severity: K2 - serious malfunction

Description: If NVRAM data cannot be written back to the CF card when switching off the control, consistent, but maybe outdated data is copied to the RAM when switching on the control.

The error “F00C0006: Remanent data error; last backup restored” or the error “F00C0005: Remanent data error; data deleted”, occurred.

Depending on the application, this can result in a maloperation. Counters, operating hour counters or axis positions for example do not correspond to their actual value anymore.

Even specific parameters (A-parameters) might have changed after the latest switch-off.

Fixing: It is now possible to keep the PLC boot application(s) in the STOP state using the parameter C-0-0405 when either the error “F00C0005: Remanent data error; data deleted” or the error “F00C0006: Last backup restored”, occurred. Thus, an automatic program restart with wrong remanent data is impeded.

Automatic backup of remanent control data when switching from P4 to P2

CQ-ID: Defdb00198181

Severity: K3 - malfunction (no workaround)

Description: Currently, the MLC system firmware backs up the remanent control data when switching from phase 2 to phase 4 by executing the command C-0-1002, Command: Back up MC and Plc retain data. To provide the most current data possible to the customer if retain data is lost or when creating an XM2 backup, there has to be backup as well when switching from P4 to P2.

Fixing: In addition to the automatic backup of remanent data when switching from the phase P2 to P4, remanent data is now also backed up when leaving phase P4. Thus, it is also more probable that a current backup of the remanent data is stored when there is an NVRAM error (F00C0005, F00C0006).

FPGA update on a Sercos extension module is not reliable for an XM2

CQ-ID: Defdb00195555

Severity: K4 - malfunction

Description: If another FPGA version was loaded to a Sercos extension module on an XM2 control, the update was incorrect. It was only updated during the MLC startup after an automatic reboot check. The MLC firmware then continues booting. A manual reboot was required to complete the update. The LED DIA2 is on in the state "HW-INIT".

New startup in the diagnostic log cannot be uniquely identified

CQ-ID: Defdb00195686

Severity: K4 - malfunction

Description: A new control startup cannot be uniquely identified in the MLC firmware log.

Fixing: A new control startup can now be identified uniquely. The first message output when starting the MLC firmware is:

A00C0009: BOOT START, system starts booting

Exception/watchdog in the PLC program can exceed the Motion cycle time

CQ-ID: Defdb00196608

Severity: K5 - non critical problem

Description: When an IEC exception occurs and the cycle times are set low at the same time, it was possible that the cycle time exceeded in the MotionKernel.

Import Export

Axis state A-0-0024 is affected by the parameter import

CQ-ID: Defdb00199302

Severity: K3 - malfunction (no workaround)

Description: After control switch-on, the axis state (A-0-0024) has the same value as at the time upon the parameter file import for the respective axis.

Motion Functions

User-defined value incorrectly initialized in the cyclic channel

CQ-ID: Defdb00196995

Severity: K3 - malfunction (no workaround)

Description: If the parameter S-0-0000 is configured in a user-defined cyclic actual value data container (e.g. A-0-0521), the container is disabled and no value is returned while reading.

Fixing: 0 is returned in the case described.

OPC UA

HMI via OPC UA at the ports X7E3/4 (IP channel) does not work

CQ-ID: Defdb00189382

Severity: K3 - malfunction (no workaround)

Description: The OPC UA server is not available via the IP channel of the NetX interfaces (e.g. X7E3/4).

PROFINET IO

TCP/IP connection problems between the L65 control and the Profinet IndraDrive

CQ-ID: Defdb00190711

Severity: K3 - malfunction (no workaround)

Description: By changing the IP channel, the Gateway address in the IndraDrive has to be set as well to the IP address of the IP channel.

The Gateway address of the Profinet device has to be set to the IP channel address as well if required.

RobotControl

Wrong motion of relative belt desynchronization

CQ-ID: Defdb00196613

Severity: K2 - serious malfunction

Description: In case of a relative desynchronization from a belt, it was queried only once for the complete synchronous phase. It was queried at the beginning of the belt velocity. Thus, this phase does not respond when changing the belt velocity. This applies primarily when the belt direction is changed.

Fixing: The complete synchronous phase of the relative belt desynchronization checks the current belt velocity in each cycle.

Axes with addresses above 64 cannot be added to the kinematics

CQ-ID: Defdb00198661

Severity: K3 - malfunction (no workaround)

Description: The list parameter K-0-0008 is limited to 64 (maximum value). Thus, no axes with an address above 64 can be added to a kinematics. All controls supporting more than 64 axes are affected.

Fixing: The maximum value of the parameter K-0-0008 is increased to 253. Thus, axes with a higher address can also be assigned to a kinematics.

Error when resynchronizing from a belt to a rotative belt

CQ-ID: Defdb00196925

Severity: K3 - malfunction (no workaround)

Description: If it is directly resynchronized from a belt-synchronous motion with the motion type MoveJump to a rotative belt, a wrong point is approached. This point is moved by the first synchronous motion of the commanding end point.

Memory leak when using "adaptive Motion"

CQ-ID: Defdb00200109

Severity: K3 - malfunction (no workaround)

Description: If “adaptive Motion” is used for the belt-synchronous motion, the message, E0200000: Available working memory (RAM) at minimum, is displayed after a certain time.

Sercos

CrossCom Sercos II, link axis: A-0-0021 bit 30 (master axis valid) is always TRUE

CQ-ID: Defdb00199592

Severity: K2 - serious malfunction

Description: Bit 30 in A-0-0021 is not supported for CrossCom Sercos II. The bit is only relevant in the C2C link with Sercos III.

The actual error of CrossCom Sercos II was that the error message “Link ring - Master axis position incorrect AT” (F0280006) was not displayed when the master axis data was invalid.

Sercos II link: System error F9240005 occurs in "CSI_S2_ISR_MA0"

CQ-ID: Defdb00199602

Severity: K2 - serious malfunction

Description: Making the control startup parallel, timing problems after a control reset could have sporadically caused an incorrect initialization that caused a system error “F9240005 Exception, Page Fault”.

After removal from the primary master Rx, the bit “Cyclic exchange link data" is not present anymore

CQ-ID: Defdb00198391

Severity: K3 - malfunction (no workaround)

Description: Due to an incorrect status analysis in the link master “Status”, the bit “Cyclic exchange link data" is deleted in the parameter "C2C, Function module, status" (C-0-0714).

MLC SercosDrive axis with Diax04-Antrieb always shows a warning

CQ-ID: Defdb00197993

Severity: K3 - malfunction (no workaround)

Description: Warnings are not handled correctly for the function module Sercos II, SercosDrive (e.g., Diax04; EcoDrive) and EcoDrive Cs devices. Warnings are pending continuously on the MLC even if the drive does not display any warnings anymore. Warnings displayed at the drive sporadically are not displayed in MLC.

Sercos II link system error F0280007, Deviating cycle time cannot be deleted at the slave, cyclic exchange continuous running

CQ-ID: Defdb00198461

Severity: K3 - malfunction (no workaround)

Description: This error response resulted due to the incorrect initialization of the link slave if the secondary ring was interrupted first and if the primary ring was interrupted subsequently after a ring healing.

Sercos II link: Link slave cannot be included into the link after voltage reset

CQ-ID: Defdb00198524

Severity: K3 - malfunction (no workaround)

Description: This error response resulted due to the incorrect initialization of the link slave. Even after the attempt of ring healing, the status bits “Link transmission fault” and “Redundancy not available” remained active.

The problem could have only been fixed by a voltage reset at the master.

Diax drives cannot be operated at Sercos II

CQ-ID: Defdb00197575

Severity: K4 - malfunction

Description: If Diax drives or EcoDrive drives are connected to the MLC via the Sercos II function module, these drives do not completely responds to Motion commands of the control.

Cause:

S-0-0135 bit 3 (drive follows command value specification) is not yet supported by this drive firmware.

Fixing: The file “DIAX.ini” is used to inform the MLC firmware not to analyze S-0-0135 bit 3 for these drives.

Information:

Troubleshooting is only effective if the “Sercos Drive” axes were added to the IndraWorks project via the “Scan bus configuration” functionality using the new MLC firmware and the new IndraWorks user interface.

28.2.2 Known issues

_Other

Sytronix axis starts up after a Sercos failure and subsequent startup despite AB commanding

CQ-ID: Defdb00200642

Severity: K1 - safety relevant function

Description: If a traversing command is executed for a controller axis and the Sercos connection fails in this particular moment, the control identifies an error and returns to the Sercos phase 0.

If the connection is established again and the control goes into the “Ready for operation” state after clearing the error, the traversing command is executed again and the controller axis continues moving (with the old command).

Workaround: If a controller axis is applied at a machine and if the Sercos connection is interrupted, the control has to be switched off and on again before processing can be resumed.

After the connection is interrupted, the errors must not be deleted in the GAT or it must not be switched to phase 4!

Oscilloscope requires approximately 3.0 minutes to connect, if 5 real drives are configured

CQ-ID: Defdb00200513

Severity: K2 - serious malfunction

Description: If parameters of real drives are configured in the oscilloscope for visualization, establishing a connection can sporadically take several minutes, depending on the number of real drives.

The error message F0200040, Temperature monitoring, is displayed sporadically

CQ-ID: Defdb00198024

Severity: K3 - malfunction (no workaround)

Description: If the control is strongly loaded (CPU load closed to 100%), it was possible that the error "F0200040: Incorrect temperature monitoring, hardware failure possible” was issued, even though that is incorrect.

Axis

Incorrect values when reading-user-defined actual value container

CQ-ID: Defdb00197350

Severity: K3 - malfunction (no workaround)

Description: If S-parameters with the attribute “2Byte signed decimal” (e.g. S-0-0082) are assigned to the user-defined cyclic actual value containers (A-0-0520 et seq.) and a PLC project is loaded, the correct value is not provided when reading the respective A-parameter (e.g. A-0-0521).

MC_Stop does not provide a “Done” for a controller axis in the operation mode “Velocity”

CQ-ID: Defdb00200485

Severity: K3 - malfunction (no workaround)

Description: If the option “Drive ramps in velocity control” is selected on an MLC controller axis in the parameter A-0-0007 (axis configuration) via the bits 6..7 (selection of drive operation mode for the PLCopen function block MC_Stop), the “Done” output is not set at the MC_Stop function block.

Logic

IndraLogic: Resetting an exception in the PLC user program is not possible via “Reset” or “Cold reset”

CQ-ID: Defdb00199416

Severity: K2 - serious malfunction

Description: After an exception in the IEC user program (e.g. division by 0, pointer access to a forbidden address,...), the PLC program can usually be reset via the IndraLogic command “Reset” or “Reset cold”. In the 14V22 R1, the error message "IEC-Task Taskname failed to delete" can be issued when executing this command. In this case, restart the control.

Motion Functions

Velocity jump during FlexProfile switching

CQ-ID: Defdb00200471

Severity: K3 - malfunction (no workaround)

Description: If a profile with ProfileEntry "SLAVE_CURRENT_MASTER_CURRENT" and SyncType "SYNC_DIRECT" is switched at a switching position, a velocity jump occurs at the switching point.

IndraWorks communication strongly increases the Motion actual value detection or the command value generation

CQ-ID: Defdb00200483

Severity: K2 - serious malfunction

Description: The time required for the actual value detection and the command value generation can increase strongly for multi-core controls due to communication load. It is then possible that the error "F5180005, Cycle time exceeded for Motion kernel” results.

Workaround: Setting bit 23 in the parameter C-0-0036 can restrict the motion calculation to one kernel on the multi-core control. The error does not result when limiting the Motion calculation to one kernel.

Errors in the valve direct control in operations without encoder

CQ-ID: Defdb00200493

Severity: K3 - malfunction (no workaround)

Description: If the direct valve control is enabled in operation without encoder, the error "F2229274, Command rejected, no position reference" even if no encoder is required during the direct valve control.

RobotControl

Path limitation incorrect due to auxiliary axes

CQ-ID: Defdb00198173

Severity: K2 - serious malfunction

Description: As soon as a specific value was exceeded for the velocity limit value of the auxiliary axis, the path velocity is not limited anymore.

This exceeds the velocity limit value of the auxiliary axis.

Sercos

System error F9240006 in startup to P4 after creating link axes

CQ-ID: Defdb00198232

Severity: K2 - serious malfunction

Description: If link axes are created in an executable Sercos II link in the parameterization mode, the subsequent startup into the operating mode is aborted with the system error F9240006 (co-processor error).

This problem occurs in all controls at the link master as well as at the link slave.

Changes in transmission power at function module CFL01.1Q2 not effective

CQ-ID: Defdb00199585

Severity: K3 - malfunction (no workaround)

Description: If the transmission power was changed in C-0-0502, this transmission power did not affect the FO sender.

It was possible to change the parameter, but not the transmission power.

C2C: Offset of axis position in case of mixed operation with 13VRS, 14V12 and 14V20

CQ-ID: Defdb00200452

Severity: K2 - serious malfunction

Description: If an MLC firmware 14V22 is operated together with older versions of the MLC firmware in a C2C link, a constant position offset occurs between the axis of the controls operated with MLC firmware 14V22 and the axes operated with controls of older versions.

28.3 Documentation

28.3.1 Resolved defects

Engineering / HMI

IndraWorks WebComposer/WebConnector: Security problem after "Vulnerability Scan"

CQ-ID: Defdb00199236

Severity: K4 - malfunction

Description: If a WebComposer commissioning visualization is created in an IndraWorks project or a project is opened in IndraWorks containing such a one, the WebConnector service is started and the ports 15000(HTTP/WS) und 15001(HTTPS/TLS) are opened.

Fixing: Additional notes in the Security Guideline to start the WebConnector service if a WebComposer object is created in an IndraWorks project or opened in an IndraWorks project containing a created WebComposer object.

An active firewall is recommended for the PC.

29 IndraLogic XLC/IndraMotion MLC 14V20 Patch 04 firmware and software

29.1 Software

29.1.1 Resolved defects

Engineering / GAT

Unnecessary symbols are inserted in the symbol file during the WinStudio visualization import

CQ-ID: Defdb00202158

Severity: K4 - malfunction

Description: If a WinStudio HMI is inserted in a GAT decentral, the entire function block "fbTE_MachineControl_gb" is inserted in the symbol configuration with approximately 170, 000 unnecessary symbols.

Engineering / Motion

Switching the MLC online in compatibility mode 13V12 Patch 2 from 14V20 is not possible anymore

CQ-ID: Defdb00202029

Severity: K3 - malfunction (no workaround)

Description: In case of an online connection with a control with firmware MLC 13VRS, the cursor was constantly blinking and IndraWorks could not be operated anymore, in particular if the control contained a lot of real axes.

29.2 Firmware

29.2.1 Resolved defects

Axis

The function block "ML_TouchProbe" returns an incorrect measured value

CQ-ID: Defdb00201867

Severity: K3 - malfunction (no workaround)

Description: If a master axis position (A-0-2650, A-0-2651, A-0-2656) was configured in parameter M-0-0006, the modulo value of the master axis is not taken into consideration during the calculation of measured values.

Fixing: If a master axis position (A-0-2650, A-0-2651, A-0-2656) is configured in parameter M-0-0006, the modulo value of the master axis is now taken into consideration during the calculation of measured values.

Due to debugging, the control probe behavior has changed with regard to the following aspects:

- When leaving Sercos phase 4, the touch probe is disabled (M-0-0024) and the release is reset (M-0-0405). Reason: Data such as modulo, scaling etc. can only be read out in Sercos phase 4

- Up till now, the touch probe was enabled during switching from Sercos phase 3 to 4. Now, the touch probe is not enabled anymore (M-0-0024), as required data such as modulo, scaling etc. cannot be read out yet at this

point in time. The user has to manually enable the touch probe after reaching P4 (M-0-0024).

- If a master axis position (A-0-2650, A-0-2651, A-0-2656) was configured in M-0-0006, the touch probe (M-0-0024) can only be enabled if the slave axis is in a synchronization operating mode (error message 0xE0337008 “Invalid operating data…")

- In case of an enabled touch probe (M-0-0024), M-0-0006 is read-only (error message 0xF00A700C “Operating data currently read-only...”)

30 IndraLogic XLC/IndraMotion MLC 14V20 Patch 03 firmware and software

30.1 Firmware

30.1.1 Resolved defects

Axis

“F5180005 Cycle time exceeded” Motion Kernel for IpoDrive

CQ-ID: Defdb00201380

Severity: K3 - malfunction (no workaround)

Description: If a motion command is issued for a real axis with interpolation in the drive two motion cycles within issuing the motion command "MoveAbsolute” and if that motion command uses another operation mode, it is possible that the error “F5180005 Cycle time exceeded Motion Kernel" is generated.

Fixing: The transition from the motion command "MoveAbsolute" to a motion command using another operation mode is possible without an exceeded cycle time.

31 IndraLogic XLC/IndraMotion MLC 14V20 Patch 02 firmware and software

31.1 Software

31.1.1 Resolved defects

_Other

Project archives cannot be stored on the FTP server of the control

CQ-ID: Defdb00200352

Severity: K3 - malfunction (no workaround)

Description: Project archiving on XM controls is canceled with FTP server error.

Engineering / Drive

Axis node cannot be expanded

CQ-ID: Defdb00200179

Severity: K2 - serious malfunction

Description: The axis node of the IndraDrive could not be expanded at the Sercos node, as the character "+" was missing.

Configuring the control unit CDB02.1B-ET-... is not supported by IndraWorks 14VRS

CQ-ID: Defdb00199190

Severity: K3 - malfunction (no workaround)

Description: The control section CDB02.1B-ET-EC-EC-NN-L3-L3-NN-NN-FW could not be projected in IndraWorks.

Context menu item "Communication" in the compatibility mode “Online” greyed out

CQ-ID: Defdb00199590

Severity: K3 - malfunction (no workaround)

Description: The communication dialogs of a real axis (cyclic Sercos channel, signal status word, signal control word) were not available when connected to an XLC/MLC 13VRS control.

Engineering / Firmware Management

Command error "C0721" after a parallel firmware update of the drive firmware via IndraWorks

CQ-ID: Defdb00198413

Severity: K3 - malfunction (no workaround)

Description: When restoring the parameters after a firmware download, the command “Load basic parameters” was always executed.

This caused an error especially together with the active SMO when calling the command and the parameter restoration was canceled.

Additionally, the drive remained in an error. The command was not completed.

Fixing: At an IndraDrive, the command “Load basic parameters" is only executed if the main version of the firmware had changed.

As the parameter structure is not valid anymore when changing the main version, the SMO parameters are not locked anymore and the command can be executed without errors.

However, if there is an error when executing the command, the error on the display is retrieved and the command is subsequently reset.

Engineering / GAT

GAT central freezes in the InitColdStart state in case of an event-controlled AxisInterface and axis error

CQ-ID: Defdb00200662

Severity: K3 - malfunction (no workaround)

Description: GAT central freezes in the InitColdStart state if the event-controlled AxisInterface is used and if an axis error is pending during the initialization.

Engineering / HMI

WinStudio: Incompatible change of the FindFile() function in 14V18

CQ-ID: Defdb00199438

Severity: K4 - malfunction

Description: Incompatible change of the FindFile() function in 14V18.

Engineering / Motion

Compatibility mode 14VRS creates different formats for C-0-0478 compared to IndraWorks 13VRS

CQ-ID: Defdb00200039

Severity: K4 - malfunction

Description: The arrangement of the configured drives and I/O devices in C-0-0478 was changed in IndraWorks 14VRS compared to IndraWorks 13VRS. Thus, user programs referring to this arrangement (I/Os behind the drives) did not work anymore.

Fixing: For controls with an MLC 14VRS, this sequence was implemented again as for IndraWorks 13VRS.

Engineering / PLC Libraries

Function block MB_DigitalCamSwitchOvs sporadically returns incorrect values

CQ-ID: Defdb00200264

Severity: K3 - malfunction (no workaround)

Description: In the function block MB_DigitalCamSwitchOvs, it is possible that the first sample arrives one oversampling period too early or the last sample reaches one oversampling period too late.

Engineering / PLC Programming

IndraWorks sporadically freezes when starting the PLC project comparison

CQ-ID: Defdb00200291

Severity: K3 - malfunction (no workaround)

Description: If an exception occurred during the PLC project comparison, the error remained and IndraWorks could not be operated anymore.

Login to the PLC in compatibility mode requires PLC download

CQ-ID: Defdb00199069

Severity: K3 - malfunction (no workaround)

Description: If a project created with IndraWorks 14V16 was opened in 14V20 and tries to log into the control on which the project is stored, a dialog is displayed describing the changes in the “Global Persistent Variable List". However, no changes were applied to the project.

PLC project comparison: “Apply block" does not work for actions

CQ-ID: Defdb00200380

Severity: K4 - malfunction

Description: Changes in the PLC project comparison were not applied.

Engineering / PLC Safety

SafetyData: Sporadically, the "InputByte0” of the safe I/Os is "0"

CQ-ID: Defdb00200752

Severity: K3 - malfunction (no workaround)

Description: Input values of Csos input devices are sporadically read out as 0 via SafetyData.

Engineering / Project Handling

Connection test to the XLC45 always fails in a project converted from 12VRS into 14VRS

CQ-ID: Defdb00199245

Severity: K3 - malfunction (no workaround)

Description: It is not possible to update a CML control with MLC 12 firmware using IndraWorks 14V20 to a firmware version 14. The connection test fails and the firmware download dialog does not allow any download.

EtherNet/IP

Output IL_ENIPScannerState is only updated if the “Scanner status” page is open

CQ-ID: Defdb00200004

Severity: K3 - malfunction (no workaround)

Description: The status is not updated automatically anymore. An IoMgrRead has to be executed first, then the status is updated. The status parameter is also updated in the “Connector” list and can then be read and processed.

Fieldbus-configuration

Disabled field bus device nodes are not displayed correctly

CQ-ID: Defdb00199840

Severity: K3 - malfunction (no workaround)

Description: Disabled “Field bus device” nodes are not displayed correctly. Instead of being shown as disabled, a warning triangle is shown in the IndraWorks project tree. In the field bus diagnostics, disabled devices are displayed in read instead of grey.

The following devices are affected:

- Inline

- Profibus
- Profinet
- Sercos
- S20-IO

Operation / HMI

IL2G diagnostics: Feasibility display displays only blue bars with "?" without tooltip info

CQ-ID: Defdb00200042

Severity: K3 - malfunction (no workaround)

Description: Question marks were displayed in the operating screens without further description.

31.1.2 Known issues

Engineering / GAT

GAT wizard should not delete MotionTask

CQ-ID: Defdb00198928

Severity: K6 - functional enhancement

Description: Currently, the GAT wizard deletes the MotionTask for these variants upon creation:

- AxisInterface example
- GATcompact

Engineering / PLC Programming

Connection test with IndraLogic does not work with VPN/Remote

CQ-ID: Defdb00200013

Severity: K3 - malfunction (no workaround)

Description: VPN connects IndraWorks to the system. The IndraLogic connection test always fails. The control responds always. A connection can only be established after multiple attempts.

Workaround: Contact your Bosch Rexroth partner for a hotfix for this problem.

31.2 Firmware

31.2.1 Resolved defects

_Other

Sytronix axis starts up despite AB commanding after a Sercos failure and subsequent startup.

CQ-ID: Defdb00200641

Severity: K1 - safety relevant function

Description: If a traversing command is executed for a controller axis and the Sercos connection fails in this particular moment, the control identifies an error and returns to the Sercos phase 0.

If the connection is established again and the control goes into the “Ready for operation” state after clearing the error, the traversing command is executed again and the controller axis continues moving (with the old command).

Fixing: If the Sercos connection fails during a traversing command for a controller axis and the bus goes into phase 0, no traversing command applies anymore after reaching the state “ready for operation” and the controller axis remains in its position.

Oscilloscope: The oscilloscope required approximately 3.0 minutes to connect if 5 real drives are connected

CQ-ID: Defdb00198794

Severity: K3 - malfunction (no workaround)

Description: If parameters of real drives are configured in the oscilloscope for visualization, establishing a connection can sporadically take several minutes, depending on the number of real drives.

Several message bits of the C-0-0023 and C-0-0650 parameters are not set correctly

CQ-ID: Defdb00199062

Severity: K3 - malfunction (no workaround)

Description: For the parameter C-0-0023 (system status) only one bit of the bits 24, 25 and 26 is active from which category a message (error, message, warning) was issued last. The bits of all pending message types have to be set.

The same behavior occurs in parameter C-0-0650 (diagnostics, status word) for bit 0 (message), bit 1 (warning), bit 2 (error of class 0), bit 3 (error of class 1..9).

Consequence: the Error LED (ERR) is partially controlled incorrectly on the XM2.

Axis

MLC L75: System error F9180003 after 49.71 days in continuous operation by tick overflow

CQ-ID: Defdb00200895

Severity: K2 - serious malfunction

Description: On controls with a multicore CPU, the error "F9180003, Axis incorrectly registered” occurs after continuous operation of 49.71 days if the control is in state “Ready for operation”.

Core

CoreDump is save again after a power cycle that was too short

CQ-ID: Defdb00199266

Severity: K4 - malfunction

Description: If a CoreDump has been saved successfully at the start of the control startup and if the power supply is disconnected and a restart is triggered, the CoreDump is backed up again upon restart if the power supply was disconnected for a short time.

Incorrect logbook entry "F9200060: Restart failed"

CQ-ID: Defdb00200066

Severity: K5 - non critical problem

Description: In case of a control restart (e.g. via the commands C-0-1020: Restart after firmware download, C-0-1021: Restart), the incorrect entry "F9200060: Restart failed" can occur in the logbook, mainly on multicore controls, even though the restart has been executed correctly.

Logic

CmpMLCPlcItf error as consequence of an IEC task exception

CQ-ID: Defdb00200530

Severity: K2 - serious malfunction

Description: If exceptions occur in externally event-triggered IEC tasks, sporadically, no PLC operations (e.g. start, stop, reset, download, online change) could be executed anymore. Only a control restart can fix this problem.

Login causes the error F9240005/F0390002/F0390011

CQ-ID: Defdb00198961

Severity: K3 - malfunction (no workaround)

Description: In case of a PLC project with Safety, changes at the project can cause an incorrect project state. Upon download, this causes a system error on the control.

RobotControl

Mechanical view does not work for transformation in PLC

CQ-ID: Defdb00200266

Severity: K3 - malfunction (no workaround)

Description: If the transformation is used in the PLC, only the TCP is shown as mechanical view. The function getMechanik is ignored.

RoCo: Meme leak when using “Adaptive Motion”

CQ-ID: Defdb00200113

Severity: K3 - malfunction (no workaround)

Description: If “Adaptive Motion” is used for a belt-synchronous motion, the message, “E0200000: Available working memory (RAM) at minimum”, is displayed after a certain time.

Sercos

CrossCom Sercos 2: Error: The error “Link ring: HW synchronization is incorrect” occurs sporadically

CQ-ID: Defdb00200334

Severity: K3 - malfunction (no workaround)

Description: Sporadically, the error “Link ring: HW synchronization incorrect” (F0280044) was reported in a running Sercos 2 link during operation. The diagnostics could be deleted, sporadically, no link data was transmitted anymore.

CrossCom Sercos 2: System error F9240005 during download of the Motion configuration

CQ-ID: Defdb00199599

Severity: K4 - malfunction

Description: In a running Sercos 2 link, the system error F9240005 (page fault) always occurred if the new Motion configuration was downloaded in online mode using IndraWorks after having deleted link axes in offline mode. Sporadically, the control did not run anymore even without any error message.

32 IndraLogic XLC/IndraMotion MLC 14V20 Patch 01 firmware and software

32.1 Software

32.1.1 Resolved defects

IMST XLC/MLC

For VPx devices, the call to boot into the initial mode is missing in the IMST

CQ-ID: Defdb00193891

Severity: K3 - malfunction (no workaround)

Description: For VPx devices, the button to switch to the initial mode is missing in the IndraMotion Service Tool.

_Other

IW XLC/MLC: Online comparison - Recurring exception if the control does not respond

CQ-ID: Defdb00198520

Severity: K3 - malfunction (no workaround)

Description: If an online comparison was executed via a drive below the Sercos node of an XLC/MLC control, an exception was issued and IndraWorks was closed if the IP address did not respond anymore.

Engineering / _Other

Operation is not possible anymore after restoring device data

CQ-ID: Defdb00198989

Severity: K2 - serious malfunction

Description: If the number of warnings is high (multiple thousands) when restoring a device (here L65, backing up a parameter backup), an error can result at the end in the restoration wizard. In this case, the IndraWorks interface does not respond anymore and has to be exited via the Windows Task Manager.

Compatibility: Project from 14V16 P2 cannot be opened in compatibility mode in 14V20

CQ-ID: Defdb00198833

Severity: K3 - malfunction (no workaround)

Description: If a project is created using 14V16 P2 and it is opened in compatibility mode in 14V20, IndraWorks reports that it does not support 14V16 P2.

However, a new project can be created in 14V20 in compatibility mode 14V16 P2.

Engineering / HMI

WebComposer: When closing the WebComposer window, OPC UA subscriptions are incorrectly reduced

CQ-ID: Defdb00198670

Severity: K2 - serious malfunction

Description: Due to wrong timing when resolving the subscriptions and exiting the session, the OPC UA server does sporadically not respond anymore.

WinStudio security gap in the TCPIP server

CQ-ID: Defdb00198881

Severity: K3 - malfunction (no workaround)

Description: If the HMI device is “visible” with the WinStudio application in the internet, the hacker might be able to trigger a "Stack-based Buffer Overflow" and to execute the "Remote Code" on the device with administrative rights.

WinStudio: Setting startup screen not possible

CQ-ID: Defdb00198982

Severity: K3 - malfunction (no workaround)

Description: To set a WinStudio screen as “ startup screen” in the Project Explorer, a license subject to charges has to be used. This function cannot be selected in the Lite version.

WebComposer: The Z-plane is not correctly restored when opening a screen in the editor

CQ-ID: Defdb00198093

Severity: K4 - malfunction

Description: The Z-order (plane number) can be used to place widgets in the WebComposer editor in der plane (foreground/background). The settings specified in the “Design” mode are incorrectly displayed at runtime.

Engineering / Periphery

IndraWorks interface displays wrong information; periphery S3/PB/S20 complete with warning signal yellow

CQ-ID: Defdb00198377

Severity: K2 - serious malfunction

Description: The warning symbol is displayed for all devices in the Project Explorer, if the option “Enable diagnostics for devices” is selected in the PLC settings.

When opening the S20-IO node, the error message "ObjectGuid is wrong” is issued

CQ-ID: Defdb00198721

Severity: K3 - malfunction (no workaround)

Description: For IndraWorks projects with an XM2x control and S20-IO modules at the S20-IO node, it is possible that they are not displayed anymore in the compatibility mode in 14V20R3. When opening the S20-IO node, the additional exception ”ObjectGuid is wrong“ results.

Engineering / PLC Libraries

AutoTuning of the IL_TempControlType02 does not work

CQ-ID: Defdb00197309

Severity: K3 - malfunction (no workaround)

Description: The "Closed Loop" AutoTuning of the temperature controller starts with the defined controlled system initiation "AutotuneMaxPower".

For very high control signals and a high “AutotuneMaxPower”, significant controlled system response might not be detected until the controlled system output has changed to half the command value.

Fixing: The temperature controller function block signals a failed identification via a respective error message (Calculation_Error 16#1603 16#0007 Identification invalid, self-identification of the controlled system failed).

IL_SIIIParameterBackup generates timeout errors

CQ-ID: Defdb00199092

Severity: K3 - malfunction (no workaround)

Description: A timeout error is immediately generated when using the function block IL_SIIIParameterBackup (Additional1: 16#00000002, Additional2: 16#00000007).

IL_TempControlType01 generates an exception in the PLC

CQ-ID: Defdb00198518

Severity: K3 - malfunction (no workaround)

Description: There can be an “underflow” exception in the PLC when using IL_TempControlType01.

Fixing: All REAL input values of the function block are checked for a minimum value (1E-10). If the values are smaller, they are fixedly set to 0.0.

MB_AxisInterfaceType11: Changed value for “Velocity” is not applied

CQ-ID: Defdb00199231

Severity: K3 - malfunction (no workaround)

Description: A changed value for AxisCtlr[].VelMode.Velocity is not applied if the operation mode “ModeVel” is enabled.

Fixing: The defect has been resolved.

Parameter backup with the function block ML_AxisBackup returns an error

CQ-ID: Defdb00197018

Severity: K3 - malfunction (no workaround)

Description: The ML_AxisBackup function block does not work correctly due to a compiler error. It provides the error number 16#00001E03 in Additional1 and in Additional2 the parameter number for which the reading failed. For IndraDrive, this is 16#0000001A. A parameter file with an incomplete data set is generated.

Profibus DP slave: Incorrect logger entry "Hardware Watchdog exceeded"

CQ-ID: Defdb00199006

Severity: K3 - malfunction (no workaround)

Description: When using the control as DP slave, the message “Hardware Watchdog exceeded” is issued. Reset of Application is necessary".

However, the SP slave is running and exchanges I/O data.

Engineering / PLC Programming

FBD: Cut/paste networks create assertion error

CQ-ID: Defdb00198842

Severity: K2 - serious malfunction

Description: Cut some networks and paste it again in FBD editor resulted in error message "object reference not set to an object".

IndraWorks does not respond anymore after inserting program code into the newly created program action

CQ-ID: Defdb00198452

Severity: K2 - serious malfunction

Description: 1. Copy program code with Ctrl+C to the clipboard

2. Create an action below a program

3. Insert the clipboard content of the newly created action

=> IndraWorks does not response anymore

Compatibility mode 14V16: Editing FBD network comments not possible

CQ-ID: Defdb00198937

Severity: K3 - malfunction (no workaround)

Description: A project was edited in 14V20 R3 in the compatibility mode 14V16. When changing network comments in FBD, IndraWorks cannot be operated anymore and has to be exited via the Task Manager. All changes are lost since the last saving.

PLC localization: Variable states are not displayed in the editor

CQ-ID: Defdb00198214

Severity: K3 - malfunction (no workaround)

Description: If an editor is in online mode, the variable states can be seen. After the PLC localization, the translated comments can be seen in online mode, but the variable states cannot be seen.

Project data is also cleared when “No” is selected

CQ-ID: Defdb00199056

Severity: K3 - malfunction (no workaround)

Description: A dialog is displayed when clicking on “Clear” in the IndraWorks menu “Create”. Select whether to clear the project. If “No” is selected, clearing still takes place.

Engineering / Project Handling

Connection test to the XLC45 always fails in a project converted from 12VRS into 14VRS

CQ-ID: Defdb00199245

Severity: K3 - malfunction (no workaround)

Description: A CML control with MLC 12 firmware cannot be updated to the firmware version 14 using IW 14V20. The connection test fails and the firmware download dialog does not allow any download.

32.1.2 Known issues

Engineering / Drive

Context menu item "Communication" in the compatibility mode “Online” greyed out

CQ-ID: Defdb00199590

Severity: K3 - malfunction (no workaround)

Description: The communication dialogs of a real axis (cycl. Sercos channel, signal status word, signal control word) were not available if there was an online connection to an XLC/MLC 13VRS control.

Engineering / GAT

GAT wizard should not delete MotionTask

CQ-ID: Defdb00198928

Severity: K6 - functional enhancement

Description: Currently, the GAT wizard deletes the MotionTask for these variants upon creation:

- AxisInterface example

GATcompact

Engineering / SL Manager

When adding a Profinet device description file to the device database, the “error #22” is output

CQ-ID: Defdb00181925

Severity: K3 - malfunction (no workaround)

Description: When adding a Profinet device description file with Profisafe modules to the device database, the following error is output:

“Error creating logical device ... : The backed up description file could not be created due to error #22.”

Workaround: Contact the Bosch Rexroth Support.

Engineering / PLC programming

Connection test to IndraLogic does not work with VPN/Remote

CQ-ID: Defdb00200013

Severity: K3 - malfunction (no workaround)

Description: Connect IndraWorks to the system via VPN. The IndraLogic connection test always fails. The Motion responds always. A connection can only be established after multiple attempts.

Workaround: Contact your Bosch Rexroth partner for a hotfix for this problem.

Engineering / HMI CE

The user cannot use the WinStudio remote LogWin and the remote database spy

CQ-ID: Defdb00199685

Severity: K3 - malfunction (no workaround)

Description: The user cannot use the WinStudio remote LogWin and the remote database spy, as user name and password are queried in the login mask, but this data is not known to the user.

Fieldbus-configuration

Disabled field bus device nodes are not displayed correctly.

CQ-ID: Defdb00199840

Severity: K3 - malfunction (no workaround)

Description: Disabled field bus device nodes are not displayed correctly. Instead of being shown as disabled, a warning triangle is shown in the IndraWorks project

tree. In the field bus diagnostics, disabled devices are displayed in read instead of grey.

The following devices are affected:

- Inline
- Profibus
- Profinet
- Sercos
- S20-IO

32.2 Firmware

32.2.1 Resolved defects

_Other

Axis: User-defined scaling factor sets motion limits values incorrectly in “S-0-0049”

CQ-ID: Defdb00199229

Severity: K2 - serious malfunction

Description: For an axis with parameter scaling and a set scaling factor unequal to 1, the drive parameters depending on this factor are determined and synchronized incorrectly.

Fixing: The scaling factors for position data (A-0-0060), velocity data (A-0-0057) and acceleration data (A-0-0054) are always set to 1 by the control.

High CPU load by MB_ReadParameter

CQ-ID: Defdb00198962

Severity: K4 - malfunction

Description: If the function block MB_ReadParameter is used in a task to read S-/P-parameters and this task has a short cycle time and thus retriggers this function block the fastest possible, data is read again by the S/IP upon each call. This causes a high CPU load.

Axis

AxisData information is not reset in the parameterization mode.

CQ-ID: Defdb00198464

Severity: K2 - serious malfunction

Description: When switching the control from operating mode (bb) to parameterization mode (P2), the AxisData bits remain set and are not updated.

The following remains for example:

- AxisData[].Axis_Inbb
- AxisData[].Axis_OperationMode

These bits are used in multiple libraries to determine whether the axis is in the operating mode.

Diax drives cannot be operated at Sercos II

CQ-ID: Defdb00194706

Severity: K4 - Malfunction

Description: If Diax drives or Ecodrive drives are connected to MLC via the Sercos II function module, these drives do not completely responds to Motion commands of the control.

Cause S-0-0135 bit 3 (drive follows command value specification) is not yet supported by this drive firmware.

Fixing The file "DIAX.ini" is used to inform the MLC firmware not to analyze S-0-0135 bit 3 for these drives.

☞ Troubleshooting is only effective if the "Sercos Drive" axes were added to the IndraWorks project via the "Scan bus configuration" functionality using the new MLC firmware and the new IndraWorks user interface.

Import Export

A-0-0024 after switch-on depends on the status of the A-0-0024 upon parameter download

CQ-ID: Defdb00198987

Severity: K3 - malfunction (no workaround)

Description: After control switch-on, the axis state (A-0-0024) has the same value as at the time upon the parameter file import for the respective axis.

Logic

Login causes the error F9240005/F0390002/F0390011

CQ-ID: Defdb00198961

Severity: K3 - malfunction (no workaround)

Description: In case of a PLC project with Safety, changes at the project can cause an incorrect project state. Upon download, this causes a system error on the control.

OPC UA

UA server - MLC provider: Invalid items can be added to the subscription

CQ-ID: Defdb00185666

Severity: K3 - malfunction (no workaround)

Description: OPC UA server (MLPI provider): Invalid items can be added to a subscription

RobotControl

RoCo: Axes with addresses above 64 cannot be added to the kinematics

CQ-ID: Defdb00198725

Severity: K3 - malfunction (no workaround)

Description: The list parameter K-0-0008 is limited to 64 (maximum value). Thus, no axes with an address above 64 can be added to a kinematics. All controls supporting more than 64 axes are affected.

Fixing: The maximum value of the parameter K-0-0008 is increased to 253. Thus, axes with a higher address can also be assigned to a kinematics.

RoCo: Task priority of the block preparation cannot be parameterized

CQ-ID: Defdb00198880

Severity: K3 - malfunction (no workaround)

Description: Due to the high control load, the task could replace the block preparation of the robotics. Thus, an insufficient number of motion commands are prepared causing stagnation.

Fixing: The priority of the block preparation can be increased using the new parameter K-0-0090. This ensures that enough blocks are prepared.

Sercos

CrossCom Sercos II, link axis: A-0-0021 bit 30 (master axis valid) is always TRUE

CQ-ID: Defdb00199431

Severity: K2 - serious malfunction

Description: Bit 30 in A-0-0021 is not supported for CrossCom Sercos II. It is only relevant in the C2C link with Sercos III.

The actual error of CrossCom Sercos II was that the error message “Link ring - Master axis position incorrect AT” (F0280006) was not displayed when the master axis data was invalid.

Sercos 2 link: System error F9240005 occurs in "CSI_S2_ISR_MA0"

CQ-ID: Defdb00198933

Severity: K2 - serious malfunction

Description: Making the control startup parallel, timing problems after a control reset could have sporadically caused an incorrect initialization that caused a system error F9240005 (page fault).

Sercos 2 link system error F0280007 “Deviating cycle time cannot be deleted at the slave”, cyclic exchange continuous running

CQ-ID: Defdb00197996

Severity: K3 - malfunction (no workaround)

Description: This error response resulted due to the incorrect initialization of the link slave if the secondary ring was interrupted first and if the primary ring was interrupted subsequently after a ring healing.

Sercos 2 link: Link slave cannot be included into the link after voltage reset

CQ-ID: Defdb00197997

Severity: K3 - malfunction (no workaround)

Description: This error response resulted due to the incorrect initialization of the link slave. Even after the attempt of ring healing, the status bits “Link transmission fault” and “Redundancy not available” remained active.

The problem could have only been fixed by a voltage reset at the master.

Sercos II link: After removal from the primary master Rx, the bit “Cyclic exchange link data" is not present anymore

CQ-ID: Defdb00197995

Severity: K3 - malfunction (no workaround)

Description: Due to an incorrect status analysis in the link master “Status”, bit 14 (Cyclic exchange link data) is deleted in the parameter C-0-0714 (C2C, Function module, status).

Sercos II master communication: Changes in transmission power at CFL01.1Q2 not effective

CQ-ID: Defdb00199570

Severity: K3 - malfunction (no workaround)

Description: If the transmission power was changed in the parameter C-0-0502, this transmission power did not affect the FO sender.

It was possible to change the parameter, but not the transmission power.

Sercos: CP4 with minimum configuration is not always possible, even though F2 error response is enabled

CQ-ID: Defdb00194281

Severity: K3 - malfunction (no workaround)

Description: F2 error response is enabled and drives with enabled CIP Safety are configured. If not all drives with enabled Safety are connected to Sercos, no phase switching to P4 possible.

CrossCom Sercos II: System error F9200017 upon the initial commissioning of the Sercos II link

CQ-ID: Defdb00199313

Severity: K4 - malfunction

Description: A Sercos II link was configured with a CrossCom 2 function module at an MLC without function modules with basic configuration via IndraWorks.

After the control restart requested by IndraWorks, it was possible that the system error “Hardware watchdog" (F9200017) was issued sporadically.

Core

CML75 freezes in BOOT

CQ-ID: Defdb00196468

Severity: K2 - serious malfunction

Description: Upon the switch-on/switch-off test, the “BOOT” display was displayed permanently at different CML75s.

Fixing: It is restarted automatically if this problem occurs. The control should then boot normally. Additionally, a note is written to the ExcLog.dat when this problem occurs to be able to analyze this problem.

The note in ExcLog.dat can look as follows for example:

****

Firmware: ssssss-xxx-14V20.3523.007

Message: Bootup stuck; number of reboots done by system FPGA watchdog: 1

Date/Time (UTC): 17.01.2018 20:49:57

****

32.2.2 Known issues

Sercos

Sercos II CrossCom: System error when downloading the Motion configuration

CQ-ID: Defdb00199599

Severity: K4 - malfunction

Description: When deleting the link access, the system errors F9 can result or the control does not respond anymore.

Link axes are also deleted while the Motion configuration is loaded to the control.

Workaround: The Motion configuration is loaded correctly after a control restart and can now be edited.

33 IndraLogic XLC/IndraMotion MLC 14V20.180.0 firmware and software

33.1 Software

33.1.1 Resolved defects

_Other

Unexpected user management login dialog for project handling

CQ-ID: Defdb00189684

Severity: K4 - malfunction

Description: A project was opened in which editing is not permitted for some users. If a user had logged in who does not have the right to "edit", an error message was generated saying that the user is not allowed to edit (__VisualizationStyle cannot be inserted below the application).

If the project had been opened and the user had logged in who does not have the right to "edit", the user management login dialog opened if the "Visualization" tab had been selected in the visualization manager.

No IndraWorks reaction when editing with the "AutoDeclare" option enabled

CQ-ID: Defdb00192963

Severity: K3 - malfunction (no workaround)

Description: With the "Declare unknown variables automatically (AutoDeclare)" option enabled, IndraWorks sometimes did not react if changes had been made in an editor. IndraWorks had to be exited via the task manager and restarted.

VPx boots sporadically in init FW after reboot

CQ-ID: Defdb00192790

Severity: K3 - malfunction (no workaround)

Description: Current control property:

If the system FW does not start within a period (90 s):

vxWorks.st and KernelConfig.ini are renamed (with time stamp);

goim.st is copied to vxWorks.st;

If KernelConfig.ini was already present, this KernelConfig.ini remains;

If KernelConfig.ini was not present, KernelConfig.ini was newly created with the content "Dummy";

Mechanisms were envisaged to automatically start the OS vxWorks with init FW if some problems occurred upon the .fwDownload (abort or corrupted file system);

The file lengths indicate that vxWorks.st is a copy of goim.st and that vxWorks_xx_yy.st is the BSP of the system FW.

Fixing: The following adaptation was made in PRxxWinApi.*:

It is not significant whether KernelConfig.ini and vxWorks.st exist, but whether the system reaches the state "eOsState_running";

This state is also reached if not further DKMs (e.g. BR_BSPAPI.out) can be loaded;

This impedes the deadlock if a faulty BSP or the wrong BSP is loaded for example;

the watchdog was additionally increased up to 120 s.

VPx: Firmware download not possible via IndraWorks

CQ-ID: Defdb00189884

Severity: K3 - malfunction (no workaround)

Description: The firmware download for 3rd generation controls only works for IP addresses that do not have a proxy assigned in the Internet Explorer.

Fixing: Internal HTTPS communication generally does not use a proxy.

IMST XLC/MLC

Control data backup fails in case of a large system

CQ-ID: Defdb00185303

Severity: K3 - malfunction (no workaround)

Description: If the control data are backed up in a large system with IMST, an error is displayed as the data backup operation takes too long. The data backup is nevertheless executed. However, the process sequence is interrupted. The data backup result has to be saved separately now.

For VPx devices, the call to boot into the initial mode is missing in the IMST

CQ-ID: Defdb00193891

Severity: K3 - malfunction (no workaround)

Description: For VPx devices, the button to switch to the initial mode is missing in the IndraMotion Service Tool.

Some specifications are missing on the electronic type plate of the Sercos I/O modules

CQ-ID: Defdb00187018

Severity: K3 - malfunction (no workaround)

Description: The following specifications are missing on the electronic type plate of the Sercos I/O modules:

- Part number
- Hardware revision number
- Software revision number

IMST oscilloscope in the Internet Explorer freezes during signal selection upon opening the oscilloscope for the second time

CQ-ID: Defdb00186433

Severity: K4 - malfunction

Description: No signals can be selected in the IMST oscilloscope when exiting the oscilloscope area once and opening it again.

In the user management, the same text is displayed for two different I/Os

CQ-ID: Defdb00181250

Severity: K4 - malfunction

Description: Two entries "E/A X31/X32” are contained in the IMST user management under “Local I/O”. However, these two entries refer to two different sites. Ac-

cording to the firmware, one or the other site is displayed. The user does not know which version is activated.

Fixing: The originally identical entries of the user management are now two different texts.

Some S20 modules are not displayed correctly in the IMST

CQ-ID: Defdb00184210

Severity: K5 - non critical problem

Description: S20 SSDx Safety modules are displayed as "Unknown" in the IndraMotion Service Tool.

Project Handling

Project MLC with multiple MLDs: Name of control node cannot be assigned

CQ-ID: Defdb00196639

Severity: K3 - malfunction (no workaround)

Description: In the case of multiple MLD control nodes in an IndraWorks project, the names of the individual control nodes could not be assigned to the correct device in the multiple download dialog.

Engineering / _Other

Error in visualization: "Value cannot be retrieved: Too many expressions"

CQ-ID: Defdb00193791

Severity: K2 - serious malfunction

Description: If multiple visualizations are opened in the project, this error is generated:

"Value cannot be retrieved: Too many expressions"

If a visualization is closed, the error messages disappear until another visualization is opened.

Removing a Siemens Profinet device removes all devices from the device database

CQ-ID: Defdb00194778

Severity: K2 - serious malfunction

Description: All devices were removed from the device database when a Siemens Profinet device had been removed.

MLC-OF: Device data explorer is slow if FTP deactivated

CQ-ID: Defdb00195833

Severity: K3 - malfunction (no workaround)

Description: With an activated SFTP protocol on the control (XM2 and L75), the directory change in the device data explorer is very slow.

No context-sensitive online help for some tabs of VPx control

CQ-ID: Defdb00194691

Severity: K3 - malfunction (no workaround)

Description: No context-sensitive online help for the tabs "Communication", "Backup and Restore", "Files" and "Users and Groups" of the VPx control.

Reading the user parameter for number of encoder bits does not work anymore

CQ-ID: Defdb00194845

Severity: K3 - malfunction (no workaround)

Description: If an I/O slave had been used below a control below the Sercos bus, and the I/O slave had at least one permanently installed I/O module and other I/O modules can be added to it (e.g., an "S20_S3_BK" type I/O slave), and these additionally added modules had I/O user parameters, it was impossible to access these user parameters when using the IndraWorks automation interface.

Switching IndraWorks online is only possible after the second attempt

CQ-ID: Defdb00198094

Severity: K3 - malfunction (no workaround)

Description: If multiple CIP Safety axes are switched offline and online fast in one project, switching online fails due to wrong validation messages.

Device data explorer reports that the connection to the control is canceled if SFTP/SSH is disabled

CQ-ID: Defdb00197249

Severity: K4 - malfunction

Description: At first, both FileTransfer protocols were enabled and it was gone online or the Explorer was opened.

If the SFTP protocol was now disabled, the Explorer could not set up any connection anymore.

Exception "System.ArgumentNullException" occurs when a project is imported

CQ-ID: Defdb00196323

Severity: K4 - malfunction

Description: If the same project had been imported, the exception "System.ArgumentNullException" occurred when the parameters had been loaded.

Making an invalid PLC project setting

CQ-ID: Defdb00198174

Severity: K4 - malfunction

Description: For the activated project user management, it is required to log in before going online.

Fixing: If the project user management is activated, a login dialog is displayed before going online.

"Communication" grayed out at real axis upon the first time

CQ-ID: Defdb00190663

Severity: K5 - non critical problem

Description: If the control and the drives are switched online, the "Communication" is grayed out in the dialog (right-click) at the real axis. As soon as a drive dialog is selected, the "Communication" goes to selectable (black).

Export/import: Error while importing a control with MPM drives

CQ-ID: Defdb00197935

Severity: K5 - non critical problem

Description: If a control was imported with MPM drive, an import error was issued. The drive or the axes of the MPM device were not displayed below the Sercos node.

Inconsistent system feedback regarding user management in the case of "Cancel"

CQ-ID: Defdb00195356

Severity: K5 - non critical problem

Description: Different actions, such as adding a POU or editing a POU with active user management, caused different behaviors regarding the system feedback when canceling in the login dialog. Sometimes a system feedback was given regarding a canceled action and unassigned rights, sometimes there was no feedback.

Project comparison: Drive parameters incorrectly compared

CQ-ID: Defdb00198145

Severity: K3 - malfunction (no workaround)

Description: An MLC was created via an IP address.

The offline parameterization support for drives were enabled in the MLC.

When opening a project comparison via the context menu of the MLC, drive and axis were displayed identically.

Double-click on the control unit or drive and the detailed comparison opened and some parameter were shown as not identical.

Engineering / CamBuilder

CamBuilder no longer displays y-values at cursor in preview

CQ-ID: Defdb00197245

Severity: K3 - malfunction (no workaround)

Description: The CamBuilder no longer displays the y-values at the cursor in the preview.

CamBuilder, generating PLC function block: Incorrect "MasterAxisVelocity" conversion

CQ-ID: Defdb00196778

Severity: K3 - malfunction (no workaround)

Description: Cam properties:

Master axis scaling = translatory

Slave axis scaling = translatory

If the motion step editor for the velocity of the master axis uses a formula, the MasterAxisVelocity is incorrectly calculated when the function block is created. (The conversion factor to rpm is missing.)

CamBuilder: StartVel = EndVel is not considered during the code generation

CQ-ID: Defdb00188962

Severity: K4 - malfunction

Description: The option "Cyclic execution" (StartVel = EndVel) in connection with motion laws that automatically calculate the starting and end velocity is not considered in the code generation for the FlexProfile.

Engineering / GAT

Kinematic interface: ST code templates, acknowledgement code AB/AH incorrect

CQ-ID: Defdb00194757

Severity: K3 - malfunction (no workaround)

Description: The GAT plug-in kinematic interface does also provide ST code templates. When commanding ModeCoordAB or ModeCoordAH, either ModeCoordAB or ModeCoordAH is also suggested as acknowledgement code.

Fixing: The correct value ModeCoordUngrouped is now suggested as acknowledgement code.

Engineering / HMI

WinStudio: Scripts cannot be called anymore after an import

CQ-ID: Defdb00187643

Severity: K2 - serious malfunction

Description: Individual WinStudio main procedures (under Tasks/Global Procedures/Main procedures) are not executed anymore after a visualization data import at runtime.

WinStudio HMI for VH21/VR21: Impossible to apply "Rotate object" to text elements

CQ-ID: Defdb00191471

Severity: K3 - malfunction (no workaround)

Description: In the WinStudio screen editor, text fields can only be rotated by 90 degrees, if they are used within an object group.

WinStudio Remote Connection: IP change in "Target platform" dialog is also applied to device properties

CQ-ID: Defdb00192064

Severity: K3 - malfunction (no workaround)

Description: When connecting to the target device, the wrong IP address is sometimes used in the "Execution platform" dialog if one is working with two instances of IndraWorks Engineering.

WinStudio: Jammed keys

CQ-ID: Defdb00185157

Severity: K3 - malfunction (no workaround)

Description: When setting a bit of a WinStudio tag (e.g. "tagBool->B0”) using a button and if this button is activated repeatedly in short intervals, the button flickers sporadically. It appears that the button was pressed twice. However, the related button command is only executed once.

Service "boschrexroth.webconnector" does not allow Java update

CQ-ID: Defdb00194670

Severity: K4 - malfunction

Description: If the service "boschrexroth.webconnector" is active, Java updates cannot be executed.

Fixing: The service is installed “manually” as startup type and it is only started when starting the WebComposer.

The service continues after exiting the WebComposer or closing IndraWorks. Java updates are only possible after manually exiting the service or rebooting the computer.

WebComposer: Renaming the device issues errors

CQ-ID: Defdb00198057

Severity: K4 - malfunction

Description: After renaming the visualization device, an error message was issued if a screen was created again.

WinStudio in IndraWorks - Screen groups cannot be converted separately into HTML

CQ-ID: Defdb00157925

Severity: K4 - malfunction

Description: Screens and screen groups have to be converted into HTML for the Web client functions. WinStudio in IndraWorks does not allow individual screen groups to be converted.

Engineering / HMI CE

WinStudio: License problem with some network adapters

CQ-ID: Defdb00190144

Severity: K4 - malfunction

Description: When WinStudio is started, the message "License not found" is displayed, even if a valid license was activated. This error occurs if network adapters are added that are not taken into consideration by the WinStudio license check.

Engineering / Oscilloscope

MLC oscilloscope multi-device measurement: Trigger sporadically not executed

CQ-ID: Defdb00197971

Severity: K3 - malfunction (no workaround)

Description: In the case of the multi-device measurement with IndraWorks, the measurement is sporadically not triggered.

Oscilloscope trigger in multi device measurement does not work if an axis is trigger device

CQ-ID: Defdb00191438

Severity: K3 - malfunction (no workaround)

Description: In the case of the multi device measurement of the oscilloscope function, the trigger does not work if an axis and not MLC is selected as the trigger device.

Engineering / Periphery

Disabled Profibus slaves are enabled again when logging off the PLC

CQ-ID: Defdb00193652

Severity: K3 - malfunction (no workaround)

Description: If Profibus slaves had been disabled in the Project Explorer before logging in to the control, these slaves were enabled again in the Project Explorer after logoff from the control. Upon next login to the control, the Profibus slaves were also physically enabled.

GSD files of Profibus saves are overwritten

CQ-ID: Defdb00192975

Severity: K3 - malfunction (no workaround)

Description: When project archives had been restored, device descriptions of Profibus slaves that had already been installed were incorrectly overwritten under certain conditions.

Text change in the multi-firmware download

CQ-ID: Defdb00198128

Severity: K3 - malfunction (no workaround)

Description: After downloading the firmware, it had to be waited for certain conditions in case of some devices before these devices can be restarted. The device could be made unusable if the instructions of the multi-firmware download was followed upon restart.

Fixing: The restart prompt includes a note on the device-specific instruction.

Engineering / PLC Libraries

AxisInterfaceType11: VelMode.Deceleration applies the value from PosMode.Decceleration

CQ-ID: Defdb00198204

Severity: K3 - malfunction (no workaround)

Description: The VelMode.Deceleration value cannot be changed, as the VelMode.Deceleration value is copied from the local variable "Deceleration" for PosMode.Deceleration. The PosMode.Deceleration value also applies to VelMode.

FB MB_SIIIVelocityAltCtrl (RMB_SercosIIUtil) displays "VelocityReached" incorrectly

CQ-ID: Defdb00197859

Severity: K3 - malfunction (no workaround)

Description: The output “VelocityReached” is not correctly displayed at the function block “MB_SIIIVelocityAltCtrl”.

(However, the respective message is correct in the device, e.g. HMC.)

Function block ML_FlyingShear reports the error Additional1 = 202

CQ-ID: Defdb00196746

Severity: K3 - malfunction (no workaround)

Description: The function block ML_FlyingShear in the "ML_TechMotion" library sporadically reports the error Additional1 = 202 after an operating time of multiple hours.

MB_GetCyclicParameterHandle does not work for UserActualDataF

CQ-ID: Defdb00193210

Severity: K3 - malfunction (no workaround)

Description: MB_GetCyclicParameterHandle does not work for UserActualDataF. In this case, the returned handle contains incorrect values, even though the "Done” output is True and the "Error" output is False.

Function block ML_FlyingShear reports the error Additional1 = 16#0202 at a MoveReturn edge

CQ-ID: Defdb00196745

Severity: K4 - malfunction

Description: The function block ML_FlyingShear of the library "ML_TechMotion" reports the error Additional1 = 16#0202 at a positive edge at the “MoveReturn” input while the "Lock On” curve is active.

IL_TempControlType01 generates an exception in the PLC

CQ-ID: Defdb00197796

Severity: K4 - malfunction

Description: The IL_TempControlType01 function block can generate an exception in the PLC. Internal REAL values receive an invalid value.

Fixing: REAL values are checked for validity.

Engineering / PLC Programming

Incorrect I/O access when using POINTER TO BOOL or REFERENCE TO BOOL together with AT addressing

CQ-ID: Defdb00197703

Severity: K1 - safety relevant function

Description: When using the type declarations POINTER TO BOOL or REFERENCE TO BOOL and the AT assignment via the declaration section to %IX, %QX or %MX, the complete BYTE is accessed during write and read operations. Thus, it is possible that the inputs are read incorrectly and that the outputs are set incorrectly.

The IndraLogic compiler indicates such a construct via the compiler warning “C0355: A single bit cannot be referenced. A reference on the complete byte is saved.”

Whether your system/machine is affected by this problem can be determined as follows: Create a copy of your IndraWorks project, as subsequent compiler information might be lost when proceeding as described in the following. Thus, logging into the customer application might not be possible.

- Open the copy of your project

- Click on the menu item “Create" -> “Clean"

- Click on the menu item “Create" -> “Generate code"

- Check the compilation result in the message window on the warning “C0355: A single bit cannot be referenced. A reference on the complete byte is saved.”

If this message is not listed, ignore this problem (it is not significant in your case).

If this message is displayed, the respective AT assignments have to be revised in the respective declaration section. These constructs are identified as compilation errors in future IndraWorks versions (in IndraWorks 14V20 R3 (et seq.)). Downloading the user program is then not possible anymore.

Control conversion deletes compiler info on all controls in the project

CQ-ID: Defdb00196476

Severity: K2 - serious malfunction

Description: There were multiple controls in one project. An MLC L65 was converted into an MLC L75. Afterwards it was impossible to log in to any of the controls without executing a download.

"System.OutOfMemoryException" in the case of long trace recording - trace cannot be saved in *.trace format

CQ-ID: Defdb00194009

Severity: K3 - malfunction (no workaround)

Description: If a trace without trigger condition is run for several hours at 10 ms cycle time with "ms" resolution and with a recording every second cycle, an "Out of Memory" error occurs when the data are saved in the "trace" format. The problem occurs earlier if samples are recorded in every cycle.

Control conversion from VPx into CML65 causes an exception

CQ-ID: Defdb00197618

Severity: K3 - malfunction (no workaround)

Description: A VPx control with safety is included into a project. This VPx control is converted into an MLC L65. The exception "invalid object guid” is displayed.

The exception dialog has to be exited with ALT-F4, as the mouse cannot be operated anymore

Fixing: During conversion, it is detected that the Safety control cannot be converted. Thus, no Safety nodes are created. As the entry "Safety available" is reset late at the control, a previously existing node is accessed. This is not the case if the error is resolved.

Error messages with regard to mapping for project in compatibility mode 13V16 P7

CQ-ID: Defdb00197060

Severity: K3 - malfunction (no workaround)

Description: A project of version 13V16 P7 was opened in a more recent IndraWorks version in the compatibility mode 13V16 P7. Error messages with regard to mapping occurred when the code was generated. Thus, the application could not be loaded to the control.

Objects are inserted below the General module folder in the case of data import

CQ-ID: Defdb00191598

Severity: K3 - malfunction (no workaround)

Description: If the data of another project had been imported at the application node, objects were inserted below the General module folder and not below the application as expected.

Online change is required even though no changes were made

CQ-ID: Defdb00196562

Severity: K3 - malfunction (no workaround)

Description: In the case of projects with ProVi diagnostics and Safety CPU, an unjustified online change was initiated.

Safety Task displays "3 differences in Safety Task" after project comparison

CQ-ID: Defdb00193784

Severity: K3 - malfunction (no workaround)

Description: After a new project had been compared to a control, differences in the Safety Task object were signaled although the differences did not exist.

TaskConfig: Problem with long task names

CQ-ID: Defdb00196548

Severity: K3 - malfunction (no workaround)

Description: The length of a task name will no longer be checked during compile.

The length of a task name will be checked when changing the task name and when adding a new task.

If a task name is longer than used by the runtime, the OS-Task name might be cut off and different from the task name as displayed in the editor.

Compiler warnings for wrong usage of VAR_IN_OUT should be errors

CQ-ID: Defdb00182322

Severity: K4 - malfunction

Description: Compiler warnings for wrong usage of VAR_IN_OUT should be errors

Fixing: [[COMPATIBILITY_INFORMATION]]

Compilerversion >= 3.5.11.0

Error C0417 is reported for string literals assigned to VAR_IN_OUT parameters

Error C0418 is reported for too short strings assigned to VAR_IN_OUT parameters

Invalid watchdog sensitivity in the task configuration at values >10

CQ-ID: Defdb00192480

Severity: K4 - malfunction

Description: The tooltip shows the text “The sensitivity has to be a limited, integer value or an Integer variable” if a value higher than >10 is selected.

Fixing: A maximum value of 120 can be entered for the sensitivity.

The compiler tolerates the following: Function block instances declared in method

CQ-ID: Defdb00186323

Severity: K5 - non critical problem

Description: The compiler does not signal an error if function block instances are declared in methods.

Since function blocks declared at this position are re-initialized in every cycle, the compiler has to output a message.

Fixing: The compiler outputs an error if the "Static code analysis light" with the "Temporary function block instances" option has been selected in the project settings.

Engineering / PLC Safety

Device editor of the Safety function module displays data of the wrong control

CQ-ID: Defdb00198261

Severity: K1 - safety relevant function

Description: There was a control with a Safety function module in IndraWorks. First, it was logged in on the control or the Safety function module with IndraWorks. Then,

the IP address of the control was changed. Then - without previous login, the device editor of the function module was opened (double-click on the Safety function module). Consequently, data of the safety function module previously logged on, were incorrectly displayed in the device editor. Even clicking on the "Refresh" button multiple times in the dialog did not resolve that error. Only after logging into the control or the Safety function module and subsequently opening the Safety function module, data of the correct Safety function module was displayed in the device editor.

Import of the node “Safety task” incorrect

CQ-ID: Defdb00189676

Severity: K2 - serious malfunction

Description: The Safety task might be integrated incorrectly during import.

Generally, all tasks are enabled (irrespective of the setting upon export) and the cycle time is set to a default value of 10 ms.

The system behavior is thus changed, but it is not immediately detected.

Inserting an S20-PSDI8 module inserts two logical Safety modules below the “Logic I/Os”

CQ-ID: Defdb00191270

Severity: K3 - malfunction (no workaround)

Description: Inserting an S20-PSDI8 module below the S20-PN-BK+ coupler inserts two logical Safety modules below the “Logic I/Os”.

The error occurs each time a module was previously inserted and subsequently renamed.

Safety: Find and Replace does not have any effect on logic I/Os and exchange devices

CQ-ID: Defdb00160015

Severity: K3 - malfunction (no workaround)

Description: The Find & Replace command does not have any effect on the data exchange and I/O mapping objects

Fixing: The coverage of the command was extended to the data exchange and I/O mapping objects

SysError after importing logic module

CQ-ID: Defdb00195203

Severity: K3 - malfunction (no workaround)

Description: If a logic module had been imported from another project, the exception "F9240005" or "F03A3106 The same iec module id is used for two different modules!” occurred sometimes in the control after the application had been downloaded.

Variable comment in logic exchange lists cannot be edited

CQ-ID: Defdb00185503

Severity: K3 - malfunction (no workaround)

Description: The comment field in the data exchange objects on the Safety side cannot be edited.

Fixing: The comment field can now be edited and the comment is applied to the corresponding object in the standard control.

The device log of the Safety function module is not displayed

CQ-ID: Defdb00181972

Severity: K4 - malfunction

Description: The device log of the Safety function module is not displayed.

Engineering / SL Manager

Upon project comparison, logic I/Os are identified as being different

CQ-ID: Defdb00170682

Severity: K3 - malfunction (no workaround)

Description: If two identical projects are compared to each other, the logic I/Os are represented differently.

Safety: Switching the comments does not work with multiselect in the FBD editor

CQ-ID: Defdb00176296

Severity: K4 - malfunction

Description: "Commenting on/off" does not work with multiple selected networks.

Fixing: Debugging in Safety editor for FBD. The "Commenting on/off" command is now applied for all selected networks.

Engineering / Version Control System

Faulty filter function “Versioned elements"

CQ-ID: Defdb00194629

Severity: K4 - malfunction

Description: The VCS filter definition by date is retained.

IndraWorks crashes when double-clicking quickly during checkout

CQ-ID: Defdb00193397

Severity: K4 - malfunction

Description: IndraWorks crashes sporadically when an element that is being checked out is double-clicked.

Installation

IndraWorks is not closed completely

CQ-ID: Defdb00196310

Severity: K3 - malfunction (no workaround)

Description: A process sporadically was not exited when closing IndraWorks Engineering.

Online-Help

Faulty F1 for opening help for some function modules

CQ-ID: Defdb00194751

Severity: K3 - malfunction (no workaround)

Description: F1 for opening the help via the project node is faulty for the following function modules:

- Fast I/O
- RT_Ethernet_Profibus DP
- S-RAM modules

Operation / HMI

WinStudio Viewer.ocx: IndraWorks app crashes if two many graphic objects are superimposed in one screen

CQ-ID: Defdb00198073

Severity: K4 - malfunction

Description: If a lot of graphic objects (>30) are embedded in one WinStudio screen, the application might be closed unexpectedly.

Engineering / PLC Programming

IL2G handling: ArrayIndex not displayed in tab name anymore

CQ-ID: Defdb00197357

Severity: K3 - malfunction (no workaround)

Description: The user logs into the application. Different previously opened instances of function blocks are opened. In addition, an editor with the offline content remains open. The used cannot distinguish these instances by the titles on the tab.

Safety Manager

Safety: Exception when scrolling in one of the POUs

CQ-ID: Defdb00187801

Severity: K2 - serious malfunction

Description: An exception occurred sometimes when scrolling in big POUs in the online mode.

Fixing: The Safety FBD editor was optimized.

VPB Firmware

Only up to 4 kinematics can be configured in the VPx control

CQ-ID: Defdb00197323

Severity: K3 - malfunction (no workaround)

Description: Only a maximum of 4 kinematics can be configured in the VPx control, although up to 16 kinematics should work according to the documentation.

Winstudio / Runtime

WinStudio runtime: Retentive values are sporadically lost

CQ-ID: Defdb00194852

Severity: K3 - malfunction (no workaround)

Description: WinStudio variables for which the "Retentive" option has been enabled are sporadically not restored after a restart of the application.

XM21 / Other

SysError "F00C0006” without additional diagnostics

CQ-ID: Defdb00195709

Severity: K2 - serious malfunction

Description: Saving the operating hour values of e.g. 1920 hours (80 days) can sporadically cause a misinterpretation ending in the system error "F00C0006”.

33.1.2 Known issues

Engineering / Drive

Drives: Wrong folder names are sporadically displayed under "Real axes"

CQ-ID: Defdb00196052

Severity: K3 - malfunction (no workaround)

Description: Wrong folder names are sporadically displayed under the drive nodes for real axes under the Motion node.

Engineering / Oscilloscope

IndraWorks MLC oscilloscope multi-device measurement

CQ-ID: Defdb00197251

Severity: K2 - serious malfunction

Description: When a measurement is carried out, there is an impact on the usability of the interface in certain phases of the measurement. The usability of the IndraWorks interface is briefly interrupted, primarily at the end of the measurement when the measurement results are loaded from the physical device to the IndraWorks oscilloscope.

The following circumstances can have a negative effect on the usability:

- The PC or control is operated at a high load

- The oscilloscope measurement is operated with a short measurement duration (size of memory < 500, measurement duration < 1 second) and in the "SingleShot (repeat automatically)" measurement mode

- Multi-device measurement with many slave devices

Engineering / PLC Libraries

Parameter backup with the function block ML_AxisBackup returns an error

CQ-ID: Defdb00197018

Severity: K3 - malfunction (no workaround)

Description: The ML_AxisBackup function block does not work correctly due to a compiler error. It provides the error number 16#00001E03 in Additional1 and in Additional2 the parameter number for which the reading failed. For IndraDrive, this is 16#0000001A. A parameter file with an incomplete data set is generated.

Workaround: The ML_AxisBackup_Type02 function block can be used instead of the ML_AxisBackup function block.

Engineering / Periphery

When opening the S20-IO node, the error message "ObjectGuid is wrong” is issued

CQ-ID: Defdb00198721

Severity: K3 - malfunction (no workaround)

Description: For IndraWorks projects with an XM2x control and S20-IO modules at the S20-IO node, it is possible that they are not displayed anymore in the compatibility mode in 14V20R3. When opening the S20-IO node, the additional exception ”ObjectGuid is wrong“ results.

Workaround: In order to display the S20-IO modules again, the project and the firmware of the control have to be upgraded to 14V20.

33.2 Firmware

33.2.1 Resolved defects

_Other

Communication is delayed by a 5 ms task delay of the SIP task

CQ-ID: Defdb00197078

Severity: K3 - malfunction (no workaround)

Description: A 5 ms task delay in the SIP task slowed down the transmission and frequently caused the connection to be interrupted.

PageFault occurs in EISWS task after port scan

CQ-ID: Defdb00197239

Severity: K3 - malfunction (no workaround)

Description: A PageFault occurs after the Nmap scan (ports/services scan) for port 80.

Semaphore gets jammed and causes watchdog error (F9200017)

CQ-ID: Defdb00197589

Severity: K3 - malfunction (no workaround)

Description: In rare cases the watchdog error F9200017 is signaled due to the excessive use of IP communication in the PLC program.

VPx Control: Command C-0-1021 shuts down Windows

CQ-ID: Defdb00187637

Severity: K3 - malfunction (no workaround)

Description: In case VxWorks had been rebooted on VPx, Windows was always restarted.

VPx: C-0-0051-0 operating hour counter does not provide valid value

CQ-ID: Defdb00194220

Severity: K3 - malfunction (no workaround)

Description: The operating hour counter is read as hour value. However, the expected value is a seconds value. Thus, the displayed value is wrong.

Axis

AXS: Drives DKC2.3 SGP01 firmware does not work with MLC 14VRS

CQ-ID: Defdb00198447

Severity: K2 - serious malfunction

Description: Drives with SGP01 firmware and MLC 14VRS are not executable anymore.

SysErr F9240006 in the FlexProfile if the master axis stops in the time-controlled segment

CQ-ID: Defdb00197566

Severity: K2 - serious malfunction

Description: If the current master velocity is 0 when a segment changes and if the master changes at the same time, an exception can result in the coprocessor.

XM22: SysError in velocity mode with command value 0

CQ-ID: Defdb00196833

Severity: K3 - malfunction (no workaround)

Description: An exception can occur if a command value of 0 is commanded for a moving axis, for a controller axis with Syntronix controller in the cyclic velocity mode.

Diax drives cannot be operated at Sercos II

CQ-ID: Defdb00194706

Severity: K4 - malfunction

Description: If Diax drives are connected to MLC via the Sercos II function module, these drives do not react to Motion commands of the control.

F2037 when starting the FlexProfile with real axis and specific negative current actual position of the axis

CQ-ID: Defdb00193939

Severity: K4 - malfunction

Description: An error occurred sometimes if the FlexProfile had been used and a drive with a braking system that features delayed motor shaft enabling.

Core

Diagnostic entry "F00C0006" possibly faulty

CQ-ID: Defdb00190205

Severity: K2 - serious malfunction

Description: If the boot phase of XLC/MLC is ended "too early", the error F00C0006 "Error remanent data; restored last backup" is displayed when switching on again.

This error can occur, for example, if a SysError occurred during the boot process in an early phase or if the control was switched off again.

Fixing: This error was debugged for all control variants, i.e. switching off/a system error or the like in an early boot phase does not cause the error F00C0006 anymore.

Only relevant for CML controls: As a result of this bug fix, the startup of the CML control might be delayed by a few seconds. "NVR_INIT" might be displayed during the boot phase.

MLC based on IndraControl XM2: Very inaccurate system cycle in phases unequal to P4

CQ-ID: Defdb00197278

Severity: K2 - serious malfunction

Description: The system cycle generation with XM2 is very inaccurate unless the control is operated with Sercos phase 4. This results in the following effects:

1. The time of the control is not computed accurately

2. The cycle times for the PLC tasks are not generated in real time, since the cycle generator lags behind. For example, a 50 ms PLC task is not started every 50 ms, but every 51.

Fixing: The system cycle is always generated accurately, after the control has been booted up. This includes all Sercos phases and the operation of the control with disabled Sercos bus.

XLC/MLC: Time information missing for diagnostic message F00C0006

CQ-ID: Defdb00195689

Severity: K2 - serious malfunction

Description: In the case of the error "F00C0006, Error remanent data; restored last backup", the important time information of this last restored backup is missing.

Fixing: In addition to F00C0006, the message “Last backup point in time (UTC) of remanent data:" is issued including the respective time.

PLS and TouchProbe parameters incorrectly exported/imported

CQ-ID: Defdb00197267

Severity: K3 - malfunction (no workaround)

Description: Due to an error in the parameter export, the parameters C-0-0311 (= N-0-0311), C-0-0312 (= N-0-0312), M-0-0200 and M-0-0201 were incorrectly exported and therefore could not be imported correctly.

Exception/watchdog in the PLC program can exceed the Motion cycle time

CQ-ID: Defdb00194302

Severity: K5 - non critical problem

Description: When an IEC exception occurs and the cycle times are set low at the same time, it was possible that the cycle time exceeded in the Motion kernel.

Import Export

IndraWorks “Import/export, Sercos parameter format not supported" during parameter import

CQ-ID: Defdb00193092

Severity: K2 - serious malfunction

Description: While importing the parameter S-0-0141 from a parameter file, the error message "F00A0005, Import/export, Sercos parameter format not supported" was issued for some values and the parameter was not imported.

Logic

Specifications of the function block "PlcOperationControl” are not implemented

CQ-ID: Defdb00195032

Severity: K2 - serious malfunction

Description: The specifications of the function block "PlcOperationControl" to enable or disable operations (e.g. "xDisableApplicationReset") are not implemented, as the specifications of the MLPI functionality "mlpiLogicSetCapabilityOfOperation" superimpose these specifications.

PLC logger warnings as info in the MLC diagnostic log

CQ-ID: Defdb00195124

Severity: K3 - malfunction (no workaround)

Description: Up to now, all warnings of the 3S PLC logger were displayed as message in the log of the MLC firmware.

Fixing: Now, all warnings of the 3S PLC logger are also displayed as warnings in the log of the MLC firmware.

MLPI

CPerformanceTimer provides incorrect values

CQ-ID: Defdb00195321

Severity: K2 - serious malfunction

Description: The CPerformanceTimer in the timer.h in the directory Utils of the MLPI SDK provides wrong values on an XM21/22.

Error response/return value when reading field bus outputs (Undo)

CQ-ID: Defdb00195054

Severity: K2 - serious malfunction

Description: Due to the error recovery of the Defdb00181315, it is possible that the MLPI application does not run as intended anymore. Thus, debugging is removed again.

MLPI4Java: Sign handling for PLC data types (SINT, INT and ULINT) incorrect

CQ-ID: Defdb00191264

Severity: K3 - malfunction (no workaround)

Description: 1.) If PLC variables of the data types SINT or INT are read via MLPI (ContainerStructure::getDatabyItemInfoAsObject), no second complement is generated. A SINT#-1 is shown as USINT#255.

2.) If a PLC variable of the type ULINT is read via MLPI (ContainerStructure::getDatabyItemInfoAsObject), this variable is converted into the data type “long”. A value >16#7FFF_FFFF_FFFF_FFFF is interpreted as negative digit.

Demo project is not executable

CQ-ID: Defdb00187199

Severity: K4 - malfunction

Description: In the example program, a connection to the local host should have been established using the string "localhost”. However, this string cannot be resolved.

Fixing: The connection to the local host is now established using the string "MLPI_LOCALHOST”.

Motion Functions

Error F2057 when enabling is removed at the function block MC_Power

CQ-ID: Defdb00191476

Severity: K3 - malfunction (no workaround)

Description: Commanding the MC_Power (off) to a translatory, absolutely scaled axis with interpolation in the drive could results in the error message "F2057 Target position outside the traversing range" if the value "A-0-0031, Position limit value, negative” was > 0.

The filter time constants for the offset parameters A-0-2600, A-0-2610 and A-0-2620 are not applied in phase 4

CQ-ID: Defdb00192812

Severity: K4 - malfunction

Description: The filter time constants A-0-2601, A-0-2611 and A-0-2621 were not applied when writing in phase 4 and were only applied after phase switching.

Fixing: The filter time constants are directly applied when writing in phase 4.

Warning tooltip is displayed for axes if the Sercos ring was interrupted

CQ-ID: Defdb00191401

Severity: K4 - malfunction

Description: After interrupting the Sercos communication and after the Sercos phase goes into P0, a warning could be present for an axis with interpolation in the drive in A-0-0021, even though the communication was not possible to the drive.

OPC UA

No connection is established when using the USB interface

CQ-ID: Defdb00194725

Severity: K2 - serious malfunction

Description: When configuring more than one interface via the parameter C957, it could not be connected anymore to the OPC UA server.

OPC UA: Empty "SercosIP" node in case of SIP communication problems with one Sercos device

CQ-ID: Defdb00197715

Severity: K2 - serious malfunction

Description: OPC UA: Under certain circumstances, no Sercos devices were displayed in the slave.

E0200000 Available RAM at minimum, then SysErr F9200034

CQ-ID: Defdb00198149

Severity: K3 - malfunction (no workaround)

Description: If parameters were labeled in the Sercos provider, the allocated memory increased continuously.

OPC UA: Test variables cannot be written

CQ-ID: Defdb00197805

Severity: K3 - malfunction (no workaround)

Description: OPC UA server: Writing test variables was not possible with some clients.

MLC methods without parameter return the error "Bad_Arguments-Missing"

CQ-ID: Defdb00185328

Severity: K5 - non critical problem

Description: If OPC UA methods of the MLC were called with an invalid number of arguments, wrong error messages were issued.

PROFINET IO

Profinet controller: Latest configured output module does not activate outputs

CQ-ID: Defdb00198239

Severity: K2 - serious malfunction

Description: In special configurations, the latest output module of the latest configured Profinet device does not work, as the I/O ProducerState is not applied to the module.

RobotControl

RobotControl: Jerk for deceleration phase cannot be parameterized

CQ-ID: Defdb00198293

Severity: K2 - serious malfunction

Description: The jerk for the deceleration phase cannot be parameterized.

Fixing: To configure the jerk (derivation of the acceleration) for the deceleration phase, the parameter K-0-0037 can now be used.

When jogging the kinematics into negative direction for a 3-axis Canfield, the kinematics moved into positive direction

CQ-ID: Defdb00192054

Severity: K2 - serious malfunction

Description: It was possible to jog in negative z-values using the Canfield transformation. If negative values were reached, the kinematics moved into positive z-direction.

Fixing: When negative z-values are reached, an error is generated and the kinematic stops.

No limit points for A2 and A3 coordinates for the 3-axis Canfield

CQ-ID: Defdb00192057

Severity: K3 - malfunction (no workaround)

Description: It was possible to ensure that the connection points for rods at the platform were identical to the link points of the axes while jogging. If it was jogged further, the kinematics did not move as intended.

Fixing: An error is generated and the kinematics stops.

RoCo: Incorrect belt area check when using "adaptive Motion"

CQ-ID: Defdb00198428

Severity: K4 - malfunction

Description: If belt-synchronous is used with adaptive Motion and belt 1 is synchronized up to belt 2 for example, the point of belt 2 is incorrectly checked using the belt area of belt 1.

The kinematics can be grouped, even though the axis is used in another kinematics

CQ-ID: Defdb00193357

Severity: K4 - malfunction

Description: Multiple kinematics can consist of the same axes. One axis may only be grouped to one kinematics. Due to this error, an axis could be grouped to multiple kinematics.

Fixing: When grouping an axis to a kinematics, it is checked whether this axis already belongs to another kinematics.

Security

No communication to the control possible

CQ-ID: Defdb00198020

Severity: K2 - serious malfunction

Description: The control cannot be reached via ping, as the number of possible ICMP responses was exceeded due to too many UDP accesses (network variable).

Fixing: The ICMP response “Target not reachable" (triggered by a UDP package to a closed UDP port) was disabled.

Sercos

CrossComm2, link axes in master and slave run with different velocities (MC_GearIn)

CQ-ID: Defdb00196354

Severity: K2 - serious malfunction

Description: In a control link with CrossCom 2 modules, the link axes on the link master and the link slave ran with the same velocity as the their master axes at first. The velocities of the link axes in the slave changed after some time. The velocities continuously increased and became partially negative as well.

The reason was that the link slave did not synchronize to the link master.

SMC3 as Sercos drive: F50B017C Failure of producer connection when reaching CP4

CQ-ID: Defdb00187630

Severity: K2 - serious malfunction

Description: An Automata SMC3 was operated as Sercos drive at the MLC.

When reaching CP4, the control issued either the error: "F80B0018 Failure producer connection" or "F50B017C Failure producer connection".

SystemTick does not match the Sercos cycle in phase 4

CQ-ID: Defdb00195552

Severity: K2 - serious malfunction

Description: The SystemTick was not synchronous to the Sercos cycle in phase 4. Thus, an increased jitter in the motion computation was possible.

Aborting the hot plug directly at the master port 1 does not work correctly

CQ-ID: Defdb00187712

Severity: K3 - malfunction (no workaround)

Description: If the topology “Line port 2” is available, a slave is to be included at the inactive port 1 of the master using a hot plug. If a hot-plug function is aborted once, each further hot-plug attempt is aborted with the error message CSMD_HP_SLAVE_RECOGNIZED_IN_CP0.

Communication, SysError F9240005 "Page fault” if C-0-0036 bit 17 is on 1

CQ-ID: Defdb00192113

Severity: K3 - malfunction (no workaround)

Description: The system error F9240005 (Page fault) occurred if the following conditions were met:

- Set bit 17 of C-0-0036 from 0 to 1
- Set bit 17 of C-0-0036 to 0 again => Communication to IndraWorks aborts
- Restart MLC => Remains in P0
- Going online with IndraWorks => Page fault F9240005

MLC SercosDrive axis with Diax04 drive always shows a warning

CQ-ID: Defdb00197665

Severity: K3 - malfunction (no workaround)

Description: Warnings are not handled correctly with Sercos2, SercosDrive master communication (e.g., Diax04; Ecodrive) and Ecodrive Cs devices. Warnings persist on MLC even if the drive no longer displays a warning. Warnings displayed at the drive sporadically are not displayed in MLC.

NRT channel not available anymore after reconfiguring C2C master<>slave

CQ-ID: Defdb00177298

Severity: K3 - malfunction (no workaround)

Description: If a control was reconfigured between the C2C master and the C2C slave, The IP connection did not work anymore via the NRT channel.

PageFault Motion kernel when accessing the SharedMemory (AxisData, ControlData)

CQ-ID: Defdb00193917

Severity: K3 - malfunction (no workaround)

Description: A PageFault resulted when deleting and reading an object

SVC error code 0x7015 not intercepted when accessing S-0-1500.0.3

CQ-ID: Defdb00191420

Severity: K3 - malfunction (no workaround)

Description: The new “again requested” SVC error code 0x7015 was not supported by the XLC/MLC. The error code 0x7015 can be issued by each Sercos device at any time.

Fixing: The request is repeated up to 20 seconds for the SVC error code 0x7015.

XM2x computation of Sync point in time reports a diagnostics. The cause cannot be identified

CQ-ID: Defdb00191258

Severity: K3 - malfunction (no workaround)

Description: An IFBF and an IAC were connected at Sercos and the Sercos cycle time was set to 1 ms at the XM2x. When computing the synchronization point in time in the Sercos startup, the control reported the diagnostics "It is not possible to run in mode Sercos synchronous with given S20 delay times; stop synchronization of S20!".

Fixing: The Sercos point in time T3 validity of actual values is not checked anymore upon startup, as this point in time does not affect the SystemTiming.

System error F9240005 during PLC download

CQ-ID: Defdb00194175

Severity: K4 - malfunction

Description: When downloading the PLC, the system error F9240005 (PageFault) can result. The error can occur if the control is in the operating mode and the Sercos bus in phase 2.

The parameter content C-0-0479 is sporadically incorrect

CQ-ID: Defdb00195369

Severity: K4 - malfunction

Description: More than 20 devices are connected to Sercos. After scanning the devices via C-0-1009, not all elements were filled sporadically in C-0-0479. This caused either the error message F0140003 or F0140001 upon startup.

XM21 / Logicware

Access error when establishing the connection with empty name on FTP (XM21)

CQ-ID: Defdb00188833

Severity: K2 - serious malfunction

Description: If an empty user name is sent when establishing a connection via FTP, two memory access errors are caused.

33.2.2 Known issues

_Other

Oscilloscope multi-device measurement: Connecting to the devices takes very long

CQ-ID: Defdb00197972

Severity: K2 - serious malfunction

Description: Configuring the multi-device measurement takes longer than in 14V18.

Axis

AxisData information is not reset in paramerization mode

CQ-ID: Defdb00198464

Severity: K2 - serious malfunction

Description: If the control is switched from operating mode (bb) to parameterization mode (P2) the AxisData bits remain set and are not updated.

The following bits remain unchanged for example:

- AxisData[].Axis_Inbb
- AxisData[].Axis_OperationMode

These bits are used in different libraries to determine whether the axis is in operating mode.

Motion Functions

MPx, MLC: User-defined value incorrectly initialized in the cyclic channel

CQ-ID: Defdb00196995

Severity: K3 - malfunction (no workaround)

Description: If the parameter S-0-0000 is configured in a user-defined cyclic actual value data container (e.g. A-0-0521), the container is disabled and no value is returned while reading.

RobotControl

RoCo: Axes with addresses above 64 cannot be added to the kinematics

CQ-ID: Defdb00198661

Severity: K3 - malfunction (no workaround)

Description: The list parameter K-0-0008 is limited to 64 (maximum value). Thus, no axes with an address above 64 can be added to a kinematics. All controls supporting more than 64 axes are affected.

34 IndraLogic XLC/IndraMotion MLC 14V20.176.0 R2 firmware and software

34.1 Software

34.1.1 Resolved defects

_Other

Unexpected user management login dialog for project handling

CQ-ID: Defdb00189684

Severity: K4 - malfunction

Description: A project was opened in which editing is not permitted for some users. If a user had logged in who does not have the right to "edit", an error message was generated saying that the user is not allowed to edit (__VisualizationStyle cannot be inserted below the application).

If the project had been opened and the user had logged in who does not have the right to "edit", the user management login dialog opened if the "Visualization" tab had been selected in the visualization manager.

No IndraWorks reaction when editing with the "AutoDeclare" option enabled

CQ-ID: Defdb00192963

Severity: K3 - malfunction (no workaround)

Description: With the "Declare unknown variables automatically (AutoDeclare)" option enabled, IndraWorks sometimes did not react if changes had been made in an editor. IndraWorks had to be exited via the task manager and restarted.

VPx boots sporadically in init FW after reboot

CQ-ID: Defdb00192790

Severity: K3 - malfunction (no workaround)

Description: Current control property:

If the system FW does not start within a period (90 s):

vxWorks.st and KernelConfig.ini are renamed (with time stamp);

goim.st is copied to vxWorks.st;

If KernelConfig.ini was already present, this KernelConfig.ini remains;

If KernelConfig.ini was not present, KernelConfig.ini was newly created with the content "Dummy";

Mechanisms were envisaged to automatically start the OS vxWorks with init FW if some problems occurred upon the .fwDownload (abort or corrupted file system);

The file lengths indicate that vxWorks.st is a copy of goim.st and that vxWorks_xx_yy.st is the BSP of the system FW.

Fixing: The following adaptation was made in PRxxWinApi.*:

It is not significant whether KernelConfig.ini and vxWorks.st exist, but whether the system reaches the state "eOsState_running";

This state is also reached if not further DKMs (e.g. BR_BSPAPI.out) can be loaded;

This impedes the deadlock if a faulty BSP or the wrong BSP is loaded for example;

the watchdog was additionally increased up to 120 s.

VPx: Firmware download not possible via IndraWorks

CQ-ID: Defdb00189884

Severity: K3 - malfunction (no workaround)

Description: The firmware download for 3rd generation controls only works for IP addresses that do not have a proxy assigned in the Internet Explorer.

Fixing: Internal HTTPS communication generally does not use a proxy.

IMST XLC/MLC

Control data backup fails in case of a large system

CQ-ID: Defdb00185303

Severity: K3 - malfunction (no workaround)

Description: If the control data are backed up in a large system with IMST, an error is displayed as the data backup operation takes too long. The data backup is nevertheless executed. However, the process sequence is interrupted. The data backup result has to be saved separately now.

For VPx devices, the call to boot into the initial mode is missing in the IMST

CQ-ID: Defdb00193891

Severity: K3 - malfunction (no workaround)

Description: For VPx devices, the button to switch to the initial mode is missing in the IndraMotion Service Tool.

Some specifications are missing on the electronic type plate of the Sercos I/O modules

CQ-ID: Defdb00187018

Severity: K3 - malfunction (no workaround)

Description: The following specifications are missing on the electronic type plate of the Sercos I/O modules:

- Part number
- Hardware revision number
- Software revision number

IMST oscilloscope in the Internet Explorer freezes during signal selection upon opening the oscilloscope for the second time

CQ-ID: Defdb00186433

Severity: K4 - malfunction

Description: No signals can be selected in the IMST oscilloscope when exiting the oscilloscope area once and opening it again.

In the user management, the same text is displayed for two different I/Os

CQ-ID: Defdb00181250

Severity: K4 - malfunction

Description: Two entries "E/A X31/X32” are contained in the IMST user management under “Local I/O”. However, these two entries refer to two different sites. Ac-

cording to the firmware, one or the other site is displayed. The user does not know which version is activated.

Fixing: The originally identical entries of the user management are now two different texts.

Some S20 modules are not displayed correctly in the IMST

CQ-ID: Defdb00184210

Severity: K5 - non critical problem

Description: S20 SSDx Safety modules are displayed as "Unknown" in the IndraMotion Service Tool.

VPB Firmware

Only up to 4 kinematics can be configured in the VPx control

CQ-ID: Defdb00197323

Severity: K3 - malfunction (no workaround)

Description: Only a maximum of 4 kinematics can be configured in the VPx control, although up to 16 kinematics should work according to the documentation.

Engineering / _Other

Error in visualization: "Value cannot be retrieved: Too many expressions"

CQ-ID: Defdb00193791

Severity: K2 - serious malfunction

Description: If multiple visualizations are opened in the project, this error is generated:

"Value cannot be retrieved: Too many expressions"

If a visualization is closed, the error messages disappear until another visualization is opened.

Removing a Siemens Profinet device removes all devices from the device database

CQ-ID: Defdb00194778

Severity: K2 - serious malfunction

Description: All devices were removed from the device database when a Siemens Profinet device had been removed.

MLC-OF: Device data explorer is slow if FTP deactivated

CQ-ID: Defdb00195833

Severity: K3 - malfunction (no workaround)

Description: With an activated SFTP protocol on the control (XM2 and L75), the directory change in the device data explorer is very slow.

No context-sensitive online help for some tabs of VPx control

CQ-ID: Defdb00194691

Severity: K3 - malfunction (no workaround)

Description: No context-sensitive online help for the tabs "Communication", "Backup and Restore", "Files" and "Users and Groups" of the VPx control.

Reading the user parameter for number of encoder bits does not work anymore

CQ-ID: Defdb00194845

Severity: K3 - malfunction (no workaround)

Description: If an I/O slave had been used below a control below the Sercos bus, and the I/O slave had at least one permanently installed I/O module and other I/O modules can be added to it (e.g., an "S20_S3_BK" type I/O slave), and these additionally added modules had I/O user parameters, it was impossible to access these user parameters when using the IndraWorks automation interface.

Exception "System.ArgumentNullException" occurs when a project is imported

CQ-ID: Defdb00196323

Severity: K4 - malfunction

Description: If the same project had been imported, the exception "System.ArgumentNullException" occurred when the parameters had been loaded.

"Communication" grayed out at real axis upon the first time

CQ-ID: Defdb00190663

Severity: K5 - non critical problem

Description: If the control and the drives are switched online, the "Communication" is grayed out in the dialog (right-click) at the real axis. As soon as a drive dialog is selected, the "Communication" goes to selectable (black).

Inconsistent system feedback regarding user management in the case of "Cancel"

CQ-ID: Defdb00195356

Severity: K5 - non critical problem

Description: Different actions, such as adding a POU or editing a POU with active user management, caused different behaviors regarding the system feedback when canceling in the login dialog. Sometimes a system feedback was given regarding a canceled action and unassigned rights, sometimes there was no feedback.

Engineering / CamBuilder

CamBuilder no longer displays y-values at cursor in preview

CQ-ID: Defdb00197245

Severity: K3 - malfunction (no workaround)

Description: The CamBuilder no longer displays the y-values at the cursor in the preview.

CamBuilder: StartVel = EndVel is not considered during the code generation

CQ-ID: Defdb00188962

Severity: K4 - malfunction

Description: The option "Cyclic execution" (StartVel = EndVel) in connection with motion laws that automatically calculate the starting and end velocity is not considered in the code generation for the FlexProfile.

Engineering / GAT

Kinematic interface: ST code templates, acknowledgement code AB/AH incorrect

CQ-ID: Defdb00194757

Severity: K3 - malfunction (no workaround)

Description: The GAT plug-in kinematic interface does also provide ST code templates. When commanding ModeCoordAB or ModeCoordAH, either ModeCoordAB or ModeCoordAH is also suggested as acknowledgement code.

Fixing: The correct value ModeCoordUngrouped is now suggested as acknowledgement code.

Engineering / HMI

WinStudio: Scripts cannot be called anymore after an import

CQ-ID: Defdb00187643

Severity: K2 - serious malfunction

Description: Individual WinStudio main procedures (under Tasks/Global Procedures/Main procedures) are not executed anymore after a visualization data import at runtime.

WinStudio HMI for VH21/VR21: Impossible to apply "Rotate object" to text elements

CQ-ID: Defdb00191471

Severity: K3 - malfunction (no workaround)

Description: In the WinStudio screen editor, text fields can only be rotated by 90 degrees, if they are used within an object group.

WinStudio Remote Connection: IP change in "Target platform" dialog is also applied to device properties

CQ-ID: Defdb00192064

Severity: K3 - malfunction (no workaround)

Description: When connecting to the target device, the wrong IP address is sometimes used in the "Execution platform" dialog if one is working with two instances of IndraWorks Engineering.

WinStudio: Jammed keys

CQ-ID: Defdb00185157

Severity: K3 - malfunction (no workaround)

Description: When setting a bit of a WinStudio tag (e.g. "tagBool->B0”) using a button and if this button is activated repeatedly in short intervals, the button flickers sporadically. It appears that the button was pressed twice. However, the related button command is only executed once.

Service "boschrexroth.webconnector" does not allow Java update

CQ-ID: Defdb00194670

Severity: K4 - malfunction

Description: If the service "boschrexroth.webconnector" is active, Java updates cannot be executed.

WinStudio in IndraWorks - Screen groups cannot be converted separately into HTML

CQ-ID: Defdb00157925

Severity: K4 - malfunction

Description: Screens and screen groups have to be converted into HTML for the Web client functions. WinStudio in IndraWorks does not allow individual screen groups to be converted.

Engineering / HMI CE

WinStudio: License problem with some network adapters

CQ-ID: Defdb00190144

Severity: K4 - malfunction

Description: When WinStudio is started, the message "License not found" is displayed, even if a valid license was activated. This error occurs if network adapters are added that are not taken into consideration by the WinStudio license check.

Engineering / Oscilloscope

Oscilloscope trigger in multi device measurement does not work if an axis is trigger device

CQ-ID: Defdb00191438

Severity: K3 - malfunction (no workaround)

Description: In the case of the multi device measurement of the oscilloscope function, the trigger does not work if an axis and not MLC is selected as the trigger device.

Engineering / Periphery

Disabled Profibus slaves are enabled again when logging off the PLC

CQ-ID: Defdb00193652

Severity: K3 - malfunction (no workaround)

Description: If Profibus slaves had been disabled in the Project Explorer before logging in to the control, these slaves were enabled again in the Project Explorer after logoff from the control. Upon next login to the control, the Profibus slaves were also physically enabled.

GSD files of Profibus saves are overwritten

CQ-ID: Defdb00192975

Severity: K3 - malfunction (no workaround)

Description: When project archives had been restored, device descriptions of Profibus slaves that had already been installed were incorrectly overwritten under certain conditions.

Engineering / PLC Libraries

Function block ML_FlyingShear reports the error Additional1 = 202

CQ-ID: Defdb00196746

Severity: K3 - malfunction (no workaround)

Description: The function block ML_FlyingShear in the "ML_TechMotion" library sporadically reports the error Additional1 = 202 after an operating time of multiple hours.

MB_GetCyclicParameterHandle does not work for UserActualDataF

CQ-ID: Defdb00193210

Severity: K3 - malfunction (no workaround)

Description: MB_GetCyclicParameterHandle does not work for UserActualDataF. In this case, the returned handle contains incorrect values, even though the "Done" output is True and the "Error" output is False.

Function block ML_FlyingShear reports the error Additional1 = 16#0202 at a MoveReturn edge

CQ-ID: Defdb00196745

Severity: K4 - malfunction

Description: The function block ML_FlyingShear of the library "ML_TechMotion" reports the error Additional1 = 16#0202 at a positive edge at the “MoveReturn” input while the "Lock On” curve is active.

Engineering / PLC Programming

Control conversion deletes compiler info on all controls in the project

CQ-ID: Defdb00196476

Severity: K2 - serious malfunction

Description: There were multiple controls in one project. An MLC L65 was converted into an MLC L75. Afterwards it was impossible to log in to any of the controls without executing a download.

"System.OutOfMemoryException" in the case of long trace recording - trace cannot be saved in *.trace format

CQ-ID: Defdb00194009

Severity: K3 - malfunction (no workaround)

Description: If a trace without trigger condition is run for several hours at 10 ms cycle time with "ms" resolution and with a recording every second cycle, an "Out of Memory" error occurs when the data are saved in the "trace" format. The problem occurs earlier if samples are recorded in every cycle.

Error messages with regard to mapping for project in compatibility mode 13V16 P7

CQ-ID: Defdb00197060

Severity: K3 - malfunction (no workaround)

Description: A project of version 13V16 P7 was opened in a more recent IndraWorks version in the compatibility mode 13V16 P7. Error messages with regard to mapping occurred when the code was generated. Thus, the application could not be loaded to the control.

Objects are inserted below the General module folder in the case of data import

CQ-ID: Defdb00191598

Severity: K3 - malfunction (no workaround)

Description: If the data of another project had been imported at the application node, objects were inserted below the General module folder and not below the application as expected.

Online change is required even though no changes were made

CQ-ID: Defdb00196562

Severity: K3 - malfunction (no workaround)

Description: In the case of projects with ProVi diagnostics and Safety CPU, an unjustified online change was initiated.

Safety Task displays "3 differences in Safety Task" after project comparison

CQ-ID: Defdb00193784

Severity: K3 - malfunction (no workaround)

Description: After a new project had been compared to a control, differences in the Safety Task object were signaled although the differences did not exist.

TaskConfig: Problem with long task names

CQ-ID: Defdb00196548

Severity: K3 - malfunction (no workaround)

Description: The length of a task name will no longer be checked during compile.

The length of a task name will be checked when changing the task name and when adding a new task.

If a task name is longer than used by the runtime, the OS-Task name might be cut off and different from the task name as displayed in the editor.

Compiler warnings for wrong usage of VAR_IN_OUT should be errors

CQ-ID: Defdb00182322

Severity: K4 - malfunction

Description: Compiler warnings for wrong usage of VAR_IN_OUT should be errors

Fixing: [[COMPATIBILITY_INFORMATION]]

Compilerversion >= 3.5.11.0

Error C0417 is reported for string literals assigned to VAR_IN_OUT parameters

Error C0418 is reported for too short strings assigned to VAR_IN_OUT parameters

Invalid watchdog sensitivity in the task configuration at values >10

CQ-ID: Defdb00192480

Severity: K4 - malfunction

Description: The tooltip shows the text “The sensitivity has to be a limited, integer value or an Integer variable” if a value higher than >10 is selected.

Fixing: A maximum value of 120 can be entered for the sensitivity.

The compiler tolerates the following: Function block instances declared in method

CQ-ID: Defdb00186323

Severity: K5 - non critical problem

Description: The compiler does not signal an error if function block instances are declared in methods.

Since function blocks declared at this position are re-initialized in every cycle, the compiler has to output a message.

Fixing: The compiler outputs an error if the "Static code analysis light" with the "Temporary function block instances" option has been selected in the project settings.

Engineering / PLC Safety

Import of the node “Safety task” incorrect

CQ-ID: Defdb00189676

Severity: K2 - serious malfunction

Description: The Safety task might be integrated incorrectly during import.

Generally, all tasks are enabled (irrespective of the setting upon export) and the cycle time is set to a default value of 10 ms.

The system behavior is thus changed, but it is not immediately detected.

Inserting an S20-PSDI8 module inserts two logical Safety modules below the “Logic I/Os”

CQ-ID: Defdb00191270

Severity: K3 - malfunction (no workaround)

Description: Inserting an S20-PSDI8 module below the S20-PN-BK+ coupler inserts two logical Safety modules below the “Logic I/Os”

The error occurs each time a module was previously inserted and subsequently renamed.

Safety: Find and Replace does not have any effect on logic I/Os and exchange devices

CQ-ID: Defdb00160015

Severity: K3 - malfunction (no workaround)

Description: The Find & Replace command does not have any effect on the data exchange and I/O mapping objects

Fixing: The coverage of the command was extended to the data exchange and I/O mapping objects

SysError after importing logic module

CQ-ID: Defdb00195203

Severity: K3 - malfunction (no workaround)

Description: If a logic module had been imported from another project, the exception "F9240005" or "F03A3106 The same iec module id is used for two different modules!” occurred sometimes in the control after the application had been downloaded.

Variable comment in logic exchange lists cannot be edited

CQ-ID: Defdb00185503

Severity: K3 - malfunction (no workaround)

Description: The comment field in the data exchange objects on the Safety side cannot be edited.

Fixing: The comment field can now be edited and the comment is applied to the corresponding object in the standard control.

The device log of the Safety function module is not displayed

CQ-ID: Defdb00181972

Severity: K4 - malfunction

Description: The device log of the Safety function module is not displayed.

Engineering / SL Manager

Upon project comparison, logic I/Os are identified as being different

CQ-ID: Defdb00170682

Severity: K3 - malfunction (no workaround)

Description: If two identical projects are compared to each other, the logic I/Os are represented differently.

Safety: Switching the comments does not work with multiselect in the FBD editor

CQ-ID: Defdb00176296

Severity: K4 - malfunction

Description: "Commenting on/off" does not work with multiple selected networks.

Fixing: Debugging in Safety editor for FBD. The "Commenting on/off" command is now applied for all selected networks.

Engineering / Version Control System

Faulty filter function “Versioned elements"

CQ-ID: Defdb00194629

Severity: K4 - malfunction

Description: The VCS filter definition by date is retained.

IndraWorks crashes when double-clicking quickly during checkout

CQ-ID: Defdb00193397

Severity: K4 - malfunction

Description: IndraWorks crashes sporadically when an element that is being checked out is double-clicked.

Online-Help

Faulty F1 for opening help for some function modules

CQ-ID: Defdb00194751

Severity: K3 - malfunction (no workaround)

Description: F1 for opening the help via the project node is faulty for the following function modules:

- Fast I/O
- RT_Ethernet_Profibus DP
- S-RAM modules

Safety Manager

Safety: Exception when scrolling in one of the POUs

CQ-ID: Defdb00187801

Severity: K2 - serious malfunction

Description: An exception occurred sometimes when scrolling in big POUs in the online mode.

Fixing: The Safety FBD editor was optimized.

IndraWorks D/MLD / Project Handling

Project MLC with multiple MLDs: Name of control node cannot be assigned

CQ-ID: Defdb00196639

Severity: K3 - malfunction (no workaround)

Description: In the case of multiple MLD control nodes in an IndraWorks project, the names of the individual control nodes could not be assigned to the correct device in the multiple download dialog.

Runtime

WinStudio runtime: Retentive values are sporadically lost

CQ-ID: Defdb00194852

Severity: K3 - malfunction (no workaround)

Description: WinStudio variables for which the "Retentive" option has been enabled are sporadically not restored after a restart of the application.

XM21 / Other

XM21/XM22: SysError without additional diagnostics

CQ-ID: Defdb00195709

Severity: K2 - serious malfunction

Description: Saving the operating hour values of e.g. 1920 hours (80 days) can sporadically cause a misinterpretation ending in a SysError.

34.1.2 Known issues

Engineering / CamBuilder

CamBuilder, generating PLC function block: Incorrect "MasterAxisVelocity" conversion

CQ-ID: Defdb00196778

Severity: K3 - malfunction (no workaround)

Description: Cam properties:

Master axis scaling = translatory

Slave axis scaling = translatory

If the motion step editor for the velocity of the master axis uses a formula, the MasterAxisVelocity is incorrectly calculated when the function block is created. (The conversion factor to rpm is missing.)

Engineering / Drive

Drives: Wrong folder names are sporadically displayed under "Real axes"

CQ-ID: Defdb00196052

Severity: K3 - malfunction (no workaround)

Description: Wrong folder names are sporadically displayed under the drive nodes for real axes under the Motion node.

Engineering / HMI

WebComposer: Renaming the device causes an error

CQ-ID: Defdb00198057

Severity: K4 - malfunction

Description: After renaming of the visualization device an error message was displayed, if a screen was new created.

Engineering / Oscilloscope

IndraWorks MLC oscilloscope multi-device measurement

CQ-ID: Defdb00197251

Severity: K2 - serious malfunction

Description: When a measurement is carried out, there is an impact on the usability of the interface in certain phases of the measurement. The usability of the IndraWorks interface is briefly interrupted, primarily at the end of the measurement when the measurement results are loaded from the physical device to the IndraWorks oscilloscope.

The following circumstances can have a negative effect on the usability:

- The PC or control is operated at a high load

- The oscilloscope measurement is operated with a short measurement duration (size of memory < 500, measurement duration < 1 second) and in the "SingleShot (repeat automatically)" measurement mode

- Multi-device measurement with many slave devices

MLC oscilloscope multi-device measurement: Trigger sporadically not executed

CQ-ID: Defdb00197971

Severity: K3 - malfunction (no workaround)

Description: In the case of the multi-device measurement with IndraWorks, the measurement is sporadically not triggered.

Engineering / PLC Libraries

FB MB_SIIIVelocityAltCtrl (RMB_SercosIIUtil) displays "VelocityReached" incorrectly

CQ-ID: Defdb00197859

Severity: K3 - malfunction (no workaround)

Description: The output “VelocityReached” is not correctly displayed at the function block “MB_SIIIVelocityAltCtrl”.

(However, the respective message is correct in the device, e.g. HMC.)

Workaround: Use status display in the device (e.g. HMC) (S-0-0330 “nact = ncomm" bit 0).

Engineering / PLC Programming

IL2G handling: ArrayIndex not displayed in tab name anymore

CQ-ID: Defdb00197357

Severity: K3 - malfunction (no workaround)

Description: The user logs into the application. Different previously opened instances of function blocks are opened. In addition, an editor with the offline content remains open. The used cannot distinguish these instances by the titles on the tab.

IndraLogic: SIZEOF operator provides different values

CQ-ID: Defdb00197815

Severity: K3 - malfunction (no workaround)

Description: The ML_AxisBackup function block does not work correctly due to a compiler error. It provides the error number 16#00001E03 in Additional1 and in Additional2 the parameter number for which the reading failed. For IndraDrive, this is 16#0000001A. A parameter file with an incomplete data set is generated.

Workaround: The ML_AxisBackup_Type02 function block can be used instead of the ML_AxisBackup function block.

Incorrect I/O access when using POINTER TO BOOL or REFERENCE TO BOOL together with AT addressing

CQ-ID: Defdb00197703

Severity: K1 - safety relevant function

Description: In the case of write and read operations, the entire BYTE is always accessed when using type declarations of POINTER TO BOOL or REFERENCE TO BOOL and AT assignment via the declaration part to %IX, %QX or %MX. As a result, inputs are sometimes incorrectly read in or outputs are incorrectly set.

With the compiler warning

"C0355: A single bit cannot be referenced. A reference to the complete byte will be stored"

the IndraLogic compiler refers to such a construct.

Perform the following check to find out whether this problem affects your system/machine. Be sure to make a copy of your IndraWorks project, because the compiler information will get lost due to the procedure described below, and it will therefore be impossible to log in to a customer application.

- Open the copy of your project

- Execute the menu item "Create"-> "Clean"

- Execute the menu item "Create"-> "Generate code"

- Check the compilation result in the message window for the occurrence of this warning "C0355: A single bit cannot be referenced. A reference to the complete byte will be stored."

If this message is not listed, the problem does not concern you.

If this message is displayed, it is indispensable to revise the affected AT assignments in the corresponding declaration part. These constructs will be identified as compilation errors in future IndraWorks versions (IndraWorks 14V20 R3 and above). It will then no longer be possible to download the user program.

Workaround: - Case A) For constructs with %IX or %QX: Remove the AT declarations for BOOL type variables in the declaration part and instead assign them, in the "I/O mapping" tab, to the desired bit position at the respective I/O device. For how to proceed in this case, please see the chapter "IndraWorks components"->"IndraLogic 2G - PLC programming system" -> "Configuring an I/O link".

- Case B) For constructs with %MX: Remove the AT declarations in the declaration part and assign the variables directly to the %MX address in the implementation.

By double-clicking the compilation warning, the respective program location is usually is displayed in the IndraLogic editor.

If this is not the case, please contact the Bosch Rexroth service for troubleshooting support.

Typical examples of constructs that are prone to errors

Note: Variables of the BOOL type are handled as Byte in IndraLogic. The FALSE value is represented by the binary code 16#00, the TRUE value is represented by the binary code 16#01. All other binary values are invalid.

Example A: Variable of REFERENCE TO BOOL type is mapped to a binary output QX0.2

Declaration

```
VAR
...
bitref: REFERENCE TO BOOL;
...
myBit5 AT%QX0.5: BOOL;
...
END_VAR
```

Implementation

```
...
bitref REF= myBit5; (* output %QX0.5 assigned to REFERENCE variable bitref*)
bitref := TRUE; (* by this access, %QB0 is written to value 16#01. All other bits in this BYTE are thereby set to FALSE)
```

Required adaptations

Step 1: Required program change via declaration:

```
VAR
...
bitref: REFERENCE TO BOOL;
...
myBit5 : BOOL;
...
END_VAR
```

Step 2: First determine the I/O device to which the output %QX0.5 has been assigned. In the respective "I/O mapping" tab, then assign the myBit5 variable to this output

Example B: Variable of POINTER TO BOOL type is mapped to a binary input IX0.2

Declaration

```
VAR
...
ptrBit: POINTER TO BOOL;
...
myBit2 AT%IX0.2: BOOL;
myBoolVar: BOOL;
...
```

```
END_VAR

Implementation

...

ptrBit := ADR(myBit2); (* input %IX0.2 assigned to ptrBit*)

myBoolVar:=ptrBit^; (* if the input %IX0.2 has been set, the value 16#04 is read in by this access. The value 16#04 is not a valid value for BOOL type variables)
```

Required adaptations

Step 1: Required program change via declaration:

```
VAR

ptrBit: POINTER TO BOOL;

...

myBit2: BOOL;

myBoolVar: BOOL;

...

END_VAR
```

Step 2: First determine the I/O device to which the input %IX0.2 has been assigned. In the respective "I/O mapping" tab, then assign the myBit2 variable to this input

Installation

IndraWorks is not closed completely

CQ-ID: Defdb00196310

Severity: K3 - malfunction (no workaround)

Description: A process sporadically was not exited when the IndraWorks Engineering interface had been closed.

Sercos

MLC SercosDrive axis with DIAX04 drive always shows warning

CQ-ID: Defdb00197665

Severity: K3 - malfunction (no workaround)

Description: Warnings are not handled correctly with Sercos2, SercosDrive master communication (e.g., DIAX04; Ecodrive) and EcodriveCs devices. Warnings persist on MLC even if the drive no longer displays a warning. Warnings displayed at the drive sporadically are not displayed in MLC.

34.2 Firmware

34.2.1 Resolved defects

_Other

Communication is delayed by a 5 ms task delay of the SIP task

CQ-ID: Defdb00197078

Severity: K3 - malfunction (no workaround)

Description: A 5 ms task delay in the SIP task slowed down the transmission and frequently caused the connection to be interrupted.

PageFault occurs in EISWS task after port scan

CQ-ID: Defdb00197239

Severity: K3 - malfunction (no workaround)

Description: A PageFault occurs after the Nmap scan (ports/services scan) for port 80.

Semaphore gets jammed and causes watchdog error (F9200017)

CQ-ID: Defdb00197589

Severity: K3 - malfunction (no workaround)

Description: In rare cases the watchdog error F9200017 is signaled due to the excessive use of IP communication in the PLC program.

VPx Control: Command C-0-1021 shuts down Windows

CQ-ID: Defdb00187637

Severity: K3 - malfunction (no workaround)

Description: In case VxWorks had been rebooted on VPx, Windows was always restarted.

VPx: C-0-0051-0 operating hour counter does not provide valid value

CQ-ID: Defdb00194220

Severity: K3 - malfunction (no workaround)

Description: The operating hour counter is read as hour value. However, the expected value is a seconds value. Thus, the displayed value is wrong.

Axis

XM22: SysError in velocity mode with command value 0

CQ-ID: Defdb00196833

Severity: K3 - malfunction (no workaround)

Description: An exception can occur if a command value of 0 is commanded for a moving axis, for a controller axis with Syntronix controller in the cyclic velocity mode.

Diax drives cannot be operated at Sercos II

CQ-ID: Defdb00194706

Severity: K4 - malfunction

Description: If Diax drives are connected to MLC via the Sercos II function module, these drives do not react to Motion commands of the control.

F2037 when starting the FlexProfile with real axis and specific negative current actual position of the axis

CQ-ID: Defdb00193939

Severity: K4 - malfunction

Description: An error occurred sometimes if the FlexProfile had been used and a drive with a braking system that features delayed motor shaft enabling.

Core

Diagnostic entry "F00C0006" possibly faulty

CQ-ID: Defdb00190205

Severity: K2 - serious malfunction

Description: If the boot phase of XLC/MLC is ended "too early", the error F00C0006 "Error remanent data; restored last backup" is displayed when switching on again.”

This error can occur, for example, if a SysError occurred during the boot process in an early phase or if the control was switched off again.

Fixing: This error was debugged for all control variants, i.e. switching off/a system error or the like in an early boot phase does not cause the error F00C0006 anymore.

Only relevant for CML controls: As a result of this bug fix, the startup of the CML control might be delayed by a few seconds. "NVR_INIT" might be displayed during the boot phase.

MLC based on IndraControl XM2: Very inaccurate system cycle in phases unequal to P4

CQ-ID: Defdb00197278

Severity: K2 - serious malfunction

Description: The system cycle generation with XM2 is very inaccurate unless the control is operated with Sercos phase 4. This results in the following effects:

1. The time of the control is not computed accurately

2. The cycle times for the PLC tasks are not generated in real time, since the cycle generator lags behind. For example, a 50 ms PLC task is not started every 50 ms, but every 51.

Fixing: The system cycle is always generated accurately, after the control has been booted up. This includes all Sercos phases and the operation of the control with disabled Sercos bus.

XLC/MLC: Time information missing for diagnostic message F00C0006

CQ-ID: Defdb00195689

Severity: K2 - serious malfunction

Description: In the case of the error "F00C0006, Error remanent data; restored last backup", the important time information of this last restored backup is missing.

Fixing: In addition to F00C0006, the message “Last backup point in time (UTC) of remanent data:" is issued including the respective time.

PLS and TouchProbe parameters incorrectly exported/imported

CQ-ID: Defdb00197267

Severity: K3 - malfunction (no workaround)

Description: Due to an error in the parameter export, the parameters C-0-0311 (= N-0-0311), C-0-0312 (= N-0-0312), M-0-0200 and M-0-0201 were incorrectly exported and therefore could not be imported correctly.

Exception/watchdog in the PLC program can exceed the Motion cycle time

CQ-ID: Defdb00194302

Severity: K5 - non critical problem

Description: When an IEC exception occurs and the cycle times are set low at the same time, it was possible that the cycle time exceeded in the Motion kernel.

Import Export

IndraWorks “Import/export, Sercos parameter format not supported" during parameter import

CQ-ID: Defdb00193092

Severity: K2 - serious malfunction

Description: While importing the parameter S-0-0141 from a parameter file, the error message "F00A0005, Import/export, Sercos parameter format not supported" was issued for some values and the parameter was not imported.

Logic

Specifications of the function block "PlcOperationControl" are not implemented

CQ-ID: Defdb00195032

Severity: K2 - serious malfunction

Description: The specifications of the function block "PlcOperationControl" to enable or disable operations (e.g. "xDisableApplicationReset") are not implemented, as the specifications of the MLPI functionality "mlpiLogicSetCapabilityOfOperation" superimpose these specifications.

PLC logger warnings as info in the MLC diagnostic log

CQ-ID: Defdb00195124

Severity: K3 - malfunction (no workaround)

Description: Up to now, all warnings of the 3S PLC logger were displayed as message in the log of the MLC firmware.

Fixing: Now, all warnings of the 3S PLC logger are also displayed as warnings in the log of the MLC firmware.

Logicware

Access error when establishing the connection with empty name on FTP (XM21)

CQ-ID: Defdb00188833

Severity: K2 - serious malfunction

Description: If an empty user name is sent when establishing a connection via FTP, two memory access errors are caused.

MLPI

CPerformanceTimer provides incorrect values

CQ-ID: Defdb00195321

Severity: K2 - serious malfunction

Description: The CPerformanceTimer in the timer.h in the directory Utils of the MLPI SDK provides wrong values on an XM21/22.

Error response/return value when reading field bus outputs (Undo)

CQ-ID: Defdb00195054

Severity: K2 - serious malfunction

Description: Due to the error recovery of the Defdb00181315, it is possible that the MLPI application does not run as intended anymore. Thus, debugging is removed again.

MLPI4Java: Sign handling for PLC data types (SINT, INT and ULINT) incorrect

CQ-ID: Defdb00191264

Severity: K3 - malfunction (no workaround)

Description: 1.) If PLC variables of the data types SINT or INT are read via MLPI (ContainerStructure::getDatabyItemInfoAsObject), no second complement is generated. A SINT#-1 is shown as USINT#255.

2.) If a PLC variable of the type ULINT is read via MLPI (ContainerStructure::getDatabyItemInfoAsObject), this variable is converted into the data type “long”. A value >16#7FFF_FFFF_FFFF_FFFF is interpreted as negative digit.

Demo project is not executable

CQ-ID: Defdb00187199

Severity: K4 - malfunction

Description: In the example program, a connection to the local host should have been established using the string "localhost”. However, this string cannot be resolved.

Fixing: The connection to the local host is now established using the string "MLPI_LOCALHOST”.

Motion Functions

Error F2057 when enabling is removed at the function block MC_Power

CQ-ID: Defdb00191476

Severity: K3 - malfunction (no workaround)

Description: Commanding the MC_Power (off) to a translatory, absolutely scaled axis with interpolation in the drive could results in the error message "F2057 Target position outside the traversing range" if the value "A-0-0031, Position limit value, negative” was > 0.

The filter time constants for the offset parameters A-0-2600, A-0-2610 and A-0-2620 are not applied in phase 4

CQ-ID: Defdb00192812

Severity: K4 - malfunction

Description: The filter time constants A-0-2601, A-0-2611 and A-0-2621 were not applied when writing in phase 4 and were only applied after phase switching.

Fixing: The filter time constants are directly applied when writing in phase 4.

Warning tooltip is displayed for axes if the Sercos ring was interrupted

CQ-ID: Defdb00191401

Severity: K4 - malfunction

Description: After interrupting the Sercos communication and after the Sercos phase goes into P0, a warning could be present for an axis with interpolation in the drive in A-0-0021, even though the communication was not possible to the drive.

OPC UA

No connection is established when using the USB interface

CQ-ID: Defdb00194725

Severity: K2 - serious malfunction

Description: When configuring more than one interface via the parameter C957, it could not be connected anymore to the OPC UA server.

MLC methods without parameter return the error "Bad_Arguments-Missing"

CQ-ID: Defdb00185328

Severity: K5 - non critical problem

Description: If OPC UA methods of the MLC were called with an invalid number of arguments, wrong error messages were issued.

RobotControl

When jogging the kinematics into negative direction for a 3-axis Canfield, the kinematics moved into positive direction

CQ-ID: Defdb00192054

Severity: K2 - serious malfunction

Description: It was possible to jog in negative z-values using the Canfield transformation. If negative values were reached, the kinematics moved into positive z-direction.

Fixing: When negative z-values are reached, an error is generated and the kinematic stops.

No limit points for A2 and A3 coordinates for the 3-axis Canfield

CQ-ID: Defdb00192057

Severity: K3 - malfunction (no workaround)

Description: It was possible to ensure that the connection points for rods at the platform were identical to the link points of the axes while jogging. If it was jogged further, the kinematics did not move as intended.

Fixing: An error is generated and the kinematics stops.

The kinematics can be grouped, even though the axis is used in another kinematics

CQ-ID: Defdb00193357

Severity: K4 - malfunction

Description: Multiple kinematics can consist of the same axes. One axis may only be grouped to one kinematics. Due to this error, an axis could be grouped to multiple kinematics.

Fixing: When grouping an axis to a kinematics, it is checked whether this axis already belongs to another kinematics.

Sercos

CrossComm2, link axes in master and slave run with different velocities (MC_GearIn)

CQ-ID: Defdb00196354

Severity: K2 - serious malfunction

Description: In a control link with CrossCom 2 modules, the link axes on the link master and the link slave ran with the same velocity as the their master axes at first. The velocities of the link axes in the slave changed after some time. The velocities continuously increased and became partially negative as well.

The reason was that the link slave did not synchronize to the link master.

SMC3 as Sercos drive: F50B017C Failure of producer connection when reaching CP4

CQ-ID: Defdb00187630

Severity: K2 - serious malfunction

Description: An Automata SMC3 was operated as Sercos drive at the MLC.

When reaching CP4, the control issued either the error: "F80B0018 Failure producer connection" or "F50B017C Failure producer connection".

SystemTick does not match the Sercos cycle in phase 4

CQ-ID: Defdb00195552

Severity: K2 - serious malfunction

Description: The SystemTick was not synchronous to the Sercos cycle in phase 4. Thus, an increased jitter in the motion computation was possible.

Aborting the hot plug directly at the master port 1 does not work correctly

CQ-ID: Defdb00187712

Severity: K3 - malfunction (no workaround)

Description: If the topology “Line port 2” is available, a slave is to be included at the inactive port 1 of the master using a hot plug. If a hot-plug function is aborted once, each further hot-plug attempt is aborted with the error message CSMD_HP_SLAVE_RECOGNIZED_IN_CP0.

Communication, SysError F9240005 "Page fault” if C-0-0036 bit 17 is on 1

CQ-ID: Defdb00192113

Severity: K3 - malfunction (no workaround)

Description: The system error F9240005 (Page fault) occurred if the following conditions were met:

- Set bit 17 of C-0-0036 from 0 to 1
- Set bit 17 of C-0-0036 to 0 again => Communication to IndraWorks aborts
- Restart MLC => Remains in P0
- Going online with IndraWorks => Page fault F9240005

NRT channel not available anymore after reconfiguring C2C master<>slave

CQ-ID: Defdb00177298

Severity: K3 - malfunction (no workaround)

Description: If a control was reconfigured between the C2C master and the C2C slave, The IP connection did not work anymore via the NRT channel.

PageFault Motion kernel when accessing the SharedMemory (AxisData, ControlData)

CQ-ID: Defdb00193917

Severity: K3 - malfunction (no workaround)

Description: A PageFault resulted when deleting and reading an object

SVC error code 0x7015 not intercepted when accessing S-0-1500.0.3

CQ-ID: Defdb00191420

Severity: K3 - malfunction (no workaround)

Description: The new “again requested” SVC error code 0x7015 was not supported by the XLC/MLC. The error code 0x7015 can be issued by each Sercos device at any time.

Fixing: The request is repeated up to 20 seconds for the SVC error code 0x7015.

XM2x computation of Sync point in time reports a diagnostics. The cause cannot be identified

CQ-ID: Defdb00191258

Severity: K3 - malfunction (no workaround)

Description: An IFBF and an IAC were connected at Sercos and the Sercos cycle time was set to 1 ms at the XM2x. When computing the synchronization point in time in the Sercos startup, the control reported the diagnostics "It is not possible to run in mode Sercos synchronous with given S20 delay times; stop synchronization of S20!".

Fixing: The Sercos point in time T3 validity of actual values is not checked anymore upon startup, as this point in time does not affect the SystemTiming.

System error F9240005 during PLC download

CQ-ID: Defdb00194175

Severity: K4 - malfunction

Description: When downloading the PLC, the system error F9240005 (PageFault) can result. The error can occur if the control is in the operating mode and the Sercos bus in phase 2.

The parameter content C-0-0479 is sporadically incorrect

CQ-ID: Defdb00195369

Severity: K4 - malfunction

Description: More than 20 devices are connected to Sercos. After scanning the devices via C-0-1009, not all elements were filled sporadically in C-0-0479. This caused either the error message F0140003 or F0140001 upon startup.

34.2.2 Known issues

_Other

Oscilloscope multi-device measurement: Connecting to the devices takes very long

CQ-ID: Defdb00197972

Severity: K2 - serious malfunction

Description: Configuring the multi-device measurement takes longer than in 14V18.

Motion Functions

MPx, MLC: User-defined value incorrectly initialized in the cyclic channel

CQ-ID: Defdb00196995

Severity: K3 - malfunction (no workaround)

Description: If the parameter S-0-0000 is configured in a user-defined cyclic actual value data container (e.g. A-0-0521), the container is disabled and no value is returned while reading.

35 IndraLogic XLC/IndraMotion MLC 14V18 Patch 03 firmware and software

35.1 Firmware

35.1.1 Resolved defects

_Other

Sytronix axis runs after a Sercos failure and subsequent startup even though there is an AB commanding

CQ-ID: Defdb00200538

Severity: K1 - safety relevant function

Description: If a traversing command is executed for a controller axis and the Sercos connection fails in this particular moment, the control identifies an error and returns to the Sercos phase 0.

If the connection is established again and the control goes into the “Ready for operation” state after clearing the error, the traversing command is executed again and the controller axis continues moving (with the old command).

Fixing: If the Sercos connection fails during a traversing command for a controller axis and the bus goes into phase 0, no traversing command applies anymore after reaching the state “ready for operation” and the controller axis remains in its position.

36 IndraLogic XLC/IndraMotion MLC 14V18 Patch 02 firmware and software

36.1 Software

36.1.1 Resolved defects

Engineering / _Other

Going online with the control was not successful - IndraWorks cannot be operated anymore

CQ-ID: Defdb00196702

Severity: K4 - malfunction

Description: It is possible that the connection to the control was not established via the MLPI. Thus, IndraWorks could not be operated anymore.

Engineering / PLC Libraries

Error: “Maximum number of 20 acknowledgements reached” cannot be reset

CQ-ID: Defdb00194659

Severity: K3 - malfunction (no workaround)

Description: The error “Maximum number of 20 acknowledgements reached” at the function block IH_PNIOAck_PSDx_Inline (RIH_Safety_ProfinetIO.library) cannot be reset.

The error can only be cleared by switching off/on the control or via a PLC “Reset”. Another edge at the function block is not sufficient to reset the error.

Engineering / PLC Programming

Tab “Input/output data block" of "SLC-0-GPNT" without content

CQ-ID: Defdb00195764

Severity: K3 - malfunction (no workaround)

Description: When opening a project from the version control, the tab of the input/output data block of the bus device "SLC-0-GPNT" had no content at the Profinet bus. Thus, the project could not be compiled correctly.

Assertion together with __Try/__Catch statements causes corrupt project data

CQ-ID: Defdb00194774

Severity: K4 - malfunction

Description: Using __TRY/__CATCH statements in STRUCTURED TEXT (ST) can cause an incorrect program code for online changes.

36.1.2 Known issues

Engineering / HMI

Service "boschrexroth.webconnector" does not allow Java update

CQ-ID: Defdb00194670

Severity: K4 - malfunction

Description: If the service "boschrexroth.webConnector" is active, Java updates cannot be executed.

Workaround: The service "boschrexroth.webconnector" is installed and started when installing IndraWorks 14V18P2.

While the service is running, the Java runtime environment cannot be updated.

After closing IndraWorks, the service is not exited and becomes active again after the PC restart.

The service can be exited temporarily via TaskManager->Services->boschrexroth webconnector. Administrator rights are required to exit the service.

If the tool IndraWorks WebComposer is not used, it is recommended to permanently exit the service via the Control Panel.

36.2 Firmware

36.2.1 Resolved defects

OPC UA

UA_ReadList does not provide any valid time stamps

CQ-ID: Defdb00195623

Severity: K2 - serious malfunction

Description: If variables are read with UA_ReadList (RIL_OpcUaClient.library), the elements in the array “TimeStamps” do not have any valid time values.

UA_ConnectionGetStatus does not work

CQ-ID: Defdb00194911

Severity: K3 - malfunction (no workaround)

Description: The function block is not PLCopen-compliant. I.e. the errors and the outputs are only present for one cycle. These outputs may only be reset at a falling edge at the “Execute” input if the “Execute” input was TRUE when the error occurred.

Otherwise, (“Execute” is for example only triggered with a pulse) the error output remains on TRUE for exactly one cycle if the “Execute” input is FALSE when the error occurs.

RobotControl

Sporadic hardware watchdog when switching off after BlockSlope

CQ-ID: Defdb00196336

Severity: K3 - malfunction (no workaround)

Description: When using CONT_SLOPE, a spline is computed for blending. If this spline cannot be computed on time, it is automatically switched to BLOCK_SLOPE when using bit 0 in the parameter K-0-0099. This can sporadically cause the hardware watchdog F9200017.

Transformation 39 incorrect

CQ-ID: Defdb00195617

Severity: K3 - malfunction (no workaround)

Description: If the coupling factor K1 is on 1 and point E of the kinematics is above point B, the angle of the third axis is computed incorrectly.

Velocity jump while blending with Cont_Slope and orientation motion

CQ-ID: Defdb00196390

Severity: K3 - malfunction (no workaround)

Description: If a MoveCircular is blended with CONTINUOUS_SLOPE and an orientation axis is traversed, there is a velocity jump to 0 in the orientation axis during transition to MoveCircular.

Sercos

System tick does not match the Sercos cycle in phase 4

CQ-ID: Defdb00195665

Severity: K2 - serious malfunction

Description: The system tick was not synchronous to the Sercos cycle in phase 4. Thus, an increased jitter in the motion computation was possible.

Aborting the hot plug directly at the master port 1 does not work correctly

CQ-ID: Defdb00187712

Severity: K3 - malfunction (no workaround)

Description: If the topology “Line port 2” is available, a slave is to be included at the inactive port 1 of the master using a hot plug. If a hot-plug function is aborted once, each further hot-plug attempt is aborted with the error message CSMD_HP_SLAVE_RECOGNIZED_IN_CP0.

Error message "F9240005" for the SIS communication with the Sercos devices

CQ-ID: Defdb00194962

Severity: K3 - malfunction (no workaround)

Description: The system error "F9240005" occurred in the SIS communication with the Sercos drives while the program was running.

Other

XM21/XM22: SysError without additional diagnostics (Topcliff problem)

CQ-ID: Defdb00196887

Severity: K2 - serious malfunction

Description: Saving the operating hour values of e.g. 1920 hours (80 days) can sporadically cause a misinterpretation ending in a Sys error.

Fixing: Changing in timing to trigger the components sharing the bus with the operating hour counter.

37 IndraLogic XLC/IndraMotion MLC 14V18 Patch 01 firmware and software

37.1 Firmware

37.1.1 Resolved defects

Engineering / PLC Programming

MLD Logic node cannot be created anymore for the drive firmware MPx18VRS

CQ-ID: Defdb00195427

Severity: K3 - malfunction (no workaround)

Description: No MLD Logic node can be created anymore for a drive of the version MPx18.

37.1.2 Known issues

Engineering / _Other

"The current IndraLogic version does not support the set compatibility mode" when creating a control

CQ-ID: Defdb00195562

Severity: K3 - malfunction (no workaround)

Description: If a project is created with the compatibility mode 13V16 patch 10” in 14V16 patch 1, the error message “The current IndraLogic version does not support the set compatibility mode. The device cannot be created!” is displayed if it is tried to add a control (e.g. MLC L25) to the project.

38 IndraLogic XLC/IndraMotion MLC 14V18.152.0 firmware and software

38.1 Software

38.1.1 Resolved defects

_Other

ProVi messages do not work anymore in IndraWorks 14V16R2

CQ-ID: Defdb00190888

Severity: K3 - malfunction (no workaround)

Description: Projects with ProVi-Sfc diagnostics could not be compiled.

IndraLogic dialogs cannot be operated anymore when the display “Medium - 125 %" is set under Windows

CQ-ID: Defdb00193137

Severity: K4 - malfunction

Description: Some IndraLogic dialogs could not be operated anymore when the display “Medium - 125 %" was set under Windows, as the buttons were not visible anymore.

Compiler

Interchanging the address of two variables does not work correctly for online change

CQ-ID: Defdb00180114

Severity: K4 - malfunction

Description: If the address of two variables is interchanged via online change (refer to the example), a common value is assigned to these variables.

Step 1:

byFlag1 AT %MB1: BYTE := 1;

byFlag2 AT %MB2 : BYTE := 2;

Step 2:

Change address and online change:

byFlag1 AT %MB2 : BYTE := 1;

byFlag2 AT %MB1 : BYTE := 2;

Engineering / _Other

Multi-device: Different file types are not saved

CQ-ID: Defdb00190929

Severity: K2 - serious malfunction

Description: If a “PLC data file”, an “I/O configuration file” or one or several user files were added to an entry (= “Table line") within the multi-device table of the MLC, the IndraWorks-internal file management did not work correctly. Thus, the files previously added to the table were not shown anymore, e.g. after closing and opening the dialog “Configure Multi device functionality”.

Automation Interface: Sercos node missing when creating a VPx

CQ-ID: Defdb00191912

Severity: K3 - malfunction (no workaround)

Description: If a control of the type VPx40.3 was added to an IndraWorks project using the IndraWorks Automation Interface, the Sercos node was missing below the added control.

Cyclic data is exchanged while exporting/importing Sercos slaves

CQ-ID: Defdb00188593

Severity: K3 - malfunction (no workaround)

Description: If an entry was deleted under “General inputs and outputs” (cyclic parameters) after exporting a Sercos slave, the entries after the previously deleted entry were interchanged after importing the previously exported slaves.

Monitoring windows are not automatically displayed after closing/ opening IndraWorks

CQ-ID: Defdb00191349

Severity: K3 - malfunction (no workaround)

Description: Monitoring windows, which were open when closing IndraWorks, are not automatically displayed in the interface when opening IndraWorks again.

Engineering / CamBuilder

CamBuilder: StartVel = EndVel is not considered during the code generation

CQ-ID: Defdb00188962

Severity: K4 - malfunction

Description: The option “Cyclic execution” (StartVel = EndVel) in connection with motion laws that automatically calculate the starting and end velocity is not considered in the code generation for the FlexProfile.

Engineering / Firmware Management

Multi-firmware download: Exception when saving the parameter file

CQ-ID: Defdb00193529

Severity: K4 - malfunction

Description: When saving the backed up parameter file, an exception was thrown in the Sercos Firmware dialog if the existing file should be overwritten.

Engineering / GAT

GAT decentral: In case of an error, the state machine (SFC) of the unit is called twice per cycle

CQ-ID: Defdb00191543

Severity: K4 - malfunction

Description: For GAT decentral, the state machine (SFC) of the units is called twice per cycle as long as the error is pending.

Fixing: Only at a rising edge at the “Error” bit, SFC is called again to ensure a fast error reaction.

PhaseOffset or PhaseShift without function in the AxisInterface in ModeSyncVel

CQ-ID: Defdb00187338

Severity: K4 - malfunction

Description: An axis is velocity-synchronously coupled to a master (ModeSyncVel).

There should be an offset between the master axis and the slave axis via the AxisInterface.

The PhaseOffset (MB_PhasingSlave) is only effective in phase-synchronous operation modes (ModeSyncPhase, ModeFlexProfile...).

The PhaseShift (MB_Phasing) is also effective in the speed-synchronous operation mode ModeSyncVel. However, it is currently not supported by the AxisInterface in ModeSyncVel.

Fixing: The PhaseShift is now also effective in ModeSyncVel. Therefore, it is required to update the user code in the function block TE_AxisInterface; action actPhaseShift.

Engineering / HMI

Upon each download, WinStudio deletes the user file, even if “Keep user file” is selected

CQ-ID: Defdb00188859

Severity: K2 - serious malfunction

Description: When applying a WinStudio project to a visualization device, all data from the target directory is deleted without any warning.

WinStudio: Password display in plain text on WinCE

CQ-ID: Defdb00192409

Severity: K3 - malfunction (no workaround)

Description: If a text field with the option “Password” is used in a WinStudio screen, this field displays the text as plain text on a VR21 device and on a VEP device.

Engineering / Motion

Error/diagnostic memory causes an OutofMemory exception on the PC

CQ-ID: Defdb00193758

Severity: K2 - serious malfunction

Description: If the MLC error/diagnostic memory is permanently filled with warnings, IW stops with an OutOfMemory exception. (IW remains online overnight with filled error memory.)

An error message is issued when changing the firmware version of a VPx

CQ-ID: Defdb00190719

Severity: K3 - malfunction (no workaround)

Description: When changing the firmware version in the VPx properties from e.g. 14V08 to 14V16, the system automatically created another “Sercos III” function module. However, only a Sercos III function module is permitted in the project. Resulted in an error message output by the system. Subsequently, the project could not be compiled successfully.

Axis dialog “Settings of status messages”, display “Axis synchronized”, target position

CQ-ID: Defdb00191972

Severity: K3 - malfunction (no workaround)

Description: Wrong bits and wrong texts were displayed in the dialog.

Engineering / Periphery

Adding GSDML files to the IndraWorks device database can take up to several minutes

CQ-ID: Defdb00184142

Severity: K3 - malfunction (no workaround)

Description: Adding GSDML files to the IndraWorks device database can take up to several minutes.

It occurs if the current GSDML file or a previous version has already been installed and if the GSDML file is very big.

Depending on the size of the GSDML file, the progress bar is only refreshed after several seconds or minutes.

Engineering / PLC Libraries

MB_AllocCyclicParameter and MB_GetParaHandle do not work for the HMC

CQ-ID: Defdb00191143

Severity: K2 - serious malfunction

Description: The subordinate function block MB_GetSystemInfo was incorrectly implemented for an HMC. Thus, the function block has never been completed with “Done” or “Error”. All superordinate function blocks wait for one of the two cases. Thus, these function blocks could also not been completed.

MB_DigitalCamSwitchOvr does not set the outputs correctly

CQ-ID: Defdb00192336

Severity: K2 - serious malfunction

Description: If an oversampling factor other than 64 is set in the function block, the switch-on and switch-off times are not reached correctly. If a switch is active for several Sercos cycles, it affects only the switch-on and the switch-off cycle. It is switched on correctly in the cycles in between.

MB_DigitalCamSwitchOvr does not set the outputs correctly if an oversampling rate other than 64 is set

CQ-ID: Defdb00192335

Severity: K2 - serious malfunction

Description: MB_DigitalCamSwitchOvr does not set the outputs correctly if an oversampling rate other than 64 is set. This error only occurred from the library version 14.16.2.0.

MB_AllocCylicParameter does not run with IndraDrive with PFC function

CQ-ID: Defdb00192814

Severity: K3 - malfunction (no workaround)

Description: The error 0xF02D7003 occurs when using the function block MB_AllocCylicParameter. The error occurs only together with an IndraDrive with PFC function.

ML_AxisBackup: The “Done” output is set if the file name is incorrect

CQ-ID: Defdb00185222

Severity: K3 - malfunction (no workaround)

Description: If a wrong file name is specified (e.g. the directory does not exist), the function block outputs "Done", even though no action is executed.

RMB_SercosIIIUtil: Embedded IL_SIIISvcRead Fb with default timeout monitoring -> Sporadic timeout error

CQ-ID: Defdb00192994

Severity: K3 - malfunction (no workaround)

Description: For the function blocks MB_SIIIPlcDrivePosInterpolationType01, MB_SIIIPlcDriveTorqueType01, MB_SIIIplcDriveVelocityType01, MB_SIIIplcDriveEfcFrequencyType01, MB_SIIIPlcDriveFlowControl, MB_SIIIplcDrivePressureFlowControl, MB_SIIIPlcDrivePressureSwivelAngleControl and MB_SIIIPlcDrivePressureSwivelAngleSlave, the function block IL_SIIISvcRead is subordinately called. For this function block, a timeout error (F_RELATED_TABLE, Add1: 15 hex, Add2 0001 hex) can be caused sporadically if the acyclic channel is fully loaded.

Fixing: The subordinate function block is now called with the timeout T#0s (no timeout).

MC_DigitalCamSwitch does not check whether Motion cycle time and Sercos cycle time are identical.

CQ-ID: Defdb00192259

Severity: K4 - malfunction

Description: It was possible to operate the function block, even though the Motion cycle time and the Sercos cycle time were different. As position and velocity data can only be generated in the Motion cycle, output data does only change if Motion data changes. If the Sercos cycle time is only a fraction of the Motion cycle, an incorrect accuracy is assumed.

Fixing: It is now checked, whether the Motion cycle time and the Sercos cycle time are identical. If they are different, the new error 16#00002B09 is generated.

Engineering / PLC Programming

Due to a PLC project comparison, IndraWorks cannot be operated anymore

CQ-ID: Defdb00191428

Severity: K2 - serious malfunction

Description: During the PLC project comparison, it was possible that IndraWorks did not respond anymore in certain projects (e.g. devices were used in the projects).

Precompile: Elements of an ENUM are interpreted as bit

CQ-ID: Defdb00188678

Severity: K2 - serious malfunction

Description: If the attribute “qualified_only” is not set when declaring an ENUM with the elements of type DWORD, the following pre-compile error results C0032: Type “BIT” cannot be converted into type “DWORD”.

Exception for cross reference list in Visu

CQ-ID: Defdb00192953

Severity: K3 - malfunction (no workaround)

Description: If the source position of a selected cross reference has already been displayed via double-click and if it was double-clicked again on another entry in the cross reference list to display the source position, an exception occurred.

Project created in 14V10 P3 cannot be compiled anymore in 14V16 R2 in compatibility mode 14V10 P3

CQ-ID: Defdb00191036

Severity: K3 - malfunction (no workaround)

Description: Project created in 14V10 P3 could not be compiled anymore in 14V16 R2 in compatibility mode 14V10 P3 (by using the OPC UA server).

Online change requires closing and reopening of the project

CQ-ID: Defdb00191091

Severity: K4 - malfunction

Description: If network variable objects (sender/receiver) are in a project and if the application was logged in, an online change occurs after closing and opening the project when trying to log in the application.

This behavior is triggered as the path of the file link in the Property dialog of the NVL cannot be accessed.

Engineering / PLC Safety

During online comparison, the error "Object reference not sent to an instance of an object" occurs

CQ-ID: Defdb00192976

Severity: K3 - malfunction (no workaround)

Description: The online comparison is called when the Safety program is running.

Double-clicking on the equals sign (to open the detailed view) of the Safety program causes an unexpected exception.

Exception when inserting a control with Safety FM and the option “Open object after adding”

CQ-ID: Defdb00190244

Severity: K3 - malfunction (no workaround)

Description: The option “Open object after adding” was selected.

If a control was created with a Safety function module in a project, an exception occurs.

No plain text messages are output in the log of the Safety control

CQ-ID: Defdb00191227

Severity: K3 - malfunction (no workaround)

Description: Instead of plain text messages, only IDs are output in the Safety log.

Save receiver NVL cannot be refreshed via the button

CQ-ID: Defdb00187514

Severity: K3 - malfunction (no workaround)

Description: Save receiver NVL cannot be refreshed via the respective button, even though the sender NVL was changed.

The “Refresh” button remains disabled.

Engineering / Project Handling

SCP: MLC connected to wrong IP address after “Save project as”

CQ-ID: Defdb00191067

Severity: K2 - serious malfunction

Description: If an opened project was saved in another path and then opened again in the previous path, unintended dependencies can result in the device communication.

Fixing: The common use of communication instances between Windows applications was disabled.

When updating the control, devices below RT_Ethernet/Profibus are not updated

CQ-ID: Defdb00190705

Severity: K4 - malfunction

Description: When updating the control in a project created in IndraWorks 14V10P2, the devices below the “RT Ethernet/Profibus” function module were not updated (latest version).

Engineering / Technology

MB_InitTouchProbe reports StateMachineError if "ProbeData" input is connected to TP_PROBE_TIME

CQ-ID: Defdb00191112

Severity: K3 - malfunction (no workaround)

Description: If the "ProbeData" input of the MB_InitTouchProbe function block was connected to TP_PROBE_TIME and if the function block was called with Execute=TRUE, the function block reports a StateMachineError.

ErrrorID = STATE_MACHINE_ERROR

ErrorTable = F_Related_Table

Additional1 = 0x0006

Additional2 = 0x0000

Thus, the function block cannot be used to configure the drive touch probe to measure the time.

Fixing: The value "TP_PROBE_TIME” is now supported at the "ProbeData" input and the drive touch probe is parameterized to measure the time.

ML_InitTouchProbe: Input “Interpolation” - Fatal default value (Interpolation disabled)

CQ-ID: Defdb00190846

Severity: K4 - malfunction

Description: The default value of the “Interpolation” input is "No_Interpolation" => Interpolation of the measuring value is not enabled within a Sercos cycle.

Fixing: The default value was changed from "No_Interpolation" to "Linear_Interpolation" => Linear interpolation of the measuring value is enabled within a Sercos cycle

Engineering / Version Control System

VCS: Incorrect address display when updating the working copy

CQ-ID: Defdb00191027

Severity: K3 - malfunction (no workaround)

Description: If the address was changed in a project under version control at a drive below the MLC and the drive was then checked in, this change was not shown below the Sercos node when updating the working copy in another project. However, the properties of the real axis below the MLC were correct, only the address was shown incorrectly below the Sercos node.

IndraMotion Service Tool

The hardware configuration overview cannot be generated

CQ-ID: Defdb00181929

Severity: K3 - malfunction (no workaround)

Description: If no Sercos devices are detected, the hardware configuration overview cannot be generated.

If “Hardware overview” is selected, press “Save” to generate an HTML or XML overview on the current configuration. This method cannot be used if no Sercos devices are found.

MLPI

MLPI4Java: Error in Motion.java

CQ-ID: Defdb00184103

Severity: K3 - malfunction (no workaround)

Description: Specifying the axis number = 0 causes an ArrayIndexOutOfBoundsExeption.

Fixing: Axis numbers <= 0 are rejected with an exception (e.g. "Exception in thread "main" java.lang.RuntimeException: Logical axis number '-5' out of minimum range.").

Operation / HMI

BRWS: Max. string length is only 82 characters in the VR21x

CQ-ID: Defdb00188490

Severity: K3 - malfunction (no workaround)

Description: For the VR21, the maximum string length transferred in the BRWS driver is only 82 characters, in the VEPx CE, it is limited to 256 characters.

Sercos

Error during homing cannot be deleted

CQ-ID: Defdb00190371

Severity: K2 - serious malfunction

Description: When homing is started, a drive generates an error (e.g. F2028). If the error occurs immediately in a certain time frame, the error can subsequently not be deleted anymore (commands C-0-1030 or A-0-1030).

38.1.2 Known issues

_Other

Error when opening the context menu multiple times

CQ-ID: Defdb00194661

Severity: K3 - malfunction (no workaround)

Description: When opening the context menu multiple times, e.g. at the application node, an error message occurred and an optical error state was displayed as red cross in the interface.

Engineering / GAT

Kinematic interface: ST code templates, acknowledgement code AB/AH incorrect

CQ-ID: Defdb00194757

Severity: K3 - malfunction (no workaround)

Description: The GAT plug-in kinematic interface does also provide ST code templates. When commanding ModeCoordAB or ModeCoordAH, either ModeCoordAB or ModeCoordAH is also suggested as acknowledgement code.

Engineering / PLC Libraries

IL_SIIIRemoteSlaveStateDetails: For FSP_Drive, S-0-0011 and S-0-0012 are not mandatorily required

CQ-ID: Defdb00183903

Severity: K3 - malfunction (no workaround)

Description: The IL_SIIIRemoteSlaveStateDetails function block from the RIL_SercosIII library tries to read the following parameters of a Sercos device with the type FSP-drive:

- S-0-0011, state class 1
- S-0-0012, state class 2

If the parameters are not available, the function block aborts and outputs the error 0x1001.

MB_GetCyclicParameterHandle does not work for UserActualDataF

CQ-ID: Defdb00193210

Severity: K3 - malfunction (no workaround)

Description: MB_GetCyclicParameterHandle does not work for UserActualDataF. In this case, the returned handle contains incorrect values, even though the "Done" output is True and the "Error" output is False.

Engineering / PLC Programming

Invalid watchdog sensitivity in the task configuration at values >10

CQ-ID: Defdb00192480

Severity: K4 - malfunction

Description: The tooltip shows the text “The sensitivity has to be a limited, integer value or an Integer variable” if a value higher than >10 is selected.

IndraLogic: Assertion together with __Try / __Catch statements causes corrupt project data

CQ-ID: Defdb00194774

Severity: K4 - malfunction

Description: Using __TRY …__CATCH statements in STRUCTURED TEXT (ST) can cause an incorrect program code for online changes.

Workaround: A regular program download is recommended when using the __TRY … __CATCH mechanism for program changes.

Engineering / SL Manager

When adding a Profinet device description file to the device database, the “error #22” is output

CQ-ID: Defdb00181925

Severity: K3 - malfunction (no workaround)

Description: When adding a Profinet device description file with Profisafe modules to the device database, the following error is output:

"Error creating logical device ... : The backed up description file could not be created due to error #22.

Workaround: Contact the Bosch Rexroth Support.

Engineering / Project Handling

IndraLogic: Problems with active Skype session

CQ-ID: Defdb00194444

Severity: K2 - serious malfunction

Description: Problems with active Skype session.

Workaround: Do not edit in IndraLogic while a Skype session is active. Otherwise, the project

has to be cleared and recompiled upon each download.

38.2 Firmware

38.2.1 Resolved defects

Archive / Coredump

CML75: Core dump generation stops or is not executed completely automatically

CQ-ID: Defdb00187502

Severity: K3 - malfunction (no workaround)

Description: If a system error is pending on an CML75, the core dump generation stops. After pressing the three right keys (cursor up, cursor down and Enter), the core dump generation stopped displaying a "." (only point). The control did neither reboot automatically nor switched to the monitor to generate the core dump. Only after pressing the S1 key at the CML75, the core dump was generated.

Axis

FlexProfile: F5113002 during profile switching

CQ-ID: Defdb00193110

Severity: K2 - serious malfunction

Description: During phase switching of two FlexProfiles, the error F5113002 “Command velocity too high for cycle time" can result, even though the maximum permitted velocity is not exceeded.

IW “Import/export, Sercos parameter format not supported" during parameter import

CQ-ID: Defdb00192540

Severity: K2 - serious malfunction

Description: While importing the parameter S-0-0141 from a parameter file, the error message "F00A0005, Import/export, Sercos parameter format not supported" was issued for some values and the parameter was not imported.

C2C: Incorrect computation of the A-0-0102

CQ-ID: Defdb00185895

Severity: K3 - malfunction (no workaround)

Description: If a modulo of the consumed master axis was unequal to 360°, the actual velocity (A-0-0102) was not determined correctly.

The reason was a different specification of the unit [rpm].

The unit for the produced axis is always [360°/min], but for the consumed axis it was[modulo/min].

Error while executing a drive command cannot be acknowledged

CQ-ID: Defdb00190252

Severity: K3 - malfunction (no workaround)

Description: If the drive-controlled homing at IpoControl was aborted by a drive error, it was possible that these remained in the error reaction. It was not possible anymore to exit the PLCopen state “ErrorStop”.

For an axis with IpoControl and translatory/inch scaling, the scaling is incorrect

CQ-ID: Defdb00190828

Severity: K3 - malfunction (no workaround)

Description: For a set translatory/inch scaling for velocity values, A-0-2615 was mapped incorrectly for velocity-synchronous operation modes.

Jerk limit value violation - Error or warning is not output

CQ-ID: Defdb00165202

Severity: K3 - malfunction (no workaround)

Description: If the jerk limit value was violated, no error or warning was output.

LinMot drive: A-0-0562 and others cannot be read

CQ-ID: Defdb00188805

Severity: K3 - malfunction (no workaround)

Description: Access to the parameter A-0-0562 reported an error if the drive parameter S-0-0144 did not exist.

Fixing: The drive parameter is only read if it was configured in the respective configuration parameters (A-0-0560/A-0-0561).

SysError F9240005 can result if an error occurs while homing

CQ-ID: Defdb00190254

Severity: K3 - malfunction (no workaround)

Description: If a homing command was aborted due to an error and if the homing was started again while the error reaction was still active, a SysError could occur.

The axis stops when the positioning velocity is changed

CQ-ID: Defdb00186859

Severity: K3 - malfunction (no workaround)

Description: If an axis interpolated in the control is traversed with MC_MoveAbsolute and a jerk and if the velocity is increased at the end of the traversing command at a constant velocity, the axis is first stopped and then accelerated to the new velocity.

Traveling an additional module area when changing to MoveAdditive during deceleration ramp

CQ-ID: Defdb00185438

Severity: K3 - malfunction (no workaround)

Description: If a motion command is issued for a modulo-scaled axis and if MC_MoveAdditive is executed with the distance 0, unchanged acceleration and un-

changed delay during deceleration, the target position is not correctly approached. An additional modulo overflow is added to the target position instead, i.e. one revolution too much is executed.

In case of a jerk-limited motion, no distance is covered in the first Motion cycle

CQ-ID: Defdb00165214

Severity: K4 - malfunction

Description: When executing a motion command with a very high jerk, no distance is covered in the first Motion cycle and the axis does not move. The first motion is executed in the second cycle.

Core

XM21: SysError after firmware update

CQ-ID: Defdb00189079

Severity: K2 - serious malfunction

Description: If a firmware is updated on a version containing an S20 FPGA update on an XM2s with a disabled Sercos, the SysError F90B0124 results. Event a control reboot always ends with this SysError.

Import Export

Error message “Import/export, Sercos parameter format not supported" during parameter import

CQ-ID: Defdb00192196

Severity: K3 - malfunction (no workaround)

Description: While importing the parameter S-0-0141 from a parameter file, the error message "F00A0005, Import/export, Sercos parameter format not supported" was issued and the parameter was not imported.

Logic

The outputs are not reset after control reset at “Stop at breakpoint"

CQ-ID: Defdb00180074

Severity: K2 - serious malfunction

Description: If a breakpoint was set and reached for debugging purposes in a PLC program and if the control is to be reset (warm/cold) in this state, the following message is displayed in the IndraWorks interface: “Execution stopping at breakpoint. Do you want to end the cycle before executing the reset command? Yes: End cycle and reset. No: End task and reset immediately."

If this prompt is acknowledged with “Yes”, a reset of the outputs is not ensured for all I/O interfaces of the control.

The outputs can remain set depending on the following PLC settings:

- I/O refresh active in stop (yes/no)
- Always update variables (yes/no)

MLPI

MLPI: Demo project is not executable

CQ-ID: Defdb00187199

Severity: K4 - malfunction

Description: In the example program, a connection to the local host should have been established using the string "localhost". However, this string cannot be resolved.

Once the connection is canceled, it cannot be accessed again

CQ-ID: Defdb00192861

Severity: K4 - malfunction

Description: IndraWorks was connected to an MLC. If the connection was canceled by removing the Ethernet cable for example, switching again to online was not possible anymore. An error was reported stating that the control is already connected to an interface.

Motion Functions

IPO AXS: Interpolation in the control: Error behavior when changing from MC_MoveVelocity to MC_MoveAdditive with distance 0

CQ-ID: Defdb00188612

Severity: K2 - serious malfunction

Description: If an axis interpolated and modulo-scaled in the control is traversed with MC_MoveVelocity and if an MC_MoveAdditive is executed with the distance 0, an undetermined number of modulo revolutions results.

“F5180005 Cycle time excess Motion Kernel” in the operation mode “IPO Drive”

CQ-ID: Defdb00187270

Severity: K3 - malfunction (no workaround)

Description: If a phasing was executed for an axis with interpolation in the drive and an MC_Stop at the same time, it was possible that the error "F5180005 Cycle time excess Motion Kernel" was generated.

MLC 14V18 R1: “Closed-loop” setting is not accepted

CQ-ID: Defdb00193498

Severity: K3 - malfunction (no workaround)

Description: Switching the operating mode was not possible if the function package “Closed-loop” was active at the drive, but the function package “Open-loop" was configured in the control.

Parameter A-0-0103 in the oscilloscope causes the overload error F00D2EE7

CQ-ID: Defdb00188010

Severity: K4 - malfunction

Description: If the parameter A-0-0103 was configured when interpolating in the control within the oscilloscope, the cycle time might have been exceeded.

Fixing: The parameter was removed from the list of the parameters to be oscilloscoped.

The filter time constants for the offset parameters A-0-2600, A-0-2610 and A-0-2620 are not applied in phase 4

CQ-ID: Defdb00191939

Severity: K4 - malfunction

Description: The filter time constants A-0-2601, A-0-2611 and A-0-2621 were not applied when writing in phase 4 and were only applied after phase switching.

Fixing: The filter time constants are directly applied when writing in phase 4.

OPC UA

ILRT: Loading boot applications while booting takes more than two minutes

CQ-ID: Defdb00191017

Severity: K2 - serious malfunction

Description: Loading boot applications while booting takes approximately two minutes.

OPC UA string variables cannot be retrieved, even though they are included in the MLC symbol config

CQ-ID: Defdb00192729

Severity: K2 - serious malfunction

Description: The access attributes “AccessLevel” and “UserAccessLevel” for the variable of the types “String” and “WString” of the PLC were incorrectly mapped by the OPC UA server.

OPC-UA client: Access violation at UA_Disconnect

CQ-ID: Defdb00193449

Severity: K2 - serious malfunction

Description: If the UA_Disconnect is called with Execute:=False on an XM21, an access violation occurs in the context of the IEC task.

OPC-UA client: UA_ConnectionGetStatus does not work

CQ-ID: Defdb00193484

Severity: K2 - serious malfunction

Description: The function block provides the following errors:

- Invalid connection handle, even though the correct connection handle is present

- The output “ConnectionStatus” has an invalid value 16#1001. This value is permitted as ENUM value.

OPC-UA function blocks do not work

CQ-ID: Defdb00192261

Severity: K2 - serious malfunction

Description: The OPC-UA function blocks (client and event) do not work. This is caused by an interface file provided by 3S. This file and the Rexroth file do have the same name.

Page fault in task "UASercosWorker"

CQ-ID: Defdb00191187

Severity: K2 - serious malfunction

Description: If description texts of Sercos parameters were subsequently read fast via OPC UA, it was possible that a SysErr occurred.

The OPC UA TestClient retrieves variables, even though their attributes are set to “not readable”

CQ-ID: Defdb00192731

Severity: K3 - malfunction (no workaround)

Description: When reading variables of the types “String” and “WString” with the set attribute “WriteOnly”, no error (OpcUa_BadNotReadable), but the correct value was reported.

The provider is not reachable anymore when reading the node P-0-0322.0.4

CQ-ID: Defdb00191783

Severity: K3 - malfunction (no workaround)

Description: If Sercos parameters with a big array as value were read via OPC UA, long response times of the OPC-UA server resulted.

UA client: Stopping the application deletes the sessions

CQ-ID: Defdb00192275

Severity: K3 - malfunction (no workaround)

Description: If sessions were established from a PLC program, these session were deleted as soon as the PLC was set to stop. It should have only been allowed to delete the sessions and their resources with a reset warm/cold/orgin.

UA server: The server allows the generation of an item using an invalid node ID

CQ-ID: Defdb00188009

Severity: K3 - malfunction (no workaround)

Description: An incorrect symbolic name when using VarAccGetNode3 does not return any error, but the reference for the last valid node.

RobotControl

RoCo_V2: Phase switching to BB with transformation of 4-axis Scara with linear distance axis not possible

CQ-ID: Defdb00190653

Severity: K2 - serious malfunction

Description: Phase switching to BB with transformation of 4-axis Scara with linear distance axis not possible if the first axis was scaled as translatory absolute.

RoCo_V2: Velocity limit value for jogging not active (ML_GroupJogCont and ML_GroupJogStep)

CQ-ID: Defdb00190489

Severity: K2 - serious malfunction

Description: If a higher velocity was specified when jogging than permitted in the parameter K-0-0003 "Maximum path velocity”, the velocity was not limited and no warning was output when the velocity was reached.

RoCo V2: “GroupWait” group command switches the state machine too early to standstill

CQ-ID: Defdb00192789

Severity: K3 - malfunction (no workaround)

Description: If a “WAIT” command was commanded after a motion command, the PLCopen state machine switched to the state "StandstillComplete” after the motion command instead of after the “Wait” command.

RoCo: Sporadic error while synchronizing shortly before the modulo overflow

CQ-ID: Defdb00192627

Severity: K3 - malfunction (no workaround)

Description: If it was synchronized to a belt shortly before the modulo overflow, it was possible that the automatic belt modulo was not impeded and that the “Move” command moves back by the modulo value.

RoCo: Synchronizing to rotary table results in SysError

CQ-ID: Defdb00189954

Severity: K3 - malfunction (no workaround)

Description: If the axis of a rotary table is scaled as absolute, synchronization to this rotary table results in SysError F9240006.

RoCo V2: Simultaneous configuring of safe zones is sporadically not possible

CQ-ID: Defdb00187198

Severity: K4 - malfunction

Description: If many similar function blocks of the robotics are called subsequently, it was possible that a function block reported the error message "F0220208, Invalid command number".

Sercos

C2C system error F9240005 when switching from C2C to CP4

CQ-ID: Defdb00192008

Severity: K2 - serious malfunction

Description: In a C2C link with an L25 as C2C master, the system error F9240005 (Page fault) was issued on the link master when switching from C2C to CP4.

C2C: F9240005 at MLC L25 as C2C master

CQ-ID: Defdb00185702

Severity: K2 - serious malfunction

Description: An MLC L25 is configured as C2C master. The Motion configuration can still be loaded. Error F9240005 upon reboot.

HW watchdog, PLC watchdog or Sercos watchdog when many diagnostics occur

CQ-ID: Defdb00193785

Severity: K2 - serious malfunction

Description: Many occurring diagnostics could cause a watchdog.

L45 with C2C, Motion kernel timeout or system does not respond anymore when reaching P4

CQ-ID: Defdb00189436

Severity: K2 - serious malfunction

Description: The L45 was overloaded for multiple minutes as C2C master when reaching BB.

Operation of 48 axes Sercos II not possible with L65 and Sercos II FM

CQ-ID: Defdb00190094

Severity: K2 - serious malfunction

Description: The operation of 48 Sercos II axes was not possible anymore on an L65 with a Sercos II function module.

Phase switching initiated via IndraWorks (P2-P4) was not completed.

Aborting the hot plug directly at the master port 1 does not work correctly

CQ-ID: Defdb00187712

Severity: K3 - malfunction (no workaround)

Description: If the topology line port 2 is available, a slave is to be included at the inactive port 1 of the master using a hot plug. If a hot-plug function is aborted once, each further hot-plug attempt is aborted with the error message CSMD_HP_SLAVE_RECOGNIZED_IN_CP0.

Fixing: After aborting the hot-plug, the slave found was not correctly removed from the internal lists in the function CSMD_HotUnplug().

Bit “Phase switching active" in C-0-0514 does not remain continuously on TRUE

CQ-ID: Defdb00187731

Severity: K3 - malfunction (no workaround)

Description: If the Sercos phase was switched using PLC function blocks, the status bit 5 (“Phase switching active”) is not continuously on in C-0-0514.

C-0-0578 does not contain any disabled Sercos devices

CQ-ID: Defdb00192283

Severity: K3 - malfunction (no workaround)

Description: If Sercos PLC devices were disabled, these PLC devices were not in the parameter C-0-0578 "Sercos device configuration".

C2C slave: Master communication remains in P3 if no function module is plugged in

CQ-ID: Defdb00193027

Severity: K3 - malfunction (no workaround)

Description: If a function module was configured for the link participation, but it is not available in a C2C link on a slave control, the phase switching of the master communication remained in P3 if Sercos devices were available at the master communication.

An IndraDrive reported F4017 “Sercos: Phase switching sequence incorrect”. The MLC reported: F00B0156 “Sercos III: Phase switching to CP3 incorrect"

However, phase switching has never been completed. Switching to P2 was also not possible.

The diagnostics F0280101 “Error when initializing C2C hardware " for this case never resulted, as it is only output after reaching the control mode “bb”.

C2C: IP communication of the bridge does not work when adding a C2C slave

CQ-ID: Defdb00188228

Severity: K3 - malfunction (no workaround)

Description: If the UP communication was enabled for the C2C interface, it was not possible to communicate via IP, but via C2C interface.

Communication, SysError F9240005 "Page fault” if C-0-0036 bit 16 is on 0

CQ-ID: Defdb00192114

Severity: K3 - malfunction (no workaround)

Description: The system error F9240005 (Page fault) occurred if the following conditions were met:

Drive firmware MPx07V30

- Set bit 16 of C-0-0036 to 0 (default value).
- Download motion configuration => Communication to IndraWorks is aborted
- Restart MLC => Remains in P0
- Go online with IndraWorks => Page fault F9240005

F20BE003 SVC: Handshake timeout or F20BE004 SVC: Handshake timeout without slave address

CQ-ID: Defdb00192306

Severity: K3 - malfunction (no workaround)

Description: The error message F20BE003 SVC: Handshake timeout or F20BE004 SVC: Handshake timeout was reported without specifying the slave address. The error could not be clearly diagnosed.

Fixing: The slave address is now reported together with the error message.

Fast acyclic communication to the drives is switched off

CQ-ID: Defdb00182834

Severity: K3 - malfunction (no workaround)

Description: For several drives, the fast acyclic communication was switched off via S/IP.

Fixing: If the fast acyclic communication is lost via S/IP, this communication is established again.

MLC 14V18 R1: Module deselection at S20-S3-BK+ does not work via UserDefs.cfg

CQ-ID: Defdb00193497

Severity: K3 - malfunction (no workaround)

Description: Disabling Sercos modules does not work from the command configuration via the UserDefs.cfg mechanism and the system error F0160008 “Switching to P3 incorrect" results.

Oscilloscope trigger in multi-device measurement does not work

CQ-ID: Defdb00190414

Severity: K3 - malfunction (no workaround)

Description: Disabled axes were not skipped during the measurement.

Sercos, “Delete error” command causes a semaphore error if the command “Homing” is running

CQ-ID: Defdb00192146

Severity: K3 - malfunction (no workaround)

Description: If the command “Delete error” was enabled while the command “Homing” was active, the command “Delete error” was waiting until the command “Homing” was completed. It was possible that the command “Homing” was accidentally aborted, as the command was locked due to semaphore problems. This caused a general ErrorStop in the PLC program.

Sercos, disabling the IP communication via UDP is not possible in the master communication

CQ-ID: Defdb00183340

Severity: K3 - malfunction (no workaround)

Description: In the master communication of the control, the IP communication via UDP should be disabled between the control and the drives. This does not work, as the NRT driver was enabled in the interface of the master communication, even though the control was configured accordingly. The parameter C-0-0036 was set to 0x20 and the control was booted again.

Sercos, system error F9200017 (Watchdog) during endurance test in drive lab

CQ-ID: Defdb00192116

Severity: K3 - malfunction (no workaround)

Description: During the endurance test with continuous phase switching, it was possible that the system error F9200017 (Watchdog) occurred sporadically after communication problems between the control and the slaves that caused a Sercos emergency reaction immediately after reaching P4.

TaskViewer: Incorrect recording at high PLC load

CQ-ID: Defdb00185054

Severity: K3 - malfunction (no workaround)

Description: If tasks running outside the time slot of the PLC, e.g. kinematic tasks, an incorrect TaskViewer recording was possible.

C2C does not start if it is written on C-0-0751 (C2C phase) during startup

CQ-ID: Defdb00186111

Severity: K4 - malfunction

Description: It was possible that writing on the parameter C-0-0751 during startup of the C2C link, aborted the startup.

C2C slave: System error F9200017 (Watchdog) if no function module is plugged in

CQ-ID: Defdb00192316

Severity: K4 - malfunction

Description: If, in a C2C link on a slave control, a function module was configured for the link participation in the parameter "Sercos local and function module bus, command configuration" (C-0-0040), the system error F9200017 (Watchdog) was issued when P4 was reached and if the function module was not available or plugged into another slot.

C2C: After aborting the hot-plug, two edges are required at the “Hot-plug” input

CQ-ID: Defdb00189002

Severity: K4 - malfunction

Description: Only after aborting the hot-plug via the PLC, it was continued with a new hot-plug at the second edge at the hot-plug input [ControlData[Local_CNTRL].LINK_ENABLE_HOTPLUG].

If no PLC program was loaded, this error did not occur.

MLC-SII link axis dialog “Axis configuration”, Dead time compensation missing

CQ-ID: Defdb00192148

Severity: K4 - malfunction

Description: For a link axis in the Sercos II cross link, the dead time compensation could not be set in the “Axis configuration” dialog.

_Other

XM2*: SysError if “Network settings” is opened in online mode

CQ-ID: Defdb00193772

Severity: K2 - serious malfunction

Description: When opening the context menu of the control “Network settings” or when logging into the IndraMotion Service Tool (IMST), a SysError occurred sporadically (page fault), as the parameter C-0-0202 could not be read.

The control could sometimes not be reached via the set IP address (XF5 - Ethernet connection).

38.2.2 Known issues

_Other

Profinet I/O devices are not detected while switched on

CQ-ID: Defdb00189926

Severity: K3 - malfunction (no workaround)

Description: It is possible that the Profinet I/O devices are not detected while switched on.

RobotControl

RoCo_V2: When jogging kinematics into negative direction for a 3-axis Canfield, kinematics moved into positive direction

CQ-ID: Defdb00192054

Severity: K2 - serious malfunction

Description: It was possible to jog in negative z-values using the Canfield transformation. If negative values were reached, the kinematics moved into positive z-direction.

RoCo_V2: No limit points for A2 and A3 coordinates for the 3-axis Canfield

CQ-ID: Defdb00192057

Severity: K3 - malfunction (no workaround)

Description: It was possible to ensure that the connection points for rods at the platform were identical to the link points of the axes while jogging. If it was jogged further, the kinematics did not move as intended.

Sercos

System error "F9240005" during PLC download

CQ-ID: Defdb00194175

Severity: K4 - malfunction

Description: When downloading the PLC, the system error "F9240005"(PageFault) can result. The error can occur if the control is in the operating mode and the Sercos bus in phase 2.

Workaround: To avoid this error, switch the control to the parameterization mode before downloading the PLC. If the control is in the parameterization mode and the Sercos bus is in phase 2, this error does not occur.

39 IndraLogic XLC/IndraMotion MLC 14V18.147.0 R2 firmware and software

39.1 Software

39.1.1 Resolved defects

_Other

ProVi messages do not work anymore in IndraWorks 14V16R2

CQ-ID: Defdb00190888

Severity: K3 - malfunction (no workaround)

Description: Projects with ProVi-Sfc diagnostics could not be compiled.

IndraLogic dialogs cannot be operated anymore when the display “Medium - 125 %" is set under Windows

CQ-ID: Defdb00193137

Severity: K4 - malfunction

Description: Some IndraLogic dialogs could not be operated anymore when the display “Medium - 125 %" was set under Windows, as the buttons were not visible anymore.

Compiler

Interchanging the address of two variables does not work correctly for online change

CQ-ID: Defdb00180114

Severity: K4 - malfunction

Description: If the address of two variables is interchanged via online change (refer to the example), a common value is assigned to these variables.

Step 1:

byFlag1 AT %MB1: BYTE := 1;

byFlag2 AT %MB2 : BYTE := 2;

Step 2:

Change address and online change:

byFlag1 AT %MB2 : BYTE := 1;

byFlag2 AT %MB1 : BYTE := 2;

Engineering / _Other

Multi-device: Different file types are not saved

CQ-ID: Defdb00190929

Severity: K2 - serious malfunction

Description: If a “PLC data file”, an “I/O configuration file or one or several user files were added to an entry (= “Table line") within the multi-device table of the MLC, the IndraWorks-internal file management did not work correctly. Thus, the files previously added to the table were not shown anymore, e.g. after closing and opening the dialog “Configure Multi device functionality”.

Automation Interface: Sercos node missing when creating a VPx

CQ-ID: Defdb00191912

Severity: K3 - malfunction (no workaround)

Description: If a control of the type VPx40.3 was added to an IndraWorks project using the IndraWorks Automation Interface, the Sercos node was missing below the added control.

Cyclic data is exchanged while exporting/importing Sercos slaves

CQ-ID: Defdb00188593

Severity: K3 - malfunction (no workaround)

Description: If an entry was deleted under “General inputs and outputs” (cyclic parameters) after exporting a Sercos slave, the entries after the previously deleted entry were interchanged after importing the previously exported slaves.

Monitoring windows are not automatically displayed after closing/ opening IndraWorks

CQ-ID: Defdb00191349

Severity: K3 - malfunction (no workaround)

Description: Monitoring windows, which were open when closing IndraWorks, are not automatically displayed in the interface when opening IndraWorks again.

Engineering / CamBuilder

CamBuilder: StartVel = EndVel is not considered during the code generation

CQ-ID: Defdb00188962

Severity: K4 - malfunction

Description: The option “Cyclic execution” (StartVel = EndVel) in connection with motion laws that automatically calculate the starting and end velocity is not considered in the code generation for the FlexProfile.

Engineering / Firmware Management

Multi-firmware download: Exception when saving the parameter file

CQ-ID: Defdb00193529

Severity: K4 - malfunction

Description: When saving the backed up parameter file, an exception was thrown in the Sercos Firmware dialog if the existing file should be overwritten.

Engineering / GAT

GAT decentral: In case of an error, the state machine (SFC) of the unit is called twice per cycle

CQ-ID: Defdb00191543

Severity: K4 - malfunction

Description: For GAT decentral, the state machine (SFC) of the units is called twice per cycle as long as the error is pending.

Fixing: Only at a rising edge at the “Error” bit, SFC is called again to ensure a fast error reaction.

PhaseOffset or PhaseShift without function in the AxisInterface in ModeSyncVel

CQ-ID: Defdb00187338

Severity: K4 - malfunction

Description: An axis is velocity-synchronously coupled to a master (ModeSyncVel).

There should be an offset between the master axis and the slave axis via the AxisInterface.

The PhaseOffset (MB_PhasingSlave) is only effective in phase-synchronous operation modes (ModeSyncPhase, ModeFlexProfile...).

The PhaseShift (MB_Phasing) is also effective in the speed-synchronous operation mode ModeSyncVel. However, it is currently not supported by the AxisInterface in ModeSyncVel.

Fixing: The PhaseShift is now also effective in ModeSyncVel. Therefore, it is required to update the user code in the function block TE_AxisInterface; action actPhaseShift.

Engineering / HMI

Upon each download, WinStudio deletes the user file, even if “Keep user file” is selected

CQ-ID: Defdb00188859

Severity: K2 - serious malfunction

Description: When applying a WinStudio project to a visualization device, all data from the target directory is deleted without any warning.

WinStudio: Password display in plain text on WinCE

CQ-ID: Defdb00192409

Severity: K3 - malfunction (no workaround)

Description: If a text field with the option “Password” is used in a WinStudio screen, this field displays the text as plain text on a VR21 device and on a VEP device.

Engineering / Motion

An error message is issued when changing the firmware version of a VPx

CQ-ID: Defdb00190719

Severity: K3 - malfunction (no workaround)

Description: When changing the firmware version in the VPx properties from e.g. 14V08 to 14V16, the system automatically created another “Sercos III” function module. However, only a Sercos III function module is permitted in the project. Resulted in an error message output by the system. Subsequently, the project could not be compiled successfully.

Axis dialog “Settings of status messages”, display “Axis synchronized”, target position

CQ-ID: Defdb00191972

Severity: K3 - malfunction (no workaround)

Description: Wrong bits and wrong texts were displayed in the dialog.

Engineering / Periphery

Adding GSDML files to the IndraWorks device database can take up to several minutes

CQ-ID: Defdb00184142

Severity: K3 - malfunction (no workaround)

Description: Adding GSDML files to the IndraWorks device database can take up to several minutes.

It occurs if the current GSDML file or a previous version has already been installed and if the GSDML file is very big.

Depending on the size of the GSDML file, the progress bar is only refreshed after several seconds or minutes.

Engineering / PLC Libraries

MB_AllocCyclicParameter and MB_GetParaHandle do not work for the HMC

CQ-ID: Defdb00191143

Severity: K2 - serious malfunction

Description: The subordinate function block MB_GetSystemInfo was incorrectly implemented for an HMC. Thus, the function block has never been completed with “Done” or “Error”. All superordinate function blocks wait for one of the two cases. Thus, these function blocks could also not been completed.

MB_DigitalCamSwitchOvr does not set the outputs correctly

CQ-ID: Defdb00192336

Severity: K2 - serious malfunction

Description: If an oversampling factor other than 64 is set in the function block, the switch-on and switch-off times are not reached correctly. If a switch is active for several Sercos cycles, it affects only the switch-on and the switch-off cycle. It is switched on correctly in the cycles in between.

MB_DigitalCamSwitchOvr does not set the outputs correctly if an oversampling rate other than 64 is set

CQ-ID: Defdb00192335

Severity: K2 - serious malfunction

Description: MB_DigitalCamSwitchOvr does not set the outputs correctly if an oversampling rate other than 64 is set. This error only occurred from the library version 14.16.2.0.

MB_AllocCylicParameter does not run with IndraDrive with PFC function

CQ-ID: Defdb00192814

Severity: K3 - malfunction (no workaround)

Description: The error 0xF02D7003 occurs when using the function block MB_AllocCylicParameter. The error occurs only together with an IndraDrive with PFC function.

ML_AxisBackup: The “Done” output is set if the file name is incorrect

CQ-ID: Defdb00185222

Severity: K3 - malfunction (no workaround)

Description: If a wrong file name is specified (e.g. the directory does not exist), the function block outputs "Done", even though no action is executed.

Fixing: The error was recovered and an error is now output.

RMB_SercosIIIUtil: Embedded IL_SIIISvcRead Fb with default timeout monitoring -> Sporadic timeout error

CQ-ID: Defdb00192994

Severity: K3 - malfunction (no workaround)

Description: For the function blocks MB_SIIIPlcDrivePosInterpolationType01, MB_SIIIPlcDriveTorqueType01, MB_SIIIplcDriveVelocityType01, MB_SIIIplcDriveEfcFrequencyType01, MB_SIIIPlcDriveFlowControl, MB_SIIIplcDrivePressureFlowControl, MB_SIIIPlcDrivePressureSwivelAngleControl and MB_SIIIPlcDrivePressureSwivelAngleSlave, the function block IL_SIIISvcRead is subordinately called. For this function block, a timeout error (F_RELATED_TABLE, Add1: 15 hex, Add2 0001 hex) can be caused sporadically if the acyclic channel is fully loaded.

Fixing: The subordinate function block is now called with the timeout T#0s (no timeout).

MC_DigitalCamSwitch does not check whether Motion cycle time and Sercos cycle time are identical.

CQ-ID: Defdb00192259

Severity: K4 - malfunction

Description: It was possible to operate the function block, even though the Motion cycle time and the Sercos cycle time were different. As position and velocity data can only be generated in the Motion cycle, output data does only change if Motion data changes. If the Sercos cycle time is only a fraction of the Motion cycle, an incorrect accuracy is assumed.

Fixing: It is now checked, whether the Motion cycle time and the Sercos cycle time are identical. If they are different, the new error 16#00002B09 is generated.

Engineering / PLC Programming

Due to a PLC project comparison, IndraWorks cannot be operated anymore

CQ-ID: Defdb00191428

Severity: K2 - serious malfunction

Description: During the PLC project comparison, it was possible that IndraWorks did not respond anymore in certain projects (e.g. devices were used in the projects).

Precompile: Elements of an ENUM are interpreted as bit

CQ-ID: Defdb00188678

Severity: K2 - serious malfunction

Description: If the attribute “qualified_only” is not set when declaring an ENUM with the elements of type DWORD, the following pre-compile error results C0032: Type “BIT” cannot be converted into type “DWORD”.

Exception for cross reference list in Visu

CQ-ID: Defdb00192953

Severity: K3 - malfunction (no workaround)

Description: If the source position of a selected cross reference has already been displayed via double-click and if it was double-clicked again on another entry in the cross reference list to display the source position, an exception occurred.

Project created in 14V10 P3 cannot be compiled anymore in 14V16 R2 in compatibility mode 14V10 P3

CQ-ID: Defdb00191036

Severity: K3 - malfunction (no workaround)

Description: Project created in 14V10 P3 could not be compiled anymore in 14V16 R2 in compatibility mode 14V10 P3 (by using the OPC-UA server).

Online change requires closing and reopening of the project

CQ-ID: Defdb00191091

Severity: K4 - malfunction

Description: If network variable objects (sender/receiver) are in a project and if the application was logged in, an online change occurs after closing and opening the project when trying to log in the application.

This behavior is triggered as the path of the file link in the Property dialog of the NVL cannot be accessed.

Engineering / PLC Safety

During online comparison, the error "Object reference not sent to an instance of an object" occurs

CQ-ID: Defdb00192976

Severity: K3 - malfunction (no workaround)

Description: The online comparison is called when the Safety program is running.

Double-clicking on the equals sign (to open the detailed view) of the Safety program causes an unexpected exception.

Exception when inserting a control with Safety FM and the option “Open object after adding”

CQ-ID: Defdb00190244

Severity: K3 - malfunction (no workaround)

Description: The option “Open object after adding” was selected.

If a control was created with a Safety function module in a project, an exception occurs.

No plain text messages are output in the log of the Safety control

CQ-ID: Defdb00191227

Severity: K3 - malfunction (no workaround)

Description: Instead of plain text messages, only IDs are output in the Safety log.

Save receiver NVL cannot be refreshed via the button

CQ-ID: Defdb00187514

Severity: K3 - malfunction (no workaround)

Description: Save receiver NVL cannot be refreshed via the respective button, even though the sender NVL was changed.

The “Refresh” button remains disabled.

Engineering / Project Handling

SCP: MLC connected to wrong IP address after “Save project as”

CQ-ID: Defdb00191067

Severity: K2 - serious malfunction

Description: If an opened project was saved in another path and then opened again in the previous path, unintended dependencies can result in the device communication.

Fixing: The common use of communication instances between Windows applications was disabled.

When updating the control, devices below RT_Ethernet/Profibus are not updated

CQ-ID: Defdb00190705

Severity: K4 - malfunction

Description: When updating the control in a project created in IndraWorks 14V10P2, the devices below the “RT Ethernet/Profibus” function module were not updated (latest version).

Engineering / Technology

MB_InitTouchProbe reports StateMachineError if "ProbeData" input is connected to TP_PROBE_TIME

CQ-ID: Defdb00191112

Severity: K3 - malfunction (no workaround)

Description: If the "ProbeData" input of the MB_InitTouchProbe function block was connected to TP_PROBE_TIME and if the function block was called with Execute=TRUE, the function block reports a StateMachineError.

ErrrorID = STATE_MACHINE_ERROR

ErrorTable = F_Related_Table

Additional1 = 0x0006

Additional2 = 0x0000

Thus, the function block cannot be used to configure the drive touch probe to measure the time.

Fixing: The value "TP_PROBE_TIME” is now supported at the "ProbeData" input and the drive touch probe is parameterized to measure the time.

ML_InitTouchProbe: Input “Interpolation” - Fatal default value (Interpolation disabled)

CQ-ID: Defdb00190846

Severity: K4 - malfunction

Description: The default value of the “Interpolation” input is "No_Interpolation" => Interpolation of the measuring value is not enabled within a Sercos cycle.

Fixing: The default value was changed from "No_Interpolation" to "Linear_Interpolation" => Linear interpolation of the measuring value is enabled within a Sercos cycle

Engineering / Version Control System

VCS: Incorrect address display when updating the working copy

CQ-ID: Defdb00191027

Severity: K3 - malfunction (no workaround)

Description: If the address was changed in a project under version control at a drive below the MLC and the drive was then checked in, this change was not shown below the Sercos node when updating the working copy in another project. However, the properties of the real axis below the MLC were correct, only the address was shown incorrectly below the Sercos node.

IndraMotion Service Tool

The hardware configuration overview cannot be generated

CQ-ID: Defdb00181929

Severity: K3 - malfunction (no workaround)

Description: If no Sercos devices are detected, the hardware configuration overview cannot be generated.

If “Hardware overview” is selected, press “Save” to generate an HTML or XML overview on the current configuration. This method cannot be used if no Sercos devices are found.

MLPI

MLPI4Java: Error in Motion.java

CQ-ID: Defdb00184103

Severity: K3 - malfunction (no workaround)

Description: Specifying the axis number = 0 causes an ArrayIndexOutOfBoundsExeption.

Fixing: Axis numbers <= 0 are rejected with an exception (e.g. "Exception in thread "main" java.lang.RuntimeException: Logical axis number '-5' out of minimum range.").

Operation / HMI

BRWS: Max. string length is only 82 characters in the VR21x

CQ-ID: Defdb00188490

Severity: K3 - malfunction (no workaround)

Description: For the VR21, the maximum string length transferred in the BRWS driver is only 82 characters, in the VEPx CE, it is limited to 256 characters.

Sercos

Error during homing cannot be deleted

CQ-ID: Defdb00190371

Severity: K2 - serious malfunction

Description: When homing is started, a drive generates an error (e.g. F2028). If the error occurs immediately in a certain time frame, the error can subsequently not be deleted anymore (commands C-0-1030 or A-0-1030).

39.1.2 Known issues

Engineering / _Other

Logic I/Os are “doubled” after project comparison

CQ-ID: Defdb00193385

Severity: K4 - malfunction

Description: When comparing a control with Safety CPU in the comparison overview to the control without Safety CPU first and then only the Safety CPU, logic I/Os were created twice under the Safety CPU in the project.

Engineering / PLC Libraries

IL_SIIIRemoteSlaveStateDetails: For FSP_Drive, S-0-0011 and S-0-0012 are not mandatorily required

CQ-ID: Defdb00183903

Severity: K3 - malfunction (no workaround)

Description: The IL_SIIIRemoteSlaveStateDetails function block from the RIL_SercosIII library tries to read the following parameters of a Sercos device with the type FSP-drive:

- S-0-0011, state class 1
- S-0-0012, state class 2

If the parameters are not available, the function block aborts and outputs the error 0x1001.

Engineering / SL Manager

When adding a Profinet device description file to the device database, the “error #22” is output

CQ-ID: Defdb00181925

Severity: K3 - malfunction (no workaround)

Description: When adding a Profinet device description file with Profisafe modules to the device database, the following error is output:

"Error creating logical device ... : The backed up description file could not be created due to error #22.

Workaround: Contact the Bosch Rexroth Support.

Engineering / PLC Programming

IndraLogic: Assertion together with __Try / __Catch statements causes corrupt project data

CQ-ID: Defdb00194750

Severity: K4 - malfunction

Description: Using __TRY …__CATCH statements in STRUCTURED TEXT (ST) can cause an incorrect program code for online changes.

Workaround: A regular program download is recommended when using the __TRY … __CATCH mechanism for program changes.

Engineering / Project Handling

IndraLogic: Problems with active Skype session

CQ-ID: Defdb00194444

Severity: K2 - serious malfunction

Description: Problems with active Skype session.

Workaround: Do not edit in IndraLogic while a Skype session is active. Otherwise, the project has to be cleared and recompiled upon each download.

39.2 Firmware

39.2.1 Resolved defects

Archive / Coredump

CML75: Core dump generation stops or is not executed completely automatically

CQ-ID: Defdb00187502

Severity: K3 - malfunction (no workaround)

Description: If a system error is pending on an CML75, the core dump generation stops. After pressing the three right keys (cursor up, cursor down and Enter), the core dump generation stopped displaying a "." (only point). The control did neither reboot automatically nor switched to the monitor to generate the core dump. Only after pressing the S1 key at the CML75, the core dump was generated.

Axis

IW “Import/export, Sercos parameter format not supported" during parameter import

CQ-ID: Defdb00192540

Severity: K2 - serious malfunction

Description: While importing the parameter S-0-0141 from a parameter file, the error message "F00A0005, Import/export, Sercos parameter format not supported" was issued for some values and the parameter was not imported.

C2C: Incorrect computation of the A-0-0102

CQ-ID: Defdb00185895

Severity: K3 - malfunction (no workaround)

Description: If a modulo of the consumed master axis was unequal to 360°, the actual velocity (A-0-0102) was not determined correctly.

The reason was a different specification of the unit [rpm].

The unit for the produced axis is always [360°/min], but for the consumed axis it was[modulo/min].

Error while executing a drive command cannot be acknowledged

CQ-ID: Defdb00190252

Severity: K3 - malfunction (no workaround)

Description: If the drive-controlled homing at IpoControl was aborted by a drive error, it was possible that these remained in the error reaction. It was not possible anymore to exit the PLCopen state “ErrorStop”.

For an axis with IpoControl and translatory/inch scaling, the scaling is incorrect

CQ-ID: Defdb00190828

Severity: K3 - malfunction (no workaround)

Description: For a set translatory/inch scaling for velocity values, A-0-2615 was mapped incorrectly for velocity-synchronous operation modes.

Jerk limit value violation - Error or warning is not output

CQ-ID: Defdb00165202

Severity: K3 - malfunction (no workaround)

Description: If the jerk limit value was violated, no error or warning was output.

LinMot drive: A-0-0562 and others cannot be read

CQ-ID: Defdb00188805

Severity: K3 - malfunction (no workaround)

Description: Access to the parameter A-0-0562 reported an error if the drive parameter S-0-0144 did not exist.

Fixing: The drive parameter is only read if it was configured in the respective configuration parameters (A-0-0560/A-0-0561).

SysError F9240005 can result if an error occurs while homing

CQ-ID: Defdb00190254

Severity: K3 - malfunction (no workaround)

Description: If a homing command was aborted due to an error and if the homing was started again while the error reaction was still active, a SysError could occur.

The axis stops when the positioning velocity is changed

CQ-ID: Defdb00186859

Severity: K3 - malfunction (no workaround)

Description: If an axis interpolated in the control is traversed with MC_MoveAbsolute and a jerk and if the velocity is increased at the end of the traversing command at a constant velocity, the axis is first stopped and then accelerated to the new velocity.

Traveling an additional module area when changing to MoveAdditive during deceleration ramp

CQ-ID: Defdb00185438

Severity: K3 - malfunction (no workaround)

Description: If a motion command is issued for a modulo-scaled axis and if MC_MoveAdditive is executed with the distance 0, unchanged acceleration and unchanged delay during deceleration, the target position is not correctly approached. An additional modulo overflow is added to the target position instead, i.e. one revolution too much is executed.

In case of a jerk-limited motion, no distance is covered in the first Motion cycle

CQ-ID: Defdb00165214

Severity: K4 - malfunction

Description: When executing a motion command with a very high jerk, no distance is covered in the first Motion cycle and the axis does not move. The first motion is executed in the second cycle.

Core

XM21: SysError after firmware update

CQ-ID: Defdb00189079

Severity: K2 - serious malfunction

Description: If a firmware is updated on a version containing an S20 FPGA update on an XM2s with a disabled Sercos, the SysError F90B0124 results. Event a control reboot always ends with this SysError.

Import Export

Error message “Import/export, Sercos parameter format not supported" during parameter import

CQ-ID: Defdb00192196

Severity: K3 - malfunction (no workaround)

Description: While importing the parameter S-0-0141 from a parameter file, the error message "F00A0005, Import/export, Sercos parameter format not supported" was issued and the parameter was not imported.

Logic

The outputs are not reset after control reset at “Stop at breakpoint"

CQ-ID: Defdb00180074

Severity: K2 - serious malfunction

Description: If a breakpoint was set and reached for debugging purposes in a PLC program and if the control is to be reset (warm/cold) in this state, the following message is displayed in the IndraWorks interface: “Execution stopping at breakpoint. Do you want to end the cycle before executing the reset command? Yes: End cycle and reset. No: End task and reset immediately."

If this prompt is acknowledged with “Yes”, a reset of the outputs is not ensured for all I/O interfaces of the control.

The outputs can remain set depending on the following PLC settings:

- I/O refresh active in stop (yes/no)

- Always update variables (yes/no)

MLPI

MLPI: Demo project is not executable

CQ-ID: Defdb00187199

Severity: K4 - malfunction

Description: In the example program, a connection to the local host should have been established using the string "localhost”. However, this string cannot be resolved.

Once the connection is canceled, it cannot be accessed again

CQ-ID: Defdb00192861

Severity: K4 - malfunction

Description: IndraWorks was connected to an MLC. If the connection was canceled by removing the Ethernet cable for example, switching again to online was not possible anymore. An error was reported stating that the control is already connected to an interface.

Motion Functions

IPO AXS: Interpolation in the control: Error behavior when changing from MC_MoveVelocity to MC_MoveAdditive with distance 0

CQ-ID: Defdb00188612

Severity: K2 - serious malfunction

Description: If an axis interpolated and modulo-scaled in the control is traversed with MC_MoveVelocity and if an MC_MoveAdditive is executed with the distance 0, an undetermined number of modulo revolutions results.

“F5180005 Cycle time excess Motion Kernel” in the operation mode “IPO Drive”

CQ-ID: Defdb00187270

Severity: K3 - malfunction (no workaround)

Description: If a phasing was executed for an axis with interpolation in the drive and an MC_Stop at the same time, it was possible that the error "F5180005 Cycle time excess Motion Kernel" was generated.

Parameter A-0-0103 in the oscilloscope causes the overload error F00D2EE7

CQ-ID: Defdb00188010

Severity: K4 - malfunction

Description: If the parameter A-0-0103 was configured when interpolating in the control within the oscilloscope, the cycle time might have been exceeded.

Fixing: The parameter was removed from the list of the parameters to be oscilloscoped.

The filter time constants for the offset parameters A-0-2600, A-0-2610 and A-0-2620 are not applied in phase 4

CQ-ID: Defdb00191939

Severity: K4 - malfunction

Description: The filter time constants A-0-2601, A-0-2611 and A-0-2621 were not applied when writing in phase 4 and were only applied after phase switching.

Fixing: The filter time constants are directly applied when writing in phase 4.

OPC UA

ILRT: Loading boot applications while booting takes more than two minutes

CQ-ID: Defdb00191017

Severity: K2 - serious malfunction

Description: Loading boot applications while booting takes approximately two minutes.

OPC UA string variables cannot be retrieved, even though they are included in the MLC symbol config

CQ-ID: Defdb00192729

Severity: K2 - serious malfunction

Description: The access attributes “AccessLevel” and “UserAccessLevel” for the variable of the types “String” and “WString” of the PLC were incorrectly mapped by the OPC UA server.

OPC-UA function blocks do not work

CQ-ID: Defdb00192261

Severity: K2 - serious malfunction

Description: The OPC-UA function blocks (client and event) do not work. This is caused by an interface file provided by 3S. This file and the Rexroth file do have the same name.

Page fault in task "UASercosWorker"

CQ-ID: Defdb00191187

Severity: K2 - serious malfunction

Description: If description texts of Sercos parameters were subsequently read fast via OPC UA, it was possible that a SysErr occurred.

The OPC UA TestClient retrieves variables, even though their attributes are set to “not readable”

CQ-ID: Defdb00192731

Severity: K3 - malfunction (no workaround)

Description: When reading variables of the types “String” and “WString” with the set attribute “WriteOnly”, no error (OpcUa_BadNotReadable), but the correct value was reported.

The provider is not reachable anymore when reading the node P-0-0322.0.4

CQ-ID: Defdb00191783

Severity: K3 - malfunction (no workaround)

Description: If Sercos parameters with a big array as value were read via OPC UA, long response times of the OPC-UA server resulted.

UA client: Stopping the application deletes the sessions

CQ-ID: Defdb00192275

Severity: K3 - malfunction (no workaround)

Description: If sessions were established from a PLC program, these session were deleted as soon as the PLC was set to stop. It should have only been allowed to delete the sessions and their resources with a reset warm/cold/orgin.

UA server: The server allows the generation of an item using an invalid node ID

CQ-ID: Defdb00188009

Severity: K3 - malfunction (no workaround)

Description: An incorrect symbolic name when using VarAccGetNode3 does not return any error, but the reference for the last valid node.

RobotControl

RoCo_V2: Phase switching to BB with transformation of 4-axis Scara with linear distance axis not possible

CQ-ID: Defdb00190653

Severity: K2 - serious malfunction

Description: Phase switching to BB with transformation of 4-axis Scara with linear distance axis not possible if the first axis was scaled as translatory absolute.

RoCo_V2: Velocity limit value for jogging not active (ML_GroupJogCont and ML_GroupJogStep)

CQ-ID: Defdb00190489

Severity: K2 - serious malfunction

Description: If a higher velocity was specified when jogging than permitted in the parameter K-0-0003 "Maximum path velocity”, the velocity was not limited and no warning was output when the velocity was reached.

RoCo V2: “GroupWait” group command switches the state machine too early to standstill

CQ-ID: Defdb00192789

Severity: K3 - malfunction (no workaround)

Description: If a “WAIT” command was commanded after a motion command, the PLCopen state machine switched to the state "StandstillComplete” after the motion command instead of after the “Wait” command.

RoCo: Sporadic error while synchronizing shortly before the modulo overflow

CQ-ID: Defdb00192627

Severity: K3 - malfunction (no workaround)

Description: If it was synchronized to a belt shortly before the modulo overflow, it was possible that the automatic belt modulo was not impeded and that the “Move” command moves back by the modulo value.

RoCo: Synchronizing to rotary table results in SysError

CQ-ID: Defdb00189954

Severity: K3 - malfunction (no workaround)

Description: If the axis of a rotary table is scaled as absolute, synchronization to this rotary table results in SysError F9240006.

RoCo V2: Simultaneous configuring of safe zones is sporadically not possible

CQ-ID: Defdb00187198

Severity: K4 - malfunction

Description: If many similar function blocks of the robotics are called subsequently, it was possible that a function block reported the error message "F0220208, Invalid command number".

Sercos

C2C system error F9240005 when switching from C2C to CP4

CQ-ID: Defdb00192008

Severity: K2 - serious malfunction

Description: In a C2C link with an L25 as C2C master, the system error F9240005 (Page fault) was issued on the link master when switching from C2C to CP4.

C2C: F9240005 at MLC L25 as C2C master

CQ-ID: Defdb00185702

Severity: K2 - serious malfunction

Description: An MLC L25 is configured as C2C master. The Motion configuration can still be loaded. Error F9240005 upon reboot.

L45 with C2C, Motion kernel timeout or system does not respond anymore when reaching P4

CQ-ID: Defdb00189436

Severity: K2 - serious malfunction

Description: The L45 was overloaded for multiple minutes as C2C master when reaching BB.

Operation of 48 axes Sercos II not possible with L65 and Sercos II FM

CQ-ID: Defdb00190094

Severity: K2 - serious malfunction

Description: The operation of 48 Sercos II axes was not possible anymore on an L65 with a Sercos II function module.

Phase switching initiated via IndraWorks (P2-P4) was not completed.

Aborting the hot plug directly at the master port 1 does not work correctly

CQ-ID: Defdb00187712

Severity: K3 - malfunction (no workaround)

Description: If the topology line port 2 is available, a slave is to be included at the inactive port 1 of the master using a hot plug. If a hot-plug function is aborted once, each further hot-plug attempt is aborted with the error message CSMD_HP_SLAVE_RECOGNIZED_IN_CP0.

Fixing: After aborting the hot-plug, the slave found was not correctly removed from the internal lists in the function CSMD_HotUnplug().

Bit “Phase switching active" in C-0-0514 does not remain continuously on TRUE

CQ-ID: Defdb00187731

Severity: K3 - malfunction (no workaround)

Description: If the Sercos phase was switched using PLC function blocks, the status bit 5 (“Phase switching active”) is not continuously on in C-0-0514.

C-0-0578 does not contain any disabled Sercos devices

CQ-ID: Defdb00192283

Severity: K3 - malfunction (no workaround)

Description: If Sercos PLC devices were disabled, these PLC devices were not in the parameter C-0-0578 "Sercos device configuration".

C2C slave: Master communication remains in P3 if no function module is plugged in

CQ-ID: Defdb00193027

Severity: K3 - malfunction (no workaround)

Description: If a function module was configured for the link participation, but it is not available in a C2C link on a slave control, the phase switching of the master communication remained in P3 if Sercos devices were available at the master communication.

An IndraDrive reported F4017 “Sercos: Phase switching sequence incorrect”. The MLC reported: F00B0156 “Sercos III: Phase switching to CP3 incorrect"

However, phase switching has never been completed. Switching to P2 was also not possible.

The diagnostics F0280101 “Error when initializing C2C hardware " for this case never resulted, as it is only output after reaching the control mode “bb”.

C2C: IP communication of the bridge does not work when adding a C2C slave

CQ-ID: Defdb00188228

Severity: K3 - malfunction (no workaround)

Description: If the UP communication was enabled for the C2C interface, it was not possible to communicate via IP, but via C2C interface.

Communication, SysError F9240005 "Page fault” if C-0-0036 bit 16 is on 0

CQ-ID: Defdb00192114

Severity: K3 - malfunction (no workaround)

Description: The system error F9240005 (Page fault) occurred if the following conditions were met:

Drive firmware MPx07V30

- Set bit 16 of C-0-0036 to 0 (default value).

- Download motion configuration => Communication to IndraWorks is aborted
- Restart MLC => Remains in P0
- Go online with IndraWorks => Page fault F9240005

F20BE003 SVC: Handshake timeout or F20BE004 SVC: Handshake timeout without slave address

CQ-ID: Defdb00192306

Severity: K3 - malfunction (no workaround)

Description: The error message F20BE003 SVC: Handshake timeout or F20BE004 SVC: Handshake timeout was reported without specifying the slave address. The error could not be clearly diagnosed.

Fixing: The slave address is now reported together with the error message.

F9200017 “Hardware watchdog elapsed“ is issued when phase switching an XM2

CQ-ID: Defdb00193270

Severity: K3 - malfunction (no workaround)

Description: At an XM2 control with more than five axes, the error F9200017 “Hardware watchdog elapsed“ is issued when changing the parameterization mode to the operating mode.

Fast acyclic communication to the drives is switched off

CQ-ID: Defdb00182834

Severity: K3 - malfunction (no workaround)

Description: For several drives, the fast acyclic communication was switched off via S/IP.

Fixing: If the fast acyclic communication is lost via S/IP, this communication is established again.

Oscilloscope trigger in multi-device measurement does not work

CQ-ID: Defdb00190414

Severity: K3 - malfunction (no workaround)

Description: Disabled axes were not skipped during the measurement.

Sercos, “Delete error” command causes a semaphore error if the command “Homing” is running

CQ-ID: Defdb00192146

Severity: K3 - malfunction (no workaround)

Description: If the command “Delete error” was enabled while the command “Homing” was active, the command “Delete error” was waiting until the command “Homing” was completed. It was possible that the command “Homing” was accidentally aborted, as the command was locked due to semaphore problems. This caused a general ErrorStop in the PLC program.

Sercos, disabling the IP communication via UDP is not possible in the master communication

CQ-ID: Defdb00183340

Severity: K3 - malfunction (no workaround)

Description: In the master communication of the control, the IP communication via UDP should be disabled between the control and the drives. This does not work, as the NRT driver was enabled in the interface of the master communication,

even though the control was configured accordingly. The parameter C-0-0036 was set to 0x20 and the control was booted again.

Sercos, system error F9200017 (Watchdog) during endurance test in drive lab

CQ-ID: Defdb00192116

Severity: K3 - malfunction (no workaround)

Description: During the endurance test with continuous phase switching, it was possible that the system error F9200017 (Watchdog) occurred sporadically after communication problems between the control and the slaves that caused a Sercos emergency reaction immediately after reaching P4.

TaskViewer: Incorrect recording at high PLC load

CQ-ID: Defdb00185054

Severity: K3 - malfunction (no workaround)

Description: If tasks running outside the time slot of the PLC, e.g. kinematic tasks, an incorrect TaskViewer recording was possible.

C2C does not start if it is written on C-0-0751 (C2C phase) during startup

CQ-ID: Defdb00186111

Severity: K4 - malfunction

Description: It was possible that writing on the parameter C-0-0751 during startup of the C2C link, aborted the startup.

C2C slave: System error F9200017 (Watchdog) if no function module is plugged in

CQ-ID: Defdb00192316

Severity: K4 - malfunction

Description: If, in a C2C link on a slave control, a function module was configured for the link participation in the parameter "Sercos local and function module bus, command configuration" (C-0-0040), the system error F9200017 (Watchdog) was issued when P4 was reached and if the function module was not available or plugged into another slot.

C2C: After aborting the hot-plug, two edges are required at the “Hot-plug” input

CQ-ID: Defdb00189002

Severity: K4 - malfunction

Description: Only after aborting the hot-plug via the PLC, it was continued with a new hot-plug at the second edge at the hot-plug input [ControlData[Local_CNTRL].LINK_ENABLE_HOTPLUG].

If no PLC program was loaded, this error did not occur.

MLC-SII link axis dialog “Axis configuration”, Dead time compensation missing

CQ-ID: Defdb00192148

Severity: K4 - malfunction

Description: For a link axis in the Sercos II cross link, the dead time compensation could not be set in the “Axis configuration” dialog.

39.2.2 Known issues

_Other

Profinet I/O devices are not detected while switched on

CQ-ID: Defdb00189926

Severity: K3 - malfunction (no workaround)

Description: It is possible that the Profinet I/O devices are not detected while switched on.

XM2*: SysError if “Network settings” is opened in online mode

CQ-ID: Defdb00193772

Severity: K2 - serious malfunction

Description: When opening the context menu of the control “Network settings” or when logging into the IndraMotion Service Tool (IMST), a SysError occurred sporadically (page fault), as the parameter C-0-0202 could not be read.

The control could sometimes not be reached via the set IP address (XF5 - Ethernet connection).

RobotControl

RoCo_V2: When jogging kinematics into negative direction for a 3-axis Canfield, kinematics moved into positive direction

CQ-ID: Defdb00192054

Severity: K2 - serious malfunction

Description: It was possible to jog in negative z-values using the Canfield transformation. If negative values were reached, the kinematics moved into positive z-direction.

RoCo_V2: No limit points for A2 and A3 coordinates for the 3-axis Canfield

CQ-ID: Defdb00192057

Severity: K3 - malfunction (no workaround)

Description: It was possible to ensure that the connection points for rods at the platform were identical to the link points of the axes while jogging. If it was jogged further, the kinematics did not move as intended.

Sercos

System error "F9240005" during PLC download

CQ-ID: Defdb00194175

Severity: K4 - malfunction

Description: When downloading the PLC, the system error "F9240005"(PageFault) can result. The error can occur if the control is in the operating mode and the Sercos bus in phase 2.

Workaround: To avoid this error, switch the control to the parameterization mode before downloading the PLC. If the control is in the parameterization mode and the Sercos bus is in phase 2, this error does not occur.

40 IndraLogic XLC/IndraMotion MLC 14V18.141.0 R1 firmware and software

40.1 Software

40.1.1 Resolved defects

_Other

ProVi messages do not work anymore in IndraWorks 14V16R2

CQ-ID: Defdb00190888

Severity: K3 - malfunction (no workaround)

Description: Projects with ProVi-Sfc diagnostics could not be compiled.

Compiler

Interchanging the address of two variables does not work correctly for online change

CQ-ID: Defdb00180114

Severity: K4 - malfunction

Description: If the address of two variables is interchanged via online change (refer to the example), a common value is assigned to these variables.

Step 1:

byFlag1 AT %MB1: BYTE := 1;

byFlag2 AT %MB2 : BYTE := 2;

Step 2:

Change address and online change:

byFlag1 AT %MB2 : BYTE := 1;

byFlag2 AT %MB1 : BYTE := 2;

Engineering / _Other

Multi-device: Different file types are not saved

CQ-ID: Defdb00190929

Severity: K2 - serious malfunction

Description: If a “PLC data file”, an “I/O configuration file or one or several user files were added to an entry (= “Table line") within the multi-device table of the MLC, the IndraWorks-internal file management did not work correctly. Thus, the files previously added to the table were not shown anymore, e.g. after closing and opening the dialog “Configure Multi device functionality”.

Automation Interface: Sercos node missing when creating a VPx

CQ-ID: Defdb00191912

Severity: K3 - malfunction (no workaround)

Description: If a control of the type VPx40.3 was added to an IndraWorks project using the IndraWorks Automation Interface, the Sercos node was missing below the added control.

Cyclic data is exchanged while exporting/importing Sercos slaves

CQ-ID: Defdb00188593

Severity: K3 - malfunction (no workaround)

Description: If an entry was deleted under “General inputs and outputs” (cyclic parameters) after exporting a Sercos slave, the entries after the previously deleted entry were interchanged after importing the previously exported slaves.

Monitoring windows are not automatically displayed after closing/ opening IndraWorks

CQ-ID: Defdb00191349

Severity: K3 - malfunction (no workaround)

Description: Monitoring windows, which were open when closing IndraWorks, are not automatically displayed in the interface when opening IndraWorks again.

Engineering / CamBuilder

CamBuilder: StartVel = EndVel is not considered during the code generation

CQ-ID: Defdb00188962

Severity: K4 - malfunction

Description: The option “Cyclic execution” (StartVel = EndVel) in connection with motion laws that automatically calculate the starting and end velocity is not considered in the code generation for the FlexProfile.

Engineering / GAT

GAT decentral: In case of an error, the state machine (SFC) of the unit is called twice per cycle

CQ-ID: Defdb00191543

Severity: K4 - malfunction

Description: For GAT decentral, the state machine (SFC) of the units is called twice per cycle as long as the error is pending.

Fixing: Only at a rising edge at the “Error” bit, SFC is called again to ensure a fast error reaction.

PhaseOffset or PhaseShift without function in the AxisInterface in ModeSyncVel

CQ-ID: Defdb00187338

Severity: K4 - malfunction

Description: An axis is velocity-synchronously coupled to a master (ModeSyncVel).

There should be an offset between the master axis and the slave axis via the AxisInterface.

The PhaseOffset (MB_PhasingSlave) is only effective in phase-synchronous operation modes (ModeSyncPhase, ModeFlexProfile...).

The PhaseShift (MB_Phasing) is also effective in the speed-synchronous operation mode ModeSyncVel. However, it is currently not supported by the AxisInterface in ModeSyncVel.

Fixing: The PhaseShift is now also effective in ModeSyncVel. Therefore, it is required to update the user code in the function block TE_AxisInterface; action actPhaseShift.

Engineering / HMI

Upon each download, WinStudio deletes the user file, even if “Keep user file” is selected

CQ-ID: Defdb00188859

Severity: K2 - serious malfunction

Description: When applying a WinStudio project to a visualization device, all data from the target directory is deleted without any warning.

WinStudio: Password display in plain text on WinCE

CQ-ID: Defdb00192409

Severity: K3 - malfunction (no workaround)

Description: If a text field with the option “Password” is used in a WinStudio screen, this field displays the text as plain text on a VR21 device and on a VEP device.

Engineering / Motion

An error message is issued when changing the firmware version of a VPx

CQ-ID: Defdb00190719

Severity: K3 - malfunction (no workaround)

Description: When changing the firmware version in the VPx properties from e.g. 14V08 to 14V16, the system automatically created another “Sercos III” function module. However, only a Sercos III function module is permitted in the project. Resulted in an error message output by the system. Subsequently, the project could not be compiled successfully.

Engineering / Periphery

Adding GSDML files to the IndraWorks device database can take up to several minutes

CQ-ID: Defdb00184142

Severity: K3 - malfunction (no workaround)

Description: Adding GSDML files to the IndraWorks device database can take up to several minutes

It occurs if the current GSDML file or a previous version has already been installed and if the GSDML file is very big.

Depending on the size of the GSDML file, the progress bar is only refreshed after several seconds or minutes.

Engineering / PLC Libraries

MB_AllocCyclicParameter and MB_GetParaHandle do not work for the HMC

CQ-ID: Defdb00191143

Severity: K2 - serious malfunction

Description: The subordinate function block MB_GetSystemInfo was incorrectly implemented for an HMC. Thus, the function block has never been completed with “Done” or “Error”. All superordinate function blocks wait for one of the two cases. Thus, these function blocks could also not been completed.

MB_DigitalCamSwitchOvr does not set the outputs correctly

CQ-ID: Defdb00192336

Severity: K2 - serious malfunction

Description: If an oversampling factor other than 64 is set in the function block, the switch-on and switch-off times are not reached correctly. If a switch is active for several Sercos cycles, it affects only the switch-on and the switch-off cycle. It is switched on correctly in the cycles in between.

MC_DigitalCamSwitch does not check whether Motion cycle time and Sercos cycle time are identical.

CQ-ID: Defdb00192259

Severity: K4 - malfunction

Description: It was possible to operate the function block, even though the Motion cycle time and the Sercos cycle time were different. As position and velocity data can only be generated in the Motion cycle, output data does only change if Motion data changes. If the Sercos cycle time is only a fraction of the Motion cycle, an incorrect accuracy is assumed.

Fixing: It is now checked, whether the Motion cycle time and the Sercos cycle time are identical. If they are different, the new error 16#00002B09 is generated.

Engineering / PLC Programming

Due to a PLC project comparison, IndraWorks cannot be operated anymore

CQ-ID: Defdb00191428

Severity: K2 - serious malfunction

Description: During the PLC project comparison, it was possible that IndraWorks did not respond anymore in certain projects (e.g. devices were used in the projects).

Project created in 14V10 P3 cannot be compiled anymore in 14V16 R2 in compatibility mode 14V10 P3 (by using OPC-UA server)

CQ-ID: Defdb00191036

Severity: K3 - malfunction (no workaround)

Description: Project created in 14V10 P3 could not be compiled anymore in 14V16 R2 in compatibility mode 14V10 P3 (by using the OPC-UA server).

Online change requires closing and reopening of the project

CQ-ID: Defdb00191091

Severity: K4 - malfunction

Description: If network variable objects (sender/receiver) are in a project and if the application was logged in, an online change occurs after closing and opening the project when trying to log in the application.

This behavior is triggered as the path of the file link in the Property dialog of the NVL cannot be accessed.

Engineering / PLC Safety

Save receiver NVL cannot be refreshed via the button

CQ-ID: Defdb00187514

Severity: K3 - malfunction (no workaround)

Description: Save receiver NVL cannot be refreshed via the respective button, even though the sender NVL was changed.

The “Refresh” button remains disabled.

Engineering / Project Handling

When updating the control, devices below RT_Ethernet/Profibus are not updated

CQ-ID: Defdb00190705

Severity: K4 - malfunction

Description: When updating the control in a project created in IndraWorks 14V10P2, the devices below the “RT Ethernet/Profibus” function module were not updated (latest version).

Engineering / Technology

MB_InitTouchProbe reports StateMachineError if "ProbeData" input is connected to TP_PROBE_TIME

CQ-ID: Defdb00191112

Severity: K3 - malfunction (no workaround)

Description: If the "ProbeData" input of the MB_InitTouchProbe function block was connected to TP_PROBE_TIME and if the function block was called with Execute=TRUE, the function block reports a StateMachineError.

ErrrorID = STATE_MACHINE_ERROR

ErrorTable = F_Related_Table

Additional1 = 0x0006

Additional2 = 0x0000

Thus, the function block cannot be used to configure the drive touch probe to measure the time.

Fixing: The value "TP_PROBE_TIME” is now supported at the "ProbeData" input and the drive touch probe is parameterized to measure the time.

ML_InitTouchProbe: Input “Interpolation” - Fatal default value (Interpolation disabled)

CQ-ID: Defdb00190846

Severity: K4 - malfunction

Description: The default value of the “Interpolation” input is "No_Interpolation" => Interpolation of the measuring value is not enabled within a Sercos cycle.

Fixing: The default value was changed from "No_Interpolation" to "Linear_Interpolation" => Linear interpolation of the measuring value is enabled within a Sercos cycle

MLPI

MLPI4Java: Error in Motion.java

CQ-ID: Defdb00184103

Severity: K3 - malfunction (no workaround)

Description: Specifying the axis number = 0 causes an ArrayIndexOutOfBoundsExeption.

Fixing: Axis numbers <= 0 are rejected with an exception (e.g. "Exception in thread "main" java.lang.RuntimeException: Logical axis number '-5' out of minimum range.").

Operation / HMI

BRWS: Max. string length is only 82 characters in the VR21x

CQ-ID: Defdb00188490

Severity: K3 - malfunction (no workaround)

Description: For the VR21, the maximum string length transferred in the BRWS driver is only 82 characters, in the VEPx CE, it is limited to 256 characters.

Sercos

Error during homing cannot be deleted

CQ-ID: Defdb00190371

Severity: K2 - serious malfunction

Description: When homing is started, a drive generates an error (e.g. F2028). If the error occurs immediately in a certain time frame, the error can subsequently not be deleted anymore (commands C-0-1030 or A-0-1030).

40.1.2 Known issues

Engineering / PLC Libraries

MB_DigitalCamSwitchOvr does not set the outputs correctly if an oversampling rate other than 64 is set

CQ-ID: Defdb00192335

Severity: K2 - serious malfunction

Description: MB_DigitalCamSwitchOvr does not set the outputs correctly if an oversampling rate other than 64 is set. This error only occurred from the library version 14.16.2.0.

IL_SIIIRemoteSlaveStateDetails: For FSP_Drive, S-0-0011 and S-0-0012 are not mandatorily required

CQ-ID: Defdb00183903

Severity: K3 - malfunction (no workaround)

Description: The IL_SIIIRemoteSlaveStateDetails function block from the RIL_SercosIII library tries to read the following parameters of a Sercos device with the type FSP-drive:

- S-0-0011, state class 1
- S-0-0012, state class 2

If the parameters are not available, the function block aborts and outputs the error 0x1001.

MB_AllocCylicParameter does not run with IndraDrive with PFC function

CQ-ID: Defdb00192814

Severity: K3 - malfunction (no workaround)

Description: The error 0xF02D7003 occurs when using the function block MB_AllocCylicParameter. The error occurs only together with an IndraDrive with PFC function.

ML_AxisBackup: The “Done” output is set if the file name is incorrect

CQ-ID: Defdb00185222

Severity: K3 - malfunction (no workaround)

Description: If a wrong file name is specified (e.g. the directory does not exist), the function block outputs "Done", even though no action is executed.

RMB_SercosIIIUtil: Embedded IL_SIIISvcRead Fb with default timeout monitoring -> Sporadic timeout error

CQ-ID: Defdb00192994

Severity: K3 - malfunction (no workaround)

Description: For the function blocks MB_SIIIPlcDrivePosInterpolationType01, MB_SIIIPlcDriveTorqueType01, MB_SIIIplcDriveVelocityType01, MB_SIIIplcDriveEfcFrequencyType01, MB_SIIIPlcDriveFlowControl, MB_SIIIplcDrivePressureFlowControl, MB_SIIIPlcDrivePressureSwivelAngleControl and MB_SIIIPlcDrivePressureSwivelAngleSlave, the function block IL_SIIISvcRead is subordinately called. For this function block, a timeout error (F_RELATED_TABLE, Add1: 15 hex, Add2 0001 hex) can be caused sporadically if the acyclic channel is fully loaded.

Engineering / PLC Programming

Precompile: Elements of an ENUM are interpreted as bit

CQ-ID: Defdb00188678

Severity: K2 - serious malfunction

Description: If the attribute “qualified_only” is not set when declaring an ENUM with the elements of type DWORD, the following pre-compile error results C0032: Type “BIT” cannot be converted into type “DWORD”.

Workaround: Set {attribute 'qualified_only’}.

Engineering / SL Manager

When adding a Profinet device description file to the device database, the “error #22” is output

CQ-ID: Defdb00181925

Severity: K3 - malfunction (no workaround)

Description: When adding a Profinet device description file with Profisafe modules to the device database, the following error is output:

"Error creating logical device ... : The backed up description file could not be created due to error #22.

Workaround: Contact the Bosch Rexroth Support.

Engineering / Version Control System

VCS: Incorrect address display when updating the working copy

CQ-ID: Defdb00191027

Severity: K3 - malfunction (no workaround)

Description: If the address was changed in a project under version control at a drive below the MLC and the drive was then checked in, this change was was not shown below the Sercos node when updating the working copy in another project. However, the properties of the real axis below the MLC were correct, only the address was shown incorrectly below the Sercos node.

40.2 Firmware

40.2.1 Resolved defects

Archive / Coredump

CML75: Core dump generation stops or is not executed completely automatically

CQ-ID: Defdb00187502

Severity: K3 - malfunction (no workaround)

Description: If a system error is pending on an CML75, the core dump generation stops. After pressing the three right keys (cursor up, cursor down and Enter), the

core dump generation stopped displaying a "." (only point). The control did neither reboot automatically nor switched to the monitor to generate the core dump Only after pressing the S1 key at the CML75, the core dump was generated.

Axis

Error while executing a drive command cannot be acknowledged

CQ-ID: Defdb00190252

Severity: K3 - malfunction (no workaround)

Description: If the drive-controlled homing at IpoControl was aborted by a drive error, it was possible that these remained in the error reaction. It was not possible anymore to exit the PLCopen state “ErrorStop”.

For an axis with IpoControl and translatory/inch scaling, the scaling is incorrect

CQ-ID: Defdb00190828

Severity: K3 - malfunction (no workaround)

Description: For a set translatory/inch scaling for velocity values, A-0-2615 was mapped incorrectly for velocity-synchronous operation modes.

Jerk limit value violation - Error or warning is not output

CQ-ID: Defdb00165202

Severity: K3 - malfunction (no workaround)

Description: If the jerk limit value was violated, no error or warning was output.

LinMot drive: A-0-0562 and others cannot be read

CQ-ID: Defdb00188805

Severity: K3 - malfunction (no workaround)

Description: Access to the parameter A-0-0562 reported an error if the drive parameter S-0-0144 did not exist.

Fixing: The drive parameter is only read if it was configured in the respective configuration parameters (A-0-0560/A-0-0561).

SysError F9240005 can result if an error occurs while homing

CQ-ID: Defdb00190254

Severity: K3 - malfunction (no workaround)

Description: If a homing command was aborted due to an error and if the homing was started again while the error reaction was still active, a SysError could occur.

The axis stops when the positioning velocity is changed

CQ-ID: Defdb00186859

Severity: K3 - malfunction (no workaround)

Description: If an axis interpolated in the control is traversed with MC_MoveAbsolute and a jerk and if the velocity is increased at the end of the traversing command at a constant velocity, the axis is first stopped and then accelerated to the new velocity.

Traveling an additional module area when changing to MoveAdditive during deceleration ramp

CQ-ID: Defdb00185438

Severity: K3 - malfunction (no workaround)

Description: If a motion command is issued for a modulo-scaled axis and if MC_MoveAdditive is executed with the distance 0, unchanged acceleration and unchanged delay during deceleration, the target position is not correctly approached. An additional modulo overflow is added to the target position instead, i.e. one revolution too much is executed.

In case of a jerk-limited motion, no distance is covered in the first Motion cycle

CQ-ID: Defdb00165214

Severity: K4 - malfunction

Description: When executing a motion command with a very high jerk, no distance is covered in the first Motion cycle and the axis does not move. The first motion is executed in the second cycle.

Core

XM21: SysError after firmware update

CQ-ID: Defdb00189079

Severity: K2 - serious malfunction

Description: If a firmware is updated on a version containing an S20 FPGA update on an XM2s with a disabled Sercos, the SysError F90B0124 results. Event a control reboot always ends with this SysError.

Import Export

Error message “Import/export, Sercos parameter format not supported" during parameter import

CQ-ID: Defdb00192196

Severity: K3 - malfunction (no workaround)

Description: While importing the parameter S-0-0141 from a parameter file, the error message "F00A0005, Import/export, Sercos parameter format not supported" was issued and the parameter was not imported.

Logic

The outputs are not reset after control reset at “Stop at breakpoint"

CQ-ID: Defdb00180074

Severity: K2 - serious malfunction

Description: If a breakpoint was set and reached for debugging purposes in a PLC program and if the control is to be reset (warm/cold) in this state, the following message is displayed in the IndraWorks interface: “Execution stopping at breakpoint. Do you want to end the cycle before executing the reset command? Yes: End cycle and reset. No: End task and reset immediately."

If this prompt is acknowledged with “Yes”, a reset of the outputs is not ensured for all I/O interfaces of the control.

The outputs can remain set depending on the following PLC settings:

- I/O refresh active in stop (yes/no)
- Always update variables (yes/no)

MLPI

MLPI: Demo project is not executable

CQ-ID: Defdb00187199

Severity: K4 - malfunction

Description: In the example program, a connection to the local host should have been established using the string "localhost”. However, this string cannot be resolved.

Motion Functions

IPO AXS: Interpolation in the control: Error behavior when changing from MC_MoveVelocity to MC_MoveAdditive with distance 0

CQ-ID: Defdb00188612

Severity: K2 - serious malfunction

Description: If an axis interpolated and modulo-scaled in the control is traversed with MC_MoveVelocity and if an MC_MoveAdditive is executed with the distance 0, an undetermined number of modulo revolutions results.

“F5180005 Cycle time excess Motion Kernel” in the operation mode “IPO Drive”

CQ-ID: Defdb00187270

Severity: K3 - malfunction (no workaround)

Description: If a phasing was executed for an axis with interpolation in the drive and an MC_Stop at the same time, it was possible that the error "F5180005 Cycle time excess Motion Kernel" was generated.

Parameter A-0-0103 in the oscilloscope causes the overload error F00D2EE7

CQ-ID: Defdb00188010

Severity: K4 - malfunction

Description: If the parameter A-0-0103 was configured when interpolating in the control within the oscilloscope, the cycle time might have been exceeded.

Fixing: The parameter was removed from the list of the parameters to be oscilloscoped.

OPC UA

ILRT: Loading boot applications while booting takes more than two minutes

CQ-ID: Defdb00191017

Severity: K2 - serious malfunction

Description: Loading boot applications while booting takes approximately two minutes.

OPC-UA function blocks do not work

CQ-ID: Defdb00192261

Severity: K2 - serious malfunction

Description: The OPC-UA function blocks (client and event) do not work. This is caused by an interface file provided by 3S. This file and the Rexroth file do have the same name.

Page fault in task "UASercosWorker"

CQ-ID: Defdb00191187

Severity: K2 - serious malfunction

Description: If description texts of Sercos parameters were subsequently read fast via OPC UA, it was possible that a SysErr occurred.

The provider is not reachable anymore when reading the node P-0-0322.0.4

CQ-ID: Defdb00191783

Severity: K3 - malfunction (no workaround)

Description: If Sercos parameters with a big array as value were read via OPC UA, long response times of the OPC-UA server resulted.

UA client: Stopping the application deletes the sessions

CQ-ID: Defdb00192275

Severity: K3 - malfunction (no workaround)

Description: If sessions were established from a PLC program, these session were deleted as soon as the PLC was set to stop. It should have only been allowed to delete the sessions and their resources with a reset warm/cold/orgin.

UA server: The server allows the generation of an item using an invalid node ID

CQ-ID: Defdb00188009

Severity: K3 - malfunction (no workaround)

Description: An incorrect symbolic name when using VarAccGetNode3 does not return any error, but the reference for the last valid node.

RobotControl

RoCo_V2: Phase switching to BB with transformation of 4-axis Scara with linear distance axis not possible

CQ-ID: Defdb00190653

Severity: K2 - serious malfunction

Description: Phase switching to BB with transformation of 4-axis Scara with linear distance axis not possible if the first axis was scaled as translatory absolute.

RoCo_V2: Velocity limit value for jogging not active (ML_GroupJogCont and ML_GroupJogStep)

CQ-ID: Defdb00190489

Severity: K2 - serious malfunction

Description: If a higher velocity was specified when jogging than permitted in the parameter K-0-0003 "Maximum path velocity”, the velocity was not limited and no warning was output when the velocity was reached.

RoCo: Sporadic error while synchronizing shortly before the modulo overflow

CQ-ID: Defdb00192627

Severity: K3 - malfunction (no workaround)

Description: If it was synchronized to a belt shortly before the modulo overflow, it was possible that the automatic belt modulo was not impeded and that the “Move” command moves back by the modulo value.

RoCo: Synchronizing to rotary table results in SysError

CQ-ID: Defdb00189954

Severity: K3 - malfunction (no workaround)

Description: If the axis of a rotary table is scaled as absolute, synchronization to this rotary table results in SysError F9240006.

RoCo V2: Simultaneous configuring of safe zones is sporadically not possible

CQ-ID: Defdb00187198

Severity: K4 - malfunction

Description: If many similar function blocks of the robotics are called subsequently, it was possible that a function block reported the error message "F0220208, Invalid command number".

Sercos

C2C system error F9240005 when switching from C2C to CP4

CQ-ID: Defdb00192008

Severity: K2 - serious malfunction

Description: In a C2C link with an L25 as C2C master, the system error F9240005 (Page fault) was issued on the link master when switching from C2C to CP4.

C2C: F9240005 at MLC L25 as C2C master

CQ-ID: Defdb00185702

Severity: K2 - serious malfunction

Description: An MLC L25 is configured as C2C master. The Motion configuration can still be loaded. Error F9240005 upon reboot.

L45 with C2C, Motion kernel timeout or system does not respond anymore when reaching P4

CQ-ID: Defdb00189436

Severity: K2 - serious malfunction

Description: The L45 was overloaded for multiple minutes as C2C master when reaching BB.

Operation of 48 axes Sercos II not possible with L65 and Sercos II FM

CQ-ID: Defdb00190094

Severity: K2 - serious malfunction

Description: The operation of 48 Sercos II axes was not possible anymore on an L65 with a Sercos II function module.

Phase switching initiated via IndraWorks (P2-P4) was not completed.

Aborting the hot plug directly at the master port 1 does not work correctly

CQ-ID: Defdb00187712

Severity: K3 - malfunction (no workaround)

Description: If the topology line port 2 is available, a slave is to be included at the inactive port 1 of the master using a hot plug. If a hot-plug function is aborted once, each further hot-plug attempt is aborted with the error message CSMD_HP_SLAVE_RECOGNIZED_IN_CP0.

Fixing: After aborting the hot-plug, the slave found was not correctly removed from the internal lists in the function CSMD_HotUnplug().

C-0-0578 does not contain any disabled Sercos devices

CQ-ID: Defdb00192283

Severity: K3 - malfunction (no workaround)

Description: If Sercos PLC devices were disabled, these PLC devices were not in the parameter C-0-0578 "Sercos device configuration".

C2C: IP communication of the bridge does not work when adding a C2C slave

CQ-ID: Defdb00188228

Severity: K3 - malfunction (no workaround)

Description: If the UP communication was enabled for the C2C interface, it was not possible to communicate via IP, but via C2C interface.

Communication, SysError F9240005 "Page fault" if C-0-0036 bit 16 is on 0

CQ-ID: Defdb00192114

Severity: K3 - malfunction (no workaround)

Description: The system error F9240005 (Page fault) occurred if the following conditions were met:

Drive firmware MPx07V30

- Set bit 16 of C-0-0036 to 0 (default value).
- Download motion configuration => Communication to IndraWorks is aborted
- Restart MLC => Remains in P0
- Go online with IndraWorks => Page fault F9240005

F20BE003 SVC: Handshake timeout or F20BE004 SVC: Handshake timeout without slave address

CQ-ID: Defdb00192306

Severity: K3 - malfunction (no workaround)

Description: The error message F20BE003 SVC: Handshake timeout or F20BE004 SVC: Handshake timeout was reported without specifying the slave address. The error could not be clearly diagnosed.

Fixing: The slave address is now reported together with the error message.

Fast acyclic communication to the drives is switched off

CQ-ID: Defdb00182834

Severity: K3 - malfunction (no workaround)

Description: For several drives, the fast acyclic communication was switched off via S/IP.

Fixing: If the fast acyclic communication is lost via S/IP, this communication is established again.

Oscilloscope trigger in multi-device measurement does not work

CQ-ID: Defdb00190414

Severity: K3 - malfunction (no workaround)

Description: Disabled axes were not skipped during the measurement.

Sercos, "Delete error" command causes a semaphore error if the command "Homing" is running

CQ-ID: Defdb00192146

Severity: K3 - malfunction (no workaround)

Description: If the command "Delete error" was enabled while the command "Homing" was active, the command "Delete error" was waiting until the command "Homing" was completed. It was possible that the command "Homing" was

accidentally aborted, as the command was locked due to semaphore problems. This caused a general ErrorStop in the PLC program.

Sercos, disabling the IP communication via UDP is not possible in the master communication

CQ-ID: Defdb00183340

Severity: K3 - malfunction (no workaround)

Description: In the master communication of the control, the IP communication via UDP should be disabled between the control and the drives. This does not work, as the NRT driver was enabled in the interface of the master communication, even though the control was configured accordingly. The parameter C-0-0036 was set to 0x20 and the control was booted again.

Sercos, system error F9200017 (Watchdog) during endurance test in drive lab

CQ-ID: Defdb00192116

Severity: K3 - malfunction (no workaround)

Description: During the endurance test with continuous phase switching, it was possible that the system error F9200017 (Watchdog) occurred sporadically after communication problems between the control and the slaves that caused a Sercos emergency reaction immediately after reaching P4.

C2C does not start if it is written on C-0-0751 (C2C phase) during startup

CQ-ID: Defdb00186111

Severity: K4 - malfunction

Description: It was possible that writing on the parameter C-0-0751 during startup of the C2C link, aborted the startup.

C2C slave: System error F9200017 (Watchdog) if no function module is plugged in

CQ-ID: Defdb00192316

Severity: K4 - malfunction

Description: If, in a C2C link on a slave control, a function module was configured for the link participation in the parameter "Sercos local and function module bus, command configuration" (C-0-0040), the system error F9200017 (Watchdog) was issued when P4 was reached and if the function module was not available or plugged into another slot.

C2C: After aborting the hot-plug, two edges are required at the “Hot-plug” input

CQ-ID: Defdb00189002

Severity: K4 - malfunction

Description: Only after aborting the hot-plug via the PLC, it was continued with a new hot-plug at the second edge at the hot-plug input [ControlData[Local_CNTRL].LINK_ENABLE_HOTPLUG].

If no PLC program was loaded, this error did not occur.

MLC-SII link axis dialog “Axis configuration”, Dead time compensation missing

CQ-ID: Defdb00192148

Severity: K4 - malfunction

Description: For a link axis in the Sercos II cross link, the dead time compensation could not be set in the “Axis configuration” dialog.

40.2.2 Known issues

_Other

Profinet I/O devices are not detected while switched on

CQ-ID: Defdb00189926

Severity: K3 - malfunction (no workaround)

Description: It is possible that the Profinet I/O devices are not detected while switched on.

RobotControl

RoCo_V2: When jogging kinematics into negative direction for a 3-axis Canfield, kinematics moved into positive direction

CQ-ID: Defdb00192054

Severity: K2 - serious malfunction

Description: It was possible to jog in negative z-values using the Canfield transformation. If negative values were reached, the kinematics moved into positive z-direction.

RoCo_V2: No limit points for A2 and A3 coordinates for the 3-axis Canfield

CQ-ID: Defdb00192057

Severity: K3 - malfunction (no workaround)

Description: It was possible to ensure that the connection points for rods at the platform were identical to the link points of the axes while jogging. If it was jogged further, the kinematics did not move as intended.

41 IndraLogic XLC/IndraMotion MLC 14V16 Patch 05 firmware and software

41.1 Firmware

41.1.1 Resolved defects

MLC Firmware / _Other

Sytronix axis runs after a Sercos failure and subsequent startup even though there is an AB commanding

CQ-ID: Defdb00200754

Severity: K1 - safety relevant function

Description: If a traversing command is executed for a controller axis and the Sercos connection fails in this particular moment, the control identifies an error and returns to the Sercos phase 0.

If the connection is established again and the control goes into the “Ready for operation” state after clearing the error, the traversing command is executed again and the controller axis continues moving (with the old command).

Fixing: If the Sercos connection fails during a traversing command for a controller axis and the bus goes into phase 0, no traversing command applies anymore after reaching the state “ready for operation” and the controller axis remains in its position.

42 IndraLogic XLC/IndraMotion MLC 14V16 Patch 03 firmware and software

42.1 Software

42.1.1 Resolved defects

_Other

MH_HydrControl: Incorrect valve characteristic

CQ-ID: Defdb00190922

Severity: K2 - serious malfunction

Description: When a valve characteristic was entered into the hydraulic central controller, the latest written input element was always overwritten with 0 in the firmware.

Engineering / CamBuilder

CamBuilder: StartVel = EndVel is not considered during the code generation

CQ-ID: Defdb00188962

Severity: K4 - malfunction

Description: The option “Cyclic execution” (StartVel = EndVel) in connection with motion laws that automatically calculate the starting and end velocity is not considered in the code generation for the FlexProfile.

Engineering / Drive

Saving an IndraWorks project requires an unexpected amount of time if all axes are in the project

CQ-ID: Defdb00193627

Severity: K3 - malfunction (no workaround)

Description: Saving an IndraWorks project requires an unexpected amount of time if all axes are in the project

Engineering / PLC Libraries

ML_TechRegi: ParameterControlValue jumps to “0” when entering the correction window if controlled to P-0-0694/A-0-2605

CQ-ID: Defdb00182909

Severity: K4 - malfunction

Description: When controlling to the gear fine adjustment (P-0-0694/A-0-2605), ParameterControlValue is set to 0 when entering the correction window. Then, it is started with the S-curve-shaped ramping of the ParameterControlValue.

Fixing: When controlling the gear fine adjustment (P-0-0694/A-0-2605), it was started at the current ParameterControlValue when the correction window was entered and ramped to the new ParameterControlValue in an S-curve shape.

Engineering / PLC Programming

IndraLogic: Assertion together with __Try/__Catch statements causes corrupt project data

CQ-ID: Defdb00194773

Severity: K4 - malfunction

Description: When using "TRY" and "CATCH" commands in the user program and multiple (min. 2) "online changes", it is possible that an incorrect boot project was created.

Depending on where this incorrect IEC code was generated, it is possible that writing the outputs to a safe state is not ensured anymore.

ML_AxisRestore does not correctly restore parameters with bit values

CQ-ID: Defdb00191797

Severity: K4 - malfunction

Description: If parameters saved as bit parameters are restored at the ML_AxisRestore function block, the most significant bit is not restored anymore.

The value 1001.0110 is restored as 0001.0110 for example.

Engineering / Technology

MB_InitTouchProbe reports StateMachineError if "ProbeData" input is connected to TP_PROBE_TIME

CQ-ID: Defdb00191221

Severity: K3 - malfunction (no workaround)

Description: If the "ProbeData" input of the MB_InitTouchProbe function block was connected to TP_PROBE_TIME and if the function block was called with Execute=TRUE, the function block reports a StateMachineError.

ErrorID = STATE_MACHINE_ERROR

ErrorTable = F_Related_Table

Additional1 = 0x0006

Additional2 = 0x0000

Thus, the function block cannot be used to configure the drive touch probe to measure the time.

Fixing: The value "TP_PROBE_TIME" is now supported at the "ProbeData" input and the drive touch probe is parameterized to measure the time.

Winder for axis with IPO control: Control variables are not effective

CQ-ID: Defdb00191786

Severity: K3 - malfunction (no workaround)

Description: For an axis with interpolation in the control, it was not written on the following function blocks and the respective axis parameters (the function block outputs were correct):

- MB_DiameterCalculatorType03
- MB_DiameterMeasurementType01
- MB_DancerControlType04
- MB_WinderTensionControlType02
- MB_WinderTensionControlSpeedType01
- MB_WinderDancerCtrlType02

Thus, the motion of the respective winder drive was incorrect.

Engineering / Version Control System

Tab "I/O mapping" for PN bus couplers is missing when opening a project from version control. Profinet has no functionality

CQ-ID: Defdb00194858

Severity: K3 - malfunction (no workaround)

Description: If a project was opened from version control, the “I/O mapping” tab was missing for the Profinet bus couplers. After login, Profinet has no functionality.

42.1.2 Known issues

Engineering / PLC Libraries

Error at the function block "IH_PNIOAck_PSDx_Inline" cannot be reset

CQ-ID: Defdb00194622

Severity: K3 - malfunction (no workaround)

Description: The error at the function block IH_PNIOAck_PSDx_Inline (RIH_Safety_ProfinetIO.library): “Maximum number of 20 acknowledgements reached” cannot be reset.

The error can only be cleared by switching on/off the control or via PLC “Reset”. Another edge at the function block is not sufficient to reset the error.

Engineering / PLC Programming

The function block "IL_AO2UI" reports erros if the input "NormalizedValue" is changed too fast

CQ-ID: Defdb00194958

Severity: K3 - malfunction (no workaround)

Description: If the input "ChannelConfig[x].NormalizedValue" at the function block "IL_AO2UI2" of the RIL_InlineIOModules.library is changed too fast (< 1s), it reports the error: “Timeout, the device cannot be reached. Check the module type, error message: "INLINEIO_TABLE, Additional1 = 3020, Additional2 = 0".

42.2 Firmware

42.2.1 Resolved defects

Sercos

Aborting the hot plug directly at the master port 1 does not work correctly

CQ-ID: Defdb00187712

Severity: K3 - malfunction (no workaround)

Description: If the topology line port 2 is available, a slave is to be included at the inactive port 1 of the master using a hot plug. If a hot-plug function is aborted once, each further hot-plug attempt is aborted with the error message CSMD_HP_SLAVE_RECOGNIZED_IN_CP0.

Fixing: After aborting the hot-plug, the slave found was not correctly removed from the internal lists in the function CSMD_HotUnplug().

43 IndraLogic XLC/IndraMotion MLC 14V16 Patch 02 firmware and software

43.1 Software

43.1.1 Resolved defects

_Other

MH_HydrControl: Incorrect valve characteristic

CQ-ID: Defdb00190922

Severity: K2 - serious malfunction

Description: When a valve characteristic was entered into the hydraulic central controller, the latest written input element was always overwritten with 0 in the firmware.

Engineering / CamBuilder

CamBuilder: StartVel = EndVel is not considered during the code generation

CQ-ID: Defdb00188962

Severity: K4 - malfunction

Description: The option “Cyclic execution” (StartVel = EndVel) in connection with motion laws that automatically calculate the starting and end velocity is not considered in the code generation for the FlexProfile.

Engineering / Drive

Saving an IndraWorks project requires an unexpected amount of time if all axes are in the project

CQ-ID: Defdb00193627

Severity: K3 - malfunction (no workaround)

Description: Saving an IndraWorks project requires an unexpected amount of time if all axes are in the project

Engineering / PLC Libraries

ML_TechRegi: ParameterControlValue jumps to “0” when entering the correction window if controlled to P-0-0694/A-0-2605

CQ-ID: Defdb00182909

Severity: K4 - malfunction

Description: When controlling to the gear fine adjustment (P-0-0694/A-0-2605), ParameterControlValue is set to 0 when entering the correction window. Then, it is started with the S-curve-shaped ramping of the ParameterControlValue.

Fixing: When controlling the gear fine adjustment (P-0-0694/A-0-2605), it was started at the current ParameterControlValue when the correction window was entered and ramped to the new ParameterControlValue in an S-curve shape.

Engineering / PLC Programming

IndraLogic: Assertion together with __Try/__Catch statements causes corrupt project data

CQ-ID: Defdb00194773

Severity: K4 - malfunction

Description: When using "TRY" and "CATCH" commands in the user program and multiple (min. 2) "online changes", it is possible that an incorrect boot project was created.

Depending on where this incorrect IEC code was generated, it is possible that writing the outputs to a safe state is not ensured anymore.

ML_AxisRestore does not correctly restore parameters with bit values

CQ-ID: Defdb00191797

Severity: K4 - malfunction

Description: If parameters saved as bit parameters are restored at the ML_AxisRestore function block, the most significant bit is not restored anymore.

The value 1001.0110 is restored as 0001.0110 for example.

Engineering / Technology

MB_InitTouchProbe reports StateMachineError if "ProbeData" input is connected to TP_PROBE_TIME

CQ-ID: Defdb00191221

Severity: K3 - malfunction (no workaround)

Description: If the "ProbeData" input of the MB_InitTouchProbe function block was connected to TP_PROBE_TIME and if the function block was called with Execute=TRUE, the function block reports a StateMachineError.

ErrorID = STATE_MACHINE_ERROR

ErrorTable = F_Related_Table

Additional1 = 0x0006

Additional2 = 0x0000

Thus, the function block cannot be used to configure the drive touch probe to measure the time.

Fixing: The value "TP_PROBE_TIME" is now supported at the "ProbeData" input and the drive touch probe is parameterized to measure the time.

Winder for axis with IPO control: Control variables are not effective

CQ-ID: Defdb00191786

Severity: K3 - malfunction (no workaround)

Description: For an axis with interpolation in the control, it was not written on the following function blocks and the respective axis parameters (the function block outputs were correct):

- MB_DiameterCalculatorType03
- MB_DiameterMeasurementType01
- MB_DancerControlType04
- MB_WinderTensionControlType02
- MB_WinderTensionControlSpeedType01
- MB_WinderDancerCtrlType02

Thus, the motion of the respective winder drive was incorrect.

Engineering / Version Control System

Tab "I/O mapping" for PN bus couplers is missing when opening a project from version control. Profinet has no functionality

CQ-ID: Defdb00194858

Severity: K3 - malfunction (no workaround)

Description: If a project was opened from version control, the “I/O mapping” tab was missing for the Profinet bus couplers. After login, Profinet has no functionality.

43.1.2 Known issues

Engineering / PLC Libraries

Error at the function block "IH_PNIOAck_PSDx_Inline" cannot be reset

CQ-ID: Defdb00194622

Severity: K3 - malfunction (no workaround)

Description: The error at the function block IH_PNIOAck_PSDx_Inline (RIH_Safety_ProfinetIO.library): “Maximum number of 20 acknowledgements reached” cannot be reset.

The error can only be cleared by switching on/off the control or via PLC “Reset”. Another edge at the function block is not sufficient to reset the error.

Engineering / PLC Programming

The function block "IL_AO2UI" reports erros if the input "NormalizedValue" is changed too fast

CQ-ID: Defdb00194958

Severity: K3 - malfunction (no workaround)

Description: If the input "ChannelConfig[x].NormalizedValue" at the function block "IL_AO2UI2" of the RIL_InlineIOModules.library is changed too fast (< 1s), it reports the error: “Timeout, the device cannot be reached. Check the module type, error message: "INLINEIO_TABLE, Additional1 = 3020, Additional2 = 0".

43.2 Firmware

43.2.1 Resolved defects

Sercos

Aborting the hot plug directly at the master port 1 does not work correctly

CQ-ID: Defdb00187712

Severity: K3 - malfunction (no workaround)

Description: If the topology line port 2 is available, a slave is to be included at the inactive port 1 of the master using a hot plug. If a hot-plug function is aborted once, each further hot-plug attempt is aborted with the error message CSMD_HP_SLAVE_RECOGNIZED_IN_CP0.

Fixing: After aborting the hot-plug, the slave found was not correctly removed from the internal lists in the function CSMD_HotUnplug().

44 IndraLogic XLC/IndraMotion MLC 14V16 Patch 01 firmware and software

44.1 Software

44.1.1 Resolved defects

_Other

MH_HydrControl: Incorrect valve characteristic

CQ-ID: Defdb00190922

Severity: K2 - serious malfunction

Description: When a valve characteristic was entered into the hydraulic central controller, the latest written input element was always overwritten with 0 in the firmware.

Engineering / CamBuilder

CamBuilder: StartVel = EndVel is not considered during the code generation

CQ-ID: Defdb00188962

Severity: K4 - malfunction

Description: The option “Cyclic execution” (StartVel = EndVel) in connection with motion laws that automatically calculate the starting and end velocity is not considered in the code generation for the FlexProfile.

Engineering / PLC Libraries

ML_TechRegi: ParameterControlValue jumps to “0” when entering the correction window if controlled to P-0-0694/A-0-2605

CQ-ID: Defdb00182909

Severity: K4 - malfunction

Description: When controlling to the gear fine adjustment (P-0-0694/A-0-2605), ParameterControlValue is set to 0 when entering the correction window. Then, it is started with the S-curve-shaped ramping of the ParameterControlValue.

Fixing: When controlling the gear fine adjustment (P-0-0694/A-0-2605), it was started at the current ParameterControlValue when the correction window was entered and ramped to the new ParameterControlValue in an S-curve shape.

Engineering / PLC Programming

ML_AxisRestore does not correctly restore parameters with bit values

CQ-ID: Defdb00191797

Severity: K4 - malfunction

Description: If parameters saved as bit parameters are restored at the ML_AxisRestore function block, the most significant bit is not restored anymore.

The value 1001.0110 is restored as 0001.0110 for example.

Engineering / PLC Safety

Error message during compilation "C0142: A local variable [...] is already defined in 'STRUCT_LogicalIO_EA' "

CQ-ID: Defdb00192408

Severity: K3 - malfunction (no workaround)

Description: The compiler returns the following error message during the standard PLC compilation: “C0142: A local variable with the name '[...]' is already defined in 'STRUCT_LogicalIO_EA'".

This structure is automatically generated via the SafetyData mechanism.

Engineering / Robot Control

MLC: Exception during Motion configuration download due to the same kinematic IDs

CQ-ID: Defdb00191596

Severity: K4 - malfunction

Description: Due to the export of kinematics from an IndraWorks project and a re-import into an IndraWorks project, it is possible that a control contains multiple identical kinematic IDs (K-0-0016) in the project.

This causes an exception during the Motion configuration download.

Engineering / Technology

MB_InitTouchProbe reports StateMachineError if "ProbeData" input is connected to TP_PROBE_TIME

CQ-ID: Defdb00191221

Severity: K3 - malfunction (no workaround)

Description: If the "ProbeData" input of the MB_InitTouchProbe function block was connected to TP_PROBE_TIME and if the function block was called with Execute=TRUE, the function block reports a StateMachineError.

ErrrorID = STATE_MACHINE_ERROR

ErrorTable = F_Related_Table

Additional1 = 0x0006

Additional2 = 0x0000

Thus, the function block cannot be used to configure the drive touch probe to measure the time.

Fixing: The value "TP_PROBE_TIME” is now supported at the "ProbeData" input and the drive touch probe is parameterized to measure the time.

Winder for axis with IPO control: Control variables are not effective

CQ-ID: Defdb00191786

Severity: K3 - malfunction (no workaround)

Description: For an axis with interpolation in the control, it was not written on the following function blocks and the respective axis parameters (the function block outputs were correct):

- MB_DiameterCalculatorType03
- MB_DiameterMeasurementType01
- MB_DancerControlType04
- MB_WinderTensionControlType02
- MB_WinderTensionControlSpeedType01
- MB_WinderDancerCtrlType02

Thus, the motion of the respective winder drive was incorrect.

Known issues

"SmartCoding" results in loss of IndraWorks

Description If elements (arrays/structures) with more than 1000 components are contained in the IndraLogic user program and if the IndraWorks option **SmartCoding ▸ List components after typing a dot (.) ▸ List components immediately when typing** is enabled, uncontrolled IndraWorks errors (exceptions,...) can sporadically occur.

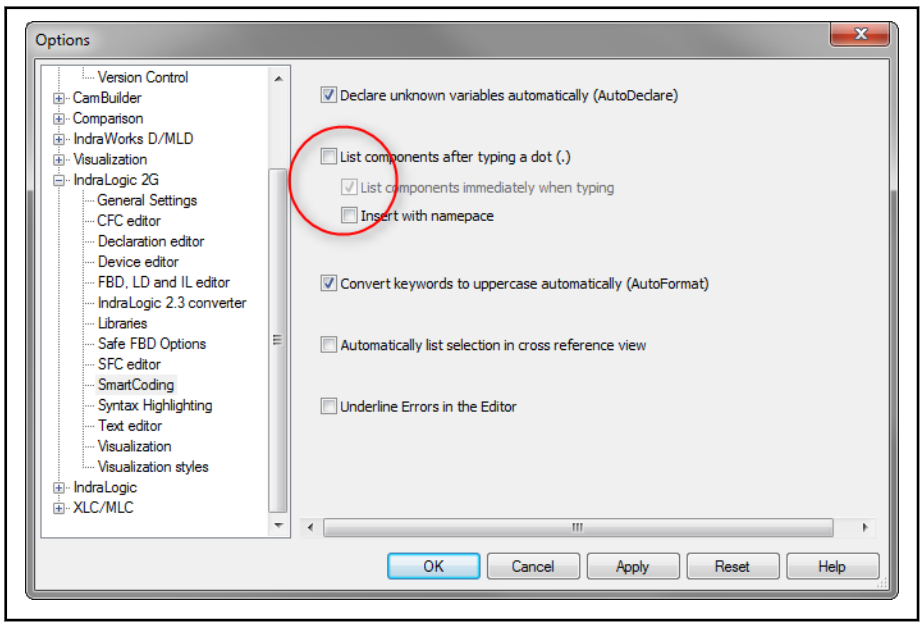

Fig. 44-1: Option "SmartCoding"

Workaround Untick the option **SmartCoding ▸ List components after typing a dot (.) ▸ List components immediately when typing**.

44.2 Firmware

44.2.1 Resolved defects

Import Export

Error message “Import/export, Sercos parameter format not supported" during parameter import

CQ-ID: Defdb00190597

Severity: K3 - malfunction (no workaround)

Description: While importing the parameter S-0-0141 from a parameter file, the error message "F00A0005, Import/export, Sercos parameter format not supported" was issued and the parameter was not imported.

Sercos

Aborting the hot plug directly at the master port 1 does not work correctly

CQ-ID: Defdb00187712

Severity: K3 - malfunction (no workaround)

Description: If the topology line port 2 is available, a slave is to be included at the inactive port 1 of the master using a hot plug. If a hot-plug function is aborted once,

each further hot-plug attempt is aborted with the error message CSMD_HP_SLAVE_RECOGNIZED_IN_CP0.

Fixing: After aborting the hot-plug, the slave found was not correctly removed from the internal lists in the function CSMD_HotUnplug().

Communication, SysError F9240005 "Page fault" if C-0-0036 bit 16 is on 0

CQ-ID: Defdb00191834

Severity: K3 - malfunction (no workaround)

Description: The system error F9240005 (Page fault) occurred if the following conditions were met:

Drive firmware MPx07V30

- Set bit 16 of C-0-0036 to 0 (default value)
- Download motion configuration => Communication to IndraWorks is aborted
- Restart MLC => Remains in P0
- Go online with IndraWorks => Page fault F9240005

Sercos, “Delete error” command causes a semaphore error if the command “Homing” is running

CQ-ID: Defdb00191499

Severity: K3 - malfunction (no workaround)

Description: If the command “Delete error” was enabled while the command “Homing” was active, the command “Delete error” was waiting until the command “Homing” was completed. It was possible that the command “Homing” was accidentally aborted, as the command was locked due to semaphore problems. This caused a general ErrorStop in the PLC program.

C-0-0578 does not contain any disabled Sercos devices

CQ-ID: Defdb00191443

Severity: K4 - malfunction

Description: The disabled devices should also be displayed in the MLC system in parameter C-0-0578. The disabled devices are not displayed in parameter C-0-0578.

MLC-SII link axis dialog “Axis configuration”, Dead time compensation missing

CQ-ID: Defdb00182680

Severity: K4 - malfunction

Description: For a link axis in the Sercos II cross link, the dead time compensation could not be set in the “Axis configuration” dialog.

45 IndraLogic XLC/IndraMotion MLC 14V16.135.0 firmware and software

45.1 Software

45.1.1 Resolved defects

_Other

Sercos I/O: Disabling modules does not work via UserDefs.cfg

CQ-ID: Defdb00187961

Severity: K2 - serious malfunction

Description: Disabling Sercos modules does not work from the command configuration via the UserDefs.cfg mechanism and the system error F0160008 “Switching to P3 incorrect" results.

Engineering

VEPxx.5, VEPxx.6 WinStudio: 4EE controls are not started with default configuration

CQ-ID: Defdb00177272

Severity: K3 - malfunction (no workaround)

Description: If a WinStudio project with .NET controls is transferred to another device and if the application is started, the controls cannot be loaded even though they are available on the target device. The message ".Net Control not created" is displayed when opening the WinStudio screen.

Engineering / _Other

Automation Interface, I/O user parameters: Incorrect representation of hexadecimal numbers

CQ-ID: Defdb00189769

Severity: K3 - malfunction (no workaround)

Description: If I/O user parameters of field bus modules were accessed in the IndraWorks .Net Automation Interface (AI) and the data length of one I/O user parameter was greater than or equal to 2 bytes, the display format "Hex" and if the numerical value of one of these bytes was smaller than or equal to 15, the value of the I/O user parameter was displayed incorrectly in the AI.

No access to I/O user parameters in Sercos four axes module "R-ILB S3 AI12 AO4 SSI-IN4"

CQ-ID: Defdb00189418

Severity: K3 - malfunction (no workaround)

Description: If the IndraWorks .Net Automation Interface (AI) and the I/O user parameter functionality was used, access to the I/O user parameters via the AI in the IndraWorks project was not possible when using the Sercos III block I/Os "R-ILB S3 AI12 AO4 SSI-IN4" (“Sercos four axes module").

Projects of 14V14 cannot be opened in the compatibility mode in 14V16

CQ-ID: Defdb00189360

Severity: K3 - malfunction (no workaround)

Description: Projects created with IndraWorks 14V14 could not be opened with IndraWorks 13V16 in compatibility mode 14V14.

Projects of IndraWorks 14V14 are automatically updated to version 14V16 so that projects of version 14V14 subsequently do not have to be edited.

Fixing: Projects of 14V14 can only be opened from 14V16 R3 (and following) in the compatibility mode.

Archiving cannot be completed if the cursor in an LD editor is placed on a comment field

CQ-ID: Defdb00188936

Severity: K4 - malfunction

Description: If an LD editor was opened and the cursor pointed to a comment field, archiving was sporadically not completed.

Motion configuration download to MLC freezes with an hour glass if the configured real axis is missing

CQ-ID: Defdb00190375

Severity: K4 - malfunction

Description: The Sercos adjustment dialog is blocked by a mouse pointer if displayed during the motion configuration download and can thus not be operated.

The update status display “Project changed” is set when logging in to the PLC

CQ-ID: Defdb00188907

Severity: K5 - non critical problem

Description: If an IndraWorks project was opened with complete compile information (project with complete compile information = project was saved after a login) and if it was subsequently logged into the PLC, the IndraWorks project was incorrectly marked as “changed”. The same applied to a project that contained a compilation (project with complete compile information and compilation = project was saved after “Generate code” and login).

Engineering / CamBuilder

FlexProfile function block generation incorrect

CQ-ID: Defdb00185506

Severity: K3 - malfunction (no workaround)

Description: The FlexProfile code generation is incorrect for cams with the motion law “Rest-in-rest - Standstill” followed by a motion law “General motion - Polynomial 2nd order" and cannot be compiled.

CamBuilder: StartVel = EndVel is not taken into consideration during the code generation

CQ-ID: Defdb00188962

Severity: K4 - malfunction

Description: The option “Cyclic execution” (StartVel = EndVel) in connection with motion laws that automatically calculate the starting and end velocity is not taken into consideration in the code generation for the FlexProfile.

Engineering / Drive

SercosDrive: Loading the basic parameters in IndraWorks does not reset S-/P-parameters

CQ-ID: Defdb00189396

Severity: K4 - malfunction

Description: “Load basic parameters” is executed on an axis via IndraWorks (below the Motion node).

Only A-0-1000 is set for a SercosDrive of IndraWorks. Consequently, only the A-parameters are set to the default value.

The S- and P-parameters retain their values (except for the parameters superimposed by A-parameters).

The user expects a different behavior.

Fixing: An additional information text is displayed in the SercosDrive.

Engineering / GAT

GATcompact: Detailed diagnostics of FB errors are not displayed at the machine FB

CQ-ID: Defdb00189649

Severity: K3 - malfunction (no workaround)

Description: In case of FB errors, the FB detailed diagnostics was not output at the ErrorId and ErrorIdent output of the machine function block.

GAT Wizard/GATcentral: Compiler error C0218 duplicate CASE mark if two states are inserted in a new operation mode

CQ-ID: Defdb00190428

Severity: K4 - malfunction

Description: If two states are added to a new operation mode via the GAT Wizard, a compilation error occurs

Engineering / HMI

WinStudio 7.3 AutoRelease does not work at the edge of the screen

CQ-ID: Defdb00186571

Severity: K2 - serious malfunction

Description: If a button object at the end of a WinStudio screen is pressed and if the cursor (or fingers for touch) is moved outside the screen and then released, the button remains “pressed”.

WinStudio in IndraWorks: Problems in the TagWizard when selecting specific parameters

CQ-ID: Defdb00183593

Severity: K2 - serious malfunction

Description: When inserting Sercos parameters in WinStudio driver sheets using the TagWizard, unrecovered exceptions can occur.

WinStudio on VR2107: AutoLogOff function of the user management does not work correctly

CQ-ID: Defdb00171836

Severity: K2 - serious malfunction

Description: In WinStudio applications on VR21 devices with enabled user management, the current user is always logged off after the configured time elapsed. In case of operational actions, the time is not reset.

WinStudio Security Settings Default User cannot be changed

CQ-ID: Defdb00186388

Severity: K3 - malfunction (no workaround)

Description: When changing the the standard login from “Guest” to another user in the WinStudio safety settings, the setting is not applied.

WinStudio: $hst2txt aborts in case of an hst file

CQ-ID: Defdb00167252

Severity: K3 - malfunction (no workaround)

Description: The function $hst2txt converts files from *.hst into a csv file. However, if one of the *.hst files is without data set, the function is aborted and the following hst files are not converted anymore.

4EE controls: The controls only connect only upon the initial WinStudio start

CQ-ID: Defdb00188590

Severity: K4 - malfunction

Description: The controls display the correct values only upon the initial WinStudio project start (except for on the Engineering PC). If the project is closed and restarted, no values are displayed.

Engineering / Motion

Error message for open-loop applications

CQ-ID: Defdb00189128

Severity: K2 - serious malfunction

Description: When going online with a project with open-lop drives being projected, the following error message is reported for these drives => The control supports only the basic package "Closed loop” for this axis.

Engineering / Periphery

"IndraWorks here" for MPM as PLC device

CQ-ID: Defdb00188371

Severity: K3 - malfunction (no workaround)

Description: An MPM double axis is integrated as two PLC devices HMD01.

When selecting "IndraWorksDs here" on the HMD01, IndraWorks Ds starts but no connection to the device is established.

SercosDrive: The parameter editor does not always work

CQ-ID: Defdb00187633

Severity: K3 - malfunction (no workaround)

Description: For a SercosDrive, the parameter editor displays an error if the drive was not switched online before.

Fixing: When calling the parameter editor, the drive is switched online implicitly.

FW update for MPM drive as PLC device

CQ-ID: Defdb00188374

Severity: K4 - malfunction

Description: An MPM double axis is integrated as two PLC devices HMD01.

The “Firmware management Sercos devices” dialog does not detect this connection and provides an update for both axes.

The update works for the first axis. The second axis aborts.

Engineering / PLC Libraries

RMB_SercosIII_Util: After an error, the drive does not go into AF anymore

CQ-ID: Defdb00187688

Severity: K2 - serious malfunction

Description: A drive is controlled by the function block (FB) MB_SIIIPlcDrive (or by a function block derived from it) and it is in AF. An error occurs (e.g. "F8079 Velocity limit value exceeded").

While an error is pending, enabling is canceled at the function block (AB is specified).

“ClearError” is executed again and “DriveEnable” is set again -> AF does not result anymore.

When canceling FB Enable, it can be switched again to AF.

Calculation error in case of the register controller

CQ-ID: Defdb00185439

Severity: K3 - malfunction (no workaround)

Description: ML_RegisterControllerType02/04:

When using a correction window with a relative beginning and an absolute end, a calculation error resulted when checking the correction window length. The calculation error was output at the error output of the function block.

ErrorCode: InputRangeError

ErrorTable: F_Related_Table

Additional1: 0x0811

Additional2: 0x0009

Function block MB_DiameterCalculator, average value generation can cause task watchdog

CQ-ID: Defdb00187960

Severity: K4 - malfunction

Description: Under the following circumstances, the function block MB_DiameterCalculator can cause a watchdog of the calling task:

- Modulo overflow of the internal ring buffer width

- Right after the module overflow: "AverageValue” input increased by “one"

IL_ParameterChannel generates an exception if the input “SizeofCustom” is 0

CQ-ID: Defdb00186926

Severity: K4 - malfunction

Description: If the functionality is not required for “CustomData” and thus all inputs for “CustomData” (SizeofCustom, SizeofCustomData and CustomData) are assigned with 0, an exception occurs.

IL_SIIIParameterBackup/Restore deletes the output “Backup/RestoreErrors” at a falling edge at “Execute”

CQ-ID: Defdb00189298

Severity: K4 - malfunction

Description: If an error occurs while executing the function blocks, the “Backup/RestoreErrors” structure is filled accordingly. If the “Execute” input was then set to FALSE, the contents of these structures were also deleted. This should not be done after an error and after stopping the function block to analyze the error.

Fixing: The function block behavior is now correct; the backup/restore errors are only deleted upon a rising edge of Execute.

MC_DigitalCamSwitch does not form a cam correctly in case of velocity change

CQ-ID: Defdb00186210

Severity: K4 - malfunction

Description: If a hysteresis is defined for a switch track (hysteresis <> 0), lead times are parameterized for the switch tracks and the velocity of the master changes. Thus, the switches are not correctly enabled and disabled. The effect amplifies with the increase of the values for hysteresis, lead times and acceleration.

ML_AxisRestore_Type02 requires a logic axis number of the source

CQ-ID: Defdb00186842

Severity: K4 - malfunction

Description: ML_AxisRestoreType02 always requires the logic axis number of the axis in the parameter file, from which the axis should be imported. It ensures that the correct parameters are imported if there are multiple axis parameters.

For the serial commissioning and if there is only one parameter file, but it should be applied to multiple axes, the axis number is not always known.

Fixing: The function block ML_AxisRestoreType02 (and ML_AxisRestore as well) is now provided with a property (pIgnoreSourceAxisNumber). If this property is set to TRUE, the function block ignores the source and searches for addresses in the parameter file. The last address found is used. The address used can be retrieved in the “pUsedSourceAxisNumber” property.

ML_AxisRestore_Type02: Error during loading of default parameters

CQ-ID: Defdb00188387

Severity: K4 - malfunction

Description: When loading of the default parameters is enabled (LoadDefaultParams := TRUE) and the parameters to be restored are only S- and P-parameters (ParamType := SP_PARAMS), A-0-0016 of the axis is deleted and not restored again. Consequently, the IndraWorks project is only partially synchronous.

Engineering / PLC Programming

Error message when compiling after exporting and importing the “Library manager”

CQ-ID: Defdb00185016

Severity: K2 - serious malfunction

Description: After exporting the “Library manager" from the “General module folder” and the subsequent import of the “Library manager" below the application, an error message was issued while compiling the application. IndraWorks was closed after confirming the error message or did not respond anymore.

Persistence editor: Saving persistent variables resulted in an error if variables have been added via instance paths

CQ-ID: Defdb00187500

Severity: K2 - serious malfunction

Description: Saving of a persistent variable in the persistence editor (context menu “Save current values in receipt” within the editor of the "PersistentVars” node) results in the error if variables have previously been inserted via “Add all instance paths”. The error message “Value cannot be zero. Parameter name: value” is output.

Persistent retain structures with initial value lose their value after switching off/on

CQ-ID: Defdb00185834

Severity: K2 - serious malfunction

Description: If a persistent retain variable consisting of a structure is assigned with an initial value, subsequent value changes in the program are lost after switching off/on.

There are incorrect accesses to elements of a structure after an online change

CQ-ID: Defdb00184388

Severity: K2 - serious malfunction

Description: There are incorrect accesses to elements of a structure transferred as VAR_IN_OUT after an online change (OC).

Closing/opening of IndraWorks with activated ProVi SFC diagnostics results in an online change

CQ-ID: Defdb00188377

Severity: K3 - malfunction (no workaround)

Description: If no changes have been made in the project and if IndraWorks is closed during an active ProVi SFC diagnostics, it results in a login during an online change.

Exception during language switching when the cross reference list is opened.

CQ-ID: Defdb00188549

Severity: K3 - malfunction (no workaround)

Description: If the cross reference list is opened and if subsequently the user interface language was changed, an exception occurred after closing/opening the project and the project could not be opened.

IndraWorks has to be restarted to be able to reopen the project.

IL2G diagnostics: Incorrect diagnostic messages in IWO with RIL_Diagnosis 14.14.20.0

CQ-ID: Defdb00186664

Severity: K3 - malfunction (no workaround)

Description: In case of too many POUs in a project, incorrect ProVi-Sfc diagnostic messages were sometimes output in the diagnostic display.

SA0033: Not used: Variable.... is output as compiler error

CQ-ID: Defdb00178206

Severity: K3 - malfunction (no workaround)

Description: All messages from the static code analysis are output as compiler error.

GAT: “ST code templates" cannot be inserted into the “Execute” function blocks

CQ-ID: Defdb00184323

Severity: K4 - malfunction

Description: In the “Execute” function block, no ST code can be inserted via the “ST code template” or via the context menu item “Axis command”.

Fixing: In the “Execute” function block, ST code can be inserted via the “ST code template” or via the context menu item “Axis command”.

Drag&drop is not supported for the “ST code template”, as it is technically not possible.

IL_SIIIParameterBackup/Restore generate timeout errors

CQ-ID: Defdb00189299

Severity: K4 - malfunction

Description: The function blocks could generate a timeout error. This occurred especially if multiple instances of a function block were operated simultaneously or in case of many parameter requests.

Fixing: The timeout value programmed in the function blocks was set to an infinite value (i.e., non timeout active) as a parameter query is always answered by returning the value or an error. If the user requires a timeout monitoring, the property “pTimeout” was introduced. Via this property, an individual timeout value can be written.

IndraWorks exception when inserting a method in the FBD

CQ-ID: Defdb00186976

Severity: K4 - malfunction

Description: When inserting a method call using “Insert blank function block” in a FB in FBD, an IndraWorks exception occurs.

Engineering / PLC Safety

"Update Parameters" does not update the changed output parameters of an FB in the Safety Editor

CQ-ID: Defdb00160028

Severity: K4 - malfunction

Description: "Update Parameters" does not update the changed output parameters of a function block in the Safety Editor.

Log in to safety function module possible, creating a boot application fails

CQ-ID: Defdb00172017

Severity: K4 - malfunction

Description: A project created with an older IndraWorks version can be loaded successfully to the Safety FM after it has been applied. Creating the boot application is canceled displaying an error message.

Engineering / Project Handling

Backing up errors of device data if there are many help files on the user partition

CQ-ID: Defdb00185393

Severity: K3 - malfunction (no workaround)

Description: If there are many files in a directory on the user partition of a CF card, data of this partition cannot be backed up.

The FTP Explorer can neither access this directory.

In the actual case, approximately 3600 files of the IMST help were in one directory.

Fixing: As long as the FTP server provides data, there is no timeout. However, there is a low performance in this case when working with the Explorer.

The working methods described are possible, but not recommended due to reasons of performance, as only listing the directory content (approx. 3600 files) in the “Command” window requires more than 600 s via FTP. Upload or download take a multiple.

WinStudio: Exception “License not found” during IndraWorks start

CQ-ID: Defdb00181340

Severity: K5 - non critical problem

Description: Upon the start of IndraWorks and depending on the status of the available network adapter, the message “License invalid. Demo mode active” is reported, even though a valid license is available.

Engineering / Version Control System

VCS: Changing the version of the library project causes an error

CQ-ID: Defdb00186643

Severity: K2 - serious malfunction

Description: Changing the version of the library project causes an error, as a checkout is incorrectly initiated.

IndraMotion Service Tool

The hardware configuration overview cannot be generated

CQ-ID: Defdb00181929

Severity: K3 - malfunction (no workaround)

Description: If no Sercos devices are detected, the hardware configuration overview cannot be generated.

If “Hardware overview” is selected, press “Save” to generate an HTML or XML overview on the current configuration. This method cannot be used if no Sercos devices are found.

Operation / HMI

Exception in criteria analysis when selecting the language of the user interface if no message text is currently available

CQ-ID: Defdb00164218

Severity: K3 - malfunction (no workaround)

Description: When selecting the language of the user interface, an exception occurred if a message was displayed without message text in the diagnostic overview or in the criteria analysis window.

PLC Library

MLC-H: In case of excessive control differences, the axis might move into the wrong direction after MoveVelocity

CQ-ID: Defdb00186751

Severity: K2 - serious malfunction

Description: Rarely, the axis can move into the wrong direction and at high velocity.

The error can occur under the following circumstances (all have to occur at the same time):

- GAT or AxisInterface are calculated in the motion cycle time (used rarely)

- Motion = Sercos cycle times -> Error can be reproduced. The error can also occur sporadically in case of different cycle times.

- Velocity feed forward is used (P-0-0040 unequal to zero)

- Ramp time, changeover logic (P2930.0.3) is unequal to zero.

- The controller has to be in closed-loop control without active command and there has to be a bigger lag distance (This is the case if the error F2038 occurs, e.g. due to low system pressure and if the error is acknowledged).

- MoveVelocity has to be called (or MC_Torque or MC_ValveDirectControl)

If jogging is used with service (or MH_ServiceCtrl) or position-controlled (or MC_MoveAbsolute) to traverse or if an MC_Stop is called, the error does not occur.

Fixing: Initialization was adjusted when changing the operation mode.

Sercos

Error during homing cannot be deleted

CQ-ID: Defdb00187918

Severity: K2 - serious malfunction

Description: An error (e.g. F2028) was reported upon starting the homing. If the error occurs in a certain time frame, the error can subsequently not be deleted anymore (commands C-0-1030 or A-0-1030).

45.1.2 Functional enhancements

Engineering / HMI

WinStudio BRWS driver sheets do not work for specific PLC variables

CQ-ID: Defdb00182514

Severity: K6 - functional enhancement

Description: If the symbolic access to the PLC variables was used in an application via BRWS driver, the sporadic error message “Invalid handle (symbol file doesn’t match the symbols in the driver sheet)” was caused.

45.1.3 Known issues

Engineering / Drive

Exceptions in firmware management when reading the IP address

CQ-ID: Defdb00190275

Severity: K3 - malfunction (no workaround)

Description: If the Update button is pressed in the “Firmware management” dialog, an exception was output. An exception was returned when trying to start a ping.

Engineering / Motion

An error occurs when changing the firmware version of a Vpx

CQ-ID: Defdb00190719

Severity: K3 - malfunction (no workaround)

Description: When changing the firmware version in the VPx properties from e.g. 14V08 to 14V16, the system automatically created another “Sercos III” function module. However, only a Sercos III function module is permitted in the project. Resulted in an error message output by the system. Subsequently, the project could not be compiled successfully.

Workaround: After changing the firmware version, delete the additionally added Sercos III function module.

Engineering / PLC Programming

Project created in 14V10 P3 cannot be compiled anymore in 14V16 R2 in compatibility mode 14V10 P3 (by using OPC-UA server)

CQ-ID: Defdb00191036

Severity: K3 - malfunction (no workaround)

Description: Project created in 14V10 P3 could not be compiled anymore in 14V16 R2 in compatibility mode 14V10 P3 (by using the OPC-UA server).

Workaround: Project has to be converted to 14V16R3.

Online change requires closing and reopening of the project

CQ-ID: Defdb00191091

Severity: K4 - malfunction

Description: If objects are contained in a project network variables (sender/receiver) and if the application was logged in, an online change occurs after closing and opening the project when trying to log the application in.

This behavior is triggered as the path of the file link in the Property dialog of the NVL cannot be accessed.

Workaround: Either the path has to be corrected in the file link of the NVL or the user has to execute “Compile” before the login and only subsequently “Login”. The PLC application is logged in immediately as expected.

Optionally, a network object (sender or receiver) can be removed from the project.

Engineering / PLC Safety

Save receiver NVL cannot be refreshed via the button

CQ-ID: Defdb00187514

Severity: K3 - malfunction (no workaround)

Description: Save receiver NVL cannot be refreshed via the respective button, even though the sender NVL was changed.

The “Refresh” button remains disabled.

Workaround: The list is refreshed when selecting the assigned sender again.

The button is also enabled when highlighting an already existing variable in the receiver.

Comment line in the global safety variable list detected as faulty only after log in

CQ-ID: Defdb00167912

Severity: K4 - malfunction

Description: If a variable declaration was copied and pasted from a POU and highlighted as comment in a global safety variable list, no error is output upon subsequent compilation.

Error message is displayed at login.

Workaround: Remove declaration and enter manually.

Using variables via the input wizard causes compilation errors

CQ-ID: Defdb00187377

Severity: K4 - malfunction

Description: The error occurs if variables were mapped to logic I/Os of an instance and if these variables are then inserted after the instance call via the input wizard, e.g. in case of ProfiSafeHost instances.

The variable name is inserted with the preceding object name and dot (Object.Variable). The “Safety” application cannot be compiled anymore.

Workaround: Remove the object name with “dot". The application can then be compiled again.

Engineering / Project Handling

When updating the control, devices below RT_Ethernet/Profibus are not updated

CQ-ID: Defdb00190705

Severity: K4 - malfunction

Description: When updating the control in a project created in IndraWorks 14V10P2, the devices below the “RT Ethernet/Profibus” function module were not updated (latest version).

Engineering / SL Manager

When searching, changing from the declaration editor to the program editor does not work

CQ-ID: Defdb00180815

Severity: K4 - malfunction

Description: If a variable is selected in the POU declaration editor in a SafeLogic project, the automatic change of the search area from the declaration editor to the program editor does not work with the search function <Ctrl>+<F3>.

Engineering / Technology

MB_InitTouchProbe reports StateMachineError, if "ProbeData" input is connected to TP_PROBE_TIME

CQ-ID: Defdb00191221

Severity: K3 - malfunction (no workaround)

Description: If the "ProbeData" input of the MB_InitTouchProbe function block was enabled with TP_PROBE_TIME and if the function block was called with Execute=TRUE, the function block reports a StateMachineError.

ErrrorID = STATE_MACHINE_ERROR

ErrorTable = F_Related_Table

Additional1 = 0x0006

Additional2 = 0x0000

Thus, the function block cannot be used to configure the drive touch probe for time measurement.

45.2 Firmware

45.2.1 Resolved defects

Axis

Hydraulic controller axis: Phase switching P2 -> BB not possible anymore after scaling adjustment (force)

CQ-ID: Defdb00186306

Severity: K2 - serious malfunction

Description: If an exponent greater than -1 was selected for an axis in A-0-0052 (scaling exponent for torque/force data), the torque/force limit values (A-0-0038, A-0-0039 and A-0-0040) were greater after a control restart than before the restart.

Fixing: The torque limit values/force limit values retain their respective value upon control restart.

“F9240006, Exception, coprocessor error” when reading axis parameters

CQ-ID: Defdb00187573

Severity: K3 - malfunction (no workaround)

Description: When retrieving the parameter A-0-0110 “Actual torque/command value”, the error "F9240006, Exception, coprocessor error" resulted sporadically.

The MC_TorqueControl command value incorrectly scaled with regard to A-0-0038

CQ-ID: Defdb00187278

Severity: K3 - malfunction (no workaround)

Description: The function block MC_TorqueControl allows only force command values smaller than the force limit value (A-0-0038) divided by 1000.

When synchronizing with a FlexProfile, F5113002, Command velocity too high for cycle time, results

CQ-ID: Defdb00185594

Severity: K3 - malfunction (no workaround)

Description: In case of short segments and simultaneously high velocities (can cause a segment jump), the error message F5113002 can incorrectly be output.

Core

The output “MissingMarksPosEdge” of the function block ML_TouchProbeCountinuous increments if the axis pauses

CQ-ID: Defdb00176771

Severity: K4 - malfunction

Description: The output “MissingMarksPosEdge” does not work if the configured expectation window corresponded to 98% of the modulo value.

Import Export

Importing parameters of an MLD project does not work

CQ-ID: Defdb00187715

Severity: K3 - malfunction (no workaround)

Description: When importing long parameter lists, it was possible that the parameter date was not correctly imported.

Logic

Error F0390032 for online view of variables of the DV_Axis structure

CQ-ID: Defdb00187131

Severity: K3 - malfunction (no workaround)

Description: If the parameters of the cyclic actual value channel were queried via DV_Axis variables, the following errors could occur:

F0390032 [2/2] 08B6810006000904081004000800061

F0390032 [1/2] Memory overwrite while executing 518000208274600041403

MLPI

mlpi(4Com): ReadParameterName returns incorrect values

CQ-ID: Defdb00181911

Severity: K2 - serious malfunction

Description: When reading the parameter name or the parameter value, the parameter name and the parameter type are transferred as string. Usually, as “C-0-0002“. For the abbreviation “C2“, it was referenced to the dummy parameter C-0-0000 without informing the user. This referred to the tool boxes mlpi4COM and mlpi4Java.

Fixing: Transferring the parameter in the shortened version “C2“ is now parsed as well. The current functionality is not affected.

WebConnector MLPI load test results in control crash (MLPI ReadContainer)

CQ-ID: Defdb00188782

Severity: K2 - serious malfunction

Description: The MLPI ReadContainer function resulted in a SysError.

mlpiParameterReadEverything provides incorrect data for the UChar array

CQ-ID: Defdb00184414

Severity: K4 - malfunction

Description: If a parameter, whose data was shown as Uchar array, was read using the function “mlpiParameterReadEverything”, the parameter returned incorrect values.

OPC UA

A "UASercos SysErr F9240005" occurs sporadically

CQ-ID: Defdb00187594

Severity: K2 - serious malfunction

Description: If an invalid node ID was registered in the Sercos provider, a system error sporadically occurred.

OPC-UA: Exception when using the history trend view in UaExpert

CQ-ID: Defdb00180566

Severity: K3 - malfunction (no workaround)

Description: If axis parameters were used in the history trend view of the UaExpert, an exception occurred.

MLCL75: A SysErr occurs after changing the Ethernet setting by the control display

CQ-ID: Defdb00190429

Severity: K4 - malfunction

Description: After changing the Ethernet settings via the control display and applying the changes using the “Command: Apply IP configuration, a SysError F9240005 Opcua task occurred.

PROFINET IO

netX watchdog is not triggered anymore

CQ-ID: Defdb00189923

Severity: K2 - serious malfunction

Description: Sporadically, Profinet only starts up temporarily and subsequently stops. The error of the netX field bus co-processor is not signalized correctly to the user.

RobotControl

RoCo V2: “Done” output of the “Move” function block is not always reset.

CQ-ID: Defdb00180643

Severity: K3 - malfunction (no workaround)

Description: If a RoCo “Move” function block was only called until a positive edge occurred at the “Done” output, the “Done” output was not reset when the function block was subsequently called with FALSE. This output is only reset upon a new second call.

The complete BlockBuffer is assigned by “Adaptive Motion”

CQ-ID: Defdb00185435

Severity: K3 - malfunction (no workaround)

Description: When enabling “Adaptive Motion” in the Robot Control (K99 Bit 6 = TRUE), the block buffer was assigned completely if the target point is outside the belt range when performing a synchronizing motion to a belt-synchronous target point.

ML_RobotGetSafeZones results in exception

CQ-ID: Defdb00190181

Severity: K4 - malfunction

Description: If the function block “ML_RobotGetSafeZones” was used, the input “safeZoneDataSize” was ignored and all “SafeZones” were returned. This overwrites the memory and causes an exception.

RoCo V2: Kinematics 47 is not available in the selection menu

CQ-ID: Defdb00187180

Severity: K5 - non critical problem

Description: The transformation 47 (6-axis Cartesian) could not be selected.

Sercos

C2C, canceling the hot plug multiple times at the slave port 2 does not work for slaves directly connected to the master

CQ-ID: Defdb00187922

Severity: K2 - serious malfunction

Description: In a C2C link with three MLC slaves in a ring topology, the two slaves directly connected to the master were connected to the master via their port 1 using cables. At the latest after the first abort of the hot plug, there were more attempts via the slave ports 2. At the latest after two more attempts, a new hot plug failed and output the errors “C2C master: No hot plug support" (F0280066) or “Link ring: Transmission distance defective" (F0280004). In case of the last error, the complete link broke down as well.

C2C: Axes are not completely synchronous at the C2C master and at the C2C slave

CQ-ID: Defdb00188044

Severity: K2 - serious malfunction

Description: The Sercos drive ring and C2C ring were not running synchronously.

C2C: F90B0083 or F90B0124 while writing C-0-0701

CQ-ID: Defdb00188816

Severity: K2 - serious malfunction

Description: When loading the Motion configuration with enabled C2C link, the error F90B0083 or the error F90B0124 could occur.

C2C: F9240005 at MLC L25 as C2C master

CQ-ID: Defdb00189924

Severity: K2 - serious malfunction

Description: An MLC L25 is configured as C2C master. The Motion configuration can be loaded. Error F9240005 upon reboot.

C2C: Hot plug does not work

CQ-ID: Defdb00187080

Severity: K2 - serious malfunction

Description: Multiple errors at the slave and at the master occurred at the hot plug of a slave.

C2C: S67-I/O error at C2C slave when reaching P4

CQ-ID: Defdb00190045

Severity: K2 - serious malfunction

Description: The S67 Sercos bus coupler S67-S3-BK-DI8-M8 should be operated at the master communication of an MLC configured as C2C slave.

When reaching P4, the error “Failure consumer connection" (F80B0018, F50B017B or F20B017E).

CrossComm2: Master axis and slave axis run with a different velocity after executing MC_GearIn

CQ-ID: Defdb00187958

Severity: K2 - serious malfunction

Description: The master axes were not synchronous via the Sercos II control link.

L45 with C2C, Motion kernel timeout or system does not respond anymore when reaching P4

CQ-ID: Defdb00186092

Severity: K2 - serious malfunction

Description: The L45 control was overloaded for multiple minutes as C2C master when reaching BB.

Operation of 48 axes Sercos II, not possible with L65 and Sercos II FM

CQ-ID: Defdb00189257

Severity: K2 - serious malfunction

Description: The operation of 48 Sercos II axes is not possible anymore at an L65 with a Sercos II function module.

Phase switching initiated via IndraWorks (P2-P4) is not completed.

IndraWorks cannot be operated anymore, as the communication to the control is not possible anymore.

The control seems to operate at full capacity. Phase switching from P2 to P4 is executed automatically by restarting the control.

Reading C-0-0578 using the ML_ReadStringParameter generates an exception

CQ-ID: Defdb00186905

Severity: K2 - serious malfunction

Description: If the string in the C-0-0578 exceeded a length of 255 characters and if the string was read using the ML_ReadStringParameter, an exception occurred.

Aborting the hot plug directly at the master port 1 does not work correctly

CQ-ID: Defdb00187712

Severity: K3 - malfunction (no workaround)

Description: If the topology line port 2 is available, a slave is to be included at the inactive port 1 of the master using a hot plug. If a hot-plug function is aborted once, each further hot-plug attempt is aborted with the error message CSMD_HP_SLAVE_RECOGNIZED_IN_CP0.

Fixing: After aborting the hot-plug, the slave found was not correctly removed from the internal lists in the function CSMD_HotUnplug().

C2C, system error F9240005 in the L45 slave when switching from CP2 to CP4

CQ-ID: Defdb00187713

Severity: K3 - malfunction (no workaround)

Description: In a C2C link, each L45 slave reported a system error F9240005 (Page fault) if the link was switched from the phase CP2 to the phase CP4.

C2C: In case of a ring break at the master port, the axis pauses for one cycle

CQ-ID: Defdb00187493

Severity: K3 - malfunction (no workaround)

Description: If the connection to the master port 1 was interrupted in the C2C ring structure, A-0-0101 remained constant for one cycle in the GV_LinkAxis.

C2C: Status bits are not correctly updated in CP0

CQ-ID: Defdb00184536

Severity: K3 - malfunction (no workaround)

Description: If the link returned to CP0, the status bits were neither correctly updated in the parameter C-0-0714 nor in the PLC structure "Controldata". The bit “Cyclic exchange of link data active" remained set, even though the link was in CP0. The bit “Transmission error" remained set, even though the communication was running.

Extrapolation in case of telegram failures is missing for slave MLCs

CQ-ID: Defdb00188043

Severity: K3 - malfunction (no workaround)

Description: In some Sercos cycles, the slave did not sporadically detect any valid data.

IP addresses are not set in the Sercos devices during startup

CQ-ID: Defdb00184967

Severity: K3 - malfunction (no workaround)

Description: After a system restart, the IP addresses were not set in the Sercos devices.

Oscilloscope trigger in multi device measurement does not work

CQ-ID: Defdb00189138

Severity: K3 - malfunction (no workaround)

Description: Disabled axes were not skipped during the measurement.

Sporadic data failures in the slaves in individual cycles

CQ-ID: Defdb00186937

Severity: K3 - malfunction (no workaround)

Description: The Sercos connections were not checked. The Sercos slave did thus not detect any valid data.

C2C: After aborting the hot-plug, two edges are required at the “Hot-plug” input

CQ-ID: Defdb00188997

Severity: K4 - malfunction

Description: Only after aborting the hot-plug via the PLC, it was continued with a new hot-plug at the second edge at the hot-plug input [ControlData[Local_CNTRL].LINK_ENABLE_HOTPLUG].

If no PLC program was loaded, this error did not occur.

45.2.2 Known issues

Axis

In case of an axis with IPO control and translatory/inch scaling, the scaling is incorrect

CQ-ID: Defdb00190828

Severity: K3 - malfunction (no workaround)

Description: In case of a set translatory/inch scaling for velocity values, A-0-2615 was mapped incorrectly in case of velocity-synchronous operation modes.

Core

XM21: SysError after firmware update

CQ-ID: Defdb00189079

Severity: K2 - serious malfunction

Description: If a firmware is updated on a version containing an S20 FPGA update on an XM2s, the SysError F90B0124 results. Event a control reboot always ends with this SysError.

Workaround:
1. Boot to the initial firmware (via “Reset” button).
2. Firmware update on the previously executable version.
3. Enable Sercos.
4. Firmware update on the new version.
5. Disable Sercos.

Motion Functions

IPO AXS: Interpolation in the control: Error behavior when changing from MC_MoveVelocity to MC_MoveAdditive with distance 0

CQ-ID: Defdb00188612

Severity: K2 - serious malfunction

Description: If an axis interpolated and modulo-scaled in the control is traversed with MC_MoveVelocity and if an MC_MoveAdditive is executed with the distance 0, an undetermined number of modulo revolutions results.

RobotControl

RoCo_V2: Phase switching to BB with transformation of 4-axis Scara with linear distance axis not possible

CQ-ID: Defdb00190653

Severity: K2 - serious malfunction

Description: Phase switching to BB with transformation of 4-axis Scara with linear distance axis not possible is the first axis was scaled as translatory absolute.

RoCo_V2: Velocity limit value for jogging not active (ML_GroupJogCont and ML_GroupJogStep)

CQ-ID: Defdb00190489

Severity: K2 - serious malfunction

Description: If a higher velocity was specified for jogging than permitted in parameter K-0-0003 "Maximum path velocity", the velocity was not limited and no warning was output upon reaching the velocity.

RoCo: Synchronizing to rotary table results in SysError

CQ-ID: Defdb00189954

Severity: K3 - malfunction (no workaround)

Description: If the axis of a rotary table is scaled as absolute, synchronization to this rotary table results in SysError F9240006.

Sercos

Operation of 48 axes Sercos II, not possible with L65 and Sercos II FM

CQ-ID: Defdb00190094

Severity: K2 - serious malfunction

Description: The operation of 48 Sercos II axes was not possible anymore on an L65 with a Sercos II function module.

Phase switching initiated via IndraWorks (P2-P4) was not completed.

C2C: After aborting the hot-plug, two edges are required at the “Hot-plug” input

CQ-ID: Defdb00189002

Severity: K4 - malfunction

Description: Only after aborting the hot-plug via the PLC, it was continued with a new hot-plug at the second edge at the hot-plug input [ControlData[Local_CNTRL].LINK_ENABLE_HOTPLUG].

If no PLC program was loaded, this error did not occur.

_Other

Profinet IO devices are not detected when switching on

CQ-ID: Defdb00189926

Severity: K3 - malfunction (no workaround)

Description: It could happen that Profinet IO devices are not detected when switching on.

PROFINET IO

PNIO: Controller can only process up to 80 devices at a cycle time of 8 ms

CQ-ID: Defdb00182186

Severity: K3 - malfunction (no workaround)

Description: The Profinet controller can only process up to 80 devices with up to 16 submodules instead of the configurable 128 devices at a cycle time of 8 ms.

Workaround: If more devices are required, these devices can be connected via RT_Ethernet_Profibus_DP_CFL01.1-TP function modules.

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46.1 Software

46.1.1 Resolved defects

Engineering / _Other

The update status display “Project changed” is set when logging in to the PLC

CQ-ID: Defdb00188907

Severity: K5 - non critical problem

Description: If an IndraWorks project was opened with complete compile information (project with complete compile information = project was saved after a login) and if it was subsequently logged into the PLC, the IndraWorks project was incorrectly marked as “changed”. The same applied to a project that contained a compilation (project with complete compile information and compilation = project was saved after “Generate code” and login).

Engineering / CamBuilder

FlexProfile function block generation incorrect

CQ-ID: Defdb00185506

Severity: K3 - malfunction (no workaround)

Description: The FlexProfile code generation is incorrect for cams with the motion law “Rest-in-rest - Standstill” followed by a motion law “General motion - Polynomial 2nd order" and cannot be compiled.

CamBuilder: StartVel = EndVel is not taken into consideration during the code generation

CQ-ID: Defdb00188962

Severity: K4 - malfunction

Description: The option “Cyclic execution” (StartVel = EndVel) in connection with motion laws that automatically calculate the starting and end velocity is not taken into consideration in the code generation for the FlexProfile.

Workaround: The formula for the starting velocity has to be set manually in the generated code for the end velocity.

Engineering / Drive

SercosDrive: Loading the basic parameters in IndraWorks does not reset S-/P-parameters

CQ-ID: Defdb00189396

Severity: K4 - malfunction

Description: “Load basic parameters” is executed on an axis via IndraWorks (below the Motion node).

Only A-0-1000 is set for a SercosDrive of IndraWorks. Consequently, only the A-parameters are set to the default value.

The S- and P-parameters retain their values (except for the parameters superimposed by A-parameters).

The user expects a different behavior.

Fixing: An additional information text is displayed in the SercosDrive.

Engineering / GAT

GATcompact: Detailed diagnostics of FB errors are not displayed at the machine FB

CQ-ID: Defdb00189649

Severity: K3 - malfunction (no workaround)

Description: In case of FB errors, the FB detailed diagnostics was not output at the ErrorId and ErrorIdent output of the machine function block.

Engineering / HMI

WinStudio 7.3 AutoRelease does not work at the edge of the screen

CQ-ID: Defdb00186571

Severity: K2 - serious malfunction

Description: If a button object at the end of a WinStudio screen is pressed and if the cursor (or fingers for touch) is moved outside the screen and then released, the button remains “pressed”.

WinStudio in IndraWorks: Problems in the TagWizard when selecting specific parameters

CQ-ID: Defdb00183593

Severity: K2 - serious malfunction

Description: When inserting Sercos parameters in WinStudio driver sheets using the TagWizard, unrecovered exceptions can occur.

WinStudio on VR2107: AutoLogOff function of the user management does not work correctly

CQ-ID: Defdb00171836

Severity: K2 - serious malfunction

Description: In WinStudio applications on VR21 devices with enabled user management, the current user is always logged off after the configured time elapsed. In case of operational actions, the time is not reset.

WinStudio Security Settings Default User cannot be changed

CQ-ID: Defdb00186388

Severity: K3 - malfunction (no workaround)

Description: When changing the the standard login from “Guest” to another user in the WinStudio safety settings, the setting is not applied.

WinStudio: $hst2txt aborts in case of an hst file

CQ-ID: Defdb00167252

Severity: K3 - malfunction (no workaround)

Description: The function $hst2txt converts files from *.hst into a csv file. However, if one of the *.hst files is without data set, the function is aborted and the following hst files are not converted anymore.

4EE controls: The controls only connect only upon the initial WinStudio start

CQ-ID: Defdb00188590

Severity: K4 - malfunction

Description: The controls display the correct values only upon the initial WinStudio project start (except for on the Engineering PC). If the project is closed and restarted, no values are displayed.

Workaround: To successfully restart the controls, WinStudio has to be completely terminated and restarted.

WinStudio BRWS driver sheets do not work for specific PLC variables

CQ-ID: Defdb00182514

Severity: K6 - functional enhancement

Description: If the symbolic access to the PLC variables was used in an application via BRWS driver, the sporadic error message “Invalid handle (symbol file doesn’t match the symbols in the driver sheet)” was caused.

Engineering / Motion

Error message for open-loop applications

CQ-ID: Defdb00189128

Severity: K2 - serious malfunction

Description: When going online with a project with open-lop drives being projected, the following error message is reported for these drives => The control supports only the basic package "Closed loop” for this axis.

Engineering / Periphery

"IndraWorks here" for MPM as PLC device

CQ-ID: Defdb00188371

Severity: K3 - malfunction (no workaround)

Description: An MPM double axis is integrated as two PLC devices HMD01.

When selecting "IndraWorksDs here" on the HMD01, IndraWorks Ds starts but no connection to the device is established.

SercosDrive: The parameter editor does not always work

CQ-ID: Defdb00187633

Severity: K3 - malfunction (no workaround)

Description: For a SercosDrive, the parameter editor displays an error if the drive was not switched online before.

Fixing: When calling the parameter editor, the drive is switched online implicitly.

FW update for MPM drive as PLC device

CQ-ID: Defdb00188374

Severity: K4 - malfunction

Description: An MPM double axis is integrated as two PLC devices HMD01.

The “Firmware management Sercos devices” dialog does not detect this connection and provides an update for both axes.

The update works for the first axis. The second axis aborts.

Engineering / PLC Libraries

RMB_SercosIII_Util: After an error, the drive does not go into AF anymore

CQ-ID: Defdb00187688

Severity: K2 - serious malfunction

Description: A drive is controlled by the function block (FB) MB_SIIIPlcDrive (or by a function block derived from it) and it is in AF. An error occurs (e.g. "F8079 Velocity limit value exceeded").

While an error is pending, enabling is canceled at the function block (AB is specified).

“ClearError” is executed again and “DriveEnable” is set again -> AF does not result anymore.

When canceling FB Enable, it can be switched again to AF.

Calculation error in case of the register controller

CQ-ID: Defdb00185439

Severity: K3 - malfunction (no workaround)

Description: ML_RegisterControllerType02/04:

When using a correction window with a relative beginning and an absolute end, a calculation error resulted when checking the correction window length. The calculation error was output at the error output of the function block.

ErrorCode: InputRangeError

ErrorTable: F_Related_Table

Additional1: 0x0811

Additional2: 0x0009

Function block MB_DiameterCalculator, average value generation can cause task watchdog

CQ-ID: Defdb00187960

Severity: K4 - malfunction

Description: Under the following circumstances, the function block MB_DiameterCalculator can cause a watchdog of the calling task:

- Modulo overflow of the internal ring buffer width

- Right after the module overflow: "AverageValue” input increased by “one"

IL_ParameterChannel generates an exception if the input “SizeofCustom” is 0

CQ-ID: Defdb00186926

Severity: K4 - malfunction

Description: If the functionality is not required for “CustomData” and thus all inputs for “CustomData” (SizeofCustom, SizeofCustomData and CustomData) are assigned with 0, an exception occurs.

Workaround: Either leave the input “SizeofCustom” (as well as “CustomData” and “SizeofCustomData”) open, i.e. do neither apply a value nor assign 1 to the value (while the other two inputs “CustomData” and “SizeofCustomData” remain 0).

MC_DigitalCamSwitch does not form a cam correctly in case of velocity change

CQ-ID: Defdb00186210

Severity: K4 - malfunction

Description: If a hysteresis is defined for a switch track (hysteresis <> 0), lead times are parameterized for the switch tracks and the velocity of the master changes. Thus, the switches are not correctly enabled and disabled. The effect amplifies with the increase of the values for hysteresis, lead times and acceleration.

ML_AxisRestore_Type02: Error during loading of default parameters

CQ-ID: Defdb00188387

Severity: K4 - malfunction

Description: When loading of the default parameters is enabled (LoadDefaultParams := TRUE) and the parameters to be restored are only S- and P-parameters (ParamType := SP_PARAMS), A-0-0016 of the axis is deleted and not restored again. Consequently, the IndraWorks project is only partially synchronous.

Engineering / PLC Programming

Error message when compiling after exporting and importing the “Library manager”

CQ-ID: Defdb00185016

Severity: K2 - serious malfunction

Description: After exporting the “Library manager" from the “General module folder” and the subsequent import of the “Library manager" below the application, an error message was issued while compiling the application. IndraWorks was closed after confirming the error message or did not respond anymore.

Persistent retain structures with initial value lose their value after switching off/on

CQ-ID: Defdb00185834

Severity: K2 - serious malfunction

Description: If a persistent retain variable consisting of a structure is assigned with an initial value, subsequent value changes in the program are lost after switching off/on.

Workaround: Structural element are not initialized in the variable list PersistentVars.

There are incorrect accesses to elements of a structure after an online change

CQ-ID: Defdb00184388

Severity: K2 - serious malfunction

Description: There are incorrect accesses to elements of a structure transferred as VAR_IN_OUT after an online change (OC).

Workaround: It has to be ensured that access to the structure is not only possible via a reference, but also via the ADR operator.

IL2G diagnostics: Incorrect diagnostic messages in IWO with RIL_Diagnosis 14.14.20.0

CQ-ID: Defdb00186664

Severity: K3 - malfunction (no workaround)

Description: In case of too many POUs in a project, incorrect ProVi-Sfc diagnostic messages were sometimes output in the diagnostic display.

SA0033: Not used: Variable.... is output as compiler error

CQ-ID: Defdb00178206

Severity: K3 - malfunction (no workaround)

Description: All messages from the static code analysis are output as compiler error.

GAT: “ST code templates" cannot be inserted into the “Execute” function blocks

CQ-ID: Defdb00184323

Severity: K4 - malfunction

Description: In the “Execute” function block, no ST code can be inserted via the “ST code template” or via the context menu item “Axis command”.

Fixing: In the “Execute” function block, ST code can be inserted via the “ST code template” or via the context menu item “Axis command”.

Drag&drop is not supported for the “ST code template”, as it is technically not possible.

IndraWorks exception when inserting a method in the FBD

CQ-ID: Defdb00186976

Severity: K4 - malfunction

Description: When inserting a method call using “Insert blank function block” in a FB in FBD, an IndraWorks exception occurs.

Engineering / PLC Safety

Log in to safety function module possible, creating a boot application fails

CQ-ID: Defdb00172017

Severity: K4 - malfunction

Description: A project created with an older IndraWorks version can be loaded successfully to the Safety FM after it has been applied. Creating the boot application is canceled displaying an error message.

Workaround: Executing the "Pin application" command twice, the project-internal incorrect state is eliminated and the boot application can be created and loaded again.

Engineering / Project Handling

Backing up errors of device data if there are many help files on the user partition

CQ-ID: Defdb00185393

Severity: K3 - malfunction (no workaround)

Description: If there are many files in a directory on the user partition of a CF card, data of this partition cannot be backed up.

The FTP Explorer can neither access this directory.

In the actual case, approximately 3600 files of the IMST help were in one directory.

Fixing: As long as the FTP server provides data, there is no timeout. However, there is a low performance in this case when working with the Explorer.

The working methods described are possible, but not recommended due to reasons of performance, as only listing the directory content (approx. 3600 files) in the “Command” window requires more than 600 s via FTP. Upload or download take a multiple.

Engineering / Version Control System

VCS: Changing the version of the library project causes an error

CQ-ID: Defdb00186643

Severity: K2 - serious malfunction

Description: Changing the version of the library project causes an error, as a checkout is incorrectly initiated.

Operation / HMI

Exception in criteria analysis when selecting the language of the user interface if no message text is currently available

CQ-ID: Defdb00164218

Severity: K3 - malfunction (no workaround)

Description: When selecting the language of the user interface, an exception occurred if a message was displayed without message text in the diagnostic overview or in the criteria analysis window.

Engineering / _Other

Archiving cannot be completed if the cursor in an LD editor is placed on a comment field

CQ-ID: Defdb00188936

Severity: K4 - malfunction

Description: If an LD editor was opened and the cursor pointed to a comment field, archiving was sporadically not completed.

Engineering / Project Handling

WinStudio: Exception “License not found” during IndraWorks start

CQ-ID: Defdb00181340

Severity: K5 - non critical problem

Description: Upon the start of IndraWorks and depending on the status of the available network adapter, the message “License invalid. Demo mode active” is reported, even though a valid license is available.

_Other

Sercos I/O: Disabling modules does not work via UserDefs.cfg

CQ-ID: Defdb00187961

Severity: K2 - serious malfunction

Description: Disabling Sercos modules does not work from the command configuration via the UserDefs.cfg mechanism and the system error F0160008 “Switching to P3 incorrect" results.

IndraMotion Service Tool

The hardware configuration overview cannot be generated

CQ-ID: Defdb00181929

Severity: K3 - malfunction (no workaround)

Description: If no Sercos devices are detected, the hardware configuration overview cannot be generated.

If “Hardware overview” is selected, press “Save” to generate an HTML or XML overview on the current configuration. This method cannot be used if no Sercos devices are found.

PLC-Function / PLC Library

MLC-H: In case of excessive control differences, the axis might move into the wrong direction after MoveVelocity

CQ-ID: Defdb00186751

Severity: K2 - serious malfunction

Description: Rarely, the axis can move into the wrong direction and at high velocity.

The error can occur under the following circumstances (all have to occur at the same time):

- GAT or AxisInterface are calculated in the motion cycle time (used rarely)

- Motion = Sercos cycle times -> Error can be reproduced. - The error can also occur sporadically in case of different cycle times.

- Velocity feed forward is used (P-0-0040 unequal to zero)

- Ramp time, changeover logic (P2930.0.3) is unequal to zero.

- The controller has to be in closed-loop control without active command and there has to be a bigger lag distance (This is the case if the error F2038 occurs, e.g. due to low system pressure and if the error is acknowledged).

- MoveVelocity has to be called (or MC_Torque or MC_ValveDirectControl)

If jogging is used with service (or MH_ServiceCtrl) or position-controlled (or MC_MoveAbsolute) to traverse or if an MC_Stop is called, the error does not occur.

Fixing: Initialization was adjusted when changing the operation mode.

Winstudio / Engineering

VEPxx.5, VEPxx.6 WinStudio: 4EE controls are not started with default configuration

CQ-ID: Defdb00177272

Severity: K3 - malfunction (no workaround)

Description: If a WinStudio project with .NET controls is transferred to another device and if the application is started, the controls cannot be loaded even though they are available on the target device. The message ".Net Control not created" is displayed when opening the WinStudio screen.

Workaround: On the target device, the following lines have to be added to the WinStudio installation directory in the “ProgrammSettings.ini” file:

[DotNetFolders]

Count=1

Folder1=<Path .NetControl is located in>

The IndraWorks installation directory is used as default path for the installation.

46.1.2 Functional enhancements

Engineering / PLC Libraries

ML_AxisRestore_Type02 requires a logic axis number of the source

CQ-ID: Defdb00186842

Severity: K4 - malfunction

Description: ML_AxisRestoreType02 always requires the logic axis number of the axis in the parameter file, from which the axis should be imported. It ensures that the correct parameters are imported if there are multiple axis parameters.

For the serial commissioning and if there is only one parameter file, but it should be applied to multiple axes, the axis number is not always known.

Enhancement: The function block ML_AxisRestoreType02 (and ML_AxisRestore as well) is now provided with a property (pIgnoreSourceAxisNumber). If this property is set to TRUE, the function block ignores the source and searches for addresses in the parameter file. The last address found is used. The address used can be retrieved in the “pUsedSourceAxisNumber” property.

46.1.3 Known issues

Engineering / _Other

No access to I/O user parameters in Sercos four axes module "R-ILB S3 AI12 AO4 SSI-IN4"

CQ-ID: Defdb00189418

Severity: K3 - malfunction (no workaround)

Description: If the IndraWorks .Net Automation Interface (AI) and the I/O user parameter functionality was used, access to the I/O user parameters via the AI in the IndraWorks project was not possible when using the Sercos III block I/Os "R-ILB S3 AI12 AO4 SSI-IN4" (“Sercos four axes module").

14V16: Projects of 14V14 CANNOT be opened in the compatibility mode

CQ-ID: Defdb00189360

Severity: K3 - malfunction (no workaround)

Description: IndraWorks projects of 14V14, whether 14V14 R1, R2, R3, patch 1 or patch 2, CANNOT be opened in the compatibility mode with 14V16 R1 and with 14V16 R2.

If 14V14 projects are opened with 14V16 R1 or R2, they are automatically updated to 14V16 and can subsequently not be edited anymore with 14V14.

Engineering / GAT

GAT wizard/GATcentral: Compiler error C0218 double CASE mark, if two states are added to a new operating mode

CQ-ID: Defdb00190428

Severity: K4 - malfunction

Description: If two states are added to a new operatign mode via the GAT wizard, a compiler error occurs.

Workaround: Assign another value (e.g. +16#03) to the element with value "+16#02" in the data type "TE_STATES".

Engineering / PLC Libraries

IL_SIIIParameterBackup/Restore deletes the output “Backup/RestoreErrors” at a falling edge at “Execute”

CQ-ID: Defdb00189298

Severity: K4 - malfunction

Description: If an error occurs while executing the function blocks, the “Backup/RestoreErrors” structure is filled accordingly. If the “Execute” input was then set to

FALSE, the contents of these structures were also deleted. This should not be done after an error and after stopping the function block to analyze the error.

Engineering / PLC Programming

IL_SIIIParameterBackup/Restore generate timeout errors

CQ-ID: Defdb00189299

Severity: K4 - malfunction

Description: The function blocks could generate a timeout error. This occurred especially if multiple instances of a function block were operated simultaneously or in case of many parameter requests.

Engineering / PLC Safety

Safe receiver NVL cannot be updated via button

CQ-ID: Defdb00187514

Severity: K3 - malfunction (no workaround)

Description: The safe receiver NVL cannot be updated via corresponding button although the receiver NVL has been changed.

The button "Update" remains grayed out.

Workaround: The list is updated by selecting the assigned sender again.

The button is even activated, if an existing variable is marked in the receiver.

Using variables with input assistant causes compiler error

CQ-ID: Defdb00187377

Severity: K4 - malfunction

Description: The error occurs, if variables are mapped to logical I/Os of an instance and these variables are insert via input assistant after the instance call, e.g. in case of ProfiSafeHost instances.

The variable name is insert with prefixed object name and dot (object.variable). The safety application cannnot be compiled anymore.

Workaround: Remove the object name with the "dot". The application can be compiled.

46.2 Firmware

46.2.1 Resolved defects

Axis

Hydraulic controller axis: Phase switching P2 -> BB not possible anymore after scaling adjustment (force)

CQ-ID: Defdb00186306

Severity: K2 - serious malfunction

Description: If an exponent greater than -1 was selected for an axis in A-0-0052 (scaling exponent for torque/force data), the torque/force limit values (A-0-0038, A-0-0039 and A-0-0040) were greater after a control restart than before the restart.

Fixing: The torque limit values/force limit values retain their respective value upon control restart.

“F9240006, Exception, coprocessor error” when reading axis parameters

CQ-ID: Defdb00187573

Severity: K3 - malfunction (no workaround)

Description: When retrieving the parameter A-0-0110 “Actual torque/command value”, the error "F9240006, Exception, coprocessor error" resulted sporadically.

The MC_TorqueControl command value incorrectly scaled with regard to A-0-0038

CQ-ID: Defdb00187278

Severity: K3 - malfunction (no workaround)

Description: The function block MC_TorqueControl allows only force command values smaller than the force limit value (A-0-0038) divided by 1000.

When synchronizing with a FlexProfile, F5113002, Command velocity too high for cycle time, results

CQ-ID: Defdb00185594

Severity: K3 - malfunction (no workaround)

Description: In case of short segments and high velocities (can cause a segment jump), the error message F5113002 could result.

Core

The output “MissingMarksPosEdge” of the function block ML_TouchProbeCountinuous increments if the axis pauses

CQ-ID: Defdb00176771

Severity: K4 - malfunction

Description: The output “MissingMarksPosEdge” does not work if the configured expectation window corresponded to 98% of the modulo value.

Import Export

Importing parameters of an MLD project does not work

CQ-ID: Defdb00187715

Severity: K3 - malfunction (no workaround)

Description: When importing long parameter lists, it was possible that the parameter date was not correctly imported.

Logic

Error F0390032 for online view of variables of the DV_Axis structure

CQ-ID: Defdb00187131

Severity: K3 - malfunction (no workaround)

Description: If the parameters of the cyclic actual value channels were queried via DV_Axis variables, the following errors could occur:

F0390032 [2/2] 08B6810006000904081004000800061

F0390032 [1/2] Memory overwrite while executing 518000208274600041403

MLPI

mlpi(4Com): ReadParameterName returns incorrect values

CQ-ID: Defdb00181911

Severity: K2 - serious malfunction

Description: When reading the parameter name or the parameter value, the parameter name and the parameter type are transferred as string. Normally as “C-0-0002“. For the abbreviation “C2“, it was referenced to the dummy parameter C-0-0000 without informing the user. This referred to the tool boxes mlpi4COM and mlpi4Java.

Fixing: Transferring the parameter in the shortened version “C2“ is now parsed as well. The current functionality is not affected.

WebConnector MLPI load test results in control crash (MLPI ReadContainer)

CQ-ID: Defdb00188782

Severity: K2 - serious malfunction

Description: The MLPI ReadContainer function resulted in a SysError.

mlpiParameterReadEverything provides incorrect data for the UChar array

CQ-ID: Defdb00184414

Severity: K4 - malfunction

Description: If a parameter, whose data was shown as Uchar array, was read using the function “mlpiParameterReadEverything”, the parameter returned incorrect values.

OPC UA

A "UASercos SysErr F9240005" occurs sporadically

CQ-ID: Defdb00187594

Severity: K2 - serious malfunction

Description: If an invalid node ID was registered in the Sercos provider, a system error sporadically occurred.

OPC-UA: Exception when using the history trend view in UaExpert

CQ-ID: Defdb00180566

Severity: K3 - malfunction (no workaround)

Description: If axis parameters were used in the history trend view of the UaExpert, an exception occurred.

RobotControl

RoCo V2: “Done” output of the “Move” function block is not always reset.

CQ-ID: Defdb00180643

Severity: K3 - malfunction (no workaround)

Description: If a RoCo “Move” function block was only called until a positive edge occurred at the “Done” output, the “Done” output was not reset when the function block was subsequently called with FALSE. This output is only reset upon a new second call.

The complete BlockBuffer is assigned by “Adaptive Motion”

CQ-ID: Defdb00185435

Severity: K3 - malfunction (no workaround)

Description: When enabling “Adaptive Motion” in the Robot Control (K99 Bit 6 = TRUE), the block buffer was assigned completely if the target point is outside the belt range when performing a synchronizing motion to a belt-synchronous target point.

RoCo V2: Kinematics 47 is not available in the selection menu

CQ-ID: Defdb00187180

Severity: K5 - non critical problem

Description: The transformation 47 (6-axis Cartesian) could not be selected.

Sercos

C2C, canceling the hot plug multiple times at the slave port 2 does not work for slaves directly connected to the master

CQ-ID: Defdb00187922

Severity: K2 - serious malfunction

Description: In a C2C link with three MLC slaves in a ring topology, the two slaves directly connected to the master were connected to the master via their port 1 using cables. At the latest after the first abort of the hot plug, there were more attempts via the slave ports 2. At the latest after two more attempts, a new hot plug failed and output the errors “C2C master: No hot plug support" (F0280066) or “Link ring: Transmission distance defective" (F0280004). In case of the last error, the complete link broke down as well.

C2C: Axes are not completely synchronous at the C2C master and at the C2C slave

CQ-ID: Defdb00188044

Severity: K2 - serious malfunction

Description: The Sercos drive ring and C2C ring were not running synchronously.

C2C: F90B0083 or F90B0124 when writing C-0-0701

CQ-ID: Defdb00188816

Severity: K2 - serious malfunction

Description: When loading the Motion configuration with enabled C2C link, the error F90B0083 or the error F90B0124 could result.

Workaround: Delete the PLC program (reset origin) and load the link configuration.

Caution: Remanent data of the PLC is lost!

C2C: F9240005 at MLC L25 as C2C master

CQ-ID: Defdb00189924

Severity: K2 - serious malfunction

Description: An MLC L25 is configured as C2C master. The Motion configuration can still be loaded. Error F9240005 upon reboot.

C2C: Hot plug does not work

CQ-ID: Defdb00187080

Severity: K2 - serious malfunction

Description: Multiple errors at the slave and at the master occurred at the hot plug of a slave.

C2C: S67-I/O error at C2C slave when reaching P4

CQ-ID: Defdb00190045

Severity: K2 - serious malfunction

Description: The S67 Sercos bus coupler S67-S3-BK-DI8-M8 should be operated at the master communication of an MLC configured as C2C slave.

When reaching P4, the error “Failure consumer connection" (F80B0018, F50B017B or F20B017E).

CrossComm2: Master axis and slave axis run with a different velocity after executing MC_GearIn

CQ-ID: Defdb00187958

Severity: K2 - serious malfunction

Description: The master axes were not synchronous via the Sercos II control link.

L45 with C2C, Motion kernel timeout or system does not respond anymore when reaching P4

CQ-ID: Defdb00186092

Severity: K2 - serious malfunction

Description: The L45 control was overloaded for multiple minutes as C2C master when reaching BB.

Operation of 48 axes Sercos II, not possible with L65 and Sercos II FM

CQ-ID: Defdb00189257

Severity: K2 - serious malfunction

Description: The operation of 48 Sercos II axes is not possible anymore at an L65 with a Sercos II function module.

Phase switching initiated via IndraWorks (P2-P4) is not completed.

IndraWorks cannot be operated anymore, as the communication to the control is not possible anymore.

The control seems to operate at full capacity. Phase switching from P2 to P4 is executed automatically by restarting the control.

Reading C-0-0578 using the ML_ReadStringParameter generates an exception

CQ-ID: Defdb00186905

Severity: K2 - serious malfunction

Description: If the string in the C-0-0578 exceeded a length of 255 characters and if the string was read using the ML_ReadStringParameter, an exception occurred.

Aborting the hot plug directly at the master port 1 does not work correctly

CQ-ID: Defdb00187712

Severity: K3 - malfunction (no workaround)

Description: If the topology line port 2 is available, a slave is to be included at the inactive port 1 of the master using a hot plug. If a hot-plug function is aborted once, each further hot-plug attempt is aborted with the error message CSMD_HP_SLAVE_RECOGNIZED_IN_CP0.

Fixing: After aborting the hot-plug, the slave found was not correctly removed from the internal lists in the function CSMD_HotUnplug().

C2C, system error F9240005 in the L45 slave when switching from CP2 to CP4

CQ-ID: Defdb00187713

Severity: K3 - malfunction (no workaround)

Description: In a C2C link, each L45 slave reported a system error F9240005 (Page fault) if the link was switched from the phase CP2 to the phase CP4.

C2C: In case of a ring break at the master port, the axis pauses for one cycle

CQ-ID: Defdb00187493

Severity: K3 - malfunction (no workaround)

Description: If the connection to the master port 1 was interrupted in the C2C ring structure, A-0-0101 remained constant for one cycle in the GV_LinkAxis.

C2C: Status bits are not correctly updated in CP0

CQ-ID: Defdb00184536

Severity: K3 - malfunction (no workaround)

Description: If the link returned to CP0, the status bits were neither correctly updated in the parameter C-0-0714 nor in the PLC structure "Controldata". The bit “Cyclic exchange of link data active" remained set, even though the link was in CP0. The bit “Transmission error" remained set, even though the communication was running.

Extrapolation in case of telegram failures is missing for slave MLCs

CQ-ID: Defdb00188043

Severity: K3 - malfunction (no workaround)

Description: In some Sercos cycles, the slave did not sporadically detect any valid data.

IP addresses are not set in the Sercos devices during startup

CQ-ID: Defdb00184967

Severity: K3 - malfunction (no workaround)

Description: After a system restart, the IP addresses were not set in the Sercos devices.

Sporadic data failures in the slaves in individual cycles

CQ-ID: Defdb00186937

Severity: K3 - malfunction (no workaround)

Description: The Sercos connections were not checked. The Sercos slave did thus not detect any valid data.

C2C: After aborting the hot-plug, two edges are required at the “Hot-plug” input

CQ-ID: Defdb00188997

Severity: K4 - malfunction

Description: Only after aborting the hot-plug via the PLC, it was continued with a new hot-plug at the second edge at the hot-plug input [ControlData[Local_CNTRL].LINK_ENABLE_HOTPLUG].

If no PLC program was loaded, this error did not occur.

46.2.2 Known issues

_Other

MLCL75: After changing the Ethernet setting via control display SysErr occurs

CQ-ID: Defdb00190429

Severity: K4 - malfunction

Description: After changing the Ethernet setting via control display and accepting the change with "Command: Accept IP configuration", the SysErr F9240005 OPC UA task occurs.

Workaround: Accepting the change of the Ethernet settings by restarting the control.

Core

XM21: SysError after firmware update

CQ-ID: Defdb00189079

Severity: K2 - serious malfunction

Description: If a firmware is updated on a version containing an S20 FPGA update on an XM2s, the SysError F90B0124 results. Event a control reboot always ends with this SysError.

Workaround: 1. Boot to the initial firmware (via “Reset” button).

2. Firmware update on the previously executable version.

3. Enable Sercos.

4. Firmware update on the new version.

5. Disable Sercos.

RobotControl

ML_RobotGetSafeZones results in exception

CQ-ID: Defdb00190181

Severity: K4 - malfunction

Description: If the function block “ML_RobotGetSafeZones” was used, the input “safeZoneDataSize” was ignored and all “SafeZones” were returned. This overwrites the memory and causes an exception.

Sercos

C2C: After aborting the hot-plug, two edges are required at the “Hot-plug” input

CQ-ID: Defdb00189002

Severity: K4 - malfunction

Description: Only after aborting the hot-plug via the PLC, it was continued with a new hot-plug at the second edge at the hot-plug input [ControlData[Local_CNTRL].LINK_ENABLE_HOTPLUG].

If no PLC program was loaded, this error did not occur.

Motion Functions

IPO AXS: Interpolation in the control: Error behavior when changing from MC_MoveVelocity to MC_MoveAdditive with distance 0

CQ-ID: Defdb00188612

Severity: K2 - serious malfunction

Description: If an axis interpolated and modulo-scaled in the control is traversed with MC_MoveVelocity and if an MC_MoveAdditive is executed with the distance 0, an undetermined number of modulo revolutions results.

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47.1 Software

47.1.1 Resolved defects

_Other

Sercos I/O: Disabling modules does not work via UserDefs.cfg

CQ-ID: Defdb00187961

Severity: K2 - serious malfunction

Description: Disabling Sercos modules does not work from the command configuration via the UserDefs.cfg mechanism and the system error F0160008 “Switching to P3 incorrect" results.

Engineering

VEPxx.5, VEPxx.6 WinStudio: 4EE controls are not started with default configuration

CQ-ID: Defdb00177272

Severity: K3 - malfunction (no workaround)

Description: If a WinStudio project with .NET controls is transferred to another device and if the application is started, the controls cannot be loaded even though they are available on the target device. The message ".Net Control not created" is displayed when opening the WinStudio screen.

Workaround: On the target device, the following lines have to be added to the WinStudio installation directory in the “ProgrammSettings.ini” file:

[DotNetFolders]

Count=1

Folder1=<Path .NetControl is located in>

The IndraWorks installation directory is used as default path for the installation.

Engineering / _Other

The update status display “Project changed” is set when logging in to the PLC

CQ-ID: Defdb00188907

Severity: K5 - non critical problem

Description: If an IndraWorks project was opened with complete compile information (project with complete compile information = project was saved after a login) and if it was subsequently logged into the PLC, the IndraWorks project was incorrectly marked as “changed”. The same applied to a project that contained a compilation (project with complete compile information and compilation = project was saved after “Generate code” and login).

Engineering / CamBuilder

FlexProfile function block generation incorrect

CQ-ID: Defdb00185506

Severity: K3 - malfunction (no workaround)

Description: The FlexProfile code generation is incorrect for cams with the motion law “Rest-in-rest - Standstill” followed by a motion law “General motion - Polynomial 2nd order" and cannot be compiled.

CamBuilder: StartVel = EndVel is not taken into consideration during the code generation

CQ-ID: Defdb00188962

Severity: K4 - malfunction

Description: The option “Cyclic execution” (StartVel = EndVel) in connection with motion laws that automatically calculate the starting and end velocity is not taken into consideration in the code generation for the FlexProfile.

Workaround: The formula for the starting velocity has to be set manually in the generated code for the end velocity.

Engineering / Drive

SercosDrive: Loading the basic parameters in IndraWorks does not reset S-/P-parameters

CQ-ID: Defdb00189396

Severity: K4 - malfunction

Description: “Load basic parameters” is executed on an axis via IndraWorks (below the Motion node).

Only A-0-1000 is set for a SercosDrive of IndraWorks. Consequently, only the A-parameters are set to the default value.

The S- and P-parameters retain their values (except for the parameters superimposed by A-parameters).

The user expects a different behavior.

Fixing: An additional information text is displayed in the SercosDrive.

Engineering / GAT

GATcompact: Detailed diagnostics of FB errors are not displayed at the machine FB

CQ-ID: Defdb00189649

Severity: K3 - malfunction (no workaround)

Description: In case of FB errors, the FB detailed diagnostics was not output at the ErrorId and ErrorIdent output of the machine function block.

Engineering / HMI

WinStudio 7.3 AutoRelease does not work at the edge of the screen

CQ-ID: Defdb00186571

Severity: K2 - serious malfunction

Description: If a button object at the end of a WinStudio screen is pressed and if the cursor (or fingers for touch) is moved outside the screen and then released, the button remains “pressed”.

WinStudio in IndraWorks: Problems in the TagWizard when selecting specific parameters

CQ-ID: Defdb00183593

Severity: K2 - serious malfunction

Description: When inserting Sercos parameters in WinStudio driver sheets using the Tag-Wizard, unrecovered exceptions can occur.

WinStudio on VR2107: AutoLogOff function of the user management does not work correctly

CQ-ID: Defdb00171836

Severity: K2 - serious malfunction

Description: In WinStudio applications on VR21 devices with enabled user management, the current user is always logged off after the configured time elapsed. In case of operational actions, the time is not reset.

WinStudio Security Settings Default User cannot be changed

CQ-ID: Defdb00186388

Severity: K3 - malfunction (no workaround)

Description: When changing the the standard login from “Guest” to another user in the WinStudio safety settings, the setting is not applied.

WinStudio: $hst2txt aborts in case of an hst file

CQ-ID: Defdb00167252

Severity: K3 - malfunction (no workaround)

Description: The function $hst2txt converts files from *.hst into a csv file. However, if one of the *.hst files is without data set, the function is aborted and the following hst files are not converted anymore.

4EE controls: The controls only connect only upon the initial WinStudio start

CQ-ID: Defdb00188590

Severity: K4 - malfunction

Description: The controls display the correct values only upon the initial WinStudio project start (except for on the Engineering PC). If the project is closed and restarted, no values are displayed.

Workaround: To successfully restart the controls, WinStudio has to be completely terminated and restarted.

WinStudio BRWS driver sheets do not work for specific PLC variables

CQ-ID: Defdb00182514

Severity: K6 - functional enhancement

Description: If the symbolic access to the PLC variables was used in an application via BRWS driver, the sporadic error message “Invalid handle (symbol file doesn’t match the symbols in the driver sheet)” was caused.

Engineering / Motion

Error message for open-loop applications

CQ-ID: Defdb00189128

Severity: K2 - serious malfunction

Description: When going online with a project with open-lop drives being projected, the following error message is reported for these drives => The control supports only the basic package "Closed loop” for this axis.

Engineering / Periphery

"IndraWorks here" for MPM as PLC device

CQ-ID: Defdb00188371

Severity: K3 - malfunction (no workaround)

Description: An MPM double axis is integrated as two PLC devices HMD01.

When selecting "IndraWorksDs here" on the HMD01, IndraWorks Ds starts but no connection to the device is established.

SercosDrive: The parameter editor does not always work

CQ-ID: Defdb00187633

Severity: K3 - malfunction (no workaround)

Description: For a SercosDrive, the parameter editor displays an error if the drive was not switched online before.

Fixing: When calling the parameter editor, the drive is switched online implicitly.

FW update for MPM drive as PLC device

CQ-ID: Defdb00188374

Severity: K4 - malfunction

Description: An MPM double axis is integrated as two PLC devices HMD01.

The “Firmware management Sercos devices” dialog does not detect this connection and provides an update for both axes.

The update works for the first axis. The second axis aborts.

Engineering / PLC Libraries

RMB_SercosIII_Util: After an error, the drive does not go into AF anymore

CQ-ID: Defdb00187688

Severity: K2 - serious malfunction

Description: A drive is controlled by the function block (FB) MB_SIIIPlcDrive (or by a function block derived from it) and it is in AF. An error occurs (e.g. "F8079 Velocity limit value exceeded").

While an error is pending, enabling is canceled at the function block (AB is specified).

“ClearError” is executed again and “DriveEnable” is set again -> AF does not result anymore.

When canceling FB Enable, it can be switched again to AF.

Function block MB_DiameterCalculator, average value generation can cause task watchdog

CQ-ID: Defdb00187960

Severity: K4 - malfunction

Description: Under the following circumstances, the function block MB_DiameterCalculator can cause a watchdog of the calling task:

- Modulo overflow of the internal ring buffer width

- Right after the module overflow: "AverageValue” input increased by “one"

IL_ParameterChannel generates an exception if the input “SizeofCustom” is 0

CQ-ID: Defdb00186926

Severity: K4 - malfunction

Description: If the functionality is not required for “CustomData” and thus all inputs for “CustomData” (SizeofCustom, SizeofCustomData and CustomData) are assigned with 0, an exception occurs.

Workaround: Either leave the input “SizeofCustom” (as well as “CustomData” and “SizeofCustomData”) open, i.e. do neither apply a value nor assign 1 to the value (while the other two inputs “CustomData” and “SizeofCustomData” remain 0).

MC_DigitalCamSwitch does not form a cam correctly in case of velocity change

CQ-ID: Defdb00186210

Severity: K4 - malfunction

Description: If a hysteresis is defined for a switch track (hysteresis <> 0), lead times are parameterized for the switch tracks and the velocity of the master changes. Thus, the switches are not correctly enabled and disabled. The effect amplifies with the increase of the values for hysteresis, lead times and acceleration.

ML_AxisRestore_Type02: Error during loading of default parameters

CQ-ID: Defdb00188387

Severity: K4 - malfunction

Description: When loading of the default parameters is enabled (LoadDefaultParams := TRUE) and the parameters to be restored are only S- and P-parameters (ParamType := SP_PARAMS), A-0-0016 of the axis is deleted and not restored again. Consequently, the IndraWorks project is only partially synchronous.

Engineering / PLC Programming

Error message when compiling after exporting and importing the “Library manager”

CQ-ID: Defdb00185016

Severity: K2 - serious malfunction

Description: After exporting the “Library manager" from the “General module folder” and the subsequent import of the “Library manager" below the application, an error message was issued while compiling the application. IndraWorks was closed after confirming the error message or did not respond anymore.

Persistent retain structures with initial value lose their value after switching off/on

CQ-ID: Defdb00185834

Severity: K2 - serious malfunction

Description: If a persistent retain variable consisting of a structure is assigned with an initial value, subsequent value changes in the program are lost after switching off/on.

Workaround: Structural element are not initialized in the variable list PersistentVars.

There are incorrect accesses to elements of a structure after an online change

CQ-ID: Defdb00184388

Severity: K2 - serious malfunction

Description: There are incorrect accesses to elements of a structure transferred as VAR_IN_OUT after an online change (OC).

Workaround: It has to be ensured that access to the structure is not only possible via a reference, but also via the ADR operator.

GAT: “ST code templates" cannot be inserted into the “Execute” function blocks

CQ-ID: Defdb00184323

Severity: K4 - malfunction

Description: In the “Execute” function block, no ST code can be inserted via the “ST code template” or via the context menu item “Axis command”.

Fixing: In the “Execute” function block, ST code can be inserted via the “ST code template” or via the context menu item “Axis command”.

Drag&drop is not supported for the “ST code template”, as it is technically not possible.

IndraWorks exception when inserting a method in the FBD

CQ-ID: Defdb00186976

Severity: K4 - malfunction

Description: When inserting a method call using “Insert blank function block” in a FB in FBD, an IndraWorks exception occurs.

Engineering / PLC Safety

Log in to safety function module possible, creating a boot application fails

CQ-ID: Defdb00172017

Severity: K4 - malfunction

Description: A project created with an older IndraWorks version can be loaded successfully to the Safety FM after it has been applied. Creating the boot application is canceled displaying an error message.

Workaround: Executing the "Pin application" command twice, the project-internal incorrect state is eliminated and the boot application can be created and loaded again.

Engineering / Project Handling

Backing up errors of device data if there are many help files on the user partition

CQ-ID: Defdb00185393

Severity: K3 - malfunction (no workaround)

Description: If there are many files in a directory on the user partition of a CF card, data of this partition cannot be backed up.

The FTP Explorer can neither access this directory.

In the actual case, approximately 3600 files of the IMST help were in one directory.

Fixing: As long as the FTP server provides data, there is no timeout. However, there is a low performance in this case when working with the Explorer.

The working methods described are possible, but not recommended due to reasons of performance, as only listing the directory content (approx. 3600 files) in the “Command” window requires more than 600 s via FTP. Upload or download take a multiple.

WinStudio: Exception “License not found” during IndraWorks start

CQ-ID: Defdb00181340

Severity: K5 - non critical problem

Description: Upon the start of IndraWorks and depending on the status of the available network adapter, the message “License invalid. Demo mode active” is reported, even though a valid license is available.

Engineering / Version Control System

VCS: Changing the version of the library project causes an error

CQ-ID: Defdb00186643

Severity: K2 - serious malfunction

Description: Changing the version of the library project causes an error, as a checkout is incorrectly initiated.

IndraMotion Service Tool

The hardware configuration overview cannot be generated

CQ-ID: Defdb00181929

Severity: K3 - malfunction (no workaround)

Description: If no Sercos devices are detected, the hardware configuration overview cannot be generated.

If “Hardware overview” is selected, press “Save” to generate an HTML or XML overview on the current configuration. This method cannot be used if no Sercos devices are found.

PLC Library

MLC-H: In case of excessive control differences, the axis might move into the wrong direction after MoveVelocity

CQ-ID: Defdb00186751

Severity: K2 - serious malfunction

Description: Rarely, the axis can move into the wrong direction and at high velocity.

The error can occur under the following circumstances (all have to occur at the same time):

- GAT or AxisInterface are calculated in the motion cycle time (used rarely)

- Motion = Sercos cycle times -> Error can be reproduced. - The error can also occur sporadically in case of different cycle times.

- Velocity feed forward is used (P-0-0040 unequal to zero)

- Ramp time, changeover logic (P2930.0.3) is unequal to zero

- The controller has to be in closed-loop control without active command and there has to be a bigger lag distance (This is the case if the error F2038 occurs, e.g. due to low system pressure and if the error is acknowledged).

- MoveVelocity has to be called (or MC_Torque or MC_ValveDirectControl)

If jogging is used with service (or MH_ServiceCtrl) or position-controlled (or MC_MoveAbsolute) to traverse or if an MC_Stop is called, the error does not occur.

Fixing: Initialization was adjusted when changing the operation mode.

47.1.2 Functional enhancements

Engineering / PLC Libraries

ML_AxisRestore_Type02 requires a logic axis number of the source

CQ-ID: Defdb00186842

Severity: K4 - malfunction

Description: ML_AxisRestoreType02 always requires the logic axis number of the axis in the parameter file, from which the axis should be imported. It ensures that the correct parameters are imported if there are multiple axis parameters.

For the serial commissioning and if there is only one parameter file, but it should be applied to multiple axes, the axis number is not always known.

Enhancement: The function block ML_AxisRestoreType02 (and ML_AxisRestore as well) is now provided with a property (pIgnoreSourceAxisNumber). If this property is set to TRUE, the function block ignores the source and searches for addresses in the parameter file. The last address found is used. The address used can be retrieved in the “pUsedSourceAxisNumber” property.

47.1.3 Known issues

Engineering / _Other

No access to I/O user parameters in Sercos four axes module "R-ILB S3 AI12 AO4 SSI-IN4"

CQ-ID: Defdb00189418

Severity: K3 - malfunction (no workaround)

Description: If the IndraWorks .Net Automation Interface (AI) and the I/O user parameter functionality was used, access to the I/O user parameters via the AI in the IndraWorks project was not possible when using the Sercos III block I/Os "R-ILB S3 AI12 AO4 SSI-IN4" (“Sercos four axes module").

14V16: Projects of 14V14 CANNOT be opened in the compatibility mode

CQ-ID: Defdb00189360

Severity: K3 - malfunction (no workaround)

Description: IndraWorks projects of 14V14, whether 14V14 R1, R2, R3, patch 1 or patch 2, CANNOT be opened in the compatibility mode with 14V16 R1 and with 14V16 R2.

If 14V14 projects are opened with 14V16 R1 or R2, they are automatically updated to 14V16 and can subsequently not be edited anymore with 14V14.

47.2 Firmware

47.2.1 Resolved defects

Axis

Hydraulic controller axis: Phase switching P2 -> BB not possible anymore after scaling adjustment (force)

CQ-ID: Defdb00186306

Severity: K2 - serious malfunction

Description: If an exponent greater than -1 was selected for an axis in A-0-0052 (scaling exponent for torque/force data), the torque/force limit values (A-0-0038, A-0-0039 and A-0-0040) were greater after a control restart than before the restart.

Fixing: The torque limit values/force limit values retain their respective value upon control restart.

“F9240006, Exception, coprocessor error” when reading axis parameters

CQ-ID: Defdb00187573

Severity: K3 - malfunction (no workaround)

Description: When retrieving the parameter A-0-0110 “Actual torque/command value”, the error "F9240006, Exception, coprocessor error" resulted sporadically.

The MC_TorqueControl command value incorrectly scaled with regard to A-0-0038

CQ-ID: Defdb00187278

Severity: K3 - malfunction (no workaround)

Description: The function block MC_TorqueControl allows only force command values smaller than the force limit value (A-0-0038) divided by 1000.

When synchronizing with a FlexProfile, F5113002, Command velocity too high for cycle time, results

CQ-ID: Defdb00185594

Severity: K3 - malfunction (no workaround)

Description: In case of short segments and high velocities (can cause a segment jump), the error message F5113002 could result.

Core

The output “MissingMarksPosEdge” of the function block ML_TouchProbeCountinuous increments if the axis pauses

CQ-ID: Defdb00176771

Severity: K4 - malfunction

Description: The output “MissingMarksPosEdge” does not work if the configured expectation window corresponded to 98% of the modulo value.

Import Export

Importing parameters of an MLD project does not work

CQ-ID: Defdb00187715

Severity: K3 - malfunction (no workaround)

Description: When importing long parameter lists, it was possible that the parameter date was not correctly imported.

Logic

Error F0390032 for online view of variables of the DV_Axis structure

CQ-ID: Defdb00187131

Severity: K3 - malfunction (no workaround)

Description: If the parameters of the cyclic actual value channels were queried via DV_Axis variables, the following errors could occur:

F0390032 [2/2] 08B68100060009040810040008000061

F0390032 [1/2] Memory overwrite while executing 518000208274600041403

MLPI

mlpi(4Com): ReadParameterName returns incorrect values

CQ-ID: Defdb00181911

Severity: K2 - serious malfunction

Description: When reading the parameter name or the parameter value, the parameter name and the parameter type are transferred as string. Normally as “C-0-0002“. For the abbreviation “C2“, it was referenced to the dummy parameter C-0-0000 without informing the user. This referred to the tool boxes mlpi4COM and mlpi4Java.

Fixing: Transferring the parameter in the shortened version “C2“ is now parsed as well. The current functionality is not affected.

mlpiParameterReadEverything provides incorrect data for the UChar array

CQ-ID: Defdb00184414

Severity: K4 - malfunction

Description: If a parameter, whose data was shown as Uchar array, was read using the function “mlpiParameterReadEverything”, the parameter returned incorrect values.

OPC UA

A "UASercos SysErr F9240005" occurs sporadically

CQ-ID: Defdb00187594

Severity: K2 - serious malfunction

Description: If an invalid node ID was registered in the Sercos provider, a system error sporadically occurred.

OPC-UA: Exception when using the history trend view in UaExpert

CQ-ID: Defdb00180566

Severity: K3 - malfunction (no workaround)

Description: If axis parameters were used in the history trend view of the UaExpert, an exception occurred.

RobotControl

RoCo V2: “Done” output of the “Move” function block is not always reset.

CQ-ID: Defdb00180643

Severity: K3 - malfunction (no workaround)

Description: If a RoCo “Move” function block was only called until a positive edge occurred at the “Done” output, the “Done” output was not reset when the function block was subsequently called with FALSE. This output is only reset upon a new second call.

The complete BlockBuffer is assigned by “Adaptive Motion”

CQ-ID: Defdb00185435

Severity: K3 - malfunction (no workaround)

Description: When enabling “Adaptive Motion” in the Robot Control (K99 Bit 6 = TRUE), the block buffer was assigned completely if the target point is outside the belt range when performing a synchronizing motion to a belt-synchronous target point.

RoCo V2: Kinematics 47 is not available in the selection menu

CQ-ID: Defdb00187180

Severity: K5 - non critical problem

Description: The transformation 47 (6-axis Cartesian) could not be selected.

Sercos

C2C, canceling the hot plug multiple times at the slave port 2 does not work for slaves directly connected to the master

CQ-ID: Defdb00187922

Severity: K2 - serious malfunction

Description: In a C2C link with three MLC slaves in a ring topology, the two slaves directly connected to the master were connected to the master via their port 1 using cables. At the latest after the first abort of the hot plug, there were more attempts via the slave ports 2. At the latest after two more attempts, a new hot plug failed and output the errors “C2C master: No hot plug support" (F0280066) or “Link ring: Transmission distance defective" (F0280004). In case of the last error, the complete link broke down as well.

C2C: Axes are not completely synchronous at the C2C master and at the C2C slave

CQ-ID: Defdb00188044

Severity: K2 - serious malfunction

Description: The Sercos drive ring and C2C ring were not running synchronously.

C2C: F90B0083 or F90B0124 when writing C-0-0701

CQ-ID: Defdb00188816

Severity: K2 - serious malfunction

Description: When loading the Motion configuration with enabled C2C link, the error F90B0083 or the error F90B0124 could result.

Workaround: Delete the PLC program (reset origin) and load the link configuration.

Caution: Remanent data of the PLC is lost!

C2C: Hot plug does not work

CQ-ID: Defdb00187080

Severity: K2 - serious malfunction

Description: Multiple errors at the slave and at the master occurred at the hot plug of a slave.

CrossComm2: Master axis and slave axis run with a different velocity after executing MC_GearIn

CQ-ID: Defdb00187958

Severity: K2 - serious malfunction

Description: The master axes were not synchronous via the Sercos II control link.

L45 with C2C, Motion kernel timeout or system does not respond anymore when reaching P4

CQ-ID: Defdb00186092

Severity: K2 - serious malfunction

Description: The L45 control was overloaded for multiple minutes as C2C master when reaching BB.

Reading C-0-0578 using the ML_ReadStringParameter generates an exception

CQ-ID: Defdb00186905

Severity: K2 - serious malfunction

Description: If the string in the C-0-0578 exceeded a length of 255 characters and if the string was read using the ML_ReadStringParameter, an exception occurred.

Aborting the hot plug directly at the master port 1 does not work correctly

CQ-ID: Defdb00187712

Severity: K3 - malfunction (no workaround)

Description: If the topology line port 2 is available, a slave is to be included at the inactive port 1 of the master using a hot plug. If a hot-plug function is aborted once, each further hot-plug attempt is aborted with the error message CSMD_HP_SLAVE_RECOGNIZED_IN_CP0.

C2C, system error F9240005 in the L45 slave when switching from CP2 to CP4

CQ-ID: Defdb00187713

Severity: K3 - malfunction (no workaround)

Description: In a C2C link, each L45 slave reported a system error F9240005 (Page fault) if the link was switched from the phase CP2 to the phase CP4.

C2C: In case of a ring break at the master port, the axis pauses for one cycle

CQ-ID: Defdb00187493

Severity: K3 - malfunction (no workaround)

Description: If the connection to the master port 1 was interrupted in the C2C ring structure, A-0-0101 remained constant for one cycle in the GV_LinkAxis.

C2C: Status bits are not correctly updated in CP0

CQ-ID: Defdb00184536

Severity: K3 - malfunction (no workaround)

Description: If the link returned to CP0, the status bits were neither correctly updated in the parameter C-0-0714 nor in the PLC structure "Controldata". The bit “Cyclic exchange of link data active" remained set, even though the link was in CP0. The bit “Transmission error" remained set, even though the communication was running.

Extrapolation in case of telegram failures is missing for slave MLCs

CQ-ID: Defdb00188043

Severity: K3 - malfunction (no workaround)

Description: In some Sercos cycles, the slave did not sporadically detect any valid data.

IP addresses are not set in the Sercos devices during startup

CQ-ID: Defdb00184967

Severity: K3 - malfunction (no workaround)

Description: After a system restart, the IP addresses were not set in the Sercos devices.

Sporadic data failures in the slaves in individual cycles

CQ-ID: Defdb00186937

Severity: K3 - malfunction (no workaround)

Description: The Sercos connections were not checked. The Sercos slave did thus not detect any valid data.

C2C: After aborting the hot-plug, two edges are required at the “Hot-plug” input

CQ-ID: Defdb00188997

Severity: K4 - malfunction

Description: Only after aborting the hot-plug via the PLC, it was continued with a new hot-plug at the second edge at the hot-plug input [ControlData[Local_CNTRL].LINK_ENABLE_HOTPLUG].

If no PLC program was loaded, this error did not occur.

Adjustment of the hot-plug function to the refined Sercos specification 1.3.2

CQ-ID: Defdb00187225

Severity: K5 - non critical problem

Description: The robustness of the function CSMD_HotPlug() was improved by the following actions:

HP0:

After the first HP0 parameter transmission cycle, it is checked in every Sercos cycle, whether the HP device returns Sercos telegrams. Up to now, it was checked once after each HP0 parameter transmission cycle.

HP0:

Once the HP device returns Sercos telegrams, C-HP.HP0_coding is set to 0 and MDT-HP.Info is set to 0.

47.2.2 Known issues

Core

XM21: SysError after firmware update

CQ-ID: Defdb00189079

Severity: K2 - serious malfunction

Description: If a firmware is updated on a version containing an S20 FPGA update on an XM2s, the SysError F90B0124 results. Event a control reboot always ends with this SysError.

Workaround:

1. Boot to the initial firmware (via “Reset” button).
2. Firmware update on the previously executable version.
3. Enable Sercos.
4. Firmware update on the new version.
5. Disable Sercos.

MLPI

WebConnector MLPI load test results in control crash (MLPI ReadContainer)

CQ-ID: Defdb00188782

Severity: K2 - serious malfunction

Description: The MLPI ReadContainer function resulted in a SysError.

Motion Functions

IPO AXS: Interpolation in the control: Error behavior when changing from MC_MoveVelocity to MC_MoveAdditive with distance 0

CQ-ID: Defdb00188612

Severity: K2 - serious malfunction

Description: If an axis interpolated and modulo-scaled in the control is traversed with MC_MoveVelocity and if an MC_MoveAdditive is executed with the distance 0, an undetermined number of modulo revolutions results.

Sercos

C2C: After aborting the hot-plug, two edges are required at the “Hot-plug” input

CQ-ID: Defdb00189002

Severity: K4 - malfunction

Description: Only after aborting the hot-plug via the PLC, it was continued with a new hot-plug at the second edge at the hot-plug input [ControlData[Local_CNTRL].LINK_ENABLE_HOTPLUG].

If no PLC program was loaded, this error did not occur.

48 IndraLogic XLC/IndraMotion MLC 14V14 Patch 03 firmware and software

48.1 Firmware

48.1.1 Resolved defects

_Other

Sytronix axis runs after a Sercos failure and subsequent startup even though there is an AB commanding

CQ-ID: Defdb00200788

Severity: K1 - safety relevant function

Description: If a traversing command is executed for a controller axis and the Sercos connection fails in this particular moment, the control identifies an error and returns to the Sercos phase 0.

If the connection is established again and the control goes into the “Ready for operation” state after clearing the error, the traversing command is executed again and the controller axis continues moving (with the old command).

Fixing: If the Sercos connection fails during a traversing command for a controller axis and the bus goes into phase 0, no traversing command applies anymore after reaching the state “ready for operation” and the controller axis remains in its position.

49 IndraLogic XLC/IndraMotion MLC 14V14 Patch 02 firmware and software

49.1 Software

49.1.1 Resolved defects

Engineering / Motion

Error message for open-loop applications

CQ-ID: Defdb00189523

Severity: K2 - serious malfunction

Description: When going online with a project with open-lop drives being projected, the following error message is reported for these drives => The control supports only the basic package "Closed loop” for this axis.

Engineering / PLC Libraries

MLC-H: SysErr while writing P2873.0.10 via the PLC program

CQ-ID: Defdb00188848

Severity: K2 - serious malfunction

Description: The parameter P2873.0.10 (valve characteristic curve, input table) can be set via the parameter editor or the dialogs. A SysErr can be caused in the MLC while writing on the parameter using the MB_WriteParameter.

IndraMotion Service Tool

The hardware configuration overview cannot be generated

CQ-ID: Defdb00181929

Severity: K3 - malfunction (no workaround)

Description: If no Sercos devices are detected, the hardware configuration overview cannot be generated.

If “Hardware overview” is selected, press “Save” to generate an HTML or XML overview on the current configuration. This method cannot be used if no Sercos devices are found.

49.1.2 Known issues

Engineering / _Other

Export/import of (PLC) devices below Sercos nodes interchanges cyclic data

CQ-ID: Defdb00188593

Severity: K3 - malfunction (no workaround)

Description: If one of the cyclically entered parameters (e.g. parameter entered in the center) is deleted following a device export and if subsequently the device is imported again, the cyclically entered parameters are interchanged below the Sercos node following the device import.

Workaround: Delete the device from the project before the import or delete the device from the project if problems occur and import it again.

49.2 Firmware

49.2.1 Resolved defects

_Other

VPx and XM: ProfiSafe connections are not established or timeout

CQ-ID: Defdb00189765

Severity: K3 - malfunction (no workaround)

Description: For the controls VPX and XM2y, the interrupt status flags are accidentally accessed in the interrupt service routine. However, these are not available for MSI (message signaled interrupts).

Axis

AXS: F9240006, Exception, coprocessor error

CQ-ID: Defdb00187695

Severity: K3 - malfunction (no workaround)

Description: When retrieving the parameter A-0-0110 “Actual torque/command value”, the error "F9240006, Exception, coprocessor error" resulted sporadically.

The MC_TorqueControl command value incorrectly scaled with regard to A-0-0038

CQ-ID: Defdb00187456

Severity: K3 - malfunction (no workaround)

Description: The function block MC_TorqueControl allows only force command values smaller than the force limit value (A-0-0038) divided by 1000.

Fixing: Force command values up to the set force limit value can be used.

Value in A-0-2201 is displayed incorrectly

CQ-ID: Defdb00185661

Severity: K3 - malfunction (no workaround)

Description: Sporadically, A-0-2201 Target position contained a negative value even though the axis is modulo scaled.

Import Export

Importing parameters of an MLD project does not work

CQ-ID: Defdb00187668

Severity: K3 - malfunction (no workaround)

Description: When importing long parameter lists, it was possible that the parameter date was not correctly imported.

Logic

XM2x: Network variables do not work in the local net

CQ-ID: Defdb00189056

Severity: K2 - serious malfunction

Description: If the control is in a 192.xx.xx.xx network, it is possible that the network variables do not work anymore.

Workaround: Change the default broadcast address for NVL (255.255.255.255) to 192.255.255.255 in the network settings.

The network variables are now sent again in the correct network.

F0390032 for online view of DV_Axis

CQ-ID: Defdb00186021

Severity: K3 - malfunction (no workaround)

Description: If the parameters of the cyclic actual value channel were queried via DV variables, the following errors could occur:

F0390032 [2/2] 08B68100060009040810040008000061

F0390032 [1/2] Memory overwrite while executing 518000208274600041403

Motion Functions

Command “Clear error” takes very long

CQ-ID: Defdb00189133

Severity: K3 - malfunction (no workaround)

Description: When executing the “Clear error” command using IndraWorks, completion took very long. This behavior occurred when double-axis devices were used.

OPC UA

OPC-UA: SysError in task "UASercosWorker"

CQ-ID: Defdb00188825

Severity: K2 - serious malfunction

Description: OPC-UA server: A system error occurred when registering items of the Sercos provider.

Sys_Error in the context of the OPC-UA data provider

CQ-ID: Defdb00183784

Severity: K3 - malfunction (no workaround)

Description: OPC-UA server: Adding a subscription for data of the Sercos provider caused a system error (Sys_Error).

Sercos

C2C: Axes are not completely synchronous at the C2C master and at the C2C slave

CQ-ID: Defdb00186319

Severity: K2 - serious malfunction

Description: Drive ring and C2C ring were not running synchronously.

C2C: F90B0083 or F90B0124 while writing C-0-0701

CQ-ID: Defdb00188226

Severity: K2 - serious malfunction

Description: When loading the Motion configuration with enabled C2C link, the error F90B0083 or the error F90B0124 can result.

Workaround: Delete the PLC program (reset origin) and load the link configuration.

Caution: Remanent data of the PLC is lost!

C2C: Hot plug does not work

CQ-ID: Defdb00186316

Severity: K2 - serious malfunction

Description: Multiple errors at the slave and at the master occurred at the hot plug of a slave.

CrossComm2: Master axis and slave axis run with a different velocity after executing MC_GearIn

CQ-ID: Defdb00188031

Severity: K2 - serious malfunction

Description: The master axes were not synchronous via the Sercos II control link.

Aborting the hot plug directly at the master port 1 does not work correctly

CQ-ID: Defdb00187712

Severity: K3 - malfunction (no workaround)

Description: If the topology line port 2 is available, a slave is to be included at the inactive port 1 of the master using a hot plug. If a hot-plug function is aborted once, each further hot-plug attempt is aborted with the error message CSMD_HP_SLAVE_RECOGNIZED_IN_CP0.

C2C, canceling the hot plug multiple times at the slave port 2 does not work for slaves directly connected to the master

CQ-ID: Defdb00187921

Severity: K3 - malfunction (no workaround)

Description: In a C2C link with three MLC slaves in a ring topology, the two slaves directly connected to the master were connected to the master via their port 1 using cables. At the latest after the first abort of the hot plug, it was tried further via the slave ports 2. At the latest after two further aborts, a new hot plug failed and output the errors “C2C master: No hot plug support" (F0280066) or “Link ring: Transmission distance defective" (F0280004). The complete link broke down as well due to the error F0280004.

C2C: In case of a ring break at the master port, the axis pauses for one cycle

CQ-ID: Defdb00187298

Severity: K3 - malfunction (no workaround)

Description: If the connection to the master port 1 was interrupted in the C2C ring structure, A-0-0101 remained constant for one cycle in the GV_LinkAxis.

C2C: System error F9240005 in the L45 slave when switching from CP2 to CP4

CQ-ID: Defdb00187714

Severity: K3 - malfunction (no workaround)

Description: In a C2C link, each L45 slave reported a system error F9240005 (Page fault) if the link was switched from phase CP2 to phase CP4.

Extrapolation in case of telegram failures is missing for slave MLCs

CQ-ID: Defdb00186331

Severity: K3 - malfunction (no workaround)

Description: In some Sercos cycles, the slave did not sporadically detect any valid data.

IP addresses are not set in the Sercos devices during startup

CQ-ID: Defdb00185728

Severity: K3 - malfunction (no workaround)

Description: After a system restart, the IP addresses were not set in the Sercos devices.

SL: F3450 drive error and C104 error CSosOriginator

CQ-ID: Defdb00189046

Severity: K3 - malfunction (no workaround)

Description: When operating CSos Safety with an L75 control, it is possible that two equal Safety telegrams are sporadically sent shortly one after another.

C2C: After aborting the hot-plug, two edges are required at the “Hot-plug” input

CQ-ID: Defdb00188337

Severity: K4 - malfunction

Description: Only after aborting the hot-plug via the PLC, it was continued with a new hot-plug at the second edge at the hot-plug input [ControlData[Local_CNTRL].LINK_ENABLE_HOTPLUG].

If no PLC program was loaded, this error did not occur.

Adjustment of the hot-plug function to the refined Sercos specification 1.3.2

CQ-ID: Defdb00187225

Severity: K5 - non critical problem

Description: The robustness of the function CSMD_HotPlug() was improved by the following actions:

HP0:

After the first HP0 parameter transmission cycle, it is checked in every Sercos cycle, whether the HP device returns Sercos telegrams. Up to now, it was checked once after each HP0 parameter transmission cycle.

HP0:

Once the HP device returns Sercos telegrams, C-HP.HP0_coding is set to 0 and MDT-HP.Info is set to 0.

C2C: F9240005 at MLC L25 as C2C master

CQ-ID: Defdb00189922

Severity: K2 - serious malfunction

Description: An MLC L25 is configured as C2C master. The Motion configuration can be loaded. Error F9240005 upon reboot.

49.2.2 Known issues

Axis

Hydraulic controller axis: Phase switching P2 -> BB not possible anymore after scaling adjustment (force)

CQ-ID: Defdb00186306

Severity: K2 - serious malfunction

Description: If an exponent greater than -1 was selected for an axis in A-0-0052 (scaling exponent for torque/force data), the torque/force limit values (A-0-0038, A-0-0039 and A-0-0040) were greater after a control restart than before the restart.

Linmot drive: A-0-0562 and others cannot be read

CQ-ID: Defdb00188805

Severity: K3 - malfunction (no workaround)

Description: Access to the parameter A-0-0562 reports an error if the drive parameter S-0-0144 did not exist.

Motion Functions

AXS: Parameter A-0-0103 in the oscilloscope causes an overload (F00D2EE7) at the L65

CQ-ID: Defdb00188010

Severity: K4 - malfunction

Description: If the parameter A-0-0103 was configured when interpolating in the control within the oscilloscope, the cycle time might have been exceeded.

OPC UA

"UASercos SysErr F9240005" occurs sporadically

CQ-ID: Defdb00187594

Severity: K2 - serious malfunction

Description: If an invalid node ID was registered in the Sercos provider, a crash could have been caused.

Sercos

C2C: S67-IO error at C2C slave when reaching P4

CQ-ID: Defdb00186318

Severity: K2 - serious malfunction

Description: The S67 Sercos bus coupler S67-S3-BK-DI8-M8 should be operated at the master communication of an MLC configured as C2C slave.

When reaching P4, the error “Failure consumer connection" (F80B0018 or F50B017B or F20B017E).

L45 with C2C, Motion kernel timeout or system does not respond anymore when reaching P4

CQ-ID: Defdb00189436

Severity: K2 - serious malfunction

Description: The L45 was overloaded for multiple minutes as C2C master when reaching BB.

Operation of 48 axes Sercos II, not possible with L65 and Sercos II FM

CQ-ID: Defdb00189257

Severity: K2 - serious malfunction

Description: The operation of 48 Sercos II axes is not possible anymore at an L65 with a Sercos II function module.

Phase switching initiated via IndraWorks (P2-P4) is not completed.

IndraWorks cannot be operated anymore, as the communication to the control is not possible anymore.

The control seems to operate at full capacity. Phase switching from P2 to P4 is executed automatically by restarting the control.

Reading C-0-0578 using the ML_ReadStringParameter generates an exception

CQ-ID: Defdb00186905

Severity: K2 - serious malfunction

Description: If the string in the C-0-0578 exceeded a length of 255 characters and if the string was read using the ML_ReadStringParameter, an exception occurred.

Sporadic data failures in the slaves in individual cycles

CQ-ID: Defdb00186937

Severity: K3 - malfunction (no workaround)

Description: The Sercos connections were not checked. The Sercos slave did thus not detect any valid data.

C2C: 150 microseconds of offset of the master axis data for mixed firmware releases

CQ-ID: Defdb00188550

Severity: K4 - malfunction

Description: If controls with the firmware release 14V14P1 (and later) are mixed with older releases in a C2C link, master axis data at the different controls are not synchronous with regard to time. There is a fix offset of 150 microseconds.

50 IndraLogic XLC/IndraMotion MLC 14V14 Patch 01 firmware and software

50.1 Software

50.1.1 Resolved defects

_Other

MLC-H: If there is a control difference, the axis might move into the wrong direction after MoveVelocity

CQ-ID: Defdb00187450

Severity: K2 - serious malfunction

Description: Rarely, the axis can move into the wrong direction at high velocity.

Under certain circumstances, the error occurs (all conditions have to be fulfilled at the same time):

- GAT or AxisInterface is calculated in Motion cycle time
- Motion = Sercos cycle times -> Error can be reproduced
- The error also occurs in case of different cycle times.
- Velocity feed forward is used (P-0-0040 unequal to zero)
- Ramp time, changeover logic (P2930.0.3) is unequal to zero
- The controller has to be in closed-loop control without active command and there has to be a bigger lag distance (in practice, this is the case if the error F2038 occurs, e.g. due to low system pressure, and if it is acknowledged).
- MoveVelocity has to be called (or MC_Torque or MC_ValveDirectControl)

Changing to another application (e.g. Word) can cause an IndraWorks crash

CQ-ID: Defdb00187302

Severity: K3 - malfunction (no workaround)

Description: If another application was opened apart from IndraWorks (e.g. Word in full screen mode), IndraWorks crashed if the following situation occurred:

A new, yet undeclared variable, was used in the LD editor. The input window was not yet closed. In this situation, there was a task change to another application. After changing again back to IndraWorks, the input wizard was displayed and IndraWorks crashed after closing this dialog.

50.2 Firmware

50.2.1 Resolved defects

_Other

Sercos I/O: Disabling modules does not work via UserDefs.cfg

CQ-ID: Defdb00187510

Severity: K2 - serious malfunction

Description: Disabling Sercos modules does not work from the command configuration via the UserDefs.cfg mechanism and the system error F0160008 “Switching to P3 incorrect" results.

Axis

AXS: F9240006, Exception, coprocessor error

CQ-ID: Defdb00187695

Severity: K3 - malfunction (no workaround)

Description: When retrieving the parameter A-0-0110 “Actual torque/command value”, the error "F9240006, Exception, coprocessor error" resulted sporadically.

The MC_TorqueControl command value incorrectly scaled with regard to A-0-0038

CQ-ID: Defdb00187456

Severity: K3 - malfunction (no workaround)

Description: The function block MC_TorqueControl allows only force command values smaller than the force limit value (A-0-0038) divided by 1000.

Fixing: Force command values up to the set force limit value can be used.

Engineering / PLC Libraries

14V14R3, L75: Sporadic SysErr

CQ-ID: Defdb00187949

Severity: K2 - serious malfunction

Description: When reading out the parameters S-0-0803 and S-0-0804 of a controller axis, a SysError could have resulted sporadically.

Import Export

Importing parameters of an MLD project does not work

CQ-ID: Defdb00187668

Severity: K3 - malfunction (no workaround)

Description: When importing long parameter lists, it was possible that the parameter date was not correctly imported.

Sercos

C2C: Axes are not completely synchronous at the C2C master and at the C2C slave

CQ-ID: Defdb00186319

Severity: K2 - serious malfunction

Description: Drive ring and C2C ring were not running synchronously.

C2C: Hot plug does not work

CQ-ID: Defdb00186316

Severity: K2 - serious malfunction

Description: Multiple errors at the slave and at the master occurred at the hot plug of a slave.

CrossComm2: Master axis and slave axis run with a different velocity after executing MC_GearIn

CQ-ID: Defdb00188031

Severity: K2 - serious malfunction

Description: The master axes were not synchronous via the Sercos II control link.

C2C: In case of a ring break at the master port, the axis pauses for one cycle

CQ-ID: Defdb00187298

Severity: K3 - malfunction (no workaround)

Description: If the connection to the master port 1 was interrupted in the C2C ring structure, A-0-0101 remained constant for one cycle in the GV_LinkAxis.

C2C: System error F9240005 in the L45 slave when switching from CP2 to CP4

CQ-ID: Defdb00187714

Severity: K3 - malfunction (no workaround)

Description: In a C2C link, each L45 slave reported a system error F9240005 (Page fault) if the link was switched from phase CP2 to phase CP4.

Extrapolation in case of telegram failures is missing for slave MLCs

CQ-ID: Defdb00186331

Severity: K3 - malfunction (no workaround)

Description: In some Sercos cycles, the slave did not sporadically detect any valid data.

Adjustment of the hot plug function to the refined Sercos specification 1.3.2

CQ-ID: Defdb00187225

Severity: K5 - non critical problem

Description: The robustness of the function CSMD_HotPlug() was improved by the following actions:

HP0:

After the first HP0 parameter transmission cycle, it is checked in every Sercos cycle, whether the HP device returns Sercos telegram. Up to now, it was checked once after each HP0 parameter transmission cycle.

HP0:

Once the HP device returns Sercos telegrams, C-HP.HP0_coding is set to 0 and MDT-HP.Info is set to 0.

51 IndraLogic XLC/IndraMotion MLC 14V14.106.0 firmware and software

51.1 Software

51.1.1 Resolved defects

Engineering / _Other

Incorrect ProfinetDevice version when importing in the compatibility mode 14V12

CQ-ID: Defdb00186293

Severity: K3 - malfunction (no workaround)

Description: If an export file was created with ProfinetDevice in the version 14V12 and imported in the compatibility mode 14V12, the ProfinetDevice had the version 14V14 after the import.

Automation Interface: Function ContainsLibrary() is unable to find libraries

CQ-ID: Defdb00183033

Severity: K4 - malfunction

Description: If the IndraWorks .NET Automation Interface was used and if the method "IIwPlcLibraryManager.ContainsLibrary" was used for a PLC library added to the PLC project using a placeholder, the method "ContainsLibrary" returned FALSE, even though the library was part of the PLC project.

Engineering / Firmware Management

Firmware download fails

CQ-ID: Defdb00186504

Severity: K3 - malfunction (no workaround)

Description: In case of double axes, the error message "Download aborted with unknown error" was displayed in the download dialog. The display then shows "FL:F ACC". If the drive is restarted, the display shows "LOADER IP address: 192.168.0.1".

Fixing: Up to now, it was directly downloaded via routing from the PC via the control to the drives using TFTP. The download was changed for controls to a TFTP client in the MLPI from the firmware 14V14 onwards.

Furthermore, the diagnostics is improved and the user is explicitly warned via a message window if the download fails nevertheless.

Firmware download to the drives does not work properly

CQ-ID: Defdb00185294

Severity: K4 - malfunction

Description: The firmware download below the Sercos node (single download as well as multiple download) and below the axis does not work correctly.

According to the error text, no route entry can be generated, as an invalid memory space was accessed.

IndraWorks exception when starting the firmware download

CQ-ID: Defdb00182809

Severity: K4 - malfunction

Description: An MLC L75 is configured in the IndraWorks project. However, the set IP address points to an MLC L65 with the firmware 13VRS. If the firmware management is opened, an exception is reported.

Engineering / GAT

AxisInterface: ModeSyncXxx is not acknowledged when the PhaseOffset changes cyclically.

CQ-ID: Defdb00183568

Severity: K4 - malfunction

Description: The input arAxisCtrl_gb[].SyncMode.PhaseOffset changes with each PLC cycle. Simultaneously, it is tried to enable ModeSyncPhase or another synchronization mode.

The drive goes into AH, but the synchronization mode is never enabled and SynchronizedMotion is not acknowledged.

Fixing: If PhaseOffset changes cyclically while enabling a synchronization mode, the error 16#1515 is output after 100 cycles at the AxisInterface.

If the operation mode is acknowledged, PhaseOffset can be changed cyclically.

Note: For controller applications with cyclic changes, use A-0-2610 "ELS, Position command value, additive, process controller" or P-0-0691 instead of PhaseOffset.

Engineering / HMI

User symbols are not applied to the WinStudio library

CQ-ID: Defdb00177416

Severity: K2 - serious malfunction

Description: The function “Apply to WinStudio system library" does not apply the selected WinStudio symbol to the symbol library. Additionally, the target directory in the symbol library cannot be changed. The selected symbol is always copied to the "User symbols” directory.

Fixing: A browser dialog opens when applying a user symbol. Any directory in the symbol library can be selected as target directory using the browser dialog. This operation requires administrator rights as the symbol library is contained within the installation directory.

WinStudio in IndraWorks: Project export and import result in a system crash

CQ-ID: Defdb00185881

Severity: K2 - serious malfunction

Description: If WinStudio objects (screens, driver sheets) containing class variables are imported, an error message “Error when loading the selected project: C:\ProgramData\..\ tagl.txt" occurs. The system is in an undefined state and more malfunctions can occur.

Workaround: There is no workaround. It is recommended to save the project and to restart IndraWorks after the message mentioned above was output.

Driver sheet numbers were not properly applied during copying

CQ-ID: Defdb00183786

Severity: K3 - malfunction (no workaround)

Description: When copying WinStudio driver sheets and inserting them into another visualization device, the driver sheet index is increased by 1.

Driver sheets are sporadically not completely displayed when created again

CQ-ID: Defdb00182778

Severity: K3 - malfunction (no workaround)

Description: If an upgraded runtime license is enabled in addition to a WinStudio Engineering license, the driver sheets are not completely shown.

Installation seems to include incorrect WinStudio version

CQ-ID: Defdb00183787

Severity: K3 - malfunction (no workaround)

Description: Upon the initial connection between WinStudio and the target device, a message is output displaying that version 7.0 is used in the runtime.

Publish requests have a high fluctuation range on VR21

CQ-ID: Defdb00183107

Severity: K3 - malfunction (no workaround)

Description: In WinStudio applications on VR21 devices with OPC-UA communication, the update of the driver sheets does sometimes not correspond to the value set for "Publish rate".

WinStudio TagWizard: OPC.Da driver sheets cannot be created.

CQ-ID: Defdb00185851

Severity: K3 - malfunction (no workaround)

Description: When inserting structure variables in a WinStudio OPC driver sheet using the "IndraLogic.OPC.DA" server, the message "The Plc1 control is not contained in the project" occurs.

Fixing: Resolving of structure variables is not supported anymore for "IndraLogic.OPC.DA" server. The message was corrected accordingly.

Workaround: The message "The Plc1 control is not contained in the project" displays an incorrect error text and can be ignored.

Automatic application of changes to the class editor for array classes

CQ-ID: Defdb00165842

Severity: K4 - malfunction

Description: Changes in the class editor in case of array instances of the class are only applied to VB scripts in certain cases by the automatic change run. The change seems to depend on the variable type of the index of the array instance used in the script.

If the index is a fixed number or a scalable WinStudio variable, the changes are applied.

If the index is an array variable or a variable locally defined in the script (scalar or array), no automatic change takes place.

Creating tags with symbol files of third-party project controls does not work

CQ-ID: Defdb00182308

Severity: K4 - malfunction

Description: Variables loaded from another control to the process variable browser are not supported by the TagWizard.

The TagWizard does not work for OPC.DA

CQ-ID: Defdb00182309

Severity: K4 - malfunction

Description: When adding variables from the process variable browser to an OPC driver sheet, the TagWizard does not open if "IndraLogic.OPC.DA" is selected as server.

Engineering / Motion

Firmware management: Available MLC firmware is not displayed

CQ-ID: Defdb00186914

Severity: K3 - malfunction (no workaround)

Description: If an older 13 firmware version is on the control (e.g. 13T04.0180), no “Available firmware” is displayed after opening the firmware dialog.

“Axis overview” dialog: “Axis name is already used”

CQ-ID: Defdb00186299

Severity: K4 - malfunction

Description: In the “Axis overview” dialog, the message that the axis name is already specified, is incorrectly generated for most of the axes.

Engineering / Periphery

A Sercos cycle time of 0 ms is displayed

CQ-ID: Defdb00185055

Severity: K3 - malfunction (no workaround)

Description: For cycle times < 1000 ms, 0 ms is displayed in the “Sercos diagnostics” dialog.

Disabled devices are enabled again after logout

CQ-ID: Defdb00182602

Severity: K3 - malfunction (no workaround)

Description: Devices disabled in the project tree were enabled again after login and subsequent logout.

Using the default gateway in Profinet devices

CQ-ID: Defdb00182860

Severity: K6 - functional enhancement

Description: By default, the gateway address of the Profinet device is set to the IP address of the controller.

Engineering / PLC Libraries

MagicBelt: If LoadTrainDeceleration < 100% and WaitDistBlockedOutfeed > 0, the OutfeedWait position is passed

CQ-ID: Defdb00186211

Severity: K2 - serious malfunction

Description: The error refers to the MB_MagicBeltType01 function block.

If LoadTrainDeceleration < 100% and WaitDistBlockedOutfeed > 0, the OutfeedWait position is passed.

MB_CrossCutterCalcType05 computes incorrect cam and/or distance

CQ-ID: Defdb00184966

Severity: K3 - malfunction (no workaround)

Description: When using the reduction, the function block does not compute any cams if the format ratio is 1.0. When using the reduction, the function block computes a distance that is too high to be written, as the limit values are violated if the format ratio is approximately 1.0, but no exactly 1.0.

MB_RegisterControllerType02/04: At “Preset”, “PresetValue” is also written to the internal PI-controller

CQ-ID: Defdb00185214

Severity: K3 - malfunction (no workaround)

Description: At “Preset”, “PresetValue” is not only written to the output “ParameterControlValue”, but also to the internal PI-controller. Thus, “PresetValue” is integrated into “ParameterControlValue” in the next step.

Fixing: At “Preset”, “PresetValue” is only written to the output “ParameterControlValue”. The internal PI-controller is reset => the output “ControlValue” becomes "0".

MB_RegisterControllerType02/04: During “Pause”, it is not run through the PI-controller and no deviations are detected

CQ-ID: Defdb00185215

Severity: K3 - malfunction (no workaround)

Description: If Pause = True, there is no new deviation in a new step and it is not run through the PI-controller. Thus, when disabling “Pause”, the PI-controller continues to control with the deviation present before “Pause” => overshoots.

For the MB_RegisterControllerType04, no new steps are analyzed while Pause = TRUE => No new deviations are entered into the shift register and the “Mark Gating” functionality is not executed.

Fixing: If Pause = True, there is a new deviation in a new step and it is run through the PI-controller. The outputs “ControlValue” and “ParameterControlValue” remain constant.

When disabling “Pause”, controlling is continued with the currently pending deviation.

For MB_RegisterControllerType04, the new deviations are now entered into the shift register while Pause = TRUE and the “Mark Gating” functionality is executed.

Fixed in ML_TechRegi 14.14.0.0.

ML_AxisBackup: The “Done” output is set if the file name is incorrect

CQ-ID: Defdb00185222

Severity: K3 - malfunction (no workaround)

Description: If a wrong file name is specified (e.g. the directory does not exist), the function block outputs "Done", even though no action is executed.

MB_WriteExpectWindow: Error when executing at the axis without power

CQ-ID: Defdb00183411

Severity: K4 - malfunction

Description: Executing the function block "MB_WriteExpectWindow" without power at the axis, causes an error at the function block.

ErrorID = RESOURCE_ERROR

ErrorIdent.Table = F_RELATED_TABLE

ErrorIdent.Additional1 = 16#0001

ErrorIdent.Additional2 = 16#0000

Fixing: Check whether the power was removed from the axis. The function block can now be executed without power at the axis.

ML_AxisRestore_Type02 overwrites axis name and axis ID

CQ-ID: Defdb00186781

Severity: K4 - malfunction

Description: When restoring from a parameter file, axis name and axis ID are applied from the parameter file. This causes problems with IndraWorks, as the same axis name and the same axis ID are available multiple times in the control.

Fixing: Axis name and axis ID are backed up before restoring the parameters and then loaded again to the axis. E.g, axis name and axis ID are not applied from the parameter file.

RIL_SERCOSIII.Library: IL_SIIIParameterBackup stops with "EXCEPTION - Access violation"

CQ-ID: Defdb00185221

Severity: K4 - malfunction

Description: An exception can occur when using the IL_SIIIParameterBackup and IL_SIIIParameterRestore function blocks.

Workaround: When creating the error structure, the number of available fields is smaller by one than the actually available fields. Thus, the function block still writes more than the specified number but there is still sufficient memory available.

Engineering / PLC Programming

Error message "Internal Error (SH): Expression..." in “Generate code”

CQ-ID: Defdb00185468

Severity: K2 - serious malfunction

Description: In the PLC compiler version 3.5.7.40, an error is output during code generation in case of projects with complex expressions such as > pTests^[i].NoOfTestExecutions := pTests^[i].NoOfTestExecutions + 1;<

When double-clicking on the error, the user is not guided to the position in the code, causing the error.

IecVarAccess: Array elements are not resolved

CQ-ID: Defdb00182670

Severity: K3 - malfunction (no workaround)

Description: If a data structure containing an array as element is defined, this array is handled as simple variable at runtime using the communication mechanisms BRWS, OPC-UA, MLPI, OPC.DA, OPC.IwScp. Only the initial element of the array can be read/written.

Persistent variable list: Incorrect comment display with IW14V06

CQ-ID: Defdb00181007

Severity: K3 - malfunction (no workaround)

Description: Comments for variables from the Persistent Variable List are displayed incorrectly in online and offline mode.

The comment for variable 2 is assigned to variable 1.

The comment for variable 3 is assigned to variable 2, etc.

The last variable does not contain any comment.

PLC message “Fatal error” with access to PLC variable with name extension "1_i"

CQ-ID: Defdb00186272

Severity: K3 - malfunction (no workaround)

Description: Sorting order of "_" and digits has incorrectly been changed. Thus, the "_" and digits are not found anymore by the runtime system during a binary search (problematic phase: 14V08 - 14V14).

Workaround: Renaming the symbols so that there are no symbols anymore during whose alphabetic comparison a “_” has to be compared with a digit.

Example:

help_i : INT;

help_1i : INT;

Debugging after online change might not be possible anymore.

CQ-ID: Defdb00181134

Severity: K4 - malfunction

Description: The following steps cause the error pattern:

- Logging in

- Setting a breakpoint in a function block instance in a line and running the program up to the breakpoint

- Continuing debugging for some more lines (e.g. single step)

- Logging out

- Removing the complete code line from the function block

- Compiling program

- Logging in with online change

- Setting a breakpoint in the function block instance in one of the remaining lines

- Starting program execution

==> Error pattern:

- Program stops at a breakpoint: The code lines are not displayed anymore. The line for execution is not visible.

Workaround: With logout > login, the call stack is generated again and the corresponding code line is again displayed for debugging.

IndraLogic 2G: After a conversion error EN/ENO 1G->2G, the project cannot be compiled anymore.

CQ-ID: Defdb00179610

Severity: K4 - malfunction

Description: When converting (from 1G to 2G) from a project with an LD/FBD network with EN/ENO and CTU inputs, an incorrect code is generated.

Engineering / SL Manager

Exception when renaming Safety I/O components

CQ-ID: Defdb00181242

Severity: K2 - serious malfunction

Description: An exception occurs when renaming Safety I/O components (axes, inputs and outputs, bus).

Workaround: Undoing the changes. If errors still occur, the corresponding component has to be completely deleted and created again.

Engineering / Version Control System

ACI screen disappears after executing “Undo hijack”

CQ-ID: Defdb00181589

Severity: K3 - malfunction (no workaround)

Description: If an ACI screen under VCS was hijacked, the editor of the screen was opened, the name of the screen was changes and hijacking was undone, the name of the screen was not reset to the original name.

IndraMotion Service Tool

The hardware configuration overview cannot be generated

CQ-ID: Defdb00181929

Severity: K3 - malfunction (no workaround)

Description: If no Sercos devices are detected, the hardware configuration overview cannot be generated.

If “Hardware overview” is selected, an HTML or XML overview on the current configuration can be generated with “Save”. This method cannot be used if no Sercos devices are found.

Installation

IndraWorks installation: When installing on a VEP05 with an WES7 image, the missing FBWFLIB.dll is reported

CQ-ID: Defdb00187101

Severity: K3 - malfunction (no workaround)

Description: When installing IndraWorks on a VEP05 with a "Windows Embedded Standard 7” image of the version 01V02, the message that the file FBWFLIB.dll cannot be found, is incorrectly displayed.

Workaround: This error message does not affect the IndraWorks installation and can thus be ignored.

Logic

Symbol configuration not completely available on the OPC-UA server

CQ-ID: Defdb00183748

Severity: K3 - malfunction (no workaround)

Description: While browsing, the number of displayable items in the address space can be restricted to 100 per node with regard to the client used. This restriction does not apply for the Bosch Rexroth UA test client.

Operation / HMI

Filter dialog in the IndraWorks screen “Diagnostics” is not really language-dependent

CQ-ID: Defdb00176716

Severity: K3 - malfunction (no workaround)

Description: The filter dialog in the “Diagnostics” screen did not change the language when the language was switched online.

51.1.2 Functional enhancements

Engineering / PLC Libraries

TechInterface: User modes reduced. New: ModePosSX for MLC-H plug-in

CQ-ID: Defdb00185189

Severity: K2 - serious malfunction

Description: Eight user modes MODEXx_USER_1..MODEXx_USER_8 are defined in the types for the operation mode selection (MB_AXIS_MODE, MB_AXIS_MODE_BITS.....).

Only three bits are then available for future extensions.

Enhancement: For hydraulic plug-ins, the new operation mode MODE_POS_SX (see MB_MovePositionSX) is introduced.

The user modes MODEXx_USER_5..MODEXx_USER_8 are omitted. Thus, these bits can be used for future extensions.

MB_RegisterControllerType02/04: At “SetpointLock”, the I-value of the internal PI-controller is not deleted

CQ-ID: Defdb00185213

Severity: K6 - functional enhancement

Description: MB_RegisterControllerType02/04:

When executing the “SetpointLock” function, only the actual value (RecordedPosition) is applied as command value (Setpoint). However, the internal PI-controller is not reset.

In most cases (without remaining control deviation), it is advantageous to set the I-value of the internal PI-controller to “0” as well when executing the “SetpointLock” function

Enhancement: When executing “SetpointLock”, the output of the internal PI-controller is set to "0" => the output "ControlValue" becomes "0".

51.1.3 Known issues

Engineering / CamBuilder

FlexProfile function block generation incorrect

CQ-ID: Defdb00185506

Severity: K3 - malfunction (no workaround)

Description: The FlexProfile code generation is incorrect for cams with the motion law “Rest-in-rest - Standstill” followed by a motion law “General motion - Polynomial 2nd order" and cannot be compiled.

Engineering / PLC Libraries

IL_ParameterChannel generates an exception if the input is SizeofCustom = 0

CQ-ID: Defdb00186926

Severity: K4 - malfunction

Description: If the functionality for CustomData is not required and thus all inputs for CustomData (SizeofCustom, SizeofCustomData and CustomData) are assigned with 0, an exception occurs.

ML_AxisRestore_Type02 requires logic axis number of the source

CQ-ID: Defdb00186842

Severity: K4 - malfunction

Description: ML_AxisRestoreType02 always requires the logic axis number of the axis in the parameter file, from which the axis should be imported. It ensures that the correct parameters are imported if there are multiple axis parameters.

For the serial commissioning and if there is only one parameter file, but it should be applied to multiple axes, the axis number is not always known.

Sercos

IndraWorks process variable browser: Sercos parameters could not be retrieved from the control

CQ-ID: Defdb00182763

Severity: K3 - malfunction (no workaround)

Description: Use the option “Load process variables variables from control” to retrieve the OPC UA data from the control, to save it locally as file and to display it in the process variable browser.

This does not work for Sercos parameters.

51.2 Firmware

51.2.1 Resolved defects

_Other

Controller axis with parameter system: Login to MLC L25 is not possible

CQ-ID: Defdb00183912

Severity: K2 - serious malfunction

Description: The use of the ML_ParamBase library could have caused an error in an MLC L25 while downloading the application.

It cannot be completely browsed through the structural data of the OPC-UA

CQ-ID: Defdb00184453

Severity: K3 - malfunction (no workaround)

Description: Structural data cannot be completely browsed with OPC-UA.

When addressing via node ID, they can neither be read nor written.

OPC UA: Event function blocks cause a system error at the service provider

CQ-ID: Defdb00183598

Severity: K3 - malfunction (no workaround)

Description: If the function block BaseEventType (Lib IL_Opc_UA) or a derived instance is used in the PLC program, a PLC download caused a system error.

Axis

"A-0-0002, Axis name" does not synchronize "S-0-0142, Application type" of the controller axis anymore

CQ-ID: Defdb00184772

Severity: K3 - malfunction (no workaround)

Description: For a controller axis (centralized hydraulic controller), the name of the axis (A-0-0002) was not applied to S-0-0142 in the parameter system of the PLC.

Fixing: The axis name (A-0-0002) is applied to S-0-0142 if there is a parameter system of the PLC.

Value in A-0-2201 is displayed incorrectly

CQ-ID: Defdb00185661

Severity: K3 - malfunction (no workaround)

Description: Sporadically, A-0-2201 Target position contained a negative value even though the axis is modulo scaled.

Core

In the control probe, the parameter M-0-0224 Error counter of the marker is not incremented

CQ-ID: Defdb00180874

Severity: K3 - malfunction (no workaround)

Description: The parameter M-0-0224 (number of marker failures) was not incremented in all cases.

Import Export

Parameter export does not work for P-parameters with the MLPI

CQ-ID: Defdb00184137

Severity: K3 - malfunction (no workaround)

Description: If during the parameter export, a pattern was specified to export the P-parameters via MLPI (e.g. [4]:S[32769] for P-0-0001), this pattern was not considered and all parameters were exported.

IndraMotion Service Tool

Parameter C-0-0506 is not displayed correctly

CQ-ID: Defdb00182738

Severity: K3 - malfunction (no workaround)

Description: Parameter requests to the MLC-FW via IMST might have returned invalid values. This was not only the case for the parameter C-0-0506. It was possible that other parameters were invalid as well.

Logic

F0390032 for online view of DV_Axis

CQ-ID: Defdb00186021

Severity: K3 - malfunction (no workaround)

Description: If the parameters of the cyclic actual value channel were queried via DV variables, the following errors could occur:

F0390032 [2/2] 08B6810006000904081004000800061

F0390032 [1/2] Memory overwrite while executing 518000208274600041403

Watchdog error at fast I/O module during control startup

CQ-ID: Defdb00185201

Severity: K3 - malfunction (no workaround)

Description: If a watchdog error occurs at the fast I/O module during the control startup, an incorrect diagnostics (module not available) is entered in the error memory.

The outputs remain in safe state; the inputs can still be read by the application.

MLPI

Incorrect signature for the method Robot.GetStatusSummary()

CQ-ID: Defdb00184073

Severity: K3 - malfunction (no workaround)

Description: The Robot.GetStatusSummary() was wrapped incorrectly by mlpiCore. As there are no pointers in Java, the output structure cannot be used as input structure.

Fixing: A new structure was created for the transfer parameters. This changed the signature of the function as well.

Incorrect WatchdogState description

CQ-ID: Defdb00181888

Severity: K4 - malfunction

Description: The description of the enumeration “WatchdogState” was incorrect.

Motion Functions

F50D200 watchdog Motion kernel for FlexProfile with negative master axis

CQ-ID: Defdb00171273

Severity: K3 - malfunction (no workaround)

Description: It was possible that the error F50D200 occurred when starting the FlexProfile if the actual position of the master axis was negative.

Fixing: No watchdog is generated anymore. The corresponding entry point is not found upon the profile start if the actual position of the master axis is negative. The error “F2229296, Absolute entry point in the FlexProfile not found” is output.

OPC UA

Sys_Error in the context of the OPC-UA data provider

CQ-ID: Defdb00183784

Severity: K3 - malfunction (no workaround)

Description: OPC-UA server: Adding a subscription for data of the Sercos provider caused a system error (Sys_Error).

RobotControl

Belt value is negative

CQ-ID: Defdb00183838

Severity: K3 - malfunction (no workaround)

Description: If an axis, which is a belt in a kinematics, rotates backwards, the belt value could have assumed negative values.

Error “F2037” during orientation motion without motion in space

CQ-ID: Defdb00184552

Severity: K3 - malfunction (no workaround)

Description: If only orientation motion was commanded without any motion in space, the error F2037 was caused at the respective drive if real axes were used. The motion of the orientation axis was limited to 100% of the axis limit values.

Additionally, the motion in space was not limited by the motion of the orientation axis if “Adaptive Motion” was used.

Fixing: The limit values used for the axes of a kinematics now correspond to 99% of the axis limit values (velocity, acceleration, jerk). Thus, the error F2037 or the warning E2070 is not output anymore.

Furthermore, the motion of the orientation axis does now also limit the motion of the path for “Adaptive Motion”.

The belt value jumps during phase switching

CQ-ID: Defdb00183836

Severity: K3 - malfunction (no workaround)

Description: If it was switched from P4 via P2 to P4 and if a real drive was used, the belt value jumped.

Traversing range of the 2-axis delta kinematics is not sufficient

CQ-ID: Defdb00183420

Severity: K3 - malfunction (no workaround)

Description: The permitted traversing range of a 2-axis delta kinematics was too restricted. Axis 1 could only move between 90° and 270° and axis 2 between -90° and 90°.

Fixing: Axis 1 can now move between 90° and 360° and axis 2 between -180° and 90°. A change in arm modes is still not possible.

Sercos

The write-protection command C-0-1009 depends on the control mode and not on the Sercos phase

CQ-ID: Defdb00183645

Severity: K2 - serious malfunction

Description: Scanning the Sercos bus configuration was depending on the control mode. If the control mode was in BB and the Sercos communication phase in P0, scanning was not possible.

Error in I/O diagnostics for S20 Sercos I/Os (safe/unsafe)

CQ-ID: Defdb00183739

Severity: K3 - malfunction (no workaround)

Description: Incorrect Sercos diagnostics are reported for Sercos devices configured behind a Safety I/O device.

II_SIIIMasterState: The error is not reported if no cyclic data is configured

CQ-ID: Defdb00179318

Severity: K3 - malfunction (no workaround)

Description: No cyclic data was configured at a Sercos PLC device.

An error was pending at the device. That error was not reported in the status word of the IL_SIIIMasterState function block.

There was also no error detected in the IndraLogic I/O diagnostics.

IP addresses are not set in the Sercos devices during startup

CQ-ID: Defdb00185728

Severity: K3 - malfunction (no workaround)

Description: After a system restart, the IP address is not set in the Sercos devices.

Error message "Sercos device is configured in the IndraWorks..." after XMM clean or control exchange

CQ-ID: Defdb00183945

Severity: K4 - malfunction

Description: The error message "Sercos device is configured in the IndraWorks project but no sercos device with matching firmware and Sercos address is connected to the control" was displayed after an XXM clean while switching the Sercos phase from P2 to P4, even though the Motion configuration was synchronized and it was logged into the PLC after the XMM clean.

51.2.2 Known issues

Axis

Hydraulic controller axis: Phase switching P2 -> BB not possible anymore after scaling adjustment (force)

CQ-ID: Defdb00186306

Severity: K2 - serious malfunction

Description: If an exponent greater than -1 was selected for an axis in A-0-0052 (scaling exponent for torque/force data), the torque/force limit values (A-0-0038, A-0-0039 and A-0-0040) were greater after a control restart than before the restart.

MC_TorqueControl command value incorrectly scaled regarding A-0-0038

CQ-ID: Defdb00187278

Severity: K3 - malfunction (no workaround)

Description: The function block MC_TorqueControl allows only force command values smaller than the force limit value (A-0-0038) divided by 1000.

MLPI

mlpiParameterReadEverything provides incorrect data for the UChar array

CQ-ID: Defdb00184414

Severity: K4 - malfunction

Description: If a parameter, whose data was shown as Uchar array, was read using the function “mlpiParameterReadEverything”, the parameter returned incorrect values.

Sercos

C2C: Hot plug does not work

CQ-ID: Defdb00187080

Severity: K2 - serious malfunction

Description: Multiple errors at the slave and at the master occurred at the hot plug of a slave.

Reading C-0-0578 using the ML_ReadStringParameter generates an exception

CQ-ID: Defdb00186905

Severity: K2 - serious malfunction

Description: If the string in the C-0-0578 exceeded a length of 255 characters and if the string was read using the ML_ReadStringParameter, an exception occurred.

Extrapolation in case of telegram failures is missing for slave MLCs

CQ-ID: Defdb00186331

Severity: K3 - malfunction (no workaround)

Description: In some Sercos cycles, the slave did not sporadically detect any valid data.

IP addresses are not set in the Sercos devices during startup

CQ-ID: Defdb00184967

Severity: K3 - malfunction (no workaround)

Description: After a system restart, the IP address is not set in the Sercos devices.

Sporadic data failures in the slaves in individual cycles

CQ-ID: Defdb00186937

Severity: K3 - malfunction (no workaround)

Description: The Sercos connections were not checked. The detected Sercos slave does not contain any valid data.

Engineering / _Other

The progress display is stopped upon the parameter export of 64 axes

CQ-ID: Defdb00186665

Severity: K3 - malfunction (no workaround)

Description: Upon the parameter export “Backup all parameters" of axes in the operating mode, the progress display stops sporadically at 99%.

Workaround: Switch to the parameterization mode and start the parameter export again.

52 IndraLogic XLC/IndraMotion MLC 14V14.104.0 R2 firmware and software

52.1 Software

52.1.1 Resolved defects

Engineering / _Other

Automation Interface: Function ContainsLibrary() is unable to find libraries

CQ-ID: Defdb00183033

Severity: K4 - malfunction

Description: If the IndraWorks .NET Automation Interface was used and if the method "IIwPlcLibraryManager.ContainsLibrary" was used for a PLC library added to the PLC project using a placeholder, the method "ContainsLibrary" returned FALSE, even though the library was part of the PLC project.

Engineering / Firmware Management

Firmware-Download schlägt fehl

CQ-ID: Defdb00186504

Severity: K3 - malfunction (no workaround)

Fixing: The defect has been resolved.

Firmware download to the drives does not work properly

CQ-ID: Defdb00185294

Severity: K4 - malfunction

Description: The firmware download below the Sercos node (single download as well as multiple download) and below the axis does not work correctly.

According to the error text, no route entry can be generated, as an invalid memory space was accessed.

IndraWorks exception when starting the firmware download

CQ-ID: Defdb00182809

Severity: K4 - malfunction

Description: An MLC L75 is configured in the IndraWorks project. However, the set IP address points to an MLC L65 with the firmware 13VRS. If the firmware management is opened, an exception is reported.

Engineering / GAT

AxisInterface: ModeSyncXxx is not acknowledged when the PhaseOffset changes cyclically.

CQ-ID: Defdb00183568

Severity: K4 - malfunction

Description: The input arAxisCtrl_gb[].SyncMode.PhaseOffset changes with each PLC cycle. Simultaneously, it is tried to enable ModeSyncPhase or another synchronization mode.

The drive goes into AH, but the synchronization mode is never enabled and SynchronizedMotion is not acknowledged.

Fixing: If PhaseOffset changes cyclically while enabling a synchronization mode, the error 16#1515 is output after 100 cycles at the AxisInterface.

If the operation mode is acknowledged, PhaseOffset can be changed cyclically.

Note: For controller applications with cyclic changes, use A-0-2610 "ELS, Position command value, additive, process controller" or P-0-0691 instead of PhaseOffset.

Engineering / HMI

User symbols are not applied to the WinStudio library

CQ-ID: Defdb00177416

Severity: K2 - serious malfunction

Description: The function “Apply to WinStudio system library" does not apply the selected WinStudio symbol to the symbol library. Additionally, the target directory in the symbol library cannot be changed. The selected symbol is always copied to the "User symbols” directory.

Fixing: A browser dialog opens when applying a user symbol. Any directory in the symbol library can be selected as target directory using the browser dialog. This operation requires administrator rights as the symbol library is contained within the installation directory.

WinStudio in IndraWorks: Project export and import result in a system crash

CQ-ID: Defdb00185881

Severity: K2 - serious malfunction

Description: If WinStudio objects (screens, driver sheets) containing class variables are imported, an error message “Error when loading the selected project: C:\ProgramData\..\ tagl.txt" occurs. The system is in an undefined state and more malfunctions can occur.

Workaround: There is no workaround. It is recommended to save the project and to restart IndraWorks after the message mentioned above was output.

Driver sheet numbers were not properly applied during copying

CQ-ID: Defdb00183786

Severity: K3 - malfunction (no workaround)

Description: When copying WinStudio driver sheets and inserting them into another visualization device, the driver sheet index is increased by 1.

Driver sheets are sporadically not completely displayed when created again

CQ-ID: Defdb00182778

Severity: K3 - malfunction (no workaround)

Description: If an upgraded runtime license is enabled in addition to a WinStudio Engineering license, the driver sheets are not completely shown.

Installation seems to include incorrect WinStudio version

CQ-ID: Defdb00183787

Severity: K3 - malfunction (no workaround)

Description: Upon the initial connection between WinStudio and the target device, a message is output displaying that version 7.0 is used in the runtime.

Publish requests have a high fluctuation range on VR21

CQ-ID: Defdb00183107

Severity: K3 - malfunction (no workaround)

Description: In WinStudio applications on VR21 devices with OPC-UA communication, the update of the driver sheets does sometimes not correspond to the value set for "Publish rate".

WinStudio TagWizard: OPC.Da driver sheets cannot be created.

CQ-ID: Defdb00185851

Severity: K3 - malfunction (no workaround)

Description: When inserting structure variables in a WinStudio OPC driver sheet using the "IndraLogic.OPC.DA" server, the message "The Plc1 control is not contained in the project" occurs.

Fixing: Resolving of structure variables is not supported anymore for "IndraLogic.OPC.DA" server. The message was corrected accordingly.

Workaround: The message "The Plc1 control is not contained in the project" displays an incorrect error text and can be ignored.

Automatic application of changes to the class editor for array classes

CQ-ID: Defdb00165842

Severity: K4 - malfunction

Description: Changes in the class editor in case of array instances of the class are only applied to VB scripts in certain cases by the automatic change run. The change seems to depend on the variable type of the index of the array instance used in the script.

If the index is a fixed number or a scalable WinStudio variable, the changes are applied.

If the index is an array variable or a variable locally defined in the script (scalar or array), no automatic change takes place.

Creating tags with symbol files of third-party project controls does not work

CQ-ID: Defdb00182308

Severity: K4 - malfunction

Description: Variables loaded from another control to the process variable browser are not supported by the TagWizard.

The TagWizard does not work for OPC.DA

CQ-ID: Defdb00182309

Severity: K4 - malfunction

Description: When adding variables from the process variable browser to an OPC driver sheet, the TagWizard does not open if "IndraLogic.OPC.DA" is selected as server.

Engineering / Motion

"Axis overview" dialog: "Axis name is already used"

CQ-ID: Defdb00186299

Severity: K4 - malfunction

Description: In the "Axis overview" dialog, the message that the axis name is already specified, is incorrectly generated for most of the axes.

Engineering / Periphery

A Sercos cycle time of 0 ms is displayed

CQ-ID: Defdb00185055

Severity: K3 - malfunction (no workaround)

Description: For cycle times < 1000 ms, 0 ms is displayed in the “Sercos diagnostics” dialog.

Disabled devices are enabled again after logout

CQ-ID: Defdb00182602

Severity: K3 - malfunction (no workaround)

Description: Devices disabled in the project tree were enabled again after login and subsequent logout.

Using the default gateway in Profinet devices

CQ-ID: Defdb00182860

Severity: K6 - functional enhancement

Description: By default, the gateway address of the Profinet device is set to the IP address of the controller.

Engineering / PLC Libraries

MB_CrossCutterCalcType05 computes incorrect cam and/or distance

CQ-ID: Defdb00184966

Severity: K3 - malfunction (no workaround)

Description: When using the reduction, the function block does not compute any cams if the format ratio is 1.0. When using the reduction, the function block computes a distance that is too high to be written, as the limit values are violated if the format ratio is approximately 1.0, but no exactly 1.0.

MB_RegisterControllerType02/04: At “Preset”, “PresetValue” is also written to the internal PI-controller

CQ-ID: Defdb00185214

Severity: K3 - malfunction (no workaround)

Description: At “Preset”, “PresetValue” is not only written to the output “ParameterControlValue”, but also to the internal PI-controller. Thus, “PresetValue” is integrated into “ParameterControlValue” in the next step.

Fixing: At “Preset”, “PresetValue” is only written to the output “ParameterControlValue”. The internal PI-controller is reset => the output “ControlValue” becomes "0".

MB_RegisterControllerType02/04: During “Pause”, it is not run through the PI-controller and no deviations are detected

CQ-ID: Defdb00185215

Severity: K3 - malfunction (no workaround)

Description: If Pause = True, there is no new deviation in a new step and it is not run through the PI-controller. Thus, when disabling “Pause”, the PI-controller continues to control with the deviation present before “Pause” => overshoots.

For the MB_RegisterControllerType04, no new steps are analyzed while Pause = TRUE => No new deviations are entered into the shift register and the “Mark Gating” functionality is not executed.

Fixing: If Pause = True, there is a new deviation in a new step and it is run through the PI-controller. The outputs “ControlValue” and “ParameterControlValue” remain constant.

When disabling “Pause”, controlling is continued with the currently pending deviation.

For MB_RegisterControllerType04, the new deviations are now entered into the shift register while Pause = TRUE and the “Mark Gating” functionality is executed.

Fixed in ML_TechRegi 14.14.0.0.

ML_AxisBackup: The “Done” output is set if the file name is incorrect

CQ-ID: Defdb00185222

Severity: K3 - malfunction (no workaround)

Description: If a wrong file name is specified (e.g. the directory does not exist), the function block outputs "Done", even though no action is executed.

MB_WriteExpectWindow: Error when executing at the axis without power

CQ-ID: Defdb00183411

Severity: K4 - malfunction

Description: Executing the function block "MB_WriteExpectWindow" without power at the axis, causes an error at the function block.

ErrorID = RESOURCE_ERROR

ErrorIdent.Table = F_RELATED_TABLE

ErrorIdent.Additional1 = 16#0001

ErrorIdent.Additional2 = 16#0000

Fixing: Check whether the power was removed from the axis. The function block can now be executed without power at the axis.

RIL_SERCOSIII.Library: IL_SIIIParameterBackup stops with "EXCEPTION - Access violation"

CQ-ID: Defdb00185221

Severity: K4 - malfunction

Description: An exception can occur when using the IL_SIIIParameterBackup and IL_SIIIParameterRestore function blocks.

Workaround: When creating the error structure, the number of available fields is smaller by one than the actually available fields. Thus, the function block still writes more than the specified number but there is still sufficient memory available.

Engineering / PLC Programming

Error message "Internal Error (SH): Expression..." in “Generate code”

CQ-ID: Defdb00185468

Severity: K2 - serious malfunction

Description: In the PLC compiler version 3.5.7.40, an error is output during code generation in case of projects with complex expressions such as > pTests^[i].NoOfTestExecutions := pTests^[i].NoOfTestExecutions + 1;<

When double-clicking on the error, the user is not guided to the position in the code, causing the error.

IecVarAccess: Array elements are not resolved

CQ-ID: Defdb00182670

Severity: K3 - malfunction (no workaround)

Description: If a data structure containing an array as element is defined, this array is handled as simple variable at runtime using the communication mechanisms BRWS, OPC-UA, MLPI, OPC.DA, OPC.IwScp. Only the initial element of the array can be read/written.

Debugging after online change might not be possible anymore.

CQ-ID: Defdb00181134

Severity: K4 - malfunction

Description: The following steps cause the error pattern:

- Logging in
- Setting a breakpoint in a function block instance in a line and running the program up to the breakpoint
- Continuing debugging for some more lines (e.g. single step)
- Logging out
- Removing the complete code line from the function block
- Compiling program
- Logging in with online change
- Setting a breakpoint in the function block instance in one of the remaining lines
- Starting program execution

==> Error pattern:

- Program stops at a breakpoint: The code lines are not displayed anymore. The line for execution is not visible.

Workaround: With logout > login, the call stack is generated again and the corresponding code line is again displayed for debugging.

IndraLogic 2G: After a conversion error EN/ENO 1G->2G, the project cannot be compiled anymore.

CQ-ID: Defdb00179610

Severity: K4 - malfunction

Description: During the conversion (1G to 2G) of a project with an LD/FBD network with EN/ENO and CTU inputs, the incorrect code is generated.

Engineering / SL Manager

Exception when renaming Safety I/O components

CQ-ID: Defdb00181242

Severity: K2 - serious malfunction

Description: An exception occurs when renaming Safety I/O components (axes, inputs and outputs, bus).

Workaround: Undoing the changes. If errors still occur, the corresponding component has to be completely deleted and created again.

Engineering / Version Control System

ACI screen disappears after executing “Undo hijack”

CQ-ID: Defdb00181589

Severity: K3 - malfunction (no workaround)

Description: If an ACI screen under VCS was hijacked, the editor of the screen was opened, the name of the screen was changes and hijacking was undone, the name of the screen was not reset to the original name.

IndraMotion Service Tool

The hardware configuration overview cannot be generated

CQ-ID: Defdb00181929

Severity: K3 - malfunction (no workaround)

Description: If no Sercos devices are detected, the hardware configuration overview cannot be generated.

If “Hardware overview” is selected, an HTML or XML overview on the current configuration can be generated with “Save”. This method cannot be used if no Sercos devices are found.

Logic

Symbol configuration not completely available on the OPC-UA server

CQ-ID: Defdb00183748

Severity: K3 - malfunction (no workaround)

Description: While browsing, the number of displayable items in the address space can be restricted to 100 per node with regard to the client used. This restriction does not apply for the Bosch Rexroth UA test client.

Operation / HMI

Filter dialog in the IndraWorks screen “Diagnostics” is not really language-dependent

CQ-ID: Defdb00176716

Severity: K3 - malfunction (no workaround)

Description: The filter dialog in the “Diagnostics” screen did not change the language when the language was switched online.

52.1.2 Functional enhancements

Engineering / PLC Libraries

TechInterface: User modes reduced. New: ModePosSX for MLC-H plug-in

CQ-ID: Defdb00185189

Severity: K2 - serious malfunction

Description: Eight user modes MODEXx_USER_1..MODEXx_USER_8 are defined in the types for the operation mode selection (MB_AXIS_MODE, MB_AXIS_MODE_BITS.....).

Only three bits are then available for future extensions.

Enhancement: For hydraulic plug-ins, the new operation mode MODE_POS_SX (see MB_MovePositionSX) is introduced.

The user modes MODEXx_USER_5..MODEXx_USER_8 are omitted. Thus, these bits can be used for future extensions.

MB_RegisterControllerType02/04: At “SetpointLock”, the I-value of the internal PI-controller is not deleted

CQ-ID: Defdb00185213

Severity: K6 - functional enhancement

Description: MB_RegisterControllerType02/04:

When executing the “SetpointLock” function, only the actual value (RecordedPosition) is applied as command value (Setpoint). However, the internal PI-controller is not reset.

In most cases (without remaining control deviation), it is advantageous to set the I-value of the internal PI-controller to “0” as well when executing the “SetpointLock” function

Enhancement: When executing “SetpointLock”, the output of the internal PI-controller is set to "0" => the output "ControlValue" becomes "0".

52.1.3 Known issues

Engineering / CamBuilder

FlexProfile function block generation incorrect

CQ-ID: Defdb00185506

Severity: K3 - malfunction (no workaround)

Description: The FlexProfile code generation is incorrect for cams with the motion law “Rest-in-rest - Standstill” followed by a motion law “General motion - Polynomial 2nd order" and cannot be compiled.

Engineering / PLC Libraries

MagicBelt: If LoadTrainDeceleration < 100% and WaitDistBlockedOutfeed > 0, the OutfeedWait position is passed

CQ-ID: Defdb00186211

Severity: K2 - serious malfunction

Description: The error refers to the MB_MagicBeltType01 function block.

If LoadTrainDeceleration < 100% and WaitDistBlockedOutfeed > 0, the OutfeedWait position is passed.

ML_AxisRestore_Type02 overwrites axis name and axis ID

CQ-ID: Defdb00186781

Severity: K4 - malfunction

Description: When restoring from a parameter file, axis name and axis ID are applied from the parameter file. This causes problems with IndraWorks, as the same axis name and the same axis ID are available multiple times in the control.

Engineering / PLC Programming

PLC message “Fatal error” with access to PLC variable with name extension "1_i"

CQ-ID: Defdb00186272

Severity: K3 - malfunction (no workaround)

Description: Sorting order of "_" and digits has incorrectly been changed. Thus, the "_" and digits are not found anymore by the runtime system during a binary search (problematic phase: 14V08 - 14V14).

Workaround: Renaming the symbols so that there are no symbols anymore during whose alphabetic comparison a “_” has to be compared with a digit.

Example:

help_i : INT;

help_1i : INT;

Sercos

IndraWorks process variable browser: Sercos parameters could not be retrieved from the control

CQ-ID: Defdb00182763

Severity: K3 - malfunction (no workaround)

Description: Use the option “Load process variables variables from control” to retrieve the OPC UA data from the control, to save it locally as file and to display it in the process variable browser.

This does not work for Sercos parameters.

52.2 Firmware

52.2.1 Resolved defects

_Other

Controller axis with parameter system: Login to MLC L25 is not possible

CQ-ID: Defdb00183912

Severity: K2 - serious malfunction

Description: The use of the ML_ParamBase library could have caused an error in an MLC L25 while downloading the application.

It cannot be completely browsed through the structural data of the OPC-UA

CQ-ID: Defdb00184453

Severity: K3 - malfunction (no workaround)

Description: Structural data cannot be completely browsed with OPC-UA.

When addressing via node ID, they can neither be read nor written.

OPC UA: Event function blocks cause a system error at the service provider

CQ-ID: Defdb00183598

Severity: K3 - malfunction (no workaround)

Description: If the function block BaseEventType (Lib IL_Opc_UA) or a derived instance is used in the PLC program, a PLC download caused a system error.

Axis

"A-0-0002, Axis name" does not synchronize "S-0-0142, Application type" of the controller axis anymore

CQ-ID: Defdb00184772

Severity: K3 - malfunction (no workaround)

Description: For a controller axis (centralized hydraulic controller), the name of the axis (A-0-0002) was not applied to S-0-0142 in the parameter system of the PLC.

Fixing: The axis name (A-0-0002) is applied to S-0-0142 if there is a parameter system of the PLC.

Value in A-0-2201 is displayed incorrectly

CQ-ID: Defdb00185661

Severity: K3 - malfunction (no workaround)

Description: Sporadically, A-0-2201 Target position contained a negative value even though the axis is modulo scaled.

Core

In the control probe, the parameter M-0-0224 Error counter of the marker is not incremented

CQ-ID: Defdb00180874

Severity: K3 - malfunction (no workaround)

Description: The parameter M-0-0224 (number of marker failures) was not incremented in all cases.

Import Export

Parameter export does not work for P-parameters with the MLPI

CQ-ID: Defdb00184137

Severity: K3 - malfunction (no workaround)

Description: If during the parameter export, a pattern was specified to export the P-parameters via MLPI (e.g. [4]:S[32769] for P-0-0001), this pattern was not considered and all parameters were exported.

IndraMotion Service Tool

Parameter C-0-0506 is not displayed correctly

CQ-ID: Defdb00182738

Severity: K3 - malfunction (no workaround)

Description: Parameter requests to the MLC-FW via IMST might have returned invalid values. This was not only the case for the parameter C-0-0506. It was possible that other parameters were invalid as well.

Logic

Watchdog error at fast I/O module during control startup

CQ-ID: Defdb00185201

Severity: K3 - malfunction (no workaround)

Description: If a watchdog error occurs at the fast I/O module during the control startup, an incorrect diagnostics (module not available) is entered in the error memory.

The outputs remain in safe state; the inputs can still be read by the application.

MLPI

Incorrect signature for the method Robot.GetStatusSummary()

CQ-ID: Defdb00184073

Severity: K3 - malfunction (no workaround)

Description: The Robot.GetStatusSummary() was wrapped incorrectly by mlpiCore. As there are no pointers in Java, the output structure cannot be used as input structure.

Fixing: A new structure was created for the transfer parameters. This changed the signature of the function as well.

Incorrect WatchdogState description

CQ-ID: Defdb00181888

Severity: K4 - malfunction

Description: The description of the enumeration “WatchdogState” was incorrect.

Motion Functions

F50D200 watchdog Motion kernel for FlexProfile with negative master axis

CQ-ID: Defdb00171273

Severity: K3 - malfunction (no workaround)

Description: It was possible that the error F50D200 occurred when starting the FlexProfile if the actual position of the master axis was negative.

Fixing: No watchdog is generated anymore. The corresponding entry point is not found upon the profile start if the actual position of the master axis is negative. The error “F2229296, Absolute entry point in the FlexProfile not found” is output.

RobotControl

Belt value is negative

CQ-ID: Defdb00183838

Severity: K3 - malfunction (no workaround)

Description: If an axis, which is a belt in a kinematics, rotates backwards, the belt value could have assumed negative values.

Error “F2037” during orientation motion without motion in space

CQ-ID: Defdb00184552

Severity: K3 - malfunction (no workaround)

Description: If only orientation motion was commanded without any motion in space, the error F2037 was caused at the respective drive if real axes were used. The motion of the orientation axis was limited to 100% of the axis limit values.

Additionally, the motion in space was not limited by the motion of the orientation axis if “Adaptive Motion” was used.

Fixing: The limit values used for the axes of a kinematics now correspond to 99% of the axis limit values (velocity, acceleration, jerk). Thus, the error F2037 or the warning E2070 is not output anymore.

Furthermore, the motion of the orientation axis does now also limit the motion of the path for “Adaptive Motion”.

The belt value jumps during phase switching

CQ-ID: Defdb00183836

Severity: K3 - malfunction (no workaround)

Description: If it was switched from P4 via P2 to P4 and if a real drive was used, the belt value jumped.

Traversing range of the 2-axis delta kinematics is not sufficient

CQ-ID: Defdb00183420

Severity: K3 - malfunction (no workaround)

Description: The permitted traversing range of a 2-axis delta kinematics was too restricted. Axis 1 could only move between 90° and 270° and axis 2 between -90° and 90°.

Fixing: Axis 1 can now move between 90° and 360° and axis 2 between -180° and 90°. A change in arm modes is still not possible.

Sercos

The write-protection command C-0-1009 depends on the control mode and not on the Sercos phase

CQ-ID: Defdb00183645

Severity: K2 - serious malfunction

Description: Scanning the Sercos bus configuration was depending on the control mode. If the control mode was in BB and the Sercos communication phase in P0, scanning was not possible.

Error in I/O diagnostics for S20 Sercos I/Os (safe/unsafe)

CQ-ID: Defdb00183739

Severity: K3 - malfunction (no workaround)

Description: Incorrect Sercos diagnostics are reported for Sercos devices configured behind a Safety I/O device.

IL_SIIIMasterState: The error is not reported if no cyclic data is configured

CQ-ID: Defdb00179318

Severity: K3 - malfunction (no workaround)

Description: No cyclic data was configured at a Sercos PLC device.

An error was pending at the device. That error was not reported in the status word of the IL_SIIIMasterState function block.

There was also no error detected in the IndraLogic I/O diagnostics.

IP addresses are not set in the Sercos devices during startup

CQ-ID: Defdb00185728

Severity: K3 - malfunction (no workaround)

Description: After a system restart, the IP address is not set in the Sercos devices.

Error message "Sercos device is configured in the IndraWorks..." after XMM clean or control exchange

CQ-ID: Defdb00183945

Severity: K4 - malfunction

Description: The error message "Sercos device is configured in the IndraWorks project but no sercos device with matching firmware and Sercos address is connected to the control" was displayed after an XXM clean while switching the Sercos phase from P2 to P4, even though the Motion configuration was synchronized and it was logged into the PLC after the XMM clean.

52.2.2 Known issues

Axis

Hydraulic controller axis: Phase switching P2 -> BB not possible anymore after scaling adjustment (force)

CQ-ID: Defdb00186306

Severity: K2 - serious malfunction

Description: If an exponent greater than -1 was selected for an axis in A-0-0052 (scaling exponent for torque/force data), the torque/force limit values (A-0-0038, A-0-0039 and A-0-0040) were greater after a control restart than before the restart.

MLPI

mlpiParameterReadEverything provides incorrect data for the UChar array

CQ-ID: Defdb00184414

Severity: K4 - malfunction

Description: If a parameter, whose data was shown as Uchar array, was read using the function “mlpiParameterReadEverything”, the parameter returned incorrect values.

Sercos

Extrapolation in case of telegram failures is missing for slave MLCs

CQ-ID: Defdb00186331

Severity: K3 - malfunction (no workaround)

Description: In some Sercos cycles, the slave did not sporadically detect any valid data.

IP addresses are not set in the Sercos devices during startup

CQ-ID: Defdb00184967

Severity: K3 - malfunction (no workaround)

Description: After a system restart, the IP address is not set in the Sercos devices.

Engineering / _Other

The progress display is stopped upon the parameter export of 64 axes

CQ-ID: Defdb00186665

Severity: K3 - malfunction (no workaround)

Description: Upon the parameter export “Backup all parameters" of axes in the operating mode, the progress display stops sporadically at 99%.

Workaround: Switch to the parameterization mode and start the parameter export again.

53 IndraLogic XLC/IndraMotion MLC 14V14.97.0 R1 firmware and software

53.1 Software

53.1.1 Resolved defects

Engineering / _Other

Automation Interface: Function ContainsLibrary() is unable to find libraries

CQ-ID: Defdb00183033

Severity: K4 - malfunction

Description: If the IndraWorks .NET Automation Interface was used and if the method "IIwPlcLibraryManager.ContainsLibrary" was used for a PLC library added to the PLC project using a placeholder, the method "ContainsLibrary" returned FALSE, even though the library was part of the PLC project.

Engineering / Firmware Management

IndraWorks exception when starting the firmware download

CQ-ID: Defdb00182809

Severity: K4 - malfunction

Description: An MLC L75 is configured in the IndraWorks project. However, the set IP address points to an MLC L65 with the firmware 13VRS. If the firmware management is opened, an exception is reported.

Engineering / GAT

AxisInterface: ModeSyncXxx is not acknowledged when the PhaseOffset changes cyclically.

CQ-ID: Defdb00183568

Severity: K4 - malfunction

Description: The input arAxisCtrl_gb[].SyncMode.PhaseOffset changes with each PLC cycle. Simultaneously, it is tried to enable ModeSyncPhase or another synchronization mode.

The drive goes into AH, but the synchronization mode is never enabled and SynchronizedMotion is not acknowledged.

Fixing: If PhaseOffset changes cyclically while enabling a synchronization mode, the error 16#1515 is output after 100 cycles at the AxisInterface.

If the operation mode is acknowledged, PhaseOffset can be changed cyclically.

Note: For controller applications with cyclic changes, use A-0-2610 "ELS, Position command value, additive, process controller" or P-0-0691 instead of PhaseOffset.

Engineering / HMI

User symbols are not applied to the WinStudio library

CQ-ID: Defdb00177416

Severity: K2 - serious malfunction

Description: The function “Apply to WinStudio system library” always applies the symbol to the “User symbols” directory within the directory of the current user without an acknowledgement message.

Fixing: User symbols can now be copied to any directory of the WinStudio symbol library. The symbol library is contained in the installation directory. Thus, administrator rights are required to apply user symbols.

Driver sheet numbers were not properly applied during copying

CQ-ID: Defdb00183786

Severity: K3 - malfunction (no workaround)

Description: When copying WinStudio driver sheets and inserting them into another visualization device, the driver sheet index is increased by 1.

Driver sheets are sporadically not completely displayed when created again

CQ-ID: Defdb00182778

Severity: K3 - malfunction (no workaround)

Description: If an upgraded runtime license is enabled in addition to a WinStudio Engineering license, the driver sheets are not completely shown.

Installation seems to include incorrect WinStudio version

CQ-ID: Defdb00183787

Severity: K3 - malfunction (no workaround)

Description: Upon the initial connection between WinStudio and the target device, a message is output displaying that version 7.0 is used in the runtime.

Publish requests have a high fluctuation range on VR21

CQ-ID: Defdb00183107

Severity: K3 - malfunction (no workaround)

Description: In WinStudio applications on VR21 devices with OPC-UA communication, the update of the driver sheets does sometimes not correspond to the value set for "Publish rate".

Automatic application of changes to the class editor for array classes

CQ-ID: Defdb00165842

Severity: K4 - malfunction

Description: Changes in the class editor in case of array instances of the class are only applied to VB scripts in certain cases by the automatic change run. The change seems to depend on the variable type of the index of the array instance used in the script. If the index is a fixed number or a scalable WinStudio variable, the changes are applied.

If the index is an array variable or a variable locally defined in the script (scalar or array), no automatic change takes place.

Creating tags with symbol files of third-party project controls does not work

CQ-ID: Defdb00182308

Severity: K4 - malfunction

Description: Variables loaded from another control to the process variable browser are not supported by the TagWizard.

The TagWizard does not work for OPC.DA

CQ-ID: Defdb00182309

Severity: K4 - malfunction

Description: When adding variables from the process variable browser to an OPC driver sheet, the TagWizard does not open if "IndraLogic.OPC.DA" is selected as server.

Engineering / Periphery

A Sercos cycle time of 0 ms is displayed

CQ-ID: Defdb00185055

Severity: K3 - malfunction (no workaround)

Description: For cycle times < 1000 ms, 0 ms is displayed in the “Sercos diagnostics” dialog.

Disabled devices are enabled again after logout

CQ-ID: Defdb00182602

Severity: K3 - malfunction (no workaround)

Description: Devices disabled in the project tree were enabled again after login and subsequent logout.

Using the default gateway in Profinet devices

CQ-ID: Defdb00182860

Severity: K6 - functional enhancement

Description: By default, the gateway address of the Profinet device is set to the IP address of the controller.

Engineering / PLC Libraries

MB_CrossCutterCalcType05 computes incorrect cam and/or distance

CQ-ID: Defdb00184966

Severity: K3 - malfunction (no workaround)

Description: When using the reduction, the function block does not compute any cams if the format ratio is 1.0. When using the reduction, the function block computes a distance that is too high to be written, as the limit values are violated if the format ratio is approximately 1.0, but no exactly 1.0.

MB_RegisterControllerType02/04: At “Preset”, “PresetValue” is also written to the internal PI-controller

CQ-ID: Defdb00185214

Severity: K3 - malfunction (no workaround)

Description: At “Preset”, “PresetValue” is not only written to the output “ParameterControlValue”, but also to the internal PI-controller. Thus, “PresetValue” is integrated into “ParameterControlValue” in the next step.

Fixing: At “Preset”, “PresetValue” is only written to the output “ParameterControlValue”. The internal PI-controller is reset => the output “ControlValue” becomes "0".

MB_RegisterControllerType02/04: During “Pause”, it is not run through the PI-controller and no deviations are detected

CQ-ID: Defdb00185215

Severity: K3 - malfunction (no workaround)

Description: If Pause = True, there is no new deviation in a new step and it is not run through the PI-controller. Thus, when disabling “Pause”, the PI-controller continues to control with the deviation present before “Pause” => overshoots.

For the MB_RegisterControllerType04, no new steps are analyzed while Pause = TRUE => No new deviations are entered into the shift register and the “Mark Gating” functionality is not executed.

Fixing: If Pause = True, there is a new deviation in a new step and it is run through the PI-controller. The outputs “ControlValue” and “ParameterControlValue” remain constant.

When disabling “Pause”, controlling is continued with the currently pending deviation.

For MB_RegisterControllerType04, the new deviations are now entered into the shift register while Pause = TRUE and the “Mark Gating” functionality is executed.

Fixed in ML_TechRegi 14.14.0.0.

ML_AxisBackup: The “Done” output is set if the file name is incorrect

CQ-ID: Defdb00185222

Severity: K3 - malfunction (no workaround)

Description: If a wrong file name is specified (e.g. the directory does not exist), the function block outputs "Done", even though no action is executed.

MB_WriteExpectWindow: Error when executing at the axis without power

CQ-ID: Defdb00183411

Severity: K4 - malfunction

Description: Executing the function block "MB_WriteExpectWindow" without power at the axis, causes an error at the function block.

ErrorID = RESOURCE_ERROR

ErrorIdent.Table = F_RELATED_TABLE

ErrorIdent.Additional1 = 16#0001

ErrorIdent.Additional2 = 16#0000

Fixing: Check whether the power was removed from the axis. The function block can now be executed without power at the axis.

Engineering / PLC Programming

IecVarAccess: Array elements are not resolved

CQ-ID: Defdb00182670

Severity: K3 - malfunction (no workaround)

Description: If a data structure containing an array as element is defined, this array is handled as simple variable at runtime using the communication mechanisms BRWS, OPC-UA, MLPI, OPC.DA, OPC.IwScp. Only the initial element of the array can be read/written.

Debugging after online change might not be possible anymore.

CQ-ID: Defdb00181134

Severity: K4 - malfunction

Description: The following steps cause the error pattern:

- Logging in

- Setting a breakpoint in a function block instance in a line and running the program up to the breakpoint

- Continuing debugging for some more lines (e.g. single step)

- Logging out

- Removing the complete code line from the function block

- Compiling program

- Logging in with online change

- Setting a breakpoint in the function block instance in one of the remaining lines

- Starting program execution

==> Error pattern:

- Program stops at a breakpoint: The code lines are not displayed anymore. The line for execution is not visible.

Workaround: With logout > login, the call stack is generated again and the corresponding code line is again displayed for debugging.

Engineering / SL Manager

Exception when renaming Safety I/O components

CQ-ID: Defdb00181242

Severity: K2 - serious malfunction

Description: An exception occurs when renaming Safety I/O components (axes, inputs and outputs, bus).

Workaround: Undoing the changes. If errors still occur, the corresponding component has to be completely deleted and created again.

Engineering / Version Control System

ACI screen disappears after executing “Undo hijack”

CQ-ID: Defdb00181589

Severity: K3 - malfunction (no workaround)

Description: If an ACI screen under VCS was hijacked, the editor of the screen was opened, the name of the screen was changes and hijacking was undone, the name of the screen was not reset to the original name.

IndraMotion Service Tool

The hardware configuration overview cannot be generated

CQ-ID: Defdb00181929

Severity: K3 - malfunction (no workaround)

Description: If no Sercos devices are detected, the hardware configuration overview cannot be generated.

If “Hardware overview” is selected, an HTML or XML overview on the current configuration can be generated with “Save”. This method cannot be used if no Sercos devices are found.

Logic

Symbol configuration not completely available on the OPC-UA server

CQ-ID: Defdb00183748

Severity: K3 - malfunction (no workaround)

Description: While browsing, the number of displayable items in the address space can be restricted to 100 per node with regard to the client used. This restriction does not apply for the Bosch Rexroth UA test client.

Operation / HMI

Filter dialog in the IndraWorks screen “Diagnostics” is not really language-dependent

CQ-ID: Defdb00176716

Severity: K3 - malfunction (no workaround)

Description: The filter dialog in the “Diagnostics” screen did not change the language when the language was switched online.

53.1.2 Functional enhancements

Engineering / PLC Libraries

TechInterface: User modes reduced. New: ModePosSX for MLC-H plug-in

CQ-ID: Defdb00185189

Severity: K2 - serious malfunction

Description: Eight user modes MODEXx_USER_1..MODEXx_USER_8 are defined in the types for the operation mode selection (MB_AXIS_MODE, MB_AXIS_MODE_BITS.....).

Only three bits are then available for future extensions.

Enhancement: For hydraulic plug-ins, the new operation mode MODE_POS_SX (see MB_MovePositionSX) is introduced.

The user modes MODEXx_USER_5..MODEXx_USER_8 are omitted. Thus, these bits can be used for future extensions.

MB_RegisterControllerType02/04: At “SetpointLock”, the I-value of the internal PI-controller is not deleted

CQ-ID: Defdb00185213

Severity: K6 - functional enhancement

Description: MB_RegisterControllerType02/04:

When executing the “SetpointLock” function, only the actual value (RecordedPosition) is applied as command value (Setpoint). However, the internal PI-controller is not reset.

In most cases (without remaining control deviation), it is advantageous to set the I-value of the internal PI-controller to “0” as well when executing the “SetpointLock” function

Enhancement: When executing “SetpointLock”, the output of the internal PI-controller is set to "0" => the output "ControlValue" becomes "0".

53.1.3 Known issues

Engineering / CamBuilder

FlexProfile function block generation incorrect

CQ-ID: Defdb00185506

Severity: K3 - malfunction (no workaround)

Description: The FlexProfile code generation is incorrect for cams with the motion law “Rest-in-rest - Standstill” followed by a motion law “General motion - Polynomial 2nd order" and cannot be compiled.

Engineering / PLC Programming

Error message "Internal Error (SH): Expression..." in “Generate code”

CQ-ID: Defdb00185468

Severity: K2 - serious malfunction

Description: In the PLC compiler version 3.5.7.40, an error is output during code generation in case of projects with complex expressions such as > pTests^[i].NoOfTestExecutions := pTests^[i].NoOfTestExecutions + 1;<

When double-clicking on the error, the user is not guided to the position in the code, causing the error.

Engineering / HMI

Warning “Invalid process variable" after “Verify application” in WinStudio

CQ-ID: Defdb00178978

Severity: K4 - malfunction

Description: If a WinStudio project is converted from a version < 14V08 to the version 14V08 and the function “Verify application” is subsequently executed, the item strings, whose POU identifiers are displayed in upper case letters in the driver sheet, are marked as invalid. (A warning is displayed in the message window.)

Workaround: The warnings can either be ignored or the respective item strings can be adjusted with regard to the POU.

(The name has to be adjusted according to the symbol configuration.)

Example: BRWS:

Application.GLOBAL_MACHINE.arAppErrMachineControl_gb[1];T_BOOL

has to be changed to

Application.Global_Machine.arAppErrMachineControl_gb[1];T_BOOL

Logic

The method “Get Accessor" of the function block initiates the system error "F9240005"

CQ-ID: Defdb00165259

Severity: K4 - malfunction

Description: The error can be reproduced if the following is programmed in the PLC:

1. Creating a function block with a property returning an integer type in the Get Accessor
2. Using the Get Accessor to access an index in an array

Workaround: The error does not occur if the Get Accessor value is first saved in an intermediate variable and if this variable is then used for the index access of the array.

53.2 Firmware

53.2.1 Resolved defects

_Other

Controller axis with parameter system: Login to the MLC L25 is not possible

CQ-ID: Defdb00183912

Severity: K2 - serious malfunction

Description: The use of the ML_ParamBase library could have caused an error in an MLC L25 while downloading the application.

It cannot be completely browsed through the structural data of the OPC-UA

CQ-ID: Defdb00184453

Severity: K3 - malfunction (no workaround)

Description: Structural data cannot be completely browsed with OPC-UA.

When addressing via node ID, they can neither be read nor written.

OPC UA: Event function blocks cause a system error at the service provider

CQ-ID: Defdb00183598

Severity: K3 - malfunction (no workaround)

Description: If the function block BaseEventType (Lib IL_Opc_UA) or a derived instance is used in the PLC program, a PLC download caused a system error.

Reading the temperature causes a co-processor exception in the VPx control

CQ-ID: Defdb00179272

Severity: K2 - serious malfunction

Description: When reading the temperature via the BR_BSPAPI command “BRBSPAPI_TEMP_STATUS”, the float value 8,968319E-44 is present in the "fTempVal” output after the execution. When writing the value to a local variable, a co-processor exception results, as the float value range is only between 3.4E-38 to 3.4E+38.

Incorrect display in the Csos connection diagnostics for Safety

CQ-ID: Defdb00178652

Severity: K3 - malfunction (no workaround)

Description: The status display of the CSos and ProfiSafe connections is incorrectly displayed.

Axis

"A-0-0002, Axis name" does not synchronize "S-0-0142, Application type" of the controller axis anymore

CQ-ID: Defdb00184772

Severity: K3 - malfunction (no workaround)

Description: For a controller axis (centralized hydraulic controller), the name of the axis (A-0-0002) was not applied to S-0-0142 in the parameter system of the PLC.

Fixing: The axis name (A-0-0002) is applied to S-0-0142 if there is a parameter system of the PLC.

Value in A-0-2201 is displayed incorrectly

CQ-ID: Defdb00185661

Severity: K3 - malfunction (no workaround)

Description: Sporadically, A-0-2201 Target position contained a negative value even though the axis is modulo scaled.

With MPB 16, the MLC cannot run a phase switching after BB.

CQ-ID: Defdb00179757

Severity: K3 - malfunction (no workaround)

Description: In case of MPx 16 drives, the subdevice state machine was coupled to the parameter S-0-0425 upon startup. However, it is not supported by the MPx 16 drives. Thus, it could not be switched to BB.

Fixing: The parameter P-0-4088 is used.

Core

In the control probe, the parameter M-0-0224 Error counter of the marker is not incremented

CQ-ID: Defdb00180874

Severity: K3 - malfunction (no workaround)

Description: The parameter M-0-0224 (number of marker failures) was not incremented in all cases.

Import Export

Parameter export does not work for P-parameters with the MLPI

CQ-ID: Defdb00184137

Severity: K3 - malfunction (no workaround)

Description: If a pattern was specified to export the P-parameters to while exporting parameters via the MLPI (e.g. [4]:S[32769] for P-0-0001), this pattern was not considered and all parameters were exported.

IndraMotion Service Tool

Parameter C-0-0506 is not displayed correctly

CQ-ID: Defdb00182738

Severity: K3 - malfunction (no workaround)

Description: Parameter requests to the MLC-FW via IMST might have returned invalid values. This was not only the case for the parameter C-0-0506. It was possible that other parameters were invalid as well.

Logic

Watchdog error at fast I/O module during control startup

CQ-ID: Defdb00185201

Severity: K3 - malfunction (no workaround)

Description: If a watchdog error occurs at the fast I/O module during the control startup, an incorrect diagnostics (module not available) is entered in the error memory.

The outputs remain in safe state; the inputs can still be read by the application.

MLPI

Incorrect signature for the method Robot.GetStatusSummary()

CQ-ID: Defdb00184073

Severity: K3 - malfunction (no workaround)

Description: The Robot.GetStatusSummary() was wrapped incorrectly by mlpiCore. As there are no pointers in Java, the output structure cannot be used as input structure.

Fixing: A new structure was created for the transfer parameters. This changed the signature of the function as well.

Incorrect WatchdogState description

CQ-ID: Defdb00181888

Severity: K4 - malfunction

Description: The description of the enumeration “WatchdogState” was incorrect.

System error in case of simultaneous access via ParameterLib.mlpiParameterReadEverything

CQ-ID: Defdb00176914

Severity: K2 - serious malfunction

Description: Accessing the function mlpiParameterReadEverything simultaneously from multiple connections can cause a system error of the control.

Motion Functions

F50D200 watchdog Motion kernel for FlexProfile with negative master axis

CQ-ID: Defdb00171273

Severity: K3 - malfunction (no workaround)

Description: It was possible that the error F50D200 occurred when starting the FlexProfile if the actual position of the master axis was negative.

Fixing: No watchdog is generated anymore. The corresponding entry point is not found upon the profile start if the actual position of the master axis is negative. The error “F2229296, Absolute entry point in the FlexProfile not found” is output.

RobotControl

Belt value is negative

CQ-ID: Defdb00183838

Severity: K3 - malfunction (no workaround)

Description: If an axis, which is a belt in a kinematics, rotates backwards, the belt value could have assumed negative values.

Error "F2037" for orientation motion without motion in space

CQ-ID: Defdb00184552

Severity: K3 - malfunction (no workaround)

Description: If only orientation motion was commanded without any motion in space, the error F2037 was caused at the respective drive if real axes were used. The motion of the orientation axis was limited to 100% of the axis limit values.

Additionally, the motion in space was not limited by the motion of the orientation axis if “Adaptive Motion” was used.

Fixing: The limit values used for the axes of a kinematics now correspond to 99% of the axis limit values (velocity, acceleration, jerk). Thus, the error F2037 or the warning E2070 is not output anymore.

Furthermore, the motion of the orientation axis does now also limit the motion of the path for “Adaptive Motion”.

The belt value jumps during phase switching

CQ-ID: Defdb00183836

Severity: K3 - malfunction (no workaround)

Description: If it was switched from P4 via P2 to P4 and if a real drive was used, the belt value jumped.

Traversing range of the 2-axis delta kinematics is not sufficient

CQ-ID: Defdb00183420

Severity: K3 - malfunction (no workaround)

Description: The permitted traversing range of a 2-axis delta kinematics was too restricted. Axis 1 could only move between 90° and 270° and axis 2 between -90° and 90°.

Fixing: Axis 1 can now move between 90° and 360° and axis 2 between -180° and 90°. A change in arm modes is still not possible.

Sercos

The write-protection command C-0-1009 depends on the control mode and not on the Sercos phase

CQ-ID: Defdb00183645

Severity: K2 - serious malfunction

Description: Scanning the Sercos bus configuration was depending on the control mode. If the control mode was in BB and the Sercos communication phase in P0, scanning was not possible.

Error in I/O diagnostics for S20 Sercos I/Os (safe/unsafe)

CQ-ID: Defdb00183739

Severity: K3 - malfunction (no workaround)

Description: Incorrect Sercos diagnostics are reported for Sercos devices configured behind a Safety I/O device.

II_SIIIMasterState: The error is not reported if no cyclic data is configured

CQ-ID: Defdb00179318

Severity: K3 - malfunction (no workaround)

Description: No cyclic data was configured at a Sercos PLC device.

An error was pending at the device. That error was not reported in the status word of the IL_SIIIMasterState function block.

There was also no error detected in the IndraLogic I/O diagnostics.

Error message "Sercos device is configured in the IndraWorks..." after XMM clean or control exchange

CQ-ID: Defdb00183945

Severity: K4 - malfunction

Description: The error message "Sercos device is configured in the IndraWorks project but no sercos device with matching firmware and Sercos address is connected to the control" was displayed after an XXM clean while switching the Sercos phase from P2 to P4, even though the Motion configuration was synchronized and it was logged into the PLC after the XMM clean.

53.2.2 Known issues

Sercos

IP addresses are not set in the Sercos devices during startup

CQ-ID: Defdb00184967

Severity: K3 - malfunction (no workaround)

Description: After a system restart, the IP address is not set in the Sercos devices.

Logic

Forced (F7) outputs are not always reset in case of an IEC task exception

CQ-ID: Defdb00180029

Severity: K3 - malfunction (no workaround)

Description: If outputs are forced (F7), the outputs are only partially reset in case of an IEC task exception (DivByZero):

- Onboard, fast I/O: Outputs are flashing at a very high frequency
- PN, DP: Outputs are flashing at one-second intervals
- Inline, Sercos: Outputs change to 0

54 IndraLogic XLC/IndraMotion MLC 14V12 firmware and software

54.1 Software

54.1.1 Resolved defects

_Other

Axis commissioning wizard: For PROFIsafe on PROFINET, the “Next" button is not enabled

CQ-ID: Defdb00183246

Severity: K4 - malfunction

Description: During the initial commissioning of the SafeMotion, the “Next" button was not enabled for the safe bus communication if PROFIsafe was selected.

Engineering / _Other

A Hydraulic Drive cannot be inserted at the Sercos node below the MLC

CQ-ID: Defdb00182026

Severity: K2 - serious malfunction

Description: If a Hydraulic Drive was exported below an MLC and then it was tried to import this Hydraulic Drive again, it was not possible. No option could be selected in the “Import” dialog.

IndraWorks archiving: ambiguous error message

CQ-ID: Defdb00181776

Severity: K3 - malfunction (no workaround)

Description: Archiving errors due to long file paths (>=250 bytes) could not be diagnosed.

Fixing: Additional detailed error information is written to the event log of the operating system. If an error occurs, the archiving dialog displays a button to directly open the event viewer.

The time of the message “Project was last saved xx min ago” keeps on running

CQ-ID: Defdb00182835

Severity: K3 - malfunction (no workaround)

Description: The time the project was last saved continues to run and is not reset by saving.

Engineering / CamBuilder

CamBuilder preview: “One-time execution" does not work

CQ-ID: Defdb00181879

Severity: K4 - malfunction

Description: “One-time execution" does not work for the CamBuilder preview.

Engineering / Drive

HydraulicDrive: Initial commissioning dialog missing for MLC

CQ-ID: Defdb00181108

Severity: K3 - malfunction (no workaround)

Description: The dialog for the initial commissioning is missing for the HDx derivatives (and the corresponding real axes).

Engineering / GAT

Creating a GAT-HMI causes an endless loop or an exception

CQ-ID: Defdb00183560

Severity: K3 - malfunction (no workaround)

Description: Creating a GAT-HMI causes an endless loop or an exception if the PLC of the control is logged in.

Engineering / HMI

Internal variable "ServerTime_" does not work

CQ-ID: Defdb00165827

Severity: K2 - serious malfunction

Description: The internal variable "ServerTime_" is not correctly refreshed on web client under Windows CE.

Incomplete restoring of communication after connection abort at OPC-UA

CQ-ID: Defdb00173458

Severity: K3 - malfunction (no workaround)

Description: On VEPxx.4 devices with the operation system Windows CE 6.0, the communication could sporadically not be restored after a physical connection interruption to the control when using the WinStudio OPC-UA driver.

Replacing the variables does not replace all variables

CQ-ID: Defdb00174183

Severity: K3 - malfunction (no workaround)

Description: If a WinStudio variable that is part of a class is changed, a dialog is displayed. With this dialog, it can be decided if the variable is searched and replaced in the entire project.

While the function is executed, the PC cannot be operated until this function has been completed.

After the function has been completed not all positions have been found and replaced.

WinStudio: Error while validating if no symbol file exists

CQ-ID: Defdb00181775

Severity: K3 - malfunction (no workaround)

Description: If a project was validated with a Logic symbol file, an “internal software error” resulted when during project validation. Validation was not executed.

WinStudio TagWizard: The same tag name impedes overwriting in the driver sheet

CQ-ID: Defdb00181807

Severity: K4 - malfunction

Description: When replacing a single line in a driver sheet using the WinStudio TagWizard, “OK” is not enabled if the tag name of the line to be inserted already exists.

WinStudio: Images are scaled incorrectly during import (incorrect image size)

CQ-ID: Defdb00181299

Severity: K4 - malfunction

Description: When overwriting a WinStudio project with another project during the import, the target project resolution is changed. This cannot be corrected subsequently. Furthermore, unexpected scaling of the relevant WinStudio images occurs during export/import.

Engineering / PLC Libraries

MB_DigitalCamSwitchOvs does not correctly consider the time-controlled switch

CQ-ID: Defdb00182107

Severity: K3 - malfunction (no workaround)

Description: A time-controlled switch does sporadically switch incorrectly. In this case, the switch does not switch off after the time specified, but at the switch-off position.

MB_DigitalCamSwitchOvs returns incorrect values if the positions are not entered within the modulo value

CQ-ID: Defdb00181725

Severity: K4 - malfunction

Description: If the MB_DigitalCamSwitchOvs or MC_DigitalCamSwitch is configured with the Switches.FirstOnPosition and/or Switches.LastOnPosition being outside the modulo value, the function block can generate incorrect switching points in time.

ML_TechRegi: ParameterControlValue jumps to “0” when entering the correction window if controlled to P-0-0694/A-0-2605

CQ-ID: Defdb00182909

Severity: K4 - malfunction

Description: When controlling to the gear fine adjustment (P-0-0694/A-0-2605), ParameterControlValue is set to 0 when entering the correction window. Then, it is started with the S-curve-shaped ramping of the ParameterControlValue.

Fixing: Now, when controlling to the gear fine adjustment (P-0-0694/A-0-2605), the ParameterControlValue is integrated.

MB_TensionControlLoadCellType01: Preset is not applied correctly.

CQ-ID: Defdb00181557

Severity: K5 - non critical problem

Description: After enabling MB_TensionControlLoadCellType01 with Preset = TRUE, values from the last call are output as ControlValue for a few cycles and also written to the drive.

Engineering / PLC Programming

PersistenceEditor: The list is initialized after deleting the instance path variables

CQ-ID: Defdb00176846

Severity: K2 - serious malfunction

Description: Deleting and commenting out of instance path variables results in a reinitialization of the persistent variable list in the PersistenceEditor.

IndraWorks interface cannot be operated when logging in

CQ-ID: Defdb00181746

Severity: K3 - malfunction (no workaround)

Description: When logging in to the PLC, it was possible that the IndraWorks interface could not be operated anymore. The IndraWorks interface was completely disabled. There was no response anymore to the user entries.

Fixing: If the error occurs now, IndraWorks displays an error message that can be confirmed by the user. The,, further working with IndraWorks is possible.

When using the reference list, the settings of the functional scope are not taken into consideration correctly

CQ-ID: Defdb00178764

Severity: K3 - malfunction (no workaround)

Description: When using the reference list, the settings of the functional scope are not taken into consideration correctly. A currently searched for variable is called in a function block action. The functional scope setting “Active application” shows all variable references as well as the references in the actions. If only the function block is set in the settings of the functional scope, the references in the actions are not found in the reference list. However, the action is part of the function block. Thus, the reference list should display the entries.

When restoring a project archive, the device descriptions are not applied

CQ-ID: Defdb00178565

Severity: K4 - malfunction

Description: When restoring a project archive, the included device descriptions are also applied to the device database.

If IndraWorks was exited and then restarted, these devices were again not in the device database anymore.

Engineering / Version Control System

Project incorrectly retrieved from the team server

CQ-ID: Defdb00183493

Severity: K3 - malfunction (no workaround)

Description: When opening a project from the team server in which the Profinet node was set and the Profibus node was not set, only the default representation (Profibus set and Profinet not set) was displayed. The actual values were not restored.

PLC Library

The SysDirGetCurrent function returns an incorrect result

CQ-ID: Defdb00156653

Severity: K4 - malfunction

Description: The SysDirGetCurrent function does not return the current directory. The function always returns "/ata0b/" as directory name, even if another directory was set as current directory using the SysDirSetCurrent function.

54.1.2 Known issues

Engineering / _Other

Automation Interface: Function ContainsLibrary() does not find libraries

CQ-ID: Defdb00183033

Severity: K4 - malfunction

Description: If the IndraWorks .NET Automation Interface was used and if the method "IIwPlcLibraryManager.ContainsLibrary" was used for a PLC library added to the PLC project using a placeholder, the method "ContainsLibrary" returned FALSE, even though the library was part of the PLC project.

Engineering / HMI

WinStudio: Driver sheet numbers were not properly applied during copying

CQ-ID: Defdb00183786

Severity: K3 - malfunction (no workaround)

Description: When copying WinStudio driver sheets and inserting them into another visualization device, the driver sheet index is increased by 1.

Engineering / Periphery

Disabled devices are enabled again after logout

CQ-ID: Defdb00182602

Severity: K3 - malfunction (no workaround)

Description: Devices disabled in the project tree were enabled again after login and subsequent logout.

Engineering / PLC Programming

IecVarAccess: Array elements are not resolved

CQ-ID: Defdb00182670

Severity: K3 - malfunction (no workaround)

Description: If a data structure containing an array as element is defined, this array is handled as simple variable at runtime using the communication mechanisms BRWS, OPC-UA, MLPI, OPC.DA, OPC.IwScp.

Only the initial element of the array can be read/written.

IndraMotion Service Tool

The hardware configuration overview cannot be generated

CQ-ID: Defdb00181929

Severity: K3 - malfunction (no workaround)

Description: If no Sercos devices are detected, the hardware configuration overview cannot be generated.

If “Hardware overview” is selected, an html or XML overview of the current configuration can be generated by clicking on “Save”. This method cannot be used if no Sercos devices are found.

Logic

Icon configuration not completely available on the OPC-UA server

CQ-ID: Defdb00183748

Severity: K3 - malfunction (no workaround)

Description: While browsing, the number of displayable items in the address space can be restricted to 100 per node with regard to the client used.

This restriction does not apply for the Bosch Rexroth UA test client.

54.2 Firmware

54.2.1 Resolved defects

_Other

OPC UA: Data type REFERENCE cannot be read/written anymore.

CQ-ID: Defdb00182867

Severity: K2 - serious malfunction

Description: Reference types of IEC cannot be browsed, read or written on in the OPC UA address space.

Incorrect telegrams via the Sercos interface

CQ-ID: Defdb00182299

Severity: K3 - malfunction (no workaround)

Description: Incorrect telegrams might have been sent during the NRT communication via the Sercos interface. This could have caused the following problems:

- Packages had to be sent again causing a slower transmission

- Incorrect packages are not interpreted as incorrect by the other side causing incorrect data at the side of the recipient.

Axis

Encoder axis: The dead time compensation cannot be changed via "PM"

CQ-ID: Defdb00182404

Severity: K4 - malfunction

Description: Changing the dead time compensation (parameter A-0-2800 “Master axis encoder, configuration") in the parameterization level (PM) did not affect the position of the encoder axis after switching to "OM”.

Master axis filter: Change in filter type (via PM and then again to BB), actual position value remains

CQ-ID: Defdb00182600

Severity: K4 - malfunction

Description: Changing the filter type (A-0-2804 “Master axis encoder, filter type") for an encoder axis in the parameterization mode "PM" caused that the encoder axis did not follow the master axis anymore and remained in the current position.

RobotControl

ML_GroupLoadPointFile reports the error "F0299529" if a point name has 20 characters

CQ-ID: Defdb00181131

Severity: K3 - malfunction (no workaround)

Description: The function block ML_GroupLoadPointFile reports the error "F0299529" (TeachIn: Name too long) if the previously saved point name had 20 characters.

RoCo V2: Traversing range of the 2-axis delta kinematics is not sufficient

CQ-ID: Defdb00183565

Severity: K3 - malfunction (no workaround)

Description: The permitted traversing range of a 2-axis delta kinematics was too restricted. Axis 1 could only move between 90° and 270° and axis 2 between -90° and 90°.

Fixing: Axis 1 can now move between 90° and 360° and axis 2 between -180° and 90°. A change in arm modes is still not possible.

Error when desynchronizing multiple belts at the same time

CQ-ID: Defdb00179451

Severity: K4 - malfunction

Description: If it was desynchronized simultaneously from multiple belts with limit values using ML_BeltDeSynchronizationWithLimits, the following error behavior resulted:

1) When using TO during desynchronization, jumps can result in the path velocity.

2) When using VIA during desynchronization, the system error F9240005 occurred.

Sercos

If there are many devices with errors, the MLC cannot be reached anymore in CP2.

CQ-ID: Defdb00177981

Severity: K2 - serious malfunction

Description: If 230 Sercos devices were connected to the control and if nearly all these devices displayed an error in CP4, the communication to IndraWorks was interrupted when switching the phase to CP2. Additionally, the content on the display was not refreshed anymore.

C2C, IP communication is not possible via UDP

CQ-ID: Defdb00182300

Severity: K3 - malfunction (no workaround)

Description: The C2C link should be used as main communication channel for the IP communication between two controls, the HMI device and other clients (e.g. smartphones). But the communication did not work, as the NRT-driver was not enabled in the C2C interface even though it was correspondingly configured in the control.

Problem with software service channel if the slave SVC.Status is incorrectly initialized

CQ-ID: Defdb00181558

Severity: K3 - malfunction (no workaround)

Description: If a Sercos slave device did not correctly initialize the SVC status after switching the phase to CP3, problems with the service channel handling were caused. The MLC then reported the error "IndraControl F03A2004 Sercos addr: XX, MdT connection length read Error : XXXXXXX".

Sercos IP communication: IP addresses are set, but not activated

CQ-ID: Defdb00181904

Severity: K3 - malfunction (no workaround)

Description: For Sercos devices with the class SCP_NRTPC, the command S-0-1048 was not executed after specifying the IP address.

System error occurs if the MLCL65/MLCL45 with I/O devices switches from P4 to P2

CQ-ID: Defdb00183245

Severity: K3 - malfunction (no workaround)

Description: If it was switched from P4 to P2 with a higher number of devices (more than 100), the watchdog error F9200017 resulted.

XM22, VPx: Sercos interrupts arise at an incorrect point in time in the cycle if the Sercos cycle time is 250 µs

CQ-ID: Defdb00179571

Severity: K3 - malfunction (no workaround)

Description: Due to timing problems, a Sercos cycle time of 250 µs could not be set for the controls XM22 and VPx. Only cycle times of 500 µs or higher were possible. CML controls were not affected.

Setting the system time in the drive (MPx20) in phase 4, causes an incorrect value in S-0-1305.0.1

CQ-ID: Defdb00182039

Severity: K4 - malfunction

Description: Setting the MLC system time in the operating mode, sets an incorrect time in the parameter S-0-1305.0.1. Only drives with the firmware MPx20 were affected.

55 IndraLogic XLC/IndraMotion MLC 14V10 Patch 03 Hotfix 2 firmware and software

55.1 Software

55.1.1 Resolved defects 14V10 Patch 03 Hotfix 1

_Other

The offline parameterization does not work correctly in IndraWorks 14

CQ-ID: Defdb00187234

Severity: K3 - malfunction (no workaround)

Description: When opening the axis, the message window displays “The drive could not be started".

The Windows Task Manager shows that "DriveServer" were not started.

The behavior occurs always for double axes (MPM 18V20) and sporadically for single axes (MPB 18V20).

Engineering / _Other

IndraWorks can hardly be operated. Parameter access very slow

CQ-ID: Defdb00187201

Severity: K2 - serious malfunction

Description: When connecting to the MLC via the oscilloscope function, bit 17 is set in the parameter C-0-0036 and thus the SIP communication is disabled. Thus, the SIS protocol for the communication always remains enabled. IndraWorks can thus hardly be operated and accessing the parameters becomes very slow.

IW project 14V10P3 cannot be opened again after saving

CQ-ID: Defdb00187232

Severity: K3 - malfunction (no workaround)

Description: When reaching a specific project scope, it is possible that the project cannot be opened anymore in IndraWorks, as the IndraLogic part requires more stack memory than the 1 MB defined for the process by default.

55.1.2 Resolved defects 14V10 Patch 03 Hotfix 2

Sercos

Disabling Sercos I/O slaves does not work sporadically

CQ-ID: Defdb00188883

Severity: K3 - malfunction (no workaround)

Description: Disabling Sercos I/O slaves does not work sporadically via the file Userdef.cfg. A digit is added sporadically to the Sercos address specified in Userdef.cfg. The error "F0393807: UserDefs (Sercos) device 18 not configured” is displayed.

55.1.3 Known issues 14V10 Patch 03 Hotfix 1

Engineering / Firmware Management

The firmware download was aborted with an unknown error

CQ-ID: Defdb00187202

Severity: K3 - malfunction (no workaround)

Description: In case of double axes, the error message “Download aborted with unknown error” was displayed in the download dialog. The display then shows "FL:F ACC". If the drive is restarted subsequently, the display shows "LOADER IP address: 192.168.0.1".

Fixing: If the download fails, the following message window is displayed:

Firmware management Sercos devices - <name>

CAUTION: The download to the following devices failed. Its is possible that a part of the firmware has already been loaded to the devices.

Check the device states before executing a restart. If you are not sure, download the firmware again to the devices.

56 IndraLogic XLC/IndraMotion MLC 14V10 Patch 03 hotfix 1 firmware and software

56.1 Software

56.1.1 Resolved defects

_Other

The offline parameterization does not work correctly in IndraWorks 14

CQ-ID: Defdb00187234

Severity: K3 - malfunction (no workaround)

Description: When opening the axis, the message window displays “The drive could not be started".

The Windows Task Manager shows that "DriveServer" were not started.

The behavior occurs always for double axes (MPM 18V20) and sporadically for single axes (MPB 18V20).

Engineering / _Other

IndraWorks can hardly be operated. Parameter access very slow

CQ-ID: Defdb00187201

Severity: K2 - serious malfunction

Description: When connecting to the MLC via the oscilloscope function, bit 17 is set in the parameter C-0-0036 and thus the SIP communication is disabled. Thus, the SIS protocol for the communication always remains enabled. IndraWorks can thus hardly be operated and accessing the parameters becomes very slow.

IW project 14V10P3 cannot be opened again after saving

CQ-ID: Defdb00187232

Severity: K3 - malfunction (no workaround)

Description: When reaching a specific project scope, it is possible that the project cannot be opened anymore in IndraWorks, as the IndraLogic part requires more stack memory than the 1 MB defined for the process by default.

56.1.2 Known issues

Engineering / Firmware Management

The firmware download was aborted with an unknown error

CQ-ID: Defdb00187202

Severity: K3 - malfunction (no workaround)

Description: In case of double axes, the error message “Download aborted with unknown error” was displayed in the download dialog. The display then shows "FL:F ACC". If the drive is restarted subsequently, the display shows "LOADER IP address: 192.168.0.1".

Fixing: If the download fails, the following message window is displayed:

Firmware management Sercos devices - <name>

CAUTION: The download to the following devices failed. Its is possible that a part of the firmware has already been loaded to the devices.

Check the device states before executing a restart. If you are not sure, download the firmware again to the devices.

57 IndraLogic XLC/IndraMotion MLC 14V10 Patch 03 firmware and software

57.1 Software

57.1.1 Resolved defects

Engineering / Drive

Exception when changing the firmware in the IndraWorks project

CQ-ID: Defdb00183140

Severity: K4 - malfunction

Description: After a drive below an XLC/MLC with a firmware lower than MPx20 and existing drive offline parameters was updated to MPx20 firmware, exceptions result when it is tried to start the offline parameterization for the drive.

Fixing: The offline parameterization for drives with MPx20 firmware is currently not supported. Starting the offline parameterization for the drive is not allowed.

58 IndraLogic XLC/IndraMotion MLC 14V10 Patch 02 firmware and software

58.1 Software

58.1.1 Resolved defects

Engineering / _Other

Hydraulic Drive cannot be inserted at the Sercos node below the MLC

CQ-ID: Defdb00182026

Severity: K2 - serious malfunction

Description: If a Hydraulic Drive was exported below an MLC and then it was tried to import this Hydraulic Drive again, it was not possible. No option could be selected in the “Import” dialog.

Engineering / CamBuilder

Distance is not correctly applied while importing CSV files

CQ-ID: Defdb00181078

Severity: K2 - serious malfunction

Description: For certain cam tables (bell-shaped curves with starting and end angle unequal to 0), the distance factor entered during import is not correctly applied. Thus, the cam table in the CamBuilder is not correctly displayed.

Workaround: Enter the distance factor into the cam editor. Then, the cam table is displayed correctly again.

Engineering / PLC Safety

Safety monitor function shows question mark

CQ-ID: Defdb00173220

Severity: K3 - malfunction (no workaround)

Description: If the Safety editor is switched to online, some variables are incorrectly displayed in the monitor function. Question marks (???) are displayed.

Engineering / Version Control System

Subversion Certificate - Query is issued each time

CQ-ID: Defdb00179703

Severity: K3 - malfunction (no workaround)

Description: If the team server is used with the subversion via https, a certificate query is issued upon each access.

58.1.2 Known issues

Engineering / CamBuilder

CamBuilder preview: “One-time execution" does not work

CQ-ID: Defdb00181879

Severity: K4 - malfunction

Description: CamBuilder preview: “One-time execution" does not work.

Engineering / HMI

WinStudio TagWizard: Creating tags with symbol files of third-party project controls does not work

CQ-ID: Defdb00182308

Severity: K4 - malfunction

Description: Variables loaded from another control to the process variable browser are not supported by the TagWizard.

Engineering / PLC Libraries

ImcInterface should check control mode and Sercos phase

CQ-ID: Defdb00182394

Severity: K2 - serious malfunction

Description: The variable ImcStatus.Admin._OpModeAck indicates the control mode.

When setting the parameterizable error reaction to F2 or F5, the control mode and the Sercos phase can be different.

Example: A Sercos slave acknowledges a command for phase switching as negative. The Sercos phase is then 2 and the control mode is 4 or bb.

ImcStatus.Admin._OpModeAck reports bb, but the Sercos axes are not ready. In this state, the Imc-Interface should not report "bb".

MB_DigitalCamSwitchOvs does not correctly consider the time-controlled switch

CQ-ID: Defdb00182107

Severity: K3 - malfunction (no workaround)

Description: A time-controlled switch does sporadically switch incorrectly. In this case, the switch does not switch off after the time specified, but at the switch-off position.

58.2 Firmware

58.2.1 Resolved defects

_Other

Incorrect telegrams via the Sercos interface

CQ-ID: Defdb00182202

Severity: K3 - malfunction (no workaround)

Description: Incorrect telegrams might have been sent for the NRT communication via the Sercos interface. This could cause that

- packages had to be sent again causing slower transmissions

- incorrect packages are not interpreted as incorrect by the other side causing incorrect data at the side of the recipient.

Subscription parameters are incorrectly computed at OPC UA

CQ-ID: Defdb00180893

Severity: K3 - malfunction (no workaround)

Description: When creating a subscription, the UA client and the UA server specify the timing parameters. If the requested values of the client exceed the upper limits in the server, the final timing parameters are incorrectly computed. Revi-

sedLifetimeCount and RevisedMaxKeepAliveCount are set to the same value which might cause a reduction of the subscription after RevisedMaxKeepAliveCount.

Axis

For double axis devices, the parameter changes are written from axis 2 to axis 1

CQ-ID: Defdb00182217

Severity: K4 - malfunction

Description: If the drive address of the serial interface (P-0-4022) was set to a value unequal to the drive address of the master communication (P-0-4025 or S-0-1040) for a double axis with the firmware version MPx07, the drive was accessed with the wrong address while accessing the parameter on the control (P-0-4025 instead of P-0-4022). Thus, data was written to the wrong drive of the double axis. The difference in the parameters P-0-4022 and P-0-4025 could for example be caused by a parameter import from one drive to another drive.

Fixing: When establishing the SIS connection to the drive, the parameter P-0-4031 is now read and the corresponding drive address of the serial interface to the Sercos address is determined. Drives are only accessed via the SIS protocol using the drive address of the serial interface.

Workaround: 1) Setting the parameters P-0-4022 and P-0-4025 to an equal value for double axes

2) Switching off the SIS communication via the parameter C-0-0036 bit 16

Logic

Criteria analysis (OPD) ILCT: M-keys cannot be pressed (“Action1_renamed”), CA does not work in OPD

CQ-ID: Defdb00180123

Severity: K3 - malfunction (no workaround)

Description: If another communication such as SCP or diagnostics (OPD) is running during online change, the online change can block for a longer period and diagnostic data could be retrieved anymore from the control.

C-0-0405 not effective

CQ-ID: Defdb00182014

Severity: K4 - malfunction

Description: In all controls, C-0-0405 was not effective for the following functions:

010: Stop: The PLC remains in the STOP state.

011: Start in the operating mode: The PLC automatically starts when booting in the operating mode.

100: Last state: If the PLC was in RUN when switched off, it starts when the control is booted. Otherwise, it remains in STOP.

In addition, the PLC starts if the STOP state was caused by a PLC exception.

If one of the three functions was set in the parameter, the PLC state was always set to "RUN" after the control boot.

Sercos

VPx: After BootEnd, there is no switching to the target mode

CQ-ID: Defdb00182051

Severity: K2 - serious malfunction

Description: If a phase switching was initiated by writing C-0-0451 in the first cycles of the PLC program after startup, there was a deadlock in the startup state machine of the firmware and the phase was not switched. Each further write access to C-0-0451 was aborted with the error “Command already active".

59 IndraLogic XLC/IndraMotion MLC 14V10 Patch 01 firmware and software

59.1 Software

59.1.1 Resolved defects

_Other

Triggering the IEC watchdog when switching the PLC to stop

CQ-ID: Defdb00180858

Severity: K3 - malfunction (no workaround)

Description: Switching the PLC to the “STOP“ state can trigger a watchdog.

Further processing of the PLC program is only possible with a control reset.

Importing a control fails

CQ-ID: Defdb00180521

Severity: K2 - serious malfunction

Description: Not all data from the export file was applied during import. Sercos and Safety CPU data was not imported.

Engineering / _Other

Exception for “MLC Properties” at the Automation Interface

CQ-ID: Defdb00181552

Severity: K3 - malfunction (no workaround)

Description: An exception was incorrectly reported if the properties "IIwMlcController.FunctionPackages", "IIwMlcFirmware.Version" or "IIwMlcMultiDeviceTable.DeviceNames" were called in the Automation Interface.

Engineering / CamBuilder

CamBuilder: Distance is not correctly applied while importing CSV files

CQ-ID: Defdb00181078

Severity: K2 - serious malfunction

Description: For certain cam tables (bell-shaped curves with starting and end angle unequal to 0), the distance factor entered during import is not correctly applied. Thus, the cam table in the CamBuilder is not correctly displayed.

Workaround: Enter the distance factor into the cam editor to correctly display the cam table again.

Engineering / HMI

ProVi messages are not displayed reliably

CQ-ID: Defdb00181048

Severity: K2 - serious malfunction

Description: Networks with ProVi messages are commented out. An online change was executed. Commenting of networks is canceled. Subsequently, some ProVi messages of unmodified POUs were not displayed anymore.

ProVi: Diagnostic texts are lost during export/import of the control

CQ-ID: Defdb00178783

Severity: K3 - malfunction (no workaround)

Workaround: 1. Export ProVi message individually via the context menu of the node (“Diagnostic text data\ProVi SFC text data editor“ – Export texts (XML/csv))

2. Subsequently, export the IndraWorks project

3. Reimport the project

4. Activate the ProVi diagnostics

5. Reimport the ProVi texts as described under 1.

WinStudio in IndraWorks: Exception when loading a WinStudio project

CQ-ID: Defdb00178563

Severity: K3 - malfunction (no workaround)

Description: If an already existing WinStudio project is overwritten using the “Load project” function in WinStudio, an exception is output.

WinStudio project verification: Variables not available in the project are not detected as error

CQ-ID: Defdb00173527

Severity: K3 - malfunction (no workaround)

Description: The function “Verify application” does not report any errors in OPC UA driver sheets if they contain invalid WinStudio variable names.

WinStudio standalone: TCP/IP driver is not available

CQ-ID: Defdb00163249

Severity: K3 - malfunction (no workaround)

Description: When opening a TCP/IP driver sheet, the message “Unable to load TCPIP” is displayed.

Fixing: Troubleshooting only for WinStudio standalone version.

WinStudio: GAT-HMI node cannot be deleted

CQ-ID: Defdb00179601

Severity: K3 - malfunction (no workaround)

Description: If a GAT-HMI project is loaded via IndraWorks (WinStudio function -> Load project), the HMI device node cannot be subsequently deleted from the IndraWorks project.

Engineering / Motion

MH_TechHydrMotion: Influencing Ipo does not work when using the polarity of the controller axis

CQ-ID: Defdb00180625

Severity: K3 - malfunction (no workaround)

Description: Ipo cannot be influenced (e.g. break) when using the polarity of the controller axis, as the command is issued at an incorrect stop.

A disabled SLC gateway causes the “partial-synchronous” state after the Motion configuration download

CQ-ID: Defdb00181029

Severity: K4 - malfunction

Description: If there is one disabled SLC gateway configured for connections in the project, the Motion configuration is partially synchronous after the download. The address of the gateway and the target number (in the project unequal to 0) are displayed as differences.

Engineering / PLC Programming

Persistence editor: Not every context menu item of an editor can be selected

CQ-ID: Defdb00180695

Severity: K5 - non critical problem

Description: The user opens the context menu of an editor. Some context menu items could not be selected using the mouse.

Engineering / PLC Safety

Safety monitor function shows question mark

CQ-ID: Defdb00173220

Severity: K3 - malfunction (no workaround)

Description: If the Safety editor is switched to online, some variables are incorrectly displayed in the monitor function. Question marks (???) are displayed.

Engineering / Version Control System

Subversion Certificate - Query is issued each time

CQ-ID: Defdb00179703

Severity: K3 - malfunction (no workaround)

Description: If the team server is used with the subversion via https, a certificate query is issued upon each access.

59.1.2 Known issues

Engineering / CamBuilder

CamBuilder preview: “One-time execution" does not work

CQ-ID: Defdb00181879

Severity: K4 - malfunction

Description: CamBuilder preview: “One-time execution" does not work.

Engineering / HMI

WinStudio: Error while validating if no symbol file exists

CQ-ID: Defdb00181775

Severity: K3 - malfunction (no workaround)

Description: If a project was validated with a Logic symbol file, an “internal software error” resulted when during project validation. Validation was not executed.

Workaround: Create symbol file with at least one symbol.

Engineering / PLC Libraries

MB_DigitalCamSwitchOvs does not correctly consider the time-controlled switch

CQ-ID: Defdb00182107

Severity: K3 - malfunction (no workaround)

Description: A time-controlled switch does sporadically switch incorrectly. In this case, the switch does not switch off after the time specified, but at the switch-off position.

MB_DigitalCamSwitchOvs returns incorrect values if the positions are not entered within the modulo value

CQ-ID: Defdb00181725

Severity: K4 - malfunction

Description: If the MB_DigitalCamSwitchOvs or MC_DigitalCamSwitch is configured with the Switches.FirstOnPosition and/or Switches.LastOnPosition being outside the modulo value, the function block can generate incorrect switching points in time.

59.2 Firmware

59.2.1 Resolved defects

_Other

Core: Cycle time exceeded after startup

CQ-ID: Defdb00181456

Severity: K3 - malfunction (no workaround)

Description: The sequence of phase switching and waiting for the PLC start while booting, was incorrect.

Fixing: While recovering the error, the sequence was undone and the recovery of Defdb00169511 was considered at the same time.

Subscription parameters are incorrectly computed at OPC UA

CQ-ID: Defdb00180893

Severity: K3 - malfunction (no workaround)

Description: When creating a subscription, the UA client and the UA server specify the timing parameters. If the requested values of the client exceed the upper limits in the server, the final timing parameters are incorrectly computed. RevisedLifetimeCount and RevisedMaxKeepAliveCount are set to the same value which might cause a reduction of the subscription after RevisedMaxKeepAliveCount.

Axis

ML_ReadSercosDataStatus() returns the status of an axis that is not available anymore

CQ-ID: Defdb00180688

Severity: K3 - malfunction (no workaround)

Description: If a parameter of a physically non-existent device was accessed, no error was returned.

Engineering / Periphery

S3 block I/O: Phase switching to P4 is not possible in case of 4-fold or 8-fold oversampling

CQ-ID: Defdb00180873

Severity: K3 - malfunction (no workaround)

Description: If 4-fold or 8-fold oversampling is configured for the Sercos slave R-ILB S3 24 DI16 DIO16/Fn, the following error is output when switching the phase to P4: "F00B0133 Sercos III: Transmission of the configuration incorrect IDN S-0-1050.1.5 error code 2100b".

Motion Functions

FlexProfile event is not generated

CQ-ID: Defdb00180141

Severity: K3 - malfunction (no workaround)

Description: An event created in a last calculation step was not output anymore if it was switched to another FlexProfile after this calculation step.

RobotControl

3-axis parallelogram cannot be used

CQ-ID: Defdb00181252

Severity: K4 - malfunction

Description: The kinematics with the transformation 3-axis parallelogram could only be created with three positioning axes. Switching to BB was then not possible anymore, as two positioning axes and one orientation axis are required.

Coordinate jump when commanding from a negative position to the x-axis

CQ-ID: Defdb00181440

Severity: K4 - malfunction

Description: When using the following transformations, command value jumps of the axes resulted when commanding negative x-values:

- 2-axis parallelogram
- 2-axis parallelogram inverse
- 2-axis parallelogram V1
- 2-axis parallelogram V2

Sercos

If more than two controller axes are created, incorrect values are present in C-0-0477

CQ-ID: Defdb00181138

Severity: K3 - malfunction (no workaround)

Description: If more than two controller axes were created and synchronized with the control, the content of C-0-0477 was then incorrect.

After repeated error when switching the phase from CP2 to CP4, the control reports the error F00B0133

CQ-ID: Defdb00179522

Severity: K4 - malfunction

Description: When setting the error reaction to F8 errors: After troubleshooting the error, phase switching errors still occurred (also from other devices). After multiple tries, the control reports an error: F00B0133 “Sercos III transmission of the configuration incorrect, error code 20031", as the maximum number of Sercos connections was exceeded.

Only after switching via CP0, switching to operating mode was possible again.

59.2.2 Known issues

Logic

C-0-0405 not effective

CQ-ID: Defdb00182014

Severity: K4 - malfunction

Description: In all controls, C-0-0405 was not effective for the following functions:

010: Stop: The PLC remains in the STOP state.

011: Start in the operating mode: The PLC automatically starts when booting in the operating mode.

100: Last state: If the PLC was in RUN when switched off, it starts when the control is booted. Otherwise, it remains in STOP.

In addition, the PLC starts if the STOP state was caused by a PLC exception.

If one of the three functions was set in the parameter, the PLC state was always set to "RUN" after the control boot.

Sercos

VPx: After BootEnd, there is no switching to the target mode

CQ-ID: Defdb00182051

Severity: K2 - serious malfunction

Description: If a phase switching was initiated by writing C-0-0451 in the first cycles of the PLC program after startup, there was a deadlock in the startup state machine of the firmware and the phase was not switched. Each further write access to C-0-0451 was aborted with the error “Command already active".

Sercos IP communication: IP addresses are set, but not activated

CQ-ID: Defdb00181904

Severity: K3 - malfunction (no workaround)

Description: For Sercos devices with the class SCP_NRTPC, the command S-0-1048 was not executed after specifying the IP address.

XM22 & VPx: Sercos interrupts arise at an incorrect point in time in the cycle if the Sercos cycle time is 250 µs

CQ-ID: Defdb00179571

Severity: K3 - malfunction (no workaround)

Description: Due to timing problems, a Sercos cycle time of 250 µs could not be set for the controls XM22 and VPx. Only cycle times of 500 µs or higher were possible. CML controls were not affected.

60 IndraLogic XLC/IndraMotion MLC 14V08 Patch 01 firmware and software

60.1 Software

60.1.1 Resolved defects

Engineering / _Other

Incorrect P2 phase switching after a parameter modification

CQ-ID: Defdb00179420

Severity: K3 - malfunction (no workaround)

Description: When changing a write-protected parameter (e.g. A-0-0056, Scaling type for velocity) of an axis in P4, IndraWorks intends to switch the Sercos bus to P2 to apply the changes.

IndraWorks should have suggested to switch the axis to the parameterization level.

60.1.2 Known issues

Engineering / PLC Libraries

AxisInterface: Cyclic “clearing of errors” if "ClearError” is set

CQ-ID: Defdb00179442

Severity: K3 - malfunction (no workaround)

Description: An error that cannot be deleted, is present at a drive.

The “Clear Error" is executed cyclically as long a the AxisCtrl[].Admin.ClearError input is TRUE.

60.2 Firmware

60.2.1 Resolved defects

_Other

Sercos addressing in the Sercos provider for OPC UA with "Physical" instead of "Sercos"

CQ-ID: Defdb00178551

Severity: K3 - malfunction (no workaround)

Description: It was not possible to address with "Sercos" in the OPC Sercos provider. Only "Physical" was possible.

Fixing: It is now possible to address with “Sercos” as well as with “Physical”. In the Sercos root node, only "Sercos" is displayed instead of "Physical”.

RobotControl

Calling ML_TaskExecuteGetName cyclically causes a SysError

CQ-ID: Defdb00179518

Severity: K3 - malfunction (no workaround)

Description: If the function ML_TaskExecuteGetName was called cyclically, a SysError occurred after some time.

RoCo: Error while synchronizing to rotary table

CQ-ID: Defdb00179286

Severity: K4 - malfunction

Description: When synchronizing to a rotary table, a new synchronization was not possible in case of an error. This was caused by a missing modulo observation for the commanded end points in the cylinder coordinate system of the rotary table.

61 IndraLogic XLC/IndraMotion MLC 14V08 firmware and software

61.1 Software

61.1.1 Resolved defects

Engineering / _Other

Multi-device download for disabled Profibus slaves does not work

CQ-ID: Defdb00177332

Severity: K2 - serious malfunction

Description: If the multi-device functionality was used and if an I/O configuration file (UserDefs.cfg) was contained in the multi-device table in the active line (green LED), and if simultaneously the I/O configuration file was not administered by IndraWorks (checkbox “I/O configuration file (UserDefs.cfg) not administered by IndraWorks” not ticked), the I/O configuration file of the active line was still written to the user partition of the CF card of the control upon PLC login.

Fixing: If the checkbox “I/O configuration file (UserDefs.cfg) not administered by IndraWorks” is not ticked, an I/O configuration file contained in the active line of the multi-device table is ignored upon login and is not written to the control.

AI, COM interface: Download() does not create an exception if the PLC program contains errors

CQ-ID: Defdb00175595

Severity: K4 - malfunction

Description: If "Download()” was executed via the Automation Interface using a faulty PLC program, no exception occurred.

AI, COM interface: Download2(n) does not create an exception if the PLC program contains errors

CQ-ID: Defdb00175591

Severity: K4 - malfunction

Description: If "Download2(n)” was executed via the Automation Interface using a faulty PLC program, no exception occurred.

AI, COM interface: Login() does not create an exception if the PLC program contains errors

CQ-ID: Defdb00175566

Severity: K4 - malfunction

Description: If "Login()” was executed via the Automation Interface using a faulty PLC program, no exception occurred.

AI, COM interface: Login2(n) does not create an exception if the PLC program contains errors

CQ-ID: Defdb00175569

Severity: K4 - malfunction

Description: If "Login2(n)” was executed via the Automation Interface using a faulty PLC program, no exception occurred.

Error during the compilation of MLC projects of 12VRS

CQ-ID: Defdb00177463

Severity: K4 - malfunction

Description: The project is part of version 12VRS and contains controller axes or uses Motion function blocks:

- When trying to load this project in 14VRS, the project version has to be updated to the latest version (e.g. 14V06)

- A subsequent compilation of the application cannot be completed successfully Errors are output as "VAR_IN_OUT parameter 'Axis' of 'ML_...' needs variable with write access as input."

- When not updating the control firmware from 12VRS to the latest version, the only workaround is to reset the compiler version to 13VRs, e.g 3.4.5.110 (13V14)

Fixing: If a control with a firmware version smaller than 14VRS is found in a project with a PLC PLC compiler version greater than or equal to 3.5, the message "MLs-E0C0007: The configured control firmware ('<Firmware>') is not compatible with the compiler version <Version>" is output during the compilation.

Axis commissioning dialog: Default value for jerk is unequal to 0

CQ-ID: Defdb00175061

Severity: K5 - non critical problem

Description: The jerk default value in the axis commissioning dialog is 1 (velocity control) or 10 (positioning). It should be 0 in both cases.

Engineering / Drive

XLC/MLC offline parameterization parameter adjustment: S-/P-parameters changed offline are not detected as differences

CQ-ID: Defdb00177553

Severity: K3 - malfunction (no workaround)

Description: If S-/P parameters are changed offline, these changes are not visible when executing a parameter adjustment.

Engineering / HMI

Connection to VR21 not possible

CQ-ID: Defdb00172204

Severity: K2 - serious malfunction

Description: When enabling “Security system” in the Remote Agent (VR21) under "Setup >> Users...” and if no user or no password has been set up, no connection to the device can be established anymore via IndraWorks (WinStudio).

Workaround: If no connection can be established to VR21, check this in the "Security system" settings.

Possible solutions:

1.) Disable "Security system” setting

2.) Define a user with password in the “Security system” setting

HMI export/import does not apply WinStudio texts

CQ-ID: Defdb00176472

Severity: K3 - malfunction (no workaround)

Description: After importing a previously exported visualization device, all user text translations are missing in WinStudio.

Process variable browsers do not detect SysError or control reboot

CQ-ID: Defdb00175468

Severity: K3 - malfunction (no workaround)

Description: If the process variables were read by the control via the process variable browser (ALL, not only the one of the PLC), the browser did not detect that SysError already occurred on the control. Window remained inactive even after reboot. Canceling was not possible.

A communication abort can be caused by the following:

- SysError
- Bad WLAN connection
- Ethernet cable was disconnected
- Voltage failure at switch
- ...

TCP/IP driver is not available

CQ-ID: Defdb00163249

Severity: K3 - malfunction (no workaround)

Description: When opening a TCP/IP driver sheet, the message “Unable to load TCPIP”,

WinStudio in IndraWorks – When downloading the runtime project, the user-defined folders including their content are lost

CQ-ID: Defdb00165632

Severity: K3 - malfunction (no workaround)

Description: When creating a customer-specific folder to save linked screen objects or to manage recipe files in an IndraWorks (WinStudio) project below the folder "user/config/" or "user/config/web", this folder is lost when downloading to the target system.

WinStudio licensing does not work for new devices

CQ-ID: Defdb00177535

Severity: K3 - malfunction (no workaround)

Description: HMI devices of the newer generation (e.g. VSB40.3) have not been detected as Rexroth devices.

WinStudio: Memory startup upon screen switching

CQ-ID: Defdb00177144

Severity: K3 - malfunction (no workaround)

Description: Upon each screen that is switched in a WinStudio application, additional memory is used but not released again.

WinStudio: Project download without license does not work anymore

CQ-ID: Defdb00173822

Severity: K3 - malfunction (no workaround)

Description: When opening a WinStudio project with an insufficient license, this project cannot be applied to the target device.

WinStudio: VBScript compiler does not report all errors

CQ-ID: Defdb00168002

Severity: K3 - malfunction (no workaround)

Description: It cannot be detected at runtime when errors occur in WinStudio VB scripts.

The script execution is canceled instead at the error position without any feedback.

Fixing: WinStudio indicates errors at runtime as MessageBox to be acknowledged.

This changed behavior can be enabled/disabled in the [OEM] section by adding or removing the entry in the file ...\WinStudio\PorgrammSettings.ini:

ShowMessageBoxVBScriptException=1

Wrong language in the alarm screen

CQ-ID: Defdb00165812

Severity: K3 - malfunction (no workaround)

Description: When using the filter functions for alarms in WinStudio, the filter mask language on a VEP is English even though German is entered as language in the settings. If the same project is used on a normal PC with German set as language, the filter mask is also in German.

Fixing: The defect has been resolved.

VH21: Exception in case of remote licensing

CQ-ID: Defdb00175279

Severity: K4 - malfunction

Description: If the engineering PC is connected to a switch port mirroring all network telegrams for diagnostic purposes (port mirroring), an exception (error message) is displayed.

Screens are retained after deleting operating areas

CQ-ID: Defdb00176086

Severity: K5 - non critical problem

Description: When deleting an operating area (below the “Screens” folder), only the folder, but not the contained elements, are deleted.

Engineering / Periphery

Parameter editor for Sercos I/O is not functioning correctly

CQ-ID: Defdb00176554

Severity: K3 - malfunction (no workaround)

Description: If the parameter editor is called at a Sercos I/O device that is not configured in the control, the message “Device not found” is displayed.

Fixing: Prior to calling the parameter editor, it is verified in parameter C-0-0578 if the Sercos device is configured. If the Sercos device is not configured, the parameter editor is not called but an error message is output, informing the user that the application has to be logged in.

Profibus diagnostics is available even though all devices are disabled

CQ-ID: Defdb00165620

Severity: K3 - malfunction (no workaround)

Description: The Profibus devices are disabled but the message “Diagnostics available” is displayed during startup. However, no diagnostics is available. No diagnostics can be read using the PLC function block.

Channel labeling of the S67-DIO4-HS module at SIII-BK incorrect

CQ-ID: Defdb00176233

Severity: K4 - malfunction

Description: The labeling of the analog input/output bytes of the DIO4-HS module at the S67 Sercos III bus coupler is incorrect in the “I/O Image” tab of the configurator.

ENIP: MLC as adapter, in the default setting BOOTP, the error "Module not found” is displayed

CQ-ID: Defdb00173526

Severity: K4 - malfunction

Description: In case of a "Reset warm” or a download with changed communication parameters, the communication chip has to be reinitialized.

If an error occurs, the initialization is canceled with an error and the interface does not work anymore.

Engineering / PLC Libraries

MB_WriteRealPrameter and MB_WriteParameter possibly write an incorrect value after an online change

CQ-ID: Defdb00178372

Severity: K2 - serious malfunction

Description: Function block instances can be moved after an online change. Pointers preassigned with an address in the declaration part, do not obtain any new initialization.

RIL_SercosIII: Exception if null pointer at the function block input AdrSlaveAdrList

CQ-ID: Defdb00175525

Severity: K2 - serious malfunction

Description: There are the function blocks IL_SIIIGetDiagSlaveAdrList, IL_SIIIGetConfigSlaveAdrList and IL_SIIIGetLiveSlaveAdrList in the IEC library RIL_SercosIII. If 0 is set at the AdrSlaveAdrList input, an exception occurs at the control. If a device is removed from the bus in phase 4, IL_SIIIGetLiveSlaveAdrList is not updated.

AxisInterface: Axis freezes in ModeCoordinated when using an external PLCopen function block

CQ-ID: Defdb00176556

Severity: K3 - malfunction (no workaround)

Description: An axis is traversed in the ModeCoordinated operation mode via the AxisInterface.

The axis is now commanded via an external PLCopen function block.

It is correct that an error is output. This error can be deleted via the AxisInterface.

If the axis is commanded in an operation mode unequal to ModeCoordinated, an error of the internally used function block “fbRemAxisFromGroup" is output.

AxisInterface: PhaseShift is not applied if a previous value was not fully synchronized

CQ-ID: Defdb00173325

Severity: K3 - malfunction (no workaround)

Description: If a PhaseShift (arAxisCtrl_gb[].SyncMode.PhaseShift) is entered into a phase-synchronous operation mode (ModeSyncPhase, ModeSyncCam, ModeFlexProfile, ModeSyncProfile) and the operation mode changes before the final PhaseShift processing, a new value is not applied for PhaseShift. After a new synchronization, traversing of the previous value is completed.

Fixing: The function block TE_AxisInterface was adjusted and the last value is now always applied.

This requires changes in the user code (TE_AxisInterface.actPhaseshift).

For information on how to make the changes, refer to release notes, chapter "Important information", section "Updating the PLC application of GAT or AxisInterface projects".

ML_TechRegi: Error messages on "IL_FB_STATES" during compilation

CQ-ID: Defdb00178067

Severity: K3 - malfunction (no workaround)

Description: The enumeration IL_FB_STATES from the RIL_Utilities.library was used in the function block "IL_RegiQualityType01" without namespace specification. This caused a compilation error.

RIL_InlineIOModules: FB IL_RSCom running into timeout error without authorization

CQ-ID: Defdb00175120

Severity: K3 - malfunction (no workaround)

Description: If the "Send" input of the IL_RsCom function block was set to FALSE for only one PLC cycle, an error occurred even after the set timeout if "Send" was successful.

RIL_SercosIII: Evaluation S-0-1500.0.32 is incorrect

CQ-ID: Defdb00178494

Severity: K3 - malfunction (no workaround)

Description: The IL_SIIIRemoteSlaveStateDetails function block brakes down the relevance of the S-0-1500.0.32 diagnostics via the structural element StatusCodeTyp.

If a manufacturer-specific error is reported, StatusCodeTyp assumes the value IO_PROFILE_STATUS_CODE instead of MANUFACTURER_STATUS_CODE.

SIII: Dig list function blocks return more data than the specified buffer can accommodate

CQ-ID: Defdb00178515

Severity: K3 - malfunction (no workaround)

Description: The IL_SIIIGetConfigSlaveAdrList, IL_SIIIGetLiveSlaveAdrList and IL_SIIIGetDiagSlaveAdrList function blocks are exited with "done" and return the corresponding data even if the buffer specified by the user (SizeOfSlaveAdrList) is too small for the list.

Consequently, the memory can be overwritten.

Also see Defdb00178614

AxisInterface: SyncAcceleration, SyncVelocity and AngleOffset are not transferred

CQ-ID: Defdb00176932

Severity: K4 - malfunction

Description: One of the values SyncAcceleration, SyncVelocity or AngleOffset (arAxisCtrl_gb[].SyncMode.Xxxx) is changed and changed again before writing is completed. The new value is not written to the relevant parameter.

During the initialization phase, the initial values are written to the parameters. If the user specifies a new value at that point in time, this value is not written.

Fixing: The function block TE_AxisInterface was adjusted and the last value is now always applied.

The user code (TE_AxisInterface.actAngleOffset and TE_AxisInterface.actSyncAccVel) has to be changed.

For information on how to make the changes, refer to release notes, chapter "Important information", section "Updating the PLC application of GAT or AxisInterface projects".

Fb WinderTensionCtrlType02: Falscher Fehlercode wenn nicht im Betriebsmodus

CQ-ID: Defdb00177453

Severity: K5 - non critical problem

Description: With function block MB_WinderTensionCtrlType02 the error code was displayed incorrect, if the control was not in operating mode.

(Additional 2: 01 -> incorrect)

Now value "0C" is displayed in Additional 2.

Engineering / PLC Programming

Assertion error when inserting a parallel contact

CQ-ID: Defdb00171837

Severity: K3 - malfunction (no workaround)

Description: An assertion error box opens when inserting a parallel contact. When acknowledging the error box with cancel, IndraWorks freezes. When using the Ignore button, the network is destroyed.

Editing PLC code does not function reliably

CQ-ID: Defdb00177200

Severity: K3 - malfunction (no workaround)

Description: Context menu commands in the PLC editors are not reliably executed in online mode.

Engineering / Version Control System

VCS: When forcing an update, an error occurs in the “Logic I/O" of the CSos connection

CQ-ID: Defdb00177149

Severity: K3 - malfunction (no workaround)

Description: If a project containing double-axis devices is added to Version Control and when subsequently updating the entire project (force complete update of the working copy), error messages that objects already exist within a namespace or that the names of the logic I/Os for CSos connections are changed, are reported.

MLPI

MLPI: mlpi4COM Motion.GetAxisValues(axes) only returns the position

CQ-ID: Defdb00178554

Severity: K3 - malfunction (no workaround)

Description: When calling Motion.GetSaxisValues() of mlpi4COM, the function returned position values instead of the velocity, acceleration and force.

Operation / HMI

IW-Operation EKS: Incorrect protection level active - Protection level 1, even though no EKS key is plugged

CQ-ID: Defdb00176367

Severity: K3 - malfunction (no workaround)

Description: If the EKS key is removed during a temporary interruption of the connection (< 30 seconds), the EKS data in the PLC were sporadically not deleted. If the connection was interrupted for a only a short time so that the EKS watchdog data in the PLC are refreshed on time, the watchdog does not delete the incorrect EKS data in the PLC and this data is retained until the next inserting/ removing of the EKS key.

Multi-touch event "Down" and "Click" appear only after releasing with "Up" event

CQ-ID: Defdb00175485

Severity: K3 - malfunction (no workaround)

Description: The standard emulation of the mouse key behavior in case of touch operation cannot be used to operate the M-keys as e.g. a jog behavior as required to traverse axes is not available.

Fixing: For all panel keys in IndraWorks Operation, the mouse emulation is now set so that jogging triggers pressing of the left mouse key. The left mouse key is only released if the touch event is not present anymore.

Error message when opening operating screens

CQ-ID: Defdb00175470

Severity: K4 - malfunction

Description: In case of an OPD installation on devices equipped with Windows 7, an exception is reported when opening an operating screen.

HMI operation: Exception in case of zoom command of an ACI screen

CQ-ID: Defdb00175034

Severity: K4 - malfunction

Description: If it was tried to zoom out the partial window of an ACI image, which was not enlarged before with "Zoom +" to the complete screen width and height, in IndraWorks Operation using the “Zoom” command of the F-key function “Command to ACI screen), an exception is generated.

HMI: Malfunction upon “Close image" after a screen change in connection with CA in operating screens

CQ-ID: Defdb00176715

Severity: K4 - malfunction

Description: Enabling the option “Close upon screen change” in operating screens results in a malfunction if the motion announcement is not given and an M-key is pressed so that the criteria analysis is opened.

If the criteria analysis is closed, the operating screen is also closed as the operating screen has been closed in the background.

HMI: Malfunction upon “Close image" after a screen change in connection with F-keys

CQ-ID: Defdb00176714

Severity: K4 - malfunction

Description: If a screen is opened as start screen via an OP change and an F-panel is opened which also contains a screen call (function screen change - screen name), pressing the F-key results in closing and reopening of the screen.

Operating screen in the OP area “Operate” are sporadically not displayed anymore (only a gray image/F-keys also blank)

CQ-ID: Defdb00173997

Severity: K4 - malfunction

Description: If screens are not assigned to any operating areas and opened by two different operating areas, incorrect screens are displayed when switching the operating areas.

RobotControl

ML_RobotGetSafeZones not available in ML_Robot

CQ-ID: Defdb00178026

Severity: K3 - malfunction (no workaround)

Description: The function block ML_RobotGetSafeZones is included in the PLC library ML_Robot.

61.1.2 Known issues

IMST XLC/MLC

IndraMotion Service Tool (IMST) cannot be started with Firefox version 32 or newer

CQ-ID: Defdb00174045

Severity: K3 - malfunction (no workaround)

Description: The IndraMotion Service Tool cannot be started using Firefox from version 32.

Modal dialogs cannot be used with Internet Explorer 11

CQ-ID: Defdb00175998

Severity: K4 - malfunction

Description: In Internet Explorer 11, some modal dialogs cannot be used in the IndraMotion Service Tool anymore, e.g. such as dialogs within the oscilloscope function.

IndraWorks ML / Engineering / _Other

No new mapping list can be generated for field bus mapping.

CQ-ID: Defdb00178156

Severity: K2 - serious malfunction

Description: When clicking on “New Mapping..." in the “Field bus mapping” dialog, an exception is triggered and creating a new mapping is not possible.

Automation Interface: Exception when renaming the application via the Automation Interface

CQ-ID: Defdb00169877

Severity: K3 - malfunction (no workaround)

Description: Renaming the application via the Automation Interface caused an exception.

IndraWorks ML / Engineering / HMI

HMI process variable browser created export file with DUMMY node

CQ-ID: Defdb00178300

Severity: K2 - serious malfunction

Description: If multiple objects were selected via the command “Load process variables from the control" of the process variable browser, the subnodes of the objects were sometimes displayed with the text “%DUMMY%”, but without elements.

PLC data type ENUM is generated with an incorrect data type in the BRWS driver sheet

CQ-ID: Defdb00159949

Severity: K2 - serious malfunction

Description: IF an ENUM declared as UINT in the PLC is used in a BRWS driver sheet, the following error message is displayed when verifying the application in WinStudio: “Error;HMI-00001003; invalid process variable".

Workaround: If ENUM data types are declared as UINT in the PLC, these data types have to be declared as UINT in the WinStudio driver sheet if they are to be communicated via BRWS.

Currently, these data types are incorrectly created as UINT16.

WinStudio-linked symbols: Divergent syntax between 7v2 and 7v3

CQ-ID: Defdb00173158

Severity: K2 - serious malfunction

Description: Insufficient information is given that the syntax had changed in the linked WinStudio symbols.

HMI: Exception when renaming an OP-panel

CQ-ID: Defdb00178252

Severity: K3 - malfunction (no workaround)

Description: When adding and immediately renaming an OP-panel, an unhandled exception occurs.

HMI: IndraWorks crashes when loading the symbol file offline via the BR_WS browser

CQ-ID: Defdb00166571

Severity: K3 - malfunction (no workaround)

Description: When loading the provided IndraLogic symbol file to the BR_WS browser, an exception is thrown and IndraWorks is closed.

Incomplete restoring of communication after the connection was canceled in OPC-UA

CQ-ID: Defdb00173458

Severity: K3 - malfunction (no workaround)

Description: On VEPxx.4 devices with the operation system Windows CE 6.0, the communication could sporadically not be restored after a physical connection interruption to the control when using the WinStudio OPC-UA driver.

VEPxx.5, VEPxx.6 WinStudio: 4EE controls are not started with default configuration

CQ-ID: Defdb00177272

Severity: K3 - malfunction (no workaround)

Description: If a WinStudio project with 4EE controls is transferred to a VEPxx.5 or VEPxx.6 target and the application is started, the controls are not called. The message ".Net Control not created" is displayed in the respective WinStudio screen.

Workaround: It is caused by an incorrect path specification in the HMI.App file.

The path specification has to be adapted in the HMI.App file to ensure that it is referenced to the storage directory of the HMI.Energy.StandAlone.dll (e.g. C:\Program Files\Rexroth\Indraworks\). The HMI.App file is located in the WinStudio project directory on the VEP target and can be edited with a text editor.

WinStudio: Crash when selecting a screen object

CQ-ID: Defdb00178572

Severity: K3 - malfunction (no workaround)

Description: If an object is selected in the WinStudio screen editor and the object is bigger than the screen, IndraWorks crashes.

Screen group is not closed via a command

CQ-ID: Defdb00165825

Severity: K4 - malfunction

Description: When calling the command "$Close("Bildgruppe.sg")" via a command, this command does not work if there is a screen with the "PopUp" property in the screen group. This screen is then not closed.

WinStudio: Exception when starting runtime or when opening a project in Engineering

CQ-ID: Defdb00160837

Severity: K4 - malfunction

Description: If the date 18.1.2038 or later is set on the target device, an unhandled exception occurs when starting the WinStudio runtime.

Workaround: Set the correct date on the target device.

IndraWorks ML / Engineering / Periphery

Profinet: Different display in the project tree and in the tab page "Field bus diagnostics"

CQ-ID: Defdb00172016

Severity: K6 - functional enhancement

Description: The dialog “Field bus diagnostics" at the Profinet-I/O controller is incorrect. States and status messages are partially incorrect.

Workaround: Primarily, the warning icons on the PROFINET devices in the project tree have to be complied with for the diagnostics. The corresponding editor displays the detailed information on page "Status".

IndraWorks ML / Engineering / PLC Programming

PersistenceEditor: The list is initialized after deleting the instance path variables

CQ-ID: Defdb00176846

Severity: K2 - serious malfunction

Description: Deleting and commenting out of instance path variables results in a reinitialization of the persistent variable list in the PersistenceEditor.

Recipe manager: Access violation after Online-Change

CQ-ID: Defdb00176395

Severity: K2 - serious malfunction

Description: Incorrect behavior (access violation) when enabling the option “Recipe management in PLC”.

Workaround: Disable the option “Recipe management" in the PLC.

IndraLogic: Function blocks can only be applied to the symbol configuration completely

CQ-ID: Defdb00178308

Severity: K3 - malfunction (no workaround)

Description: IndraLogic: Function blocks can only be applied to the symbol configuration completely. Individual variables cannot be configured via the the symbol configurator or via pragma.

Consequently, the ProVi Sfc diagnostics does not work anymore as ILD_Internal_ServerData is programmed as function block and only some parts are applied to the symbol configuration.

After program change, the application can only run again after “Clean All”

CQ-ID: Defdb00177656

Severity: K4 - malfunction

Description: When using arrays of structures transferred via reference (VAR_IN_OUT), online changes or incremental compilations can be incomplete.

These processes can thus lead from incorrect results up to exceptions on the control.

The described behavior occurs when transferring such arrays if the data type of the structure of the elements is changed and if the elements of this structure are not accessed within the function (thus, only if the complete array is copied to another location).

The online change is then performed without the function containing the parameter VAR_IN_OUT. If the complete array is copied, the length might be incorrect.

Workaround: An individual component access in the function can be performed as workaround. This access leads to a correct behavior during online change and during the incremental compilation.

After "Clean All", the error does also not occur.

The “Clean All" command can be dragged from the “Customize” dialog window to the toolbar (menu item: Tools -> Customize -> Commands -> Create -> Clean All).

PLC setting “Always update variables” causes an insecure SL behavior

CQ-ID: Defdb00177648

Severity: K4 - malfunction

Description: Zero telegrams are sporadically inserted between telegrams from SafeLogic to safe devices. This might cause problems from a longer response time for the safe devices up to the triggering of the watchdog timer.

Workaround: The “Always update variables” function has to be set to the default value “Disabled (Update only if used in a task)".

For this function, go to the “PLC Settings” tab in the editor of the standard control.

For PROFIsafe modules, the function “Update Variables” still has to be set to the default value “Use setting of parent device”.

If this function is enabled, it is located in the “I/O Mapping” tab in the editor of the Profibus I/Os and Profinet I/Os.

IndraWorks ML / Engineering / PLC Safety

Calling "Update Parameter" deletes the linked logic

CQ-ID: Defdb00162388

Severity: K2 - serious malfunction

Description: The call “Refresh parameters” refreshes the changed output parameters or the name of a function block in the Safety editor and deletes the linked logic.

Safety monitor function shows question mark

CQ-ID: Defdb00173220

Severity: K3 - malfunction (no workaround)

Description: If the Safety editor is switched to online, some variables are incorrectly displayed in the monitor function. Question marks (???) are displayed.

The cross reference list in the context menu is not provided in the application part

CQ-ID: Defdb00177174

Severity: K3 - malfunction (no workaround)

Description: In online mode, the context mode “Scan" (definition; cross links) is not available or cannot be selected.

Comment line in the global safety variable list detected as faulty only after log in

CQ-ID: Defdb00167912

Severity: K4 - malfunction

Description: If a variable declaration was copied and pasted from a POU and highlighted as comment in a global safety variable list, no error is output upon subsequent compilation.

Error message is displayed at login.

Workaround: Remove declaration and enter manually.

Copying logic CSos I/Os of the drives causes CSos errors

CQ-ID: Defdb00173998

Severity: K4 - malfunction

Description: Copying and subsequent renaming of logic devices CSos I/Os of the drives within a project with multiple controls causes CSos errors.

Workaround: Delete the logic CSos I/Os and create them again via the CSos configuration dialog.

Individual function blocks with "_TO_" in the name cannot be used

CQ-ID: Defdb00160410

Severity: K4 - malfunction

Description: If the name of a function block contains the character string "_TO_", this function block cannot be used in the program.

Log in to safety function module possible, creating a boot application fails

CQ-ID: Defdb00172017

Severity: K4 - malfunction

Description: A project created with an older IndraWorks version can successfully be loaded to the Safety FM after it has been applied. Creating the boot application is canceled displaying an error message.

Workaround: Executing the "Pin application" command twice, the project-internal incorrect state is eliminated and the boot application can be created and loaded again.

Safety: "Update Parameters" does not update the changed output parameters of an FB in the Safety Editor

CQ-ID: Defdb00160028

Severity: K4 - malfunction

Description: "Update Parameters" does not update the changed output parameters of a function block in the Safety Editor.

Workaround: It is updated after the function block is closed and opened again.

IndraWorks ML / Engineering / SL Manager

An exception occurs when renaming Safety I/O components (axes, inputs and outputs, bus)

CQ-ID: Defdb00171371

Severity: K2 - serious malfunction

Description: An exception occurs when renaming Safety I/O components (axes, inputs and outputs, bus).

Workaround: Undoing the changes. If errors still occur, the corresponding component has to be completely deleted and created again.

Upon project comparison, logic I/Os are identified as being different

CQ-ID: Defdb00170682

Severity: K3 - malfunction (no workaround)

Description: If two identical projects are compared with each other using the PLC project comparison, logic I/Os are displayed as being different.

PLC-Function / PLC Library

The SysDirGetCurrent function returns an incorrect result

CQ-ID: Defdb00156653

Severity: K4 - malfunction

Description: The SysDirGetCurrent function does not return the current directory. The function always returns "/ata0b/" as directory name, even if another directory was set as current directory using the SysDirSetCurrent function.

61.2 Firmware

61.2.1 Resolved defects

_Other

Programming limit switch (PLS): Error F5300100 occurs during phase switching to P4

CQ-ID: Defdb00178449

Severity: K2 - serious malfunction

Description: Error F5300100 occurred during phase switching to P4 with a PLS.

Sercos II, error when writing the axis configuration with link axis via IndraWorks

CQ-ID: Defdb00178098

Severity: K2 - serious malfunction

Description: Connecting to IndraWorks at a control with the function module CFL01.Q02 (Sercos II) for the drive ring was not possible anymore after deleting the nvRam and an automatic control restart. When writing the axis configuration via C-0-0484, the link axis was not permitted anymore. This resulted in a write error and thus canceled the connection attempt.

Control receives an exception in case of unprogrammed type plate

CQ-ID: Defdb00178713

Severity: K3 - malfunction (no workaround)

Description: An exception occurred during an MLC firmware startup on a CML65 as the type plate was not programmed. The control stops with "Boot1.04”.

Fixing: A CML with an unprogrammed type plate now starts up completely. After the startup, the warning "E0400001: Defective type plate” informs the user that the type plate or parts of the type plate have not been programmed correctly.

Drive information "Status of ext. command value processing” was not evaluated

CQ-ID: Defdb00175311

Severity: K3 - malfunction (no workaround)

Description: The drive information "Status of ext. command value processing" (S-0-0135 Bit3) was not processed correctly within the MC_Power function block. The interpolator started to generate new position command values too early.

Fixing: Processing the drive information “Status of ext. command value processing" (S-0-0135 Bit3) was added to the function block MC_Power.

MLC-CML65: No communication is possible anymore after downloading a certain project

CQ-ID: Defdb00178489

Severity: K3 - malfunction (no workaround)

Description: After downloading a PLC project, the control goes into "SysError" or the communication to the control is not possible anymore.

OPC-UA Server: Invalid values are still displayed after an Online Change

CQ-ID: Defdb00176375

Severity: K3 - malfunction (no workaround)

Description: If an online change is executed during an established OPC-UA client server connection that changes the symbol configuration so that Monitored Items registered via a subscription by a client are changed (removed), they are not displayed as invalid by the client.

OPC-UA: Parameter C-0-0953 “Minimum publish interval" is not applied

CQ-ID: Defdb00177317

Severity: K3 - malfunction (no workaround)

Description: If a value is written to the parameter C-0-0953, OPC UA, Minimum publish interval”, this value is not applied to the UA server. If the value is for example set to 20 ms, a subscription with 10 ms is acknowledged as 50 ms by the server. When debugging the error, the value is configured at the beginning, but then overwritten again by an initialization routine.

Fixing: BR_Utilities.c Fkt module

BR_OpcUa_SetEndpointConfiguration.c

Overwriting the configuration removed.

PLS hardware, PLS runs at a higher speed

CQ-ID: Defdb00175750

Severity: K3 - malfunction (no workaround)

Description: Switching positions of the PLC do not match the programmed axis positions.

TaskViewer causes control error thus standstill of axes

CQ-ID: Defdb00176572

Severity: K3 - malfunction (no workaround)

Description: Starting or stopping a TaskViewer recording caused an F0 error if a recording has already or not yet started.

Trace: Automatic triggering/saving of DSH message does not work

CQ-ID: Defdb00165426

Severity: K3 - malfunction (no workaround)

Description: If Trace was configured so that it should trigger and/or save when receiving a DSH message, triggering/saving was not executed, if the DSH module was deactivated.

Fixing: Triggering/saving is now also possible with a deactivated module.

SysError F924006 after inserting a write access to a drive parameter using the data container

CQ-ID: Defdb00177344

Severity: K4 - malfunction

Description: If a 2 byte decimal parameter was inserted in one of the user-defined command values and if an invalid REAL value was written to the command value, it resulted in system error F9240006.

OPC-UA: Incorrect display of the item "BuildDate"

CQ-ID: Defdb00174139

Severity: K5 - non critical problem

Description: In the "DeviceSet" node, an incorrect date was displayed for the subnode "BuildDate" in "SoftwareComponentSet".

Axis

F5113002 - Command velocity too high for cycle time

CQ-ID: Defdb00175360

Severity: K2 - serious malfunction

Description: When traveling certain FlexProfiles, the message "F5113002: Command velocity too high for cycle time” could incorrectly be output. Reason: incorrect adding up of the distances traveled per cycle.

Fixing: Adding up of distances has been corrected.

A-0-0020/A-0-0023 incorrect in axis warnings

CQ-ID: Defdb00175361

Severity: K3 - malfunction (no workaround)

Description: Due to an error, the lower priority warning was not overwritten by a higher priority warning in parameter A-0-0023 “Axis diagnostic number".

AXS Ipo: Check does not work on "shortest path"

CQ-ID: Defdb00173247

Severity: K3 - malfunction (no workaround)

Description: If two MoveAbsolute commands were subsequently issued to the same target position, but with different velocities, it was possible that the axis moved to the opposite direction.

AXS: Virtual axis does not lose power despite an F2 error

CQ-ID: Defdb00178654

Severity: K3 - malfunction (no workaround)

Description: Despite an F2 error, Power available could sporadically be reported by the axis for a virtual axis.

F2037 in case of an active A-0-2220 and PowerOff

CQ-ID: Defdb00167400

Severity: K3 - malfunction (no workaround)

Description: When using the additive position command values in connection with axes interpolated in the control, the drive error message F2037 occurred.

HydraulicDrive (IPO-Drive) - Enabling the ML_OpenCyclicAnalogChannel results in F5180005 "motionKernel timeout"

CQ-ID: Defdb00176336

Severity: K3 - malfunction (no workaround)

Description: On a HydraulicDrive with interpolation in the drive, no ML_OpenCyclicAnalogChannel could be executed.

Parameterization mode for link and encoder axes

CQ-ID: Defdb00165195

Severity: K3 - malfunction (no workaround)

Description: Switching to the parameterization mode was not possible for link and encoder axes.

SysError F9240005 when executing the FlexProfile

CQ-ID: Defdb00177032

Severity: K3 - malfunction (no workaround)

Description: When using the FlexProfile, a SysError could sporadically occur, if a lower-priority task was used to change the FlexProfile than for executing the same FlexProfile and if there was not synchronization between both operations. That means, if there was no check regarding the successful completion of the change before executing the FlexProfile.

Engineering / PLC Libraries

RIL_InlineIOModules: 6 echo bytes after receiving the data with the IL_RSCom function block

CQ-ID: Defdb00176063

Severity: K2 - serious malfunction

Description: 6 echo bytes have been received during the communication with RS Uni with the L_RSCom function block , with 27 byte data and TRANSPARENT protocol.

Documentation RIL_InlineIOModules - FB IL_RSCom: Description of time behavior missing

CQ-ID: Defdb00176009

Severity: K3 - malfunction (no workaround)

Description: A diagram of states and time behavior of the IL_RSCom function block is missing in the documentation. The behavior when using the TRANSPARENT protocol is also not described.

Engineering / Periphery

Sercos scan dialog does not return any message if phase switching is not possible

CQ-ID: Defdb00177422

Severity: K4 - malfunction

Description: In case of active axes or a running PLC program, Sercos cannot be scanned again actively. This means that connected device cannot be found and no error message is output.

Logic

Communication is canceled after a PLC reset and an IEC watchdog

CQ-ID: Defdb00166860

Severity: K2 - serious malfunction

Description: Watchdog errors interrupting the IEC program within a library function (or a function block) could sporadically result in the fact that the communication to the control could not be established anymore after a “RESET COLD” or a “RESET WARM”.

The control has to be switched off and on again.

MLPI

MLPI-SDK: Error message "C# application without dll registration"

CQ-ID: Defdb00174269

Severity: K3 - malfunction (no workaround)

Description: The manifest file (commlpiwin32.dll) in the MLPI-SDK was faulty or incomplete.

MLPI: MLPI connection without timeout not possible

CQ-ID: Defdb00177279

Severity: K6 - functional enhancement

Description: For some applications, an MLPI connection can also be opened without a timeout. Currently, only value starting from 0 can be selected. If 0 is selected, the operating system selects a valid value.

Optionally, the value "-1” or "MLPI_INFINITE" should also be possible to be selected as value so that no time monitoring takes place.

Fixing: The time monitoring for the options “timeout_send_server", "timeout_connect", "timeout_send" and "timeout_receive” can be disabled by means of "MLPI_INFINITE" (e.g. "-timeout_send=MLPI_INFINITE").

MLPI: mlpiLogicReadVariableBySymbolString does not work for DATE

CQ-ID: Defdb00176583

Severity: K6 - functional enhancement

Description: The MLPI function mlpiLogicReadVariableBySymbolString did not return a result for the TIME, DATE, DATE_AND_TIME, TIME_OF_DATE data types.

Motion Functions

MLC link, error when enabling the link interface via IndraWorks

CQ-ID: Defdb00178074

Severity: K2 - serious malfunction

Description: Connecting to IndraWorks at a link device with the function module CFL01.Q02 (Sercos II) was not possible anymore after deleting the nvRam and an automatic control restart. When enabling the link interface via C-0-0701, this interface was immediately started by the firmware without parameterizing the IndraWorks interface before. This resulted in an error after write access to C-0-0701 and thus canceled the connection attempt.

PLS : Setting the PLS signal selection from "Force" to "Register” does not work

CQ-ID: Defdb00175308

Severity: K2 - serious malfunction

Description: PLC outputs cannot be enabled.

Every second, the same error message is entered into the error memory

CQ-ID: Defdb00177186

Severity: K3 - malfunction (no workaround)

Description: A phase switching error occurred due to service channel handshake timeouts. If more parameter were requested subsequently and rejected by a handshake timeout, S-0-0128 was entered as parameter number into the diagnostic log and not the actually requested parameter.

ML_TouchProbe calculates the position difference with only one edge

CQ-ID: Defdb00175655

Severity: K3 - malfunction (no workaround)

Description: The position difference was also calculated when only one edge was detected.

MLC-FW: Velocity jump when aborting the homing by error F2229207 “Command in 'Homing' rejected"

CQ-ID: Defdb00172783

Severity: K3 - malfunction (no workaround)

Description: Parameter A-0-0048 is missing in the parameter backup of an axis with interpolation in the control.

A-0-0240 Feedrate Override should not be included in the list to restore the required parameters

CQ-ID: Defdb00176066

Severity: K4 - malfunction

Description: A-0-0240 was not backed up after a parameter export.

RobotControl

ML_RobotMovePoint does not output an error if the coordinate system is invalid

CQ-ID: Defdb00178138

Severity: K3 - malfunction (no workaround)

Description: The ML_RobotMovePoint function block did not output any error if an invalid coordinate system was specified.

RoCo V2: TeachIn: Point table with PCS16 cannot be loaded

CQ-ID: Defdb00176101

Severity: K3 - malfunction (no workaround)

Description: Points in point files with PCS16 could not be read in.

RoCo: Configurable error reaction of the kinematics without effect

CQ-ID: Defdb00177598

Severity: K3 - malfunction (no workaround)

Description: If the error reaction was set via the limit values of parameters K-0-0224, Emergency stop deceleration and K-0-0225, Emergency jerk in parameter K-0-0223, these parameters were without effect.

RoCo: Error in workspace violation during jog mode

CQ-ID: Defdb00177597

Severity: K3 - malfunction (no workaround)

Description: If an error was generated during continuous jogging by the system and thus jogging was canceled, the error "F2299414 Command in 'ErrorStop' rejected" was generated when stopping the jogging.

If the error was deleted by the MC_GroupReset function block, the kinematic was in state "Group Moving".

RoCo: No error in case of transformation errors and belt-synchronous operation without error reaction

CQ-ID: Defdb00177066

Severity: K3 - malfunction (no workaround)

Description: If a kinematics is synchronized on a belt and if no error reaction of the belt is configured, no error was output if the kinematics reached its mechanically possible traversing range. Furthermore, the kinematics still reports belt-synchronous operation in parameter K-0-0021. Traversing the kinematics after deleting the error was not possible.

RoCo V2: TeachIn: Point with name > 20 can be written but not read

CQ-ID: Defdb00176102

Severity: K4 - malfunction

Description: If a point (ML_GroupWritePoint) was written with a name >= 20 characters, the point name was limited to 20 characters. However, it was not possible to retrieve this shortened name with 20 characters (ML_GroupReadPoint). The error message "Point does not exist" is displayed. When using the ML_GroupReadNextPoint function block with a PointNameIn = empty string, the written point with the name limited to 20 characters is the result.

RoCo: Safe zones can be configured with exchanged points

CQ-ID: Defdb00178647

Severity: K5 - non critical problem

Description: It was possible to configure safe zones and travel range limits with the minimum point being bigger than the maximum point.

Sercos

L25: SysError if Sercos addresses are higher than 99

CQ-ID: Defdb00178087

Severity: K2 - serious malfunction

Description: If a Sercos slave with an address higher than 99 is used, a SysError occurred in the control.

Sercos I/O: Inputs are not zeroed in case of a missing device

CQ-ID: Defdb00176682

Severity: K2 - serious malfunction

Description: When operating a Sercos slave in Sercos and when switching the bus to phase 2 and removing the device and switching the bus to phase 4 again, its input data is not set to 0. The values prior to phase switching are transmitted when reading the inputs.

After a F00D1221 when writing C-0-1030, no parameter queries are possible anymore

CQ-ID: Defdb00175779

Severity: K3 - malfunction (no workaround)

Description: If due to an error in the slave, the command C-0-1030 is not completed, WriteFB in the MLC reports F00D1221 Timeout in parameter access after 120 seconds. The function block was completed with an error, however, the command was still running in the command handler and was not canceled or ended by a timeout.

C-0-0578 is not up-to-date after a PLC download

CQ-ID: Defdb00175629

Severity: K3 - malfunction (no workaround)

Description: A project was created with PLC devices. After login to P2, C-0-0578 remains empty and was only filled by a phase switching.

Diagnostics insufficient in case double Sercos addresses

CQ-ID: Defdb00175901

Severity: K3 - malfunction (no workaround)

Description: If a Sercos address existed multiple times, no specific error message was generated.

Workaround: The IndraWorks function “Validation” reports the duplicate Sercos address.

Missing I/O device is not entered into C-0-0477

CQ-ID: Defdb00175223

Severity: K3 - malfunction (no workaround)

Description: If a Sercos PLC device with an incorrect address was connected, the parameter C-0-0477 only contained one entry with "65 8" (disabled or unconfigured device available at Sercos). Another entry with "66 16" (configured device not found at Sercos) was missing.

Sercos Safety: In case of a real axis, Sercos Safety communication is not working

CQ-ID: Defdb00178198

Severity: K3 - malfunction (no workaround)

Description: If only one real axis with CIP Safety functionality was created in total, no Safety communication was established to this axis.

Sercos: Incorrect diagnostics for the situation as switching to CP1 is not possible

CQ-ID: Defdb00171553

Severity: K3 - malfunction (no workaround)

Description: In case errors occur during phase switching, a diagnostics is only entered for the first detected errors.

SIII: Dig list function blocks return more data than the specified buffer can accommodate

CQ-ID: Defdb00178614

Severity: K3 - malfunction (no workaround)

Description: The IL_SIIIGetConfigSlaveAdrList, IL_SIIIGetLiveSlaveAdrList and IL_SIIIGetDiagSlaveAdrList function blocks are exited with "done" and return the corresponding data even if the buffer specified by the user (SizeOfSlaveAdrList) is too small for the list.

Thus, the memory can sporadically be overwritten!

Also see Defdb00178515.

SMC as SercosDrive: It is tried to write P-0-4088

CQ-ID: Defdb00171956

Severity: K3 - malfunction (no workaround)

Description: If it was detected that a Sercos device supports the GDP class “StateMachine”, the incorrect parameter was used for decoupling. This caused errors during startup and it could not be switched to CP4.

System error F9240005 in CML25

CQ-ID: Defdb00177202

Severity: K3 - malfunction (no workaround)

Description: After adding S-0-0092, torque/force limit bipolar in the cyclic data channel A-0-0500, the system error F9240005 was reported in BB.

Quicker Sercos phase switching by using the parameterization plane

CQ-ID: Defdb00174035

Severity: K6 - functional enhancement

Description: The synchronization of the axis parameters with the drive parameters was executed despite the enabled parameterization plane. Thus, it was not possible to accelerate the Sercos startup from P2 to BB.

61.2.2 Known issues

MLC Firmware / _Other

No communication possible at the interface X7 E3/E4 via OPC UA

CQ-ID: Defdb00156649

Severity: K3 - malfunction (no workaround)

Description: OPC UA server can only be reached via the engineering port "X7E5".

MLC Firmware / Sercos

CML25 detects the Sercos address 198 at 99 Sercos devices

CQ-ID: Defdb00178370

Severity: K3 - malfunction (no workaround)

Description: 99 Sercos devices were connected to a CML25. In CP0, the Sercos address 198 was subsequently detected at the last device of the ring topology, even though the address of this device is different.

62 IndraLogic XLC/IndraMotion MLC 14V06 Patch 01 firmware and software

62.1 Software

62.1.1 Resolved defects

Engineering / _Other

Exception if the Inline master is excluded from compilation

CQ-ID: Defdb00175484

Severity: K2 - serious malfunction

Description: If the Inline master is excluded from compilation in the project, an exception occurs when opening the project.

Project Explorer jumps while scrolling

CQ-ID: Defdb00172277

Severity: K4 - malfunction

Description: The display of the Project Explorer makes jerky movements when scrolling big IndraWorks projects.

Engineering / Drive

Exception when downloading the drive firmware

CQ-ID: Defdb00175333

Severity: K3 - malfunction (no workaround)

Description: When starting the drive firmware download, an error might occur sporadically on some computers, when the routing entry is to be created for the download.

Fixing: If an error occurs when accessing the routing table, a message is displayed describing how to download by entering a manual route.

IndraWorks Engineering OF - Adapting to IndraDrive firmware subject to the issue of an export permit

CQ-ID: Defdb00176104

Severity: K3 - malfunction (no workaround)

Description: Due to a change in the export regulations for frequency converters, new firmware releases are created for all relevant IndraDrive firmwares. The firmware ID changes. Thus, "E" is shown as control mode package ID. This causes problems in IndraWorks when scanning Sercos devices at an XLC/MLC.

Engineering / Drive Safety

Safety profile for drives cannot be created

CQ-ID: Defdb00175769

Severity: K3 - malfunction (no workaround)

Description: The Safety profile for drives cannot be created

CSos communication: Parameter "Max fault number" should be 0 by default

CQ-ID: Defdb00176413

Severity: K4 - malfunction

Description: In case of the CIP Safety on Sercos (CSos) communication, it is possible that corrupt telegrams are permitted within the network response time. If a corrupt telegram is received and if a “Max fault number” > 1 was set in the CIP-Safety configuration (safe configuration), the CIP-Safety communication remains “active” and possible falsified user data is provided to the Safety application.

All variables in the input mapping (I/O mapping Input) of CSos originator connections can be affected.

Engineering / GAT

KinInterface: Change in operation mode with ChangeOpMode=StopMovement has to be executed twice

CQ-ID: Defdb00173513

Severity: K3 - malfunction (no workaround)

Description: When using the ChangeMode "StopMovement", the "MC_GroupStop" function block is called when changing the operation mode. After successful processing, reset this function block to get the kinematics from the "Stopping" state. This was not done.

Fixing: The function block "MC_GroupStop" is only called once after the successful processing with Execute = FALSE. The kinematics can now change from the "Stopping" state to the desired state.

Engineering / HMI

Process variable browser: Options can be selected incorrectly in the context menu

CQ-ID: Defdb00174252

Severity: K3 - malfunction (no workaround)

Description: The self-excluding options "From symbol file" and "From programming system" could have been selected at the same time in the context menu of the process variable browser.

WinStudio graphics: "Resources” folder is not transmitted to the target device

CQ-ID: Defdb00169281

Severity: K3 - malfunction (no workaround)

Description: When downloading a WinStudio project, the "web\Resources” folder is not transmitted to the target device

WinStudio in IndraWorks/Standalone – Error when converting the screen resolution

CQ-ID: Defdb00165627

Severity: K3 - malfunction (no workaround)

Description: When using the WinStudio function “Convert screen resolution", all screen elements are converted to the new resolution. When using icon objects (instance of a user icon), the conversion does not work properly.

WinStudio localization: Startup target language does not work

CQ-ID: Defdb00175124

Severity: K3 - malfunction (no workaround)

Description: If a Startup target language is selected in the WinStudio localization dialog from the languages available in the project, the HMI application does not start in this language.

WinStudio: Connection to RemoteAgent failed

CQ-ID: Defdb00170914

Severity: K3 - malfunction (no workaround)

Description: If the WinStudio security settings were enabled on the target device and it was tried to establish a connection to the target device via the execution platform, it failed.

An hourglass was displayed and IndraWorks could not be operated anymore.

WinStudio: Editing "linked symbol" not possible anymore

CQ-ID: Defdb00174681

Severity: K3 - malfunction (no workaround)

Description: If a "linked symbol" is edited in WinStudio and the project is subsequently closed and the display - in which the instance of the "linked symbol" is used - is then opened again, it is asked whether the symbol should be overwritten.

Engineering / Motion

MLC parameter export. No .par file is generated

CQ-ID: Defdb00176806

Severity: K2 - serious malfunction

Description: In case of specific circumstances (multiple drives below the MLC, exclusive export of all S-/P-parameters,...), it can be possible that no parameter file is generated during parameter export, even though there is no error information in the summarizing message.

Fixing: The message for the error case and the functionality of the parameter export were adapted.

Workaround: Exporting the A-parameters in addition to the S-/P-parameters

The MLC diagnostic dialog cannot be operated anymore if too many axes are displayed

CQ-ID: Defdb00176341

Severity: K3 - malfunction (no workaround)

Description: The dialog for the MLC diagnostics (context menu of the control->Diagnostics->Device status) can hardly be operated in case of high control load and multiple axes. The mouse pointer flashes continuously. Inputs are processed with delay.

After the dialog is stable again and the axes are scrolled, the behavior can be observed again.

Fixing: The preselection of the displayed axes was limited due to a high number of axes and the tooltip flickering was debugged.

Engineering / Periphery

The "Sercos Configuration" dialog incorrectly criticizes the device identification of SercosDrives

CQ-ID: Defdb00175439

Severity: K4 - malfunction

Description: If a drive of type "SercosDrive" is configured and downloaded in the IndraWorks project, this drive is always displayed as deviating from the actually connected devices in the "Sercos Configuration" dialog.

Engineering / PLC Libraries

RIL_SERCOSIII: Bits in diagnostic structures xxx_BITS are turned

CQ-ID: Defdb00174952

Severity: K2 - serious malfunction

Description: The sequence of bits is turned in the structures IL_SIII_REMOTE_SLAVE_STATE_BITS and IL_SIII_DEVICE_STATUS_UNION_BITS.

The DeviceType has an incorrect value in the FB IL_SIIIRemoteSlaveDetails function block.

The TopologyPortStatus provides an incorrect value.

If the "BusMaster" input value is incorrect, an incorrect error message is reported.

The minimum value of 0.2 for FormatRatio is too high in case of the MB_CrossCutterCalcType05

CQ-ID: Defdb00176293

Severity: K3 - malfunction (no workaround)

Description: The minimum value is only sufficient for cross cutters with one knife. However, as multiple knives were introduced with the MB_CrossCutterCalcType05, the minimum value for the FormatRatio input has to reduce accordingly.

Fixing: The minimum value of FormatRatio was reduced to 0.02. It corresponds to the same minimum value as for one knife referring to the maximum number of 10 knives currently allowed.

Engineering / PLC Programming

Login without program download is not possible, after opening the project again

CQ-ID: Defdb00173146

Severity: K2 - serious malfunction

Description: The standard application of a project was compiled without errors and loaded to the control. The project was then closed.

When opening and then logging in again, it was displayed that a login is only possible with online change or download.

Workaround: Compile the standard application before logging in to the Safety application.

IndraWorks cannot be operated anymore if commands are executed during opening

CQ-ID: Defdb00176128

Severity: K3 - malfunction (no workaround)

Description: If commands were executed when opening a project - before the project was completely loaded - it was possible that IndraWorks was frozen.

“Axis commanding” does not work upon first opening

CQ-ID: Defdb00177396

Severity: K4 - malfunction

Description: The context menu “Commanding axes” of an ST program does not work without opening the ST code templates before.

Workaround: Open the ST code templates before “Axis commanding”.

Engineering / PLC Safety

Error while generating the code due to double addressing with exchange variable

CQ-ID: Defdb00175770

Severity: K3 - malfunction (no workaround)

Description: Errors occur while generating the code due to the double addressing with exchange variables.

Exception during program download, as the IEC identifier was assigned twice.

CQ-ID: Defdb00175771

Severity: K3 - malfunction (no workaround)

Description: The standard control reports that the IEC Identifier was assigned twice and reports an exception.

Workaround: The logic I/O below the Safety control have to be exported, deleted and reimported

Engineering / Project Handling

Exception after device conversion and download of the Motion configuration

CQ-ID: Defdb00175227

Severity: K2 - serious malfunction

Description: When changing the control type in the "Properties" dialog and executing "Downloading Motion configuration from PC to control" using the icon in the toolbar, the error message "Unexpected exception occurred" is displayed.

Workaround: After closing and opening the project again, the Motion configuration can be applied.

When downloading the configuration via the context menu (right mouse click/ control) of the control -> "Synchronization" -> "Downloading Motion configuration from PC to control", no error occurs.

Engineering / Robot Control

RoCo V2: Exception in dialog

CQ-ID: Defdb00175679

Severity: K3 - malfunction (no workaround)

Description: When switching a dialog to another kinematics using the switching buttons in the dialog, an exception occurs.

Engineering / Technology

ML_AxisRestore does not detect PM

CQ-ID: Defdb00175840

Severity: K3 - malfunction (no workaround)

Description: The function block ML_AxisRestore has written no parameters, which are write-protected in phase 4, in the Sercos phase 4/parameterization level. Only valid for phase 4 without parameterization level.

Fixing: Apart from the Sercos phase, the function block also checks the parameterization level. If this parameterization level is active, it is tried to write on parameters on which it can be written on in phase 2.

Logic

Logout during active sequence control and sequential programming can cause system error F9240005

CQ-ID: Defdb00176327

Severity: K3 - malfunction (no workaround)

Description: Active sequence control and sequential programming might cause the system error F9240005.

Fixing: In 14V06 patch1, the sequence control is disabled for the sequential programming.

62.1.2 Known issues

IMST XLC/MLC

IndraMotion Service Tool (IMST) cannot be started with Firefox version 32 or newer

CQ-ID: Defdb00174045

Severity: K3 - malfunction (no workaround)

Description: The IndraMotion Service Tool cannot be started using Firefox from version 32.

Engineering / _Other

Unexpected exception after acknowledging the “Group” button in the Profibus DP Slave

CQ-ID: Defdb00177642

Severity: K4 - malfunction

Description: Acknowledging the “Group” button in the Profibus DP slave dialog/DP parameter triggers the error message “An unexpected exception occurred”.

Workaround: The exception can be ignored. A group assignment in the slave is not recommended.

Unexpected exception after acknowledging the “Group” button in the Profibus DP Slave

CQ-ID: Defdb00177642

Severity: K4 - malfunction

Description: Acknowledging the “Group” button in the Profibus DP slave dialog/DP parameter triggers the error message “An unexpected exception occurred”.

Workaround: The exception can be ignored. A group assignment in the slave is not recommended.

Engineering / Drive

XLC/MLC offline parameterization parameter adjustment: S-/P-parameters changed offline are not detected as differences

CQ-ID: Defdb00177553

Severity: K3 - malfunction (no workaround)

Description: If S-/P parameters are changed offline, these changes are not visible when executing a parameter adjustment.

Engineering / HMI

Connection to VR21 not possible

CQ-ID: Defdb00172204

Severity: K2 - serious malfunction

Description: When enabling “Security system” in the Remote Agent (VR21) under "Setup >> Users...” and if no user or no password has been set up, no connection to the device can be established anymore via IndraWorks (WinStudio).

Workaround: If no connection can be established to VR21, check this in the "Security system" settings.

Possible solutions:

1.) Disable "Security system” setting

2.) Define a user with password in the “Security system” setting

PLC data type ENUM is generated with an incorrect data type in the BRWS driver sheet

CQ-ID: Defdb00159949

Severity: K2 - serious malfunction

Description: IF an ENUM declared as UINT in the PLC is used in a BRWS driver sheet, the following error message is displayed when verifying the application in WinStudio: “Error;HMI-00001003; invalid process variable".

Workaround: If ENUM data types are declared as UINT in the PLC, these data types - if they are to be communicated via BRWS - have to be declared as UINT in the WinStudio driver sheet.

Currently, these data types are incorrectly created as UINT16.

Incomplete restoring of communication after the connection was canceled in OPC-UA

CQ-ID: Defdb00173458

Severity: K3 - malfunction (no workaround)

Description: On VEPxx.4 devices with the operation system Windows CE 6.0, the communication could sporadically not be restored after a physical connection interruption to the control when using the WinStudio OPC-UA driver.

Process variable browsers do not detect SysError or control reboot

CQ-ID: Defdb00175468

Severity: K3 - malfunction (no workaround)

Description: If the process variables were read by the control via the process variable browser (ALL, not only the one of the PLC), the browser did not detect that SysError already occurred on the control. Window remained inactive even after reboot. Canceling was not possible.

A communication abort can be caused by the following:

- SysError
- Bad WLAN connection
- Ethernet cable was disconnected
- Voltage failure at switch
- ...

TCP/IP driver is not available

CQ-ID: Defdb00163249

Severity: K3 - malfunction (no workaround)

Description: When opening a TCP/IP driver sheet, the message “Unable to load TCPIP”,

VEPxx.5, VEPxx.6 WinStudio: 4EE controls are not started with default configuration

CQ-ID: Defdb00177272

Severity: K3 - malfunction (no workaround)

Description: If a WinStudio project with 4EE controls is transferred to a VEPxx.5 or VEPxx.6 target and the application is started, the controls are not called. The message ".Net Control not created" is displayed in the respective WinStudio screen.

Workaround: It is caused by an incorrect path specification in the HMI.App file.

The path specification has to be adapted in the HMI.App file to ensure that it is referenced to the storage directory of the HMI.Energy.StandAlone.dll (e.g. C:\Program Files\Rexroth\Indraworks\). The HMI.App file is located in the WinStudio project directory on the VEP target and can be edited with a text editor.

WinStudio in IndraWorks – When downloading the runtime project, the user-defined folders including their content are lost

CQ-ID: Defdb00165632

Severity: K3 - malfunction (no workaround)

Description: When creating a customer-specific folder to save linked screen objects or to manage recipe files in an IndraWorks (WinStudio) project below the folder "user/config/" or "user/config/web", this folder is lost when downloading to the target system.

WinStudio licensing does not work for new devices

CQ-ID: Defdb00177535

Severity: K3 - malfunction (no workaround)

Description: HMI devices of the newer generation (e.g. VSB40.3) have not been detected as Rexroth devices.

WinStudio: Project download without license does not work anymore

CQ-ID: Defdb00173822

Severity: K3 - malfunction (no workaround)

Description: When opening a WinStudio project with an insufficient license, this project cannot be applied to the target device:

WinStudio: VBScript compiler does not report all errors

CQ-ID: Defdb00168002

Severity: K3 - malfunction (no workaround)

Description: It cannot be detected at runtime when errors occur in WinStudio VB scripts.

The script execution is canceled instead at the error position without any feedback.

Wrong language in the alarm screen

CQ-ID: Defdb00165812

Severity: K3 - malfunction (no workaround)

Description: When using the filter functions for alarms in WinStudio, the filter mask is displayed in English for a VEP even though German is entered in the regional

settings. If the same project is used on a normal PC with German set as language, the filter mask is also in German.

Screen group is not closed via a command

CQ-ID: Defdb00165825

Severity: K4 - malfunction

Description: When calling the command "$Close("Bildgruppe.sg")" via a command, this command does not work if there is a screen with the "PopUp" property in the screen group. This screen is then not closed.

VH21: Exception in case of remote licensing

CQ-ID: Defdb00175279

Severity: K4 - malfunction

Description: If the engineering PC is connected to a switch port mirroring all network telegrams for diagnostic purposes (port mirroring), an exception (error message) is displayed.

WinStudio: Exception when starting runtime or when opening a project in Engineering

CQ-ID: Defdb00160837

Severity: K4 - malfunction

Description: If the date 18.1.2038 or later is set on the target device, an unhandled exception occurs when starting the WinStudio runtime.

Workaround: Set the correct date on the target device.

Screens are retained after deleting operating areas

CQ-ID: Defdb00176086

Severity: K5 - non critical problem

Description: When deleting an operating area (below the “Screens” folder), only the folder but not the contained elements are deleted.

Engineering / Periphery

Profibus diagnostics is available even though all devices are disabled

CQ-ID: Defdb00165620

Severity: K3 - malfunction (no workaround)

Description: The Profibus devices are disabled but the message “Diagnostics available” is displayed during . However, no diagnostics is available. No diagnostics can be read using the PLC function block.

Channel labeling of the S67-DIO4-HS module at SIII-BK incorrect

CQ-ID: Defdb00176233

Severity: K4 - malfunction

Description: The labeling of the analog input/output bytes of the DIO4-HS module at the S67 Sercos III bus coupler of incorrect in the “I/O Image” tab of the configurator.

ENIP: MLC as adapter, in the default setting BOOTP, the error "Module not found” is displayed

CQ-ID: Defdb00173526

Severity: K4 - malfunction

Description: In case of a "Reset warm" or a download with changed communication parameters, the communication chip has to be reinitialized.

If an error occurs, the initialization is canceled with an error and the interface does not work anymore.

Profinet: Different display in the project tree and in the tab page "Field bus diagnostics"

CQ-ID: Defdb00172016

Severity: K6 - functional enhancement

Description: The dialog "Fieldbus diagnostics" at the Profinet-I/O controller is incorrect. States and status messages are partially incorrect.

Workaround: Primarily, the warning icons on the PROFINET devices in the project tree have to be complied with for the diagnostics. The corresponding editor displays the detailed information on page "Status".

Engineering / PLC Libraries

AxisInterface: Axis freezes in ModeCoordinated when using an external PLCopen function block

CQ-ID: Defdb00176556

Severity: K3 - malfunction (no workaround)

Description: An axis is traversed in the ModeCoordinated operation mode via the AxisInterface.

The axis is now commanded via an external PLCopen function block.

It is correct that an error is output. This error can be deleted via the AxisInterface

If the axis is commanded in an operation mode unequal to ModeCoordinated, an error from the internally used function block “fbRemAxisFromGroup" is output.

AxisInterface: PhaseShift is not applied if a previous value was not fully synchronized

CQ-ID: Defdb00173325

Severity: K3 - malfunction (no workaround)

Description: If a PhaseShift (arAxisCtrl_gb[].SyncMode.PhaseShift) is entered into a phase-synchronous operation mode (ModeSyncPhase, ModeSyncCam, ModeFlexProfile, ModeSyncProfile) and the operation mode changes before the final PhaseShift processing, a new value is not applied for PhaseShift. After a new synchronization, traversing of the previous value is completed.

AxisInterface: SyncAcceleration, SyncVelocity and AngleOffset are not transferred

CQ-ID: Defdb00176932

Severity: K4 - malfunction

Description: One of the values SyncAcceleration, SyncVelocity or AngleOffset (arAxisCtrl_gb[].SyncMode.Xxxx) is changed and changed again before writing is completed. The new value is not written to the relevant parameter.

During the initialization phase, the initial values are written to the parameters. If the user does specifies a new value at that point in time, this value is not written.

Engineering / PLC Programming

Recipe manager: AccesViolation following an Online Change

CQ-ID: Defdb00176395

Severity: K2 - serious malfunction

Description: Incorrect behavior (access violation) when enabling the option “Recipe management in PLC”.

Workaround: Disable the option “Recipe management" in the PLC.

Assertion error when inserting a parallel contact

CQ-ID: Defdb00171837

Severity: K3 - malfunction (no workaround)

Description: An assertion error box opens when inserting a parallel contact. When acknowledging the error box with cancel, IndraWorks freezes. When using the Ignore button, the network is destroyed.

Engineering / PLC Safety

Calling "Update Parameter" deletes the linked logic

CQ-ID: Defdb00162388

Severity: K2 - serious malfunction

Description: The call “Refresh parameters” refreshes the changed output parameters or the name of a function block in the Safety editor and deletes the linked logic.

Safety monitor function shows question mark

CQ-ID: Defdb00173220

Severity: K3 - malfunction (no workaround)

Description: If the Safety editor is switched to online, some variables are incorrectly displayed in the monitor function. Question marks (???) are displayed.

The cross reference list in the context menu is not provided in the application part

CQ-ID: Defdb00177174

Severity: K3 - malfunction (no workaround)

Description: In online mode, the context mode “Scan" (definition; cross links) is not available or cannot be selected.

Comment line in the global safety variable list detected as faulty only after log in

CQ-ID: Defdb00167912

Severity: K4 - malfunction

Description: If a variable declaration was copied and pasted from a POU and highlighted as comment in a global safety variable list, no error is output upon subsequent compilation.

Error message is displayed at login.

Workaround: Remove declaration and enter manually.

Copying logic CSos I/Os of the drives causes CSos errors

CQ-ID: Defdb00173998

Severity: K4 - malfunction

Description: Copying and subsequent renaming of logic devices CSos I/Os of the drives within a project with multiple controls causes CSos errors.

Workaround: Delete the logic CSos I/Os and create them again via the CSos configuration dialog.

Individual function blocks with "_TO_" in the name cannot be used

CQ-ID: Defdb00160410

Severity: K4 - malfunction

Description: If the name of a function block contains the character string "_TO_", this function block cannot be used in the program.

Log in to safety function module possible, creating a boot application fails

CQ-ID: Defdb00172017

Severity: K4 - malfunction

Description: A project created with an older IndraWorks version can successfully be loaded to the Safety FM after it has been applied. Creating the boot application is canceled displaying an error message.

Workaround: Executing the "Pin application" command twice, the project-internal incorrect state is eliminated and the boot application can be created and loaded again.

Safety: "Update Parameters" does not update the changed output parameters of an FB in the Safety Editor

CQ-ID: Defdb00160028

Severity: K4 - malfunction

Description: "Update Parameters" does not update the changed output parameters of a function block in the Safety Editor.

Workaround: It is updated after the function block is closed and opened again.

Engineering / SL Manager

An exception occurs when renaming Safety I/O components (axes, inputs and outputs, bus)

CQ-ID: Defdb00171371

Severity: K2 - serious malfunction

Description: An exception occurs when renaming Safety I/O components (axes, inputs and outputs, bus).

Workaround: Undoing the changes. If errors still occur, the corresponding component has to be completely deleted and created again.

Upon project comparison, logic I/Os are identified as being different

CQ-ID: Defdb00170682

Severity: K3 - malfunction (no workaround)

Description: If two identical projects are compared with each other using the PLC project comparison, logic I/Os are displayed as being different.

Logic I/Os can be edited even though the standard control is logged in

CQ-ID: Defdb00169553

Severity: K4 - malfunction

Description: For PROFIsafe I/O, parameters can be edited in the editors "Safe Configuration" and "Safe Parameterization".

Changes are only applied to the standard control at next login and thus also only active after next login.

Operation / HMI

IW-Operation EKS: Incorrect protection level active - Protection level 1, even though no EKS key is plugged

CQ-ID: Defdb00176367

Severity: K3 - malfunction (no workaround)

Description: If the EKS key is removed during a temporary interruption of the connection (< 30 seconds), the EKS data in the PLC were sporadically not deleted. If the connection was interrupted for a only a short time so that the EKS watchdog data in the PLC are refreshed on time, the watchdog does not delete the incorrect EKS data in the PLC and this data is retained until the next inserting/ removing of the EKS key.

Multi-touch event "Down" and "Click" appear only after releasing with "Up” event

CQ-ID: Defdb00175485

Severity: K3 - malfunction (no workaround)

Description: The standard emulation of the mouse key behavior in case of touch operation cannot be used to operate the M-keys as e.g. a jog behavior as required to traverse axes is not available.

HMI operation: Exception in case of zoom command of an ACI screen

CQ-ID: Defdb00175034

Severity: K4 - malfunction

Description: If it was tried to zoom out the partial window of an ACI image, which was not enlarged before with "Zoom +" to the complete screen width and height, in IndraWorks Operation using the “Zoom” command of the F-key function “Command to ACI screen), an exception is generated.

Operating screens in the OP area “Operate” are sporadically not displayed (only a grey screen/F-keys are also empty)

CQ-ID: Defdb00173997

Severity: K4 - malfunction

Description: If screens are not assigned to any operating areas and opened by two different operating areas, incorrect screens are displayed when switching the operating areas.

PLC Library

The SysDirGetCurrent function returns an incorrect result

CQ-ID: Defdb00156653

Severity: K4 - malfunction

Description: The SysDirGetCurrent function does not return the current directory. The function always returns "/ata0b/" as directory name, even if another directory was set as current directory using the SysDirSetCurrent function.

62.2 Firmware

62.2.1 Resolved defects

_Other

MLC link, no transmission of arLinkValidBits_i and arLinkSyncBits_i in the link ring for topology double ring

CQ-ID: Defdb00175505

Severity: K2 - serious malfunction

Description: In an MLC link with the function modules CFL01.1-Q2, no arLinkValidBits_i and arLinkSyncBits_i were transferred in the link ring if the topology double ring was configured. These problems were not present with the topology single ring.

MLC link, no transmission of the master axis positions in the link ring for topology double ring

CQ-ID: Defdb00175334

Severity: K2 - serious malfunction

Description: In an MLC link with the function modules CFL01.1-Q2, no master axis positions were transferred in the link ring if the topology double ring was configured. These problems were not present with the topology single ring.

TaskViewer causes control error thus standstill of axes

CQ-ID: Defdb00176373

Severity: K3 - malfunction (no workaround)

Description: Starting or stopping a TaskViewer recording caused an F0 error if a recording has already or not yet started.

Undefined axis state after incorrect phase switching (P2 => P4)

CQ-ID: Defdb00176291

Severity: K3 - malfunction (no workaround)

Description: After the control startup to Bb, the axis did not provide correct data. Callling the PLCopen function block MC_Power returns the message F2229216: No power available.

Fixing: It was caused by a differences between the Sercos phase (P3) and the control phase (Bb). Was difficult to diagnose. An additional diagnostics (F222017D: Invalid drive data) was introduced for the function block MC_Power as well as for the documentation of the parameter A-0021.

Parameter C-0-1023 configures the old IP address in the control

CQ-ID: Defdb00175684

Severity: K4 - malfunction

Description: If the parameter C-0-1023 is executed via the parameter monitor or the display (command: Apply IP configuration), after the IP address was changed, the old IP address is entered again. Changing the IP address via the display is thus not possible.

Axis

Different behavior between AxisData[].ErrorStop and AxisData[].Axis_Error

CQ-ID: Defdb00176644

Severity: K3 - malfunction (no workaround)

Description: If the parameter C-0-0023 was read in a task with a priority lower than the MotionTask, invalid states in the parameter A-0-0022 could result.

Engineering / PLC Programming

Query of double-nested arrays via BRWS or OPS returns incorrect values

CQ-ID: Defdb00173768

Severity: K2 - serious malfunction

Description: The query of double-nested arrays (e.g. MyArr : ARRAY[0..12] OF ARRAY[0..12] OF ARRAY[0..40] OF BOOL;) via BRWS or the OPC interfaces returns incorrect values. These values can cause an incorrect value representation in an HMI. The handling of the double-nested arrays in the PLC is correct.

Inline IO

F00B0121 "Sercos: IO error" at MLC L65

CQ-ID: Defdb00174591

Severity: K4 - malfunction

Description: When operating an MLC control, making changes in the IndraWorks projects and restarting the control, the following error is sporadically displayed: F00B0121 "Sercos: I/O error".

Logic

Sercos I/O: No data exchanged if device missing

CQ-ID: Defdb00175267

Severity: K3 - malfunction (no workaround)

Description: If a device is not configured with an I/O data in the Sercos command configuration and this device is not available at the bus, no data is exchanged with the subsequently configured devices.

SafeLogic: PROFIsafe module detected the error "Profinet: Unexpected number of virtual submodules = 2“

CQ-ID: Defdb00175432

Severity: K6 - functional enhancement

Description: If a PROFIsafe module (Profinet) "MVK-MPNIO F DI16/8" of the company Murr is operated in the variant “with channel-granular passivation”, the following error message is displayed in the MLC diagnostic memory "Profinet: Unexpected number of virtual submodules = 2“.

MLPI

C2C, system error F9240005 when exporting all control parameters

CQ-ID: Defdb00175670

Severity: K2 - serious malfunction

Description: All control parameters (A,C,K,M) were exported in the master control of the control link via IndraWorks. A system error F9240005 (PageFault) occurred.

The same system error occurred when trying to read the actual velocity value (A-0-0302) of a master axis (A-0-0200) on a remote control.

MLPI: Using the connection option "address" causes problems upon login

CQ-ID: Defdb00174997

Severity: K3 - malfunction (no workaround)

Description: Using the connection option "address" (call "mlpiApiConnect()", parameter "connectionIdentifier") caused problems upon login Consequently, all these connections used the empty user account and its (restricted) rights. The problem mostly occurred with the toolbox mlpi4LabVIEW, as this toolbox always used the connection option "-address". This problem did not occur if the IP address was directly used as first argument instead of the connection option “-address".

Motion Functions

Error F9240005 in machine operation mode “Auto cycle"

CQ-ID: Defdb00176462

Severity: K3 - malfunction (no workaround)

Description: If the cam table of a valid and already checked FlexProfile was deleted, an error occurred. The corresponding C-parameter (C-0-2001 - C-0-2099) had to be emptied via the parameter monitor or via writing the list parameter. If starting the FlexProfile on the respective axis was tried again, this error occurred.

RobotControl

Error F12C047A when using the cyclic position command value interface of the robotics

CQ-ID: Defdb00175402

Severity: K3 - malfunction (no workaround)

Description: If the cyclic position command value interface of the robotics was used with a transformation that could not reach the zero point and CyclicMode CYCLIC_MODE_POS_REL or CYCLIC_MODE_VEL was used, the error F12C047A "Too close to the tripod" was output.

RoCoV2: When using the “adaptive Motion”, the control reports RAM at minimum after a while

CQ-ID: Defdb00177538

Severity: K3 - malfunction (no workaround)

Description: When using the “adaptive Motion”, the control reports RAM at minimum after a while.

RoCoV2: When using the relative desynchronization, the kinematics sporadically jumps

CQ-ID: Defdb00177536

Severity: K3 - malfunction (no workaround)

Description: If a relative desynchronization was used for RoCoV2 and if subsequently no command was commanded, the kinematics sporadically jumps in the direction of the belt. Sporadically, positions on the belt could not be complied with during operation. This behavior can also occur without using the relative desynchronization.

Sercos

Error F00B0121 upon first startup after control boot

CQ-ID: Defdb00176836

Severity: K2 - serious malfunction

Description: A project with multiple PLC devices was loaded at the Sercos node in the control. One of the PLC devices was not connected to the control.

Upon first startup after booting, the error F00B0121 "Sercos I/O error" was reported without the corresponding Sercos address. Each further phase switching had no errors.

Service channel communication abort in case of ring break/ring restoration

CQ-ID: Defdb00175970

Severity: K2 - serious malfunction

Description: Due to the creation of redundancy, it was possible that no S- or P-parameters were queried anymore.

C2C, link in P0 causes 100% control load

CQ-ID: Defdb00175821

Severity: K3 - malfunction (no workaround)

Description: If the C2C link was switched to P0, the control load increased to 100%. A communication with the control was not possible anymore. Cycle times were exceeded in the running drive ring. CSos connections were canceled.

C2C: Restoring the ring via IndraWorks does not work

CQ-ID: Defdb00175820

Severity: K3 - malfunction (no workaround)

Description: If the PLC program was loaded, the ring topology could not be established by setting “Restore redundancy” from the IndraWorks interface. The box was selected, but the redundancy loss remained. Bit 4 in the parameter C-0-0704 had also no effect via the parameter editor or the parameter monitor.

Fixing: Troubleshooting ensured that the correct state is displayed in the parameter C-0-0704 irrespective of whether it was written via the PLC (ControlData) or IndraWorks (parameter access). Thus, the restoration of redundancy acts again as described in Defdb00133244 and released for the versions 12VRS and 13VRS.

Emergency reaction in the master communication causes an emergency reaction in the C2C link

CQ-ID: Defdb00176405

Severity: K3 - malfunction (no workaround)

Description: After an emergency reaction in the master communication of a C2C master, the C2C slaves lost the connection to the C2C master and returned to the NRT mode with the error "C2C - connection error" (F0280012).

If there are 64 devices, the system error F9240005 can sporadically occur in the C2C slaves

CQ-ID: Defdb00176559

Severity: K3 - malfunction (no workaround)

Description: In a C2C link with up to 64 devices, the system error F9240005 (page fault) could occur sporadically in one or (multiple) slave(s). This problem occurred for the hot plug of a slave and during normal startup of the C2C link.

Sercos: Different system error while reading the parameter C-0-0485

CQ-ID: Defdb00175918

Severity: K3 - malfunction (no workaround)

Description: While reading the parameter C-0-0485, different system errors occurred when multiple Sercos devices were configured and connected. The maximum list length of the parameter was too small. This resulted in one of the two system errors: F9240005 or F9240007.

62.2.2 Known issues

_Other

No communication possible at the interface X7 E3/E4 via OPC UA

CQ-ID: Defdb00156649

Severity: K3 - malfunction (no workaround)

Description: OPC UA server can only be reached via the engineering port "X7E5".

OPC-UA Server: Invalid values are still displayed after an Online Change

CQ-ID: Defdb00176375

Severity: K3 - malfunction (no workaround)

Description: If an online change is executed during an established OPC-UA client server connection that changes the symbol configuration so that Monitored Items registered via a subscription by a client are changed (removed), they are not displayed as invalid by the client.

The drive information "Status of ext. Command value processing" was not evaluated

CQ-ID: Defdb00175311

Severity: K3 - malfunction (no workaround)

Description: The drive information "Status of ext. Command value processing" (S-0-0135 Bit3) was not processed correctly within the MC_Power function block. The interpolator started to generate new position command values too early.

Trace: Automatic triggering/saving of DSH message does not work

CQ-ID: Defdb00165426

Severity: K3 - malfunction (no workaround)

Description: If Trace was configured so that it should trigger and/or save when receiving a DSH message, triggering/saving was not executed, if the DSH module was deactivated.

SysError F924006 after inserting a write access to a drive parameter using the data container

CQ-ID: Defdb00177344

Severity: K4 - malfunction

Description: If a 2 byte decimal parameter was inserted in one of the user-defined command values and if an invalid REAL value was written to the command value, it resulted in system error F9240006.

OPC-UA: Incorrect display of the item "BuildDate"

CQ-ID: Defdb00174139

Severity: K5 - non critical problem

Description: In the "DeviceSet" node, an incorrect date was displayed for the subnode "BuildDate" in "SoftwareComponentSet".

Axis

F5113002 - Command velocity too high for cycle time

CQ-ID: Defdb00175360

Severity: K2 - serious malfunction

Description: When traveling certain FlexProfiles, the message "F5113002: Command velocity too high for cycle time" could incorrectly be output. Reason: incorrect adding up of the distances traveled per cycle

A-0-0020/A-0-0023 incorrect in axis warnings

CQ-ID: Defdb00175361

Severity: K3 - malfunction (no workaround)

Description: Due to an error, the lower priority warning was not overwritten by a higher priority warning in parameter A-0-0023 "Axis diagnostic number".

AXS Ipo: Check does not work on "shortest path"

CQ-ID: Defdb00173247

Severity: K3 - malfunction (no workaround)

Description: If two MoveAbsolute commands were subsequently issued to the same target position, but with different velocities, it was possible that the axis moved to the opposite direction.

F2037 in case of an active A-0-2220 and PowerOff

CQ-ID: Defdb00167400

Severity: K3 - malfunction (no workaround)

Description: When using the additive position command values in connection with axes interpolated in the control, the drive error message F2037 occurred.

HydraulicDrive (IPO-Drive) - Enabling the ML_OpenCyclicAnalogChannel results in F5180005 "motionKernel timeout"

CQ-ID: Defdb00176336

Severity: K3 - malfunction (no workaround)

Description: On a HydraulicDrive with interpolation in the drive, no ML_OpenCyclicAnalogChannel could be executed.

SysError F9240005 when executing the FlexProfile

CQ-ID: Defdb00177032

Severity: K3 - malfunction (no workaround)

Description: When using the FlexProfile, a SysError could sporadically occur, if a lower-priority task was used to change the FlexProfile than for executing the same FlexProfile and if there was not synchronization between both operations. That means, if there was no check regarding the successful completion of the change before executing the FlexProfile.

Logic

Communication is canceled after a PLC reset and an IEC watchdog

CQ-ID: Defdb00166860

Severity: K2 - serious malfunction

Description: Watchdog errors interrupting the IEC program within a library function (or a function block) could sporadically result in the fact that the communication to

the control could not be established anymore after a “RESET COLD” or a “RESET WARM”.

The control has to be switched off and on again.

MLPI

MLPI-SDK: Error message "C# application without dll registration"

CQ-ID: Defdb00174269

Severity: K3 - malfunction (no workaround)

Description: The manifest file (commlpiwin32.dll) in the MLPI-SDK was faulty or incomplete.

Motion Functions

PLS : Setting the PLS signal selection from "Force" to "Register” does not work

CQ-ID: Defdb00175308

Severity: K2 - serious malfunction

Description: PLC outputs cannot be enabled.

ML_TouchProbe calculates the position difference with only one edge

CQ-ID: Defdb00175655

Severity: K3 - malfunction (no workaround)

Description: The position difference was also calculated when only one edge was detected.

A-0-0240 Feedrate Override should not be included in the list to restore the required parameters

CQ-ID: Defdb00176066

Severity: K4 - malfunction

Description: A-0-0240 was not backed up after a parameter export.

RobotControl

RoCo V2: TeachIn: Point table with PCS16 cannot be loaded

CQ-ID: Defdb00176101

Severity: K3 - malfunction (no workaround)

Description: Points in point files with PCS16 could not be read in.

RoCo: Configurable error reaction of the kinematics without effect

CQ-ID: Defdb00177598

Severity: K3 - malfunction (no workaround)

Description: If the error reaction was set via the limit values of parameters K-0-0224, Emergency stop deceleration and K-0-0225, Emergency jerk in parameter K-0-0223, these parameters were without effect.

RoCo: Error in workspace violation during jog mode

CQ-ID: Defdb00177597

Severity: K3 - malfunction (no workaround)

Description: If an error was generated during continuous jogging by the system and if thus jogging was canceled, the error "F2299414 Command in 'ErrorStop' rejected" was generated when stopping the jogging.

If the error was deleted by the MC_GroupReset function block, the kinematic was in state "Group Moving".

RoCo V2: TeachIn: Point with name > 20 characters can be written but not read

CQ-ID: Defdb00176102

Severity: K4 - malfunction

Description: If a point (ML_GroupWritePoint) was written with a name >= 20 characters, the point name was limited to 20 characters. However, it was not possible to retrieve this shortened name with 20 characters (ML_GroupReadPoint). The error message "Point does not exist" is displayed. When using the ML_GroupReadNextPoint function block with a PointNameIn = empty string, the written point with the name limited to 20 characters is the result.

Sercos

After a F00D1221 when writing C-0-1030, no parameter queries are possible anymore

CQ-ID: Defdb00175779

Severity: K3 - malfunction (no workaround)

Description: If due to an error in the slave, the command C-0-1030 is not completed, WriteFB in the MLC after 120 seconds F00D1221 Timeout in parameter access. The function block was completed with an error, the command was still running in the command handler and was not canceled or ended by a timeout.

C-0-0578 is not up-to-date after a PLC download

CQ-ID: Defdb00175629

Severity: K3 - malfunction (no workaround)

Description: A project was created with PLC devices. After login to P2, C-0-0578 remains empty and was only filled by a phase switching.

Diagnostics insufficient in case double Sercos addresses

CQ-ID: Defdb00175901

Severity: K3 - malfunction (no workaround)

Description: If a Sercos address existed multiple times, no specific error message was generated.

Workaround: The IndraWorks function “Validation” report the double Sercos address.

Missing I/O device is not entered into C-0-0477

CQ-ID: Defdb00175223

Severity: K3 - malfunction (no workaround)

Description: If a Sercos PLC device with a incorrect address was connected, the parameter C-0-0477 only contained one entry with "65 8" (disabled or unconfigured device available at Sercos). Another entry with "66 16" (configured device not found at Sercos) was missing.

Sercos: Incorrect diagnostics for the situation as switching to CP1 is not possible

CQ-ID: Defdb00171553

Severity: K3 - malfunction (no workaround)

Description: In case errors occur during phase switching, a diagnostics is only entered for the first detected errors.

SMC ass SercosDrive: It is tried to write P-0-4088

CQ-ID: Defdb00171956

Severity: K3 - malfunction (no workaround)

Description: If it was detected that a Sercos device supports the GDP class “StateMachine”, the incorrect parameter was used for decoupling. This caused errors during startup and it could not be switched to CP4.

System error F9240005 in CML25

CQ-ID: Defdb00177202

Severity: K3 - malfunction (no workaround)

Description: After adding S-0-0092, torque/force limit bipolar in the cyclic data channel A-0-0500, the system error F9240005 was reported in BB.

Quicker Sercos phase switching by using the parameterization plane

CQ-ID: Defdb00174035

Severity: K6 - functional enhancement

Description: The synchronization of the axis parameters with the drive parameters was executed despite the enabled parameterization plane. Thus, it was not possible to accelerate the Sercos startup from P2 to BB.

63 IndraLogic XLC/IndraMotion MLC 14V06 firmware and software

63.1 Software

63.1.1 Resolved defects

IMST XLC/MLC

Firmware version is not correctly displayed in the hardware dialog

CQ-ID: Defdb00169476

Severity: K3 - malfunction (no workaround)

Description: In the hardware display, "error:2" is displayed under the L-option card in the "Firmware" entry.

Status of the restart lock option cards L2, L3, L4 is not displayed

CQ-ID: Defdb00169467

Severity: K3 - malfunction (no workaround)

Description: If a drive was equipped with an L2, L3, L4 option card on X41 or X41.2 (double axis) at the MLC in the Sercos ring, this option card was displayed with its serial number in the HW overview. The dialog representing the states was missing.

Unclear display of the Sercos I/O complex protocol

CQ-ID: Defdb00169477

Severity: K3 - malfunction (no workaround)

Description: In the Sercos I/O complex protocol, the inputs and outputs are displayed subsequently with 80 bit each. It is difficult to distinguish the individual bits.

Fixing: The display is wrapped after 16 bits.

_Other

Renaming a POU without rights with a subsequent canceling of the login dialog does not issue a message

CQ-ID: Defdb00172033

Severity: K3 - malfunction (no workaround)

Description: If the user tries to rename a POU without the respective rights (right: modify), renaming was not executed and no message displayed.

Engineering / _Other

Changing the properties of an axis in the axis overview, destroys the IndraWorks project

CQ-ID: Defdb00174747

Severity: K3 - malfunction (no workaround)

Description: If an axis property (e.g. IPOCNTRL -> IPODRV) is changed via the "Axis Overview" dialog, once the project is closed, it cannot be opened anymore.

Unexpected exception when "setting the absolute reference"

CQ-ID: Defdb00169990

Severity: K3 - malfunction (no workaround)

Description: "Unexpected exception" is displayed when "setting the absolute reference".

Adding devices via "Insert in front" does not work

CQ-ID: Defdb00171041

Severity: K4 - malfunction

Description: In the "Add" dialog, there is the "Insert in front" option at the "Add" button. It can be used to insert objects at a specific position.

This option does not work for peripheral devices. Devices were always inserted at the end.

Engineering / Drive

The parameter editor does not work in case of the third-party device SMC

CQ-ID: Defdb00172384

Severity: K4 - malfunction

Description: For a SercosDrive (SMC from the company Automata), the parameter editor is not available for the drive. Clicking on the drive displays "Switch drive XXX online" in the status bar, but the text disappears and the node does not become blue.

Updating offline parameterization in "Operation Mode" causes errors.

CQ-ID: Defdb00173029

Severity: K4 - malfunction

Description: If the function package was changed from "closed loop" to "open loop" at a drive and the offline parameterization was subsequently updated in "Operation Mode", an exception was thrown when accessing P-0-3000.

Fixing: There is no P-0-3000 for open loop. Thus, this parameter can be ignored when updating offline update for open loop.

Engineering / Firmware Management

MLC firmware download requires to stop the safety control

CQ-ID: Defdb00170705

Severity: K4 - malfunction

Description: During MLC firmware and Motion configuration download and while restoring device data, it is checked whether the "Safety Control" application is running and and does not allow to continues until the application is stopped. This check is not required.

Engineering / GAT

Symbol configuration is generated in case of the AxisInterface example

CQ-ID: Defdb00172693

Severity: K3 - malfunction (no workaround)

Description: Creating an AxisInterface example project also generates a symbol configuration. This results in unnecessary memory and resource consumption if the symbol configuration is not required.

GAT: Plug-in KinInterface is not connected to the GAT error handling using the GAT wizard

CQ-ID: Defdb00174814

Severity: K4 - malfunction

Description: The user is provided with different operation modes in a project created using the GAT Wizard. When switching from one operation mode to another or a specified one, different actions are partially required (e.g. switching all axes to AH). Execute similar actions for the kinematics as well (e.g. switching all axes assigned to the kinematics to Coordinated Motion). This has not yet been implemented.

Workaround:

Extend the following actions to ensure that the kinematics used in the corresponding unit or module responds as expected when changing the operation mode:

GAT compact: actError_entry, actInit_entry, actModeManual_entry, actModeOff_entry from the "Machine" function block

GAT central: actError from the function block of each module

GAT decentral: actErrorReaction_entry, actManual, actOff from the function block of each unit

Fixing: The extension of the configuration file of the "KinInterface" plug-in ensures that the different methods of the operation mode are automatically extended similarly to the AxisInterface. If GAT compact or GAT central is used, the user does not have to take any actions. However, when using GAT decentral, comments were added to the implemented code. Thus, the user has to complete the example code explicitly for the kinematics used in the corresponding unit.

To apply the new configuration file, remove the kinematic interface from the project and add it again. Save all user-defined changes made at the kinematic interface, as these changes are lost while updating.

Engineering / HMI

4EE-.NET-Controls: Measurements in the EnergyMonitor can be rarely selected

CQ-ID: Defdb00172152

Severity: K3 - malfunction (no workaround)

Description: If the energy consumption is very different during the measurement, measurements with a low energy consumption (small bars) can hardly be selected in the EnergyMonitor.

4EE-.NET-Controls: SCP Items are not logged off

CQ-ID: Defdb00172149

Severity: K3 - malfunction (no workaround)

Description: The SCP Items required for the communication between the 4EE controls and the PLC interface are logged in by the controls and not logged off again.

If neither the "Active" interface is assigned with "False" nor in case of destruction of the control, the items are logged off by the client.

Multiple opening of WinStudio screens, in which the controls are started, overloads the communication between HMI and control.

Configured project languages are not detected in WinStudio

CQ-ID: Defdb00170532

Severity: K3 - malfunction (no workaround)

Description: When adding several project languages to one IndraWorks project without opening a WinStudio editor before, the project languages are not available in the localization editor.

Context display in cross references is not displayed correctly

CQ-ID: Defdb00170493

Severity: K3 - malfunction (no workaround)

Description: In the WinStudio cross-reference list, the names of the available visualization devices are not always displayed in the context selection.

Driver sheets cannot be configured without connection check

CQ-ID: Defdb00167989

Severity: K3 - malfunction (no workaround)

Description: OPC UA driver sheets not located in the project, cannot be configured for controls.

Fixing: To configure OPC UA driver sheets for controls not located in the project, a variable export file can be loaded after opening the driver sheet in the process variable browser. The displayed icons can then be inserted into the driver sheet.

Missing edge detection for the force signal of a step with "GO" action for ILD_Sfc

CQ-ID: Defdb00166576

Severity: K3 - malfunction (no workaround)

Description: The "GO" action of a step in manual mode was executed, even though the edge of the force signal was missing. After activating and deactivating the "Enable" signal, the edge is required to execute the "Go" action.

Objects in the WinStudio screen tools are grayed out for user icons

CQ-ID: Defdb00170912

Severity: K3 - malfunction (no workaround)

Description: While editing WinStudio user icons, the objects in the WinStudio screen tools are grayed out and can thus not be used to edit the icon.

Switching the WinStudio target setting causes unusable program code

CQ-ID: Defdb00165631

Severity: K3 - malfunction (no workaround)

Description: When configuring a multi-touch event function in a WinStudio PC project and the screen is subsequently copied to a project for a CE target, the tabs - not available under CE - are hidden.

The configured function remains, that is the program parts invisible and not editable for the user. This can cause obscure error messages during the validation if variables do not exist anymore.

User icons cannot be opened for editing

CQ-ID: Defdb00170497

Severity: K3 - malfunction (no workaround)

Description: If a WinStudio screen is located in a WinStudio subfolder, user icons used cannot be opened via the context menu "Edit Linked Symbol".

WinStudio OPC-UA client: Problems with IEC data types for date and time

CQ-ID: Defdb00170672

Severity: K3 - malfunction (no workaround)

Description: The data types TIME and TIMEOFDAY cannot be read in and written to WinStudio OPC-UA driver sheets.

WinStudio OPC-UA: Communication crashes if keys are pressed fast

CQ-ID: Defdb00173992

Severity: K3 - malfunction (no workaround)

Description: Fast tag writing using OPC-UA communication cancels the communications on VR21 devices.

WinStudio OPC-UA: Values are displayed with question marks in the viewer after the communication was canceled

CQ-ID: Defdb00173298

Severity: K3 - malfunction (no workaround)

Description: After cancelation and subsequent re-establishment of the connection, not all variables are updated.

WinStudio to VR21: There is no virtual keyboard displayed for the input fields in the "Remote Agent Setup" dialog

CQ-ID: Defdb00171843

Severity: K3 - malfunction (no workaround)

Description: There is no virtual keyboard to change the Remote Agent settings (e.g. password) on a VR21 device.

Fixing: The Remote Agent provides the virtual keyboard of the operating system to enter texts. The WinStudio runtime environment uses the internal WinStudio keyboard.

Engineering / Periphery

The functions "Sort" and "Overview on bus addresses" at the "Profibus" node are incorrect

CQ-ID: Defdb00167343

Severity: K3 - malfunction (no workaround)

Description: After using "Sort" at the Profibus master, the slave sequence was changed, but the sorting was not as desired.

If the "Overview on Bus Addresses" dialog was subsequently opened, it does not display all slaves.

Engineering / PLC Libraries

RIL_SercosIII: S-0-0013 is used in the IL_SIII_DRIVE_DIAG structure

CQ-ID: Defdb00174533

Severity: K2 - serious malfunction

Description: The parameter S-0-0013 is displayed in the RIL_SercosIII library by the "DrvMessage" element of the IL_SIII_DRIVE_DIAG structure. This parameter does not exist in Sercos III. Structural element "DrvMessage" was removed.

AxisInterface: Error during restart after F2110007 "Power loss of axis"

CQ-ID: Defdb00171004

Severity: K3 - malfunction (no workaround)

Description: The safety engineering in the drive (drive-controlled reaction) disables the power of the drive. Simultaneously, the PLC program switches to mode AB via AxisInterface. Error F2110007 "Power loss of axis" occurs during switch-off.

At restart, new errors sporadically occur after error F2110007, as the internally used function block MC_Stop is still active.

Fixing: During switch-off, the function block MC_Stop is called until it is not active anymore. Errors do not result anymore at restart.

Engineering / PLC Programming

Missing inputs when using a structure assigned to the input range

CQ-ID: Defdb00170877

Severity: K2 - serious malfunction

Description: If an input range was mapped to a structure and the address of this structure was allocated to a pointer, the respective input bytes were not applied to the input image anymore.

Profinet configuration is lost during project conversion

CQ-ID: Defdb00172750

Severity: K2 - serious malfunction

Description: If a control was configured as Profinet device using the firmware version 13 and was to be updated to 14VRS, all Profinet device were deleted.

"Overview on bus addresses" dialog inconsistent and does not detect address conflicts

CQ-ID: Defdb00172161

Severity: K3 - malfunction (no workaround)

Description: No address conflicts are detected and shown anymore in the "Overview on bus addresses" dialog.

Bus address changes of some slaves were applied to the project, but not shown in the "Overview" dialog.

Name collision between POU and peripheral device causes compilation error.

CQ-ID: Defdb00171846

Severity: K4 - malfunction

Description: If a POU and a peripheral device are provided with the same denominer and the inputs and outputs of this peripheral device are also mapped to PLC variables, compilation errors "Ambiguous use of the name xxx" resulted.

Very slow PLC compilation

CQ-ID: Defdb00170322

Severity: K4 - malfunction

Description: If there is data in the "General module folder", compilation is very slow.

Workaround: When copying "Data Types" folder from the "General module folder" below each application, the behavior improves considerably.

Engineering / PLC Safety

Resorting function modules causes loss of data

CQ-ID: Defdb00171994

Severity: K2 - serious malfunction

Description: If the configuration of the function modules was changed via the "Properties" dialog and thus already existing modules have a different position, these modules were not moved, but newly created. Thus, the configuration of these modules is lost. In case of a Safety function modules, the complete Safety project is lost.

Engineering / Project Handling

If Sercos I/Os are available in the project, the project is always partially synchronous

CQ-ID: Defdb00174050

Severity: K3 - malfunction (no workaround)

Description: If Sercos I/Os or Safety drives are available in the project, the Motion configuration can be downloaded, but the project is always partially synchronous in the project tree. Thus, all Motion dialogs and the parameter editor do not work.

Engineering / Technology

MC_DigitalCamSwitch generates a warning

CQ-ID: Defdb00172180

Severity: K4 - malfunction

Description: The MC_DigitalCamSwitch function block generates a warning during compilation.

Engineering / Version Control System

After deleting function modules, errors result after "Undo checkout"

CQ-ID: Defdb00167294

Severity: K3 - malfunction (no workaround)

Description: If one project was under version control and the control object was for example checked out due to the deletion of a function module, malfunctions result after "Undo checkout", as the sequence of the nodes in the project was not correct anymore.

Change of control releases does not work via VCS

CQ-ID: Defdb00170764

Severity: K4 - malfunction

Description: The firmware release of the control was adjusted in a project under version control. If another working copy is subsequently updated, the device description used is not correctly updated (wrong version: visible after pressing "Open" on the control node).

Operation / HMI

Default SFC texts are not exported and thus not overwritten during reimport

CQ-ID: Defdb00173404

Severity: K3 - malfunction (no workaround)

Description: Multiple project languages were created in the IndraWorks project. A translation file was exported with the selected project languages as source language. After importing this exported file, the "default texts" of the selected project language were labeled with the "@@@@" characters in the ProVi-SFC text data editor.

IWO: Updating diagnostic data causes an increase of memory required in the SCP server after online change in PLC

CQ-ID: Defdb00162640

Severity: K3 - malfunction (no workaround)

Description: When changing online in programs with ProVi-Sfc diagnostics, updating the diagnostic data on the operating devices caused a significant increase of required memory in the running SCP server.

SFC message not up-to-date after online change

CQ-ID: Defdb00171509

Severity: K3 - malfunction (no workaround)

Description: The ProVi-Sfc messages in the Operation Desktop were not always up-to-date in case of only small PLC code changes applied via online change.

To many ProVi-Sfc messages in a short period cause a very high memory load

CQ-ID: Defdb00173750

Severity: K3 - malfunction (no workaround)

Description: If too many ProVi-Sfc messages were triggered in a short period due to configuration errors, the Operation Desktop and control stop synchronizing. If this procedure was cyclically and permanently repeated, a high memory load was caused.

63.1.2 Known issues

Engineering / HMI

Process variable browser: Options can be selected incorrectly in the context menu

CQ-ID: Defdb00174252

Severity: K3 - malfunction (no workaround)

Description: The self-excluding options "From symbol file" and "From programming system" could have been selected at the same time in the context menu of the process variable browser.

WinStudio: Editing "linked symbol" not possible anymore

CQ-ID: Defdb00174681

Severity: K3 - malfunction (no workaround)

Description: If a "linked symbol" is edited in WinStudio and the project is subsequently closed and the screen - in which the instance of the "linked symbol" is used - is then opened again, it is asked whether the symbol should be overwritten.

VH21: Exception in case of remote licensing

CQ-ID: Defdb00175279

Severity: K4 - malfunction

Description: If the engineering PC is connected to a switch port mirroring all network telegrams for diagnostic purposes (port mirroring), an exception (error message) is displayed.

Normally, this error does not occur.

Engineering / Periphery

The command "Update device" deletes the I/O modules

CQ-ID: Defdb00174470

Severity: K2 - serious malfunction

Description: The command "Update device" incorrectly deletes the I/O modules at the Profibus S67 bus coupler.

Engineering / PLC Libraries

RIL_SERCOSIII: Bits in diagnostic structures xxx_BITS are turned

CQ-ID: Defdb00174952

Severity: K2 - serious malfunction

Description: The sequence of bits is turned in the structures IL_SIII_REMOTE_SLAVE_STATE_BITS and IL_SIII_DEVICE_STATUS_UNION_BITS.

The DeviceType has an incorrect value in the FB IL_SIIIRemoteSlaveDetails function block.

The TopologyPortStatus provides an incorrect value.

If the "BusMaster" input value is incorrect, an incorrect ErrorCode is reported.

Engineering / Project Handling

Exception after device conversion and download of the Motion configuration

CQ-ID: Defdb00175227

Severity: K4 - malfunction

Description: When changing the control type in the "Properties" dialog and executing "Downloading Motion configuration from PC to control" using the icon in the toolbar, the error message "Unexpected exception occurred" is displayed.

Workaround: After closing and opening the project again, the Motion configuration can be applied.

When downloading the configuration via the context menu (right mouse click/ control) of the control -> "Synchronization" -> "Downloading Motion configuration from PC to control", no error occurs.

63.2 Firmware

63.2.1 Resolved defects

_Other

Adding an EcoDrive Cs causes an unexpected exception

CQ-ID: Defdb00171876

Severity: K2 - serious malfunction

Description: Loading the Motion configuration in the control throws an unexpected exception if an EcoDrive Cs is selected.

Cams remain in status write-protected

CQ-ID: Defdb00170619

Severity: K3 - malfunction (no workaround)

Description: When using point tables sporadically, the write-protection of the point tables used was not reset in case of an error and the related canceling of the motion command.

Hardware programmable limit switch cannot be operated with 1 ms

CQ-ID: Defdb00172930

Severity: K3 - malfunction (no workaround)

Description: Hardware programmable limit switch could not be operated with 1 ms.

Loss of accuracy when converting the position command value A-0-0151 into the internal scaling

CQ-ID: Defdb00167041

Severity: K3 - malfunction (no workaround)

Description: The parameter A-0-0151, IPO position command value, lost accuracy (8 bytes -> 4 bytes) during conversion into the internal scaling. This loss caused a velocity jitter in the parameter P-0-2930.0.1, Effective command velocity.

No communication possible at the interface X7 E3/E4 via OPC UA

CQ-ID: Defdb00156649

Severity: K3 - malfunction (no workaround)

Description: OPC UA server can only be reached via the engineering port "X7E5".

Note: "Value could not be determined. Too many expressions"

CQ-ID: Defdb00171875

Severity: K3 - malfunction (no workaround)

Description: "Value could not be determined", "Too many expressions" or "???" might have been displayed during monitoring instead of the variable values.

Engineering port IP address not shown in the display if engineering port is added to the bridge

CQ-ID: Defdb00171277

Severity: K5 - non critical problem

Description: If the engineering port is added to the bridge, the IP, subnet and Mac address of the bridge (C-0-0230, C-0-0231, C-0-0238) is displayed instead of the IP, subnet and Mac address of the engineering port (C-0-0200, C-0-0201, C-0-0205). Upon output, "(Bridge)" was supplemented in this case. When changing the IP address or subnet mask via the display, the respective parameter is changed.

Axis

Drift between IPO and real axis during speed control

CQ-ID: Defdb00171479

Severity: K3 - malfunction (no workaround)

Description: If an axis is operated in velocity control, drifting can be caused. This drift can cause that interpolator and real axis position are divergent. Subsequently, position monitoring is initiated incorrectly.

Undocumented diagnostic number in "A-0-2902, MotionProfile, diagnostics"

CQ-ID: Defdb00166095

Severity: K3 - malfunction (no workaround)

Description: Sometimes error F2229235 "Error in Motion Profile" occurred when calling function block MB_MotionProfile and the undocumented diagnostic number 599 was displayed in parameter A-0-2902.

Parameter A-0-0035 missing at parameter export/import of controller axes

CQ-ID: Defdb00171090

Severity: K4 - malfunction

Description: While exporting all parameters for controller axes, the parameter A-0-0035, Velocity limit value, bipolar, is missing.

IndraMotion Service Tool

If the IMST is opened with several browsers, partially incorrect parameters are displayed

CQ-ID: Defdb00165196

Severity: K3 - malfunction (no workaround)

Description: In case of parameter queries to the MLC firmware across several IMST windows (e.g. same parameters on different axes), the displayed parameter values might toggle between the windows, even though the parameter query did not change.

MLPI

The 'mlpiSystemReboot()' function also starts the system in "System Mode" unequal to P0

CQ-ID: Defdb00172936

Severity: K3 - malfunction (no workaround)

Description: The 'mlpiSystemReboot()' function also started the system in "System Mode" unequal to P0, even though is should not be possible according to the documentation.

Motion Functions

MB_ChangeProfileSet: Function block inputs are not checked for limit values

CQ-ID: Defdb00166083

Severity: K3 - malfunction (no workaround)

Description: No limit value check of the inputs "SetNumber" and "NumberOfSteps" was performed in the MB_ChangeProfileSet function block. The applied pointers of the function block interface (e.g. MasterAxisInitialPosAdr) were also not checked for NULL.

Parameter export of S-/P-parameters in phase 0 (e.g. ring interruption) does not report any errors

CQ-ID: Defdb00171201

Severity: K3 - malfunction (no workaround)

Description: If the S-/P-parameters of a drive were exported while the Sercos bus is in communication phase 0, IndraWorks reported that the parameters were exported successfully.

Fixing: Error F00A0013 "Export: No parameters exported for device" is reported for the corresponding device.

RobotControl

Error in the function blocks ML_GroupAllAxes and ML_UngroupAllAxes

CQ-ID: Defdb00174515

Severity: K2 - serious malfunction

Description: Kinematics with axis numbers higher than 16 could not be grouped using the function blocks ML_GroupAllAxes and ML_UngroupAllAxes.

Commanding is not possible in case of disabled error reaction of the belt

CQ-ID: Defdb00174147

Severity: K3 - malfunction (no workaround)

Description: If a belt-specific error reaction of the belt was disabled, the robot cannot further be commanded after the belt area monitoring. When deleting the error, it immediately occurs again.

Fixing: Now, the error does not occur anymore after deletion. Another Move command can be commanded. This command can be synchronously as well as asynchronously to the belt. If the target point is synchronous to a belt, this target point has to be in the belt area. If this point violates the belt area, an error is generated again.

Communication lost to control after error F2299533

CQ-ID: Defdb00171924

Severity: K3 - malfunction (no workaround)

Description: If the edge was changed very often at the "Execute" input of a RoCo function block (e.g. MC_MoveLinearAbsolute) due to an user error in the PLC, the error F2299533 "Command buffer full" was correctly reported. The communication to the control is canceled and the warning E0200000 "Available random access memory (RAM) at its minimum" was issued after some time.

Error in Continuous Slope if AuxPoint is not in the belt area

CQ-ID: Defdb00170036

Severity: K3 - malfunction (no workaround)

Description: In the following use cases, the kinematics stopped without error message:

- It is traversed belt-synchronously (completely synchronous)

- A Move Circular is commanded. Its intermediate point is not in the belt area (before the starting plane)

- It is blended with Cont_Slope

Information on the violation of a protected area is insufficient

CQ-ID: Defdb00172176

Severity: K3 - malfunction (no workaround)

Description: If the protected area was violated, information from the error message was insufficient. Cause and number of SafeZone were not reported.

Fixing: There is an individual error message for each protected area. It is differentiated between whether the target/intermediate point of the motion violates the protected area or whether it is passed through a protected area.

P-0-1203, Pitch ramp 2, has sporadically negative values

CQ-ID: Defdb00166096

Severity: K3 - malfunction (no workaround)

Description: Sporadic phase switching to BB was not possible. The drive prevents phase switching, as a negative value was entered into P-0-1203.

Return value of "mlpiRobotGetCoordinateSystemInfo" incorrect

CQ-ID: Defdb00172257

Severity: K3 - malfunction (no workaround)

Description: The function "mlpiRobotGetCoordinateSystemInfo" returns information on the coordinate system of a kinematics. When using Scara or 2-axis delta transformation for example, the return value for BCS and PCS are incorrect.

Second Motion command does not react if K-0-0097 (maximum size of command buffer) was set to 1

CQ-ID: Defdb00170961

Severity: K3 - malfunction (no workaround)

Description: If the parameter K-0-0097 (maximum size of command buffer) was set to 1, the second Motion command was never set to the block buffer, even when the first Motion command was completely processed.

The "ML_SetBeltErrorReaction" function blocks does not output an error if "ErrorReactionType" is invalid

CQ-ID: Defdb00174148

Severity: K3 - malfunction (no workaround)

Description: If an invalid "ErrorReactionType" was specified for the "ML_SetBeltErrorReaction" function block, the function block did not output an error.

The parameters K-0-0096 and K-0-0098 display twice the number of commanded commands

CQ-ID: Defdb00170959

Severity: K3 - malfunction (no workaround)

Description: If motion commands were commanded in connection with CONT_SLOPE, the parameters K-0-0096 and K-0-0098 displayed twice the number of commanded motion commands.

Kinematics changes to incorrect state after error

CQ-ID: Defdb00171888

Severity: K4 - malfunction

Description: If the kinematics was not configured correctly (e.g. incorrect scaling of an axis) and it was switched to BB, an error message occurred. If this error message is acknowledged, the kinematics incorrectly changes to the "Standstill Complete" state.

Sercos

IP address specification only for C-0-0478 configured Sercos devices, but not for C-0-0481 devices

CQ-ID: Defdb00174280

Severity: K3 - malfunction (no workaround)

Description: IP addresses were only specified for devices listed in the parameter C-0-0478 "Configured Sercos devices", but not for devices listed in the parameter C-0-0481 "List of found Sercos devices".

63.2.2 Known issues

Inline IO

F00B0121 "Sercos: IO error" at MLC L65

CQ-ID: Defdb00174591

Severity: K4 - malfunction

Description: When operating an MLC control, making changes in the IndraWorks projects and restarting the control, the following error is sporadically displayed: F00B0121 "Sercos: I/O error".

Logic

Sercos IO: No data exchanged if device missing

CQ-ID: Defdb00175267

Severity: K3 - malfunction (no workaround)

Description: If a device is not configured with an I/O data in the Sercos command configuration and this device is not available at the bus, no data is exchanged with the subsequently configured devices.

RobotControl

Clearing "Move Relative" after error with multiple belts causes the error F0290505

CQ-ID: Defdb00174863

Severity: K3 - malfunction (no workaround)

Description: If multiple "Move Relatives" are commanded with the blending type CONT_SLOPE after an error and if multiple belts were configured, the error F0290505 "Synchronization not permitted on multiple belts" occurred while commanding, even though the target point should not be belt-synchronous.

Sercos

Phase switching to BB not possible for command value-decoupled axis

CQ-ID: Defdb00174876

Severity: K2 - serious malfunction

Description: Phase switching to BB was not possible if a real axis was command value-decoupled or parked.

64 IndraLogic XLC/IndraMotion MLC 14V04 firmware and software

64.1 Software

64.1.1 Known Problems

Slow PLC Compilation Process

When executing "Compile" or "Create Code", the compilation process was much slower compared with 13VRS. When copying folder "Data Types" from the general module folder to each application, the behavior is improved considerably.

Missing Inputs when Using a Structure Mapped to the Input Range

If an input range is mapped to a structure and the address of this structure was allocated to a pointer, the respective input bytes are not applied to the input image anymore.

If the allocation of the address is uncommented, data is correctly applied again.

Function Block MB_WriteParameter with Sercos Address does not Write any Data

When trying to write a drive parameter (e.g. P-0-0023) with MB_WriteParameter the function block reports "done", even though the parameter was not written. This behavior occurs, if the Sercos address is used at the function block.

F5180006 "Cycle Timeout Actual Value Recording" Occurs during Online Changes of the PLC Program

An online change requires additional CPU resources for a short period of time. Error F5180006 "Cycle timeout actual value recording" can occur during online change in the following cases:

- Control with MotionControl
- Before online change already high CPU load
- Extensive changes in the declaration of POU and subsequent online change

The probability of error "Timeout F5180006" rises depending on the size of the online change and the CPU load.

Possible remedy

Reduce the priority of the MotionTask to avoid error "Timeout F5180006" in case of online change. The following behavior occurs:

- It is not ensured that the MotionTask is completely processed in each motion interval
- The dead time was increased by one motion cycle for the command values generated in the MotionTask due to a changed call sequence

The change is only useful for individual cases. Depending on the application, it must be decided whether the change is useful.

To change the task priority open dialog Diagnostics -> Task List/Task Configuration. Configure the motion task with low priority compared with the motion calculation.

The change of the task priorities is not useful in the following cases:

- in case of time-sensitive control-specific applications
- in case of cyclic command value specification from the motion task, as hydraulic applications, for example
- Application of function block MB_MagicBeltType01
- ...

65 Service and support

Our worldwide service network provides an optimized and efficient support. Our experts offer you advice and assistance should you have any queries. You can contact us **24/7**.

Service Germany

Our technology-oriented Competence Center in Lohr, Germany, is responsible for all your service-related queries for electric drive and controls.

Contact the **Service Hotline** and **Service Helpdesk** under:

Phone:	**+49 9352 40 5060**
Fax:	**+49 9352 18 4941**
E-mail:	service.svc@boschrexroth.de
Internet:	http://www.boschrexroth.com

Additional information on service, repair (e.g. delivery addresses) and training can be found on our internet sites.

Service worldwide

Outside Germany, please contact your local service office first. For hotline numbers, refer to the sales office addresses on the internet.

Preparing information

To be able to help you more quickly and efficiently, please have the following information ready:

- Detailed description of malfunction and circumstances
- Type plate specifications of the affected products, in particular type codes and serial numbers
- Your contact data (phone and fax number as well as your e-mail address)

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Notes

Notes

rexroth
A Bosch Company

Bosch Rexroth AG
P.O. Box 13 57
97803 Lohr a.Main, Germany
Bgm.-Dr.-Nebel-Str. 2
97816 Lohr a.Main, Germany
Phone +49 9352 18 0
Fax +49 9352 18 8400
www.boschrexroth.com/electrics