SEW EURODRIVE

Installation Instructions

MOVISUITE® standard Version 2.2

Installation and Project Adjustment

Edition 09/2019

29130654/EN

Table of contents

1 General information 4
1.1 About this documentation 4
1.2 Content of the documentation 4
1.3 Product names and trademarks 4
1.4 Copyright notice 4

2 Safety notes 5
2.1 Preliminary information 5
2.2 Target group 5
2.3 Designated use 5
2.4 Network security and access protection 5

3 Introduction 6
3.1 Content of this documentation 6
3.2 Short designations 6
3.3 Assignment of system package to MOVISUITE® version 6

4 Installation 7
4.1 Before updating the software 7
4.1.1 Update required 7
4.1.2 No update required 8
4.1.3 Integrating axis modules 8
4.2 Requirements 9
4.2.1 Installation requirements 9
4.2.2 Hardware requirements 9
4.2.3 Requirements on the operating system 9
4.3 Installing the software 10
4.3.1 Preparing the installation 10
4.3.2 Performing the installation 11
4.3.3 Installation failed 11

5 Adjusting version and device 12
5.1 Planning phase 12
5.2 Startup phase 15

6 Overview of version numbers 18

Index 21

29130654/EN – 09/2019

1 General information

1.1 About this documentation

This documentation is an integral part of the product. The documentation is intended for all employees who perform work on the product.

Make sure this documentation is accessible and legible. Ensure that persons responsible for the systems and their operation as well as persons who work with the product independently have read through the documentation carefully and understood it. If you are unclear about any of the information in this documentation, or if you require further information, contact SEW-EURODRIVE.

1.2 Content of the documentation

The descriptions in this documentation apply to the software and firmware versions applicable at the time of publication. These descriptions might differ if you install later software or firmware versions. In this case, contact SEW-EURODRIVE.

1.3 Product names and trademarks

The brands and product names in this documentation are trademarks or registered trademarks of their respective titleholders.

1.4 Copyright notice

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29130654/EN – 09/2019

2 Safety notes

2.1 Preliminary information

The following general safety notes serve the purpose of preventing injury to persons and damage to property. They primarily apply to the use of products described in this documentation. If you use additional components, also observe the relevant warning and safety notes.

2.2 Target group

Software specialist

Any work with the software may only be performed by a specialist with suitable training. A specialist in this context is someone who has the following qualifications:

- Appropriate training
- Knowledge of this documentation and other applicable documentation
- SEW-EURODRIVE recommends additional training for products that are operated using this software.

2.3 Designated use

The MOVISUITE® engineering software is the operating platform for all MOVI-C® hardware and software components.

Use the device-independent MOVISUITE® engineering software to start up and configure the axes and to download the complete configuration to a MOVI-C® CONTROLLER.

Observe the documentation for the components used.

Unintended or improper use of the product may result in severe injury to persons and damage to property.

2.4 Network security and access protection

A bus system makes it possible to adapt electronic drive technology components to the particulars of the machinery within wide limits. There is a risk that a change of parameters that cannot be detected externally may result in unexpected but not uncontrolled system behavior and may have a negative impact on operational safety, system availability, or data security.

Ensure that unauthorized access is prevented, especially with respect to Ethernet-based networked systems and engineering interfaces.

Use IT-specific safety standards to increase access protection to the ports. For a port overview, refer to the respective technical data of the device in use.

29130654/EN – 09/2019

3 Introduction

3.1 Content of this documentation

The documentation in hand enables you to install the engineering software correctly and to adjust existing projects to the latest version of MOVISUITE®.

3.2 Short designations

The following short designations are used in this documentation:

Product designation	Short designation
MOVISUITE® standard	MOVISUITE®
MOVISUITE® version V2.1.237.0	MOVISUITE® V2.1
MOVISUITE® version V2.2.12.0	MOVISUITE® V2.2
• MOVI-C® CONTROLLER power UHX85A • MOVI-C® CONTROLLER progressive UHX65A • MOVI-C® CONTROLLER advanced UHX45A • MOVI-C® CONTROLLER standard UHX25A	MOVI-C® CONTROLLER

3.3 Assignment of system package to MOVISUITE® version

The following table shows the assignment of system packages to the respective MOVISUITE® version.

System package	Version
SP7	MOVISUITE® V1.1
SP8	MOVISUITE® V1.2
SP9.1	MOVISUITE® V2.0
SP10	MOVISUITE® V2.1

INFORMATION

The designation "system packages" will no longer be used from MOVISUITE® version V2.2.

29130654/EN – 09/2019

4 Installation

4.1 Before updating the software

INFORMATION

When you update to MOVISUITE® V2.2, an existing IEC project can only be used with MOVI-C® CONTROLLERs that have a firmware version which is compatible with MOVISUITE® V2.2.

INFORMATION

Changes to MOVI-C® devices may only be made with the matching MOVISUITE® version.

For an overview of versions of MOVI-C® devices for MOVISUITE® versions, refer to chapter "Overview of version numbers" (→ 🗎 18).

4.1.1 Update required

An update to MOVISUITE® V2.2 is required in the following cases:

- You want to use an MDP92A power supply module with controlled DC link voltage.
- You want to use the MOVIDRIVE® double-axis module MDD91A with MOVILINK® DDI interface of the type EtherCAT®/SBus^{PLUS} or CiA402.
- You want to use a servomotor with AZ2Z, EZ2Z or EI8Z encoder and MOVILINK® DDI interface.
- You want to use an CM3C servomotor.

29130654/EN – 09/2019

New functions

- Handling up to 300 devices in one project
- "Adjusting version and device" (→ 🗎 12)
- Extended keyboard operation in the tree, circle, and network views
- Calculation of the total gear ratio (scaling) in the drive train in connection with the modulo function
- Simplified user guidance for adding and handling MOVI-C® CONTROLLER licenses
- All original parameter values and the MOVIKIT® module version are maintained when updating, replacing or copying a MOVIKIT® module for MOVI-C® CONTROLLER
- New engineering functions of IEC Editor version 3.5 SP14 patch 3:
  - Enhanced intelligent input help
  - Monitoring list of project variables including monitoring of instances
  - CPU utilization and debugging
  - Extensive improvements of the ST Editor
- New visualization functions of IEC Editor version 3.5 SP14 patch 3:
  - Rotatable element groups
  - Enhanced trends and standard elements
  - Dynamic communication addresses with IEC variables in HMI SL

4.1.2 No update required

If none of the cases mentioned in the chapter "Update required" (→ 🗎 7) applies, you need not necessarily update to MOVISUITE® V2.2.

4.1.3 Integrating axis modules

Axis modules can only be operated on a MOVI-C® CONTROLLER with the same firmware version or a later one. If the firmware of the axis modules is older than the MOVI-C® CONTROLLER, you will have to update the firmware of the axis modules.

For support in updating the firmware, contact SEW-EURODRIVE Service.

29130654/EN – 09/2019

4.2 Requirements

4.2.1 Installation requirements

Before installing MOVISUITE®, observe the following requirements:

- You must have administrator rights for your PC.
- You can install only **one** MOVISUITE® version on your PC.

  Before changing to the latest MOVISUITE® version, read the instructions in chapter "Before updating the software" (→ 🗎 7).
- If MOVISUITE® up to version V1.1 is installed on your PC, uninstall this version first. From version V1.1, the predecessor version is uninstalled automatically when installing MOVISUITE®.

4.2.2 Hardware requirements

Processor	1 GHz 32-bit processor (x86) or 64-bit processor
RAM	At least 4 GB RAM, recommended are 8 GB RAM
Hard disk	12 GB of free memory in total, 6 GB of that on the operating system hard disk for complete installation of MOVISUITE®
Graphics card	2 GB graphics memory
Resolution	The default resolution is full HD resolution. A resolution of 1280 x 800 is appropriate.

4.2.3 Requirements on the operating system

Operating system	MOVISUITE® is a 32-bit application. The following operating system variants are permitted: • Windows 7 at least SP1 32-bit/64-bit • Windows 8.1 32-bit/64-bit • Windows 10 32-bit/64-bit
Redistributables	The following Microsoft components must also be installed: • Microsoft Windows Installer 3.1 or higher • Microsoft.NET Framework 4.6

29130654/EN – 09/2019

4.3 Installing the software

INFORMATION

The installation of MOVISUITE® V2.2 may take longer than 90 minutes.

INFORMATION

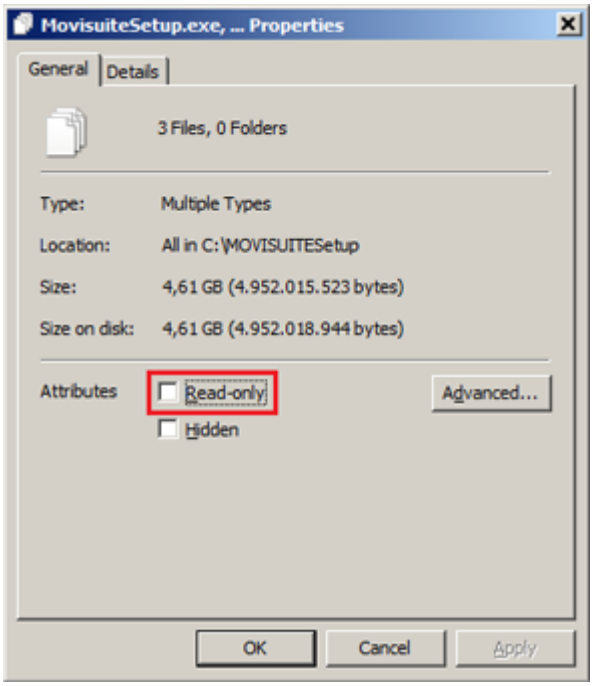
If you have already installed MOVISUITE® on your PC and you have worked with MOVISUITE® or the IEC Editor after having started your PC last time, then start your PC again before installing a new MOVISUITE® version.

MOVISUITE® is installed in several steps:

- "Preparing the installation" (→ 🗎 10)
- "Performing the installation" (→ 🗎 11)

4.3.1 Preparing the installation

1. Copy the following installation files to the hard disk of your PC: `movisuite.syspkg`, `MOVISUITE-Licence.txt`, `MovisuiteSetup.exe`.
2. If the installation files are available on a write protected medium (e.g. on a DVD), then remove the write protection from all 3 installation files. To do so, open the context menu with a right mouse-click and open the properties of the files.
3. On the "General" tab, disable the "Read only" check box.



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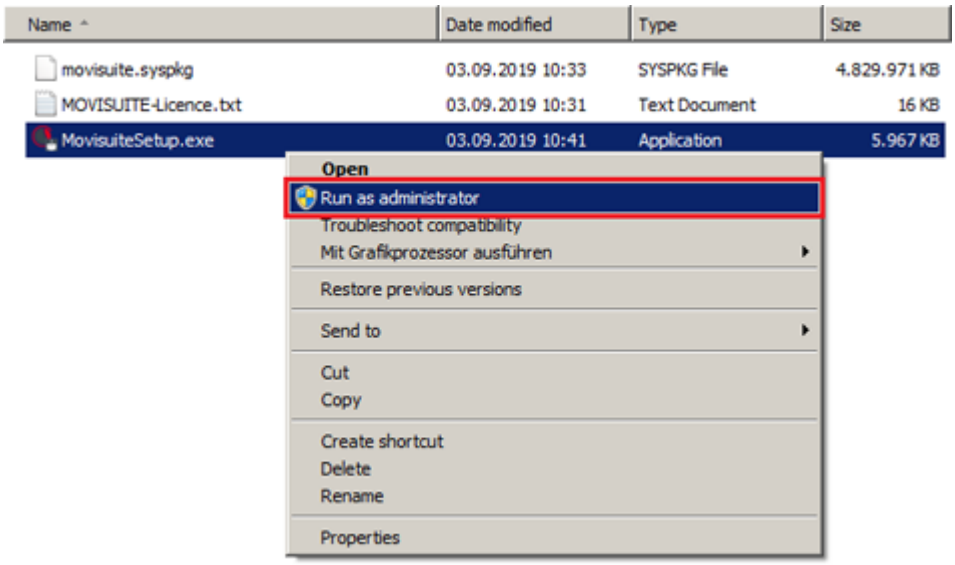
29130654/EN – 09/2019

4.3.2 Performing the installation

1. Run the "`MovisuiteSetup.exe` installation file "with administrator rights. To do so, right-click the file to open the context menu and select [Run as administrator].



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⇨ The software is installed using a wizard.

2. If you are requested to reboot your PC when installing the IEC Editor, it is important that you follow this instruction.

INFORMATION

If you do not reboot your PC, an error will occur when installing the IEC packages. This error can only be eliminated by restarting the PC and installing MOVISUITE® again.

⇨ After having rebooted the PC, the wizard continues installing MOVISUITE®.

4.3.3 Installation failed

In rare cases, virus scanners or firewalls can cause problems when installing MOVISUITE®. In this case, refer to the log files of the virus scanner or the firewall for information on possible problems.

5 Adjusting version and device

From MOVISUITE® version V2.2 you can change the components and versions of a device within a MOVISUITE® project. The function is available for the following components:

- MOVI-C® CONTROLLER
- Inverters
- Virtual axes
- Software nodes

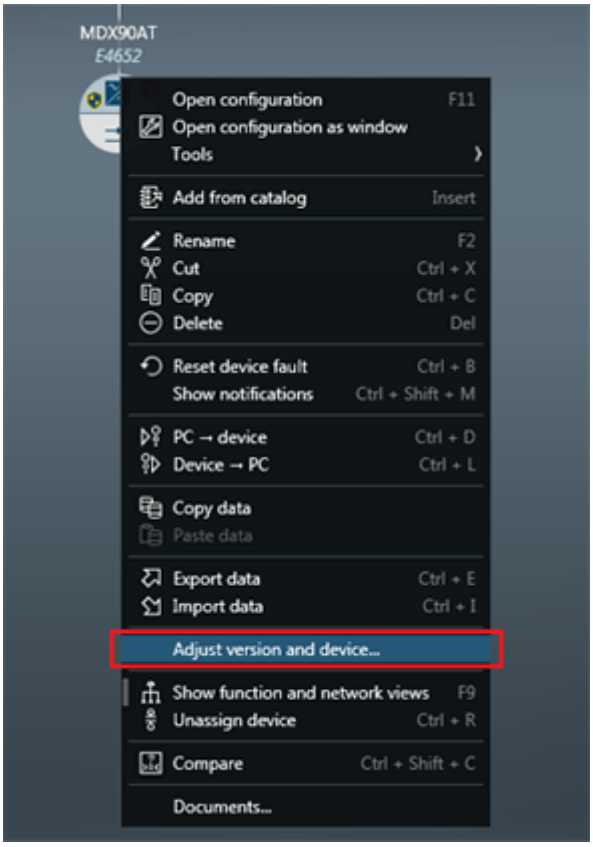
5.1 Planning phase

In the planning phase, you can make the following adjustments:

- Firmware version of the main component
- Type and firmware version of the subcomponents
- Type and software version of the software module

Proceed as follows:

1. Right-click on the device node you want to change.
2. In the context menu, click [Adjust version and device].



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⇨ The "Adjust version and device" window opens.

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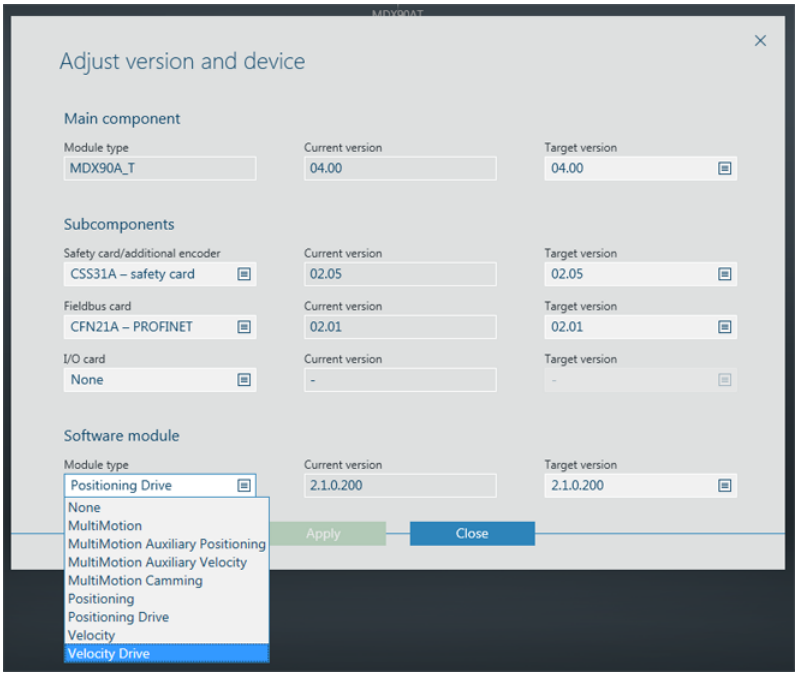
3. Select the component you want to change. For example, if you want to change the software module, select it from the "Module type" drop-down list.



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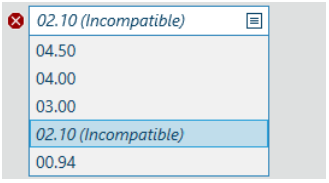
4. Select the version of the component from the "Target version" drop-down list. If a subcomponent or a software module was changed, the latest version will be preselected automatically.
   - ⇨ MOVISUITE® checks whether the selected target versions are compatible with one another.
   - ⇨ A green symbol indicates that the selected version is compatible.
   - ⇨ A red symbol indicates that the selected version is not compatible. Incompatible target versions are indicated as such in the drop-down list.



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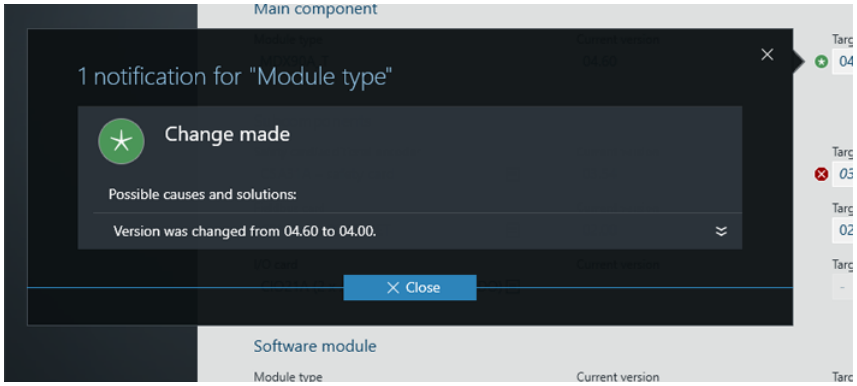
5. To check between which components or versions a change was made, click the green symbol.

   ⇨ The information appears in a notification window.



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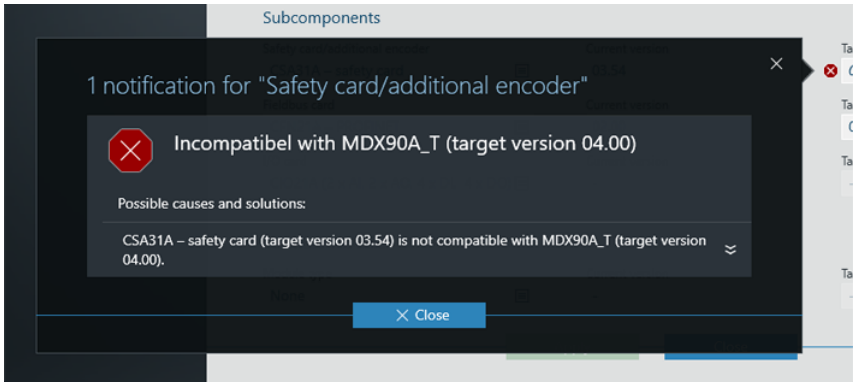
6. To obtain information on the cause of the incompatibility and how to remedy the error, click the red symbol.

   ⇨ The information appears in a notification window.



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29130654/EN – 09/2019

7. Rectify any incompatibilities.
8. Click [Apply].

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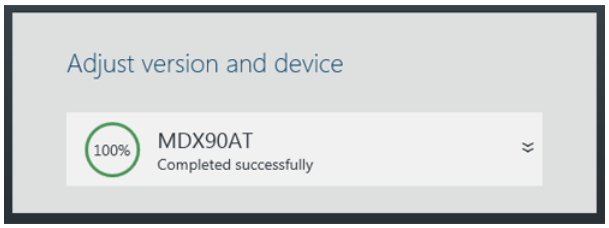
⇨ The changes are saved.



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5.2 Startup phase

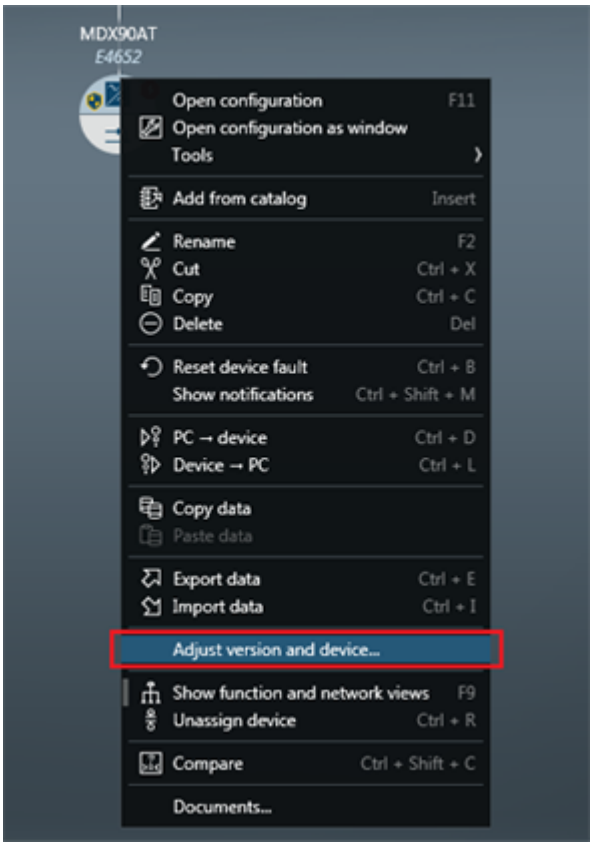
In the startup phase, you can change the type and the software version of the software module.

Main components and subcomponents cannot be changed because in this case the change is a firmware change. In this case, contact SEW-EURODRIVE Service.

Proceed as follows:

1. Right-click on the device node you want to change.

2. In the context menu, click [Adjust version and device].



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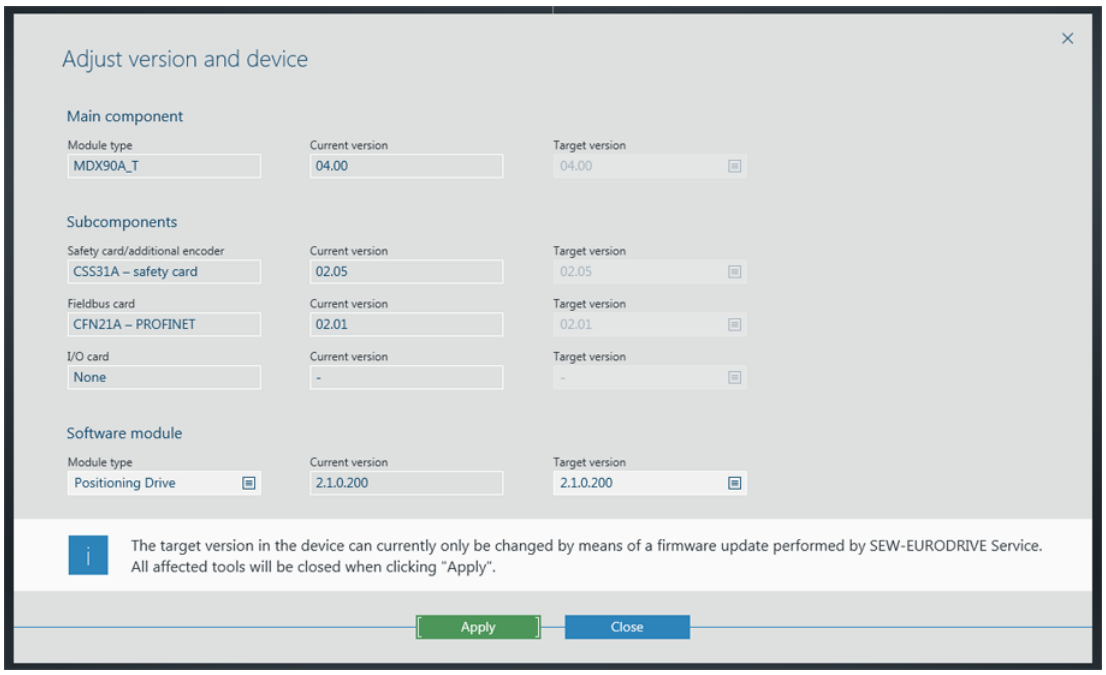
⇨ The "Adjust version and device" window opens.



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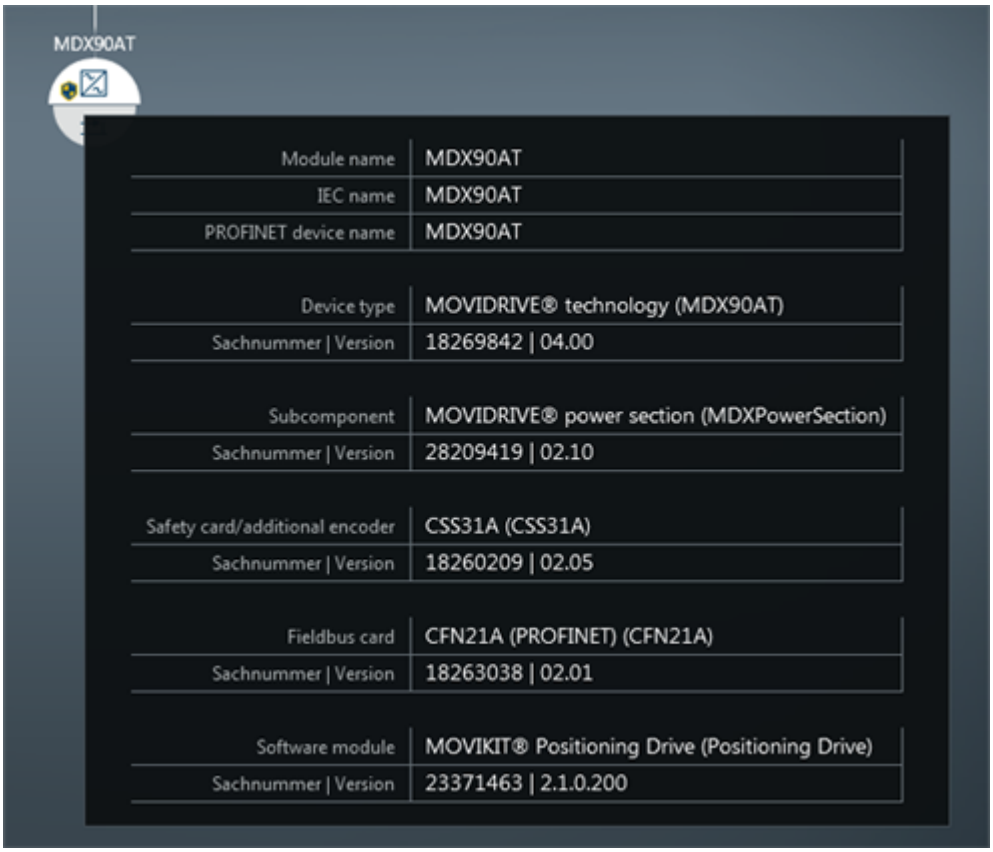
3. Change the type and/or the version of the software module.

4. Click [Apply].
   ⇨ The changes are saved.
5. To check the current firmware version of main components and subcomponents as well as the software version of software modules, position the mouse pointer over the device whose version you want to have displayed.
   ⇨ The current versions are displayed in a tooltip.



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6 Overview of version numbers

Refer to the following table to assign a hardware component and software component to a MOVISUITE® version. Only the latest version numbers of software and hardware are listed.

Engineering software					
Component	**V1.1 (SP7)**	**V1.2 (SP8)**	**V2.0 (SP9.1)**	**V2.1 (SP10)**	**V2.2**
MOVISUITE®	V1.1.1180.0	V1.2.1253.0	V2.0.114.100	V2.1.237.0	V2.2.12.0
IEC Editor	3.5 SP9 patch 5	3.5 SP9 patch 5	3.5 SP12 patch 3	3.5 SP13 patch 1	3.5 SP14 patch 3
SEW profile (IEC)	SEW 3.5.9.50 (V3)	SEW 3.5.9.50 (V3)	SEW 3.5.12.3 (V5)	SEW 3.5.13.1 (V6)	SEW 3.5.14.3 (V7)

IEC libraries					
Component	**V1.1 (SP7)**	**V1.2 (SP8)**	**V2.0 (SP9.1)**	**V2.1 (SP10)**	**V2.2**
SEW IoDrvEtherCAT	1.0.200.0	1.1.200.2	1.3.200.0	1.4.200.0	1.4.200.0
SEW IoDrvLogic-alDevicePool	1.0.200.0	1.0.200.0	1.1.200.0	1.3.200.0	1.4.200.0
SEW Common Fieldbus Slave Ext.	1.2.200.0	1.2.200.0	1.3.200.0	1.4.200.0	1.4.200.0
SEW DeviceHandler	1.0.200.0	1.0.202.0	1.1.200.1	1.3.200.0	1.3.200.0
SEW DeviceHandler Interfaces	1.0.100.7	1.0.100.7	-	1.0.100.7	1.0.100.7
SEW DeviceHandler Interfaces 2	-	-	1.1.200.1	1.1.200.1	1.1.200.1
SEW DeviceHandler Interfaces 3	-	-	-	1.3.200.0	1.3.200.0
SEW PDO Handling	1.0.200.0	1.0.200.0	1.0.200.0	1.0.200.0	1.0.200.0

MOVIKIT® software modules					
Component	**V1.1 (SP7)**	**V1.2 (SP8)**	**V2.0 (SP9.1)**	**V2.1 (SP10)**	**V2.2**
Velocity Drive	-	-	1.1.200.1	2.0.0.200	2.0.0.200
Positioning Drive	-	-	-	2.0.0.200	2.1.0.200
MultiMotion	1.3.201.0	1.5.200.0	2.0.200.0	2.4.13.200	2.4.18.200
MultiMotion Cam-ming	1.3.201.0	1.5.200.0	2.0.200.0	2.3.28.200	2.3.34.200
Robotics	-	-	2.0.200.0	2.3.21.200	2.3.24.200
MultiAxis Controller	-	-	2.0.200.0	2.6.20.200	2.6.28.200
MultiMotion Auxiliary Velocity	-	-	1.0.200.0	1.4.11.200	1.4.13.200
MultiMotion Auxiliary Positioning	-	-	1.0.200.0	1.4.11.200	1.4.13.200
Velocity	-	-	-	1.3.21.200	1.3.25.200
Positioning	-	-	-	1.3.21.200	1.3.25.200

29130654/EN – 09/2019

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MOVIKIT® software modules					
Component	**V1.1 (SP7)**	**V1.2 (SP8)**	**V2.0 (SP9.1)**	**V2.1 (SP10)**	**V2.2**
DirectMode	-	-	-	-	1.1.45.200
PowerMode	-	-	-	-	1.1.59.200

MOVI-C® CONTROLLER					
Component	**V1.1 (SP7)**	**V1.2 (SP8)**	**V2.0 (SP9.1)**	**V2.1 (SP10)**	**V2.2**
power (UHX85A)	02.00	02.01	03.00	04.00	04.02
progressive (UHX65A)	-	-	02.00	03.00	03.02
advanced (UHX45A)	-	01.00	02.00	03.00	03.02
standard (UHX25A)	-	01.00	02.00	03.00	03.02

MOVIDRIVE® modular					
Component	**V1.1 (SP7)**	**V1.2 (SP8)**	**V2.0 (SP9.1)**	**V2.1 (SP10)**	**V2.2**
MDA90A (single-axis module)	02.03	02.10	03.00	04.00 SN[1]: 18259774	04.00 SN[1]: 18259774
MDA90A (single-axis module with MOVILINK® DDI)	-	-	-	04.00 SN[1]: 18272576	04.01 SN[1]: 18272576
MDA90A-CIA402 (single-axis module)	-	-	03.00	04.00 SN[1]: 18266320	04.00 SN[1]: 18266320
MDA90A-CIA402 (single-axis module with MOVILINK® DDI)	-	-	-	04.00 SN[1]: 18272592	04.01 SN[1]: 18272592
MDD90A (double-axis module)	02.03	02.10	03.00	04.00	04.00
MDD90-CIA402 (double-axis module)	-	-	03.00	04.00	04.00
MDD91A (double-axis module with MOVILINK® DDI)	-	-	-	-	04.10
MDD91A-CIA402 (double-axis module with MOVILINK® DDI)	-	-	-	-	04.10

1) SN = serial number

MOVIDRIVE® system					
Component	**V1.1 (SP7)**	**V1.2 (SP8)**	**V2.0 (SP9.1)**	**V2.1 (SP10)**	**V2.2**
MDX	02.03	02.10	03.00	04.00 SN[1]: 18259731	04.00 SN[1]: 18259731
MDX (with MOVILINK® DDI)	-	-	-	04.00 SN[1]: 18269842	04.00 SN[1]: 18269842

MOVIDRIVE® system					
Component	**V1.1 (SP7)**	**V1.2 (SP8)**	**V2.0 (SP9.1)**	**V2.1 (SP10)**	**V2.2**
MDX-CIA402	-	-	03.00	04.00 SN[1]: 18267572	04.00 SN[1]: 18267572
MDX-CIA402 (with MOVILINK® DDI)	-	-	-	04.00 SN[1]: 18269877	04.00 SN[1]: 18269877

1) SN = serial number

MOVIDRIVE® technology					
Component	**V1.1 (SP7)**	**V1.2 (SP8)**	**V2.0 (SP9.1)**	**V2.1 (SP10)**	**V2.2**
MDX_T	-	-	-	04.00	04.00

MOVI-C® decentralized drive electronics					
Component	**V1.1 (SP7)**	**V1.2 (SP8)**	**V2.0 (SP9.1)**	**V2.1 (SP10)**	**V2.2**
DFC	-	-	03.10	04.00	04.00
DFC-CiA402	-	-	03.10	04.00	04.00
DSI	-	-	03.10	04.00	04.00
MOVISAFE® CSB51A safety card	-	-	-	02.05	02.05

MOVISAFE® safety cards					
Component	**V1.1 (SP7)**	**V1.2 (SP8)**	**V2.0 (SP9.1)**	**V2.1 (SP10)**	**V2.2**
CSS21A	-	01.05	01.05	02.05	02.05
CSB21A	-	01.05	01.05	02.05	02.05
CSS31A	-	01.05	01.05	02.05	02.05
CSB31A	-	01.05	01.05	02.05	02.05

29130654/EN – 09/2019

SEW EURODRIVE

Index

A

Administrator rights 11
Axis module
  Firmware update required 7

C

Content of the documentation 6
Copyright notice 4

F

Firewall, installation problems 11

H

Hardware requirements 9

I

Install
  As administrator 11
  Failed 11
  IEC Editor 11
Installation 7
Installation files 10
Installation requirements 9
  Administrator rights 9
  Hardware requirements 9
  Requirements on the operating system 9
Installing the IEC Editor 11

M

MOVISUITE®
  No project update required 7
  Project update required 7
MOVISUITE®, number of installed versions 9

P

Product names 4

R

Requirements on the operating system 9

S

Safety notes
  Bus systems 5
  Preliminary information 5
Short designation in the documentation 6
Startup phase
  Changing hardware component 15
  Changing software module 15
  Changing subcomponent 15

T

Target group 5
Trademarks 4

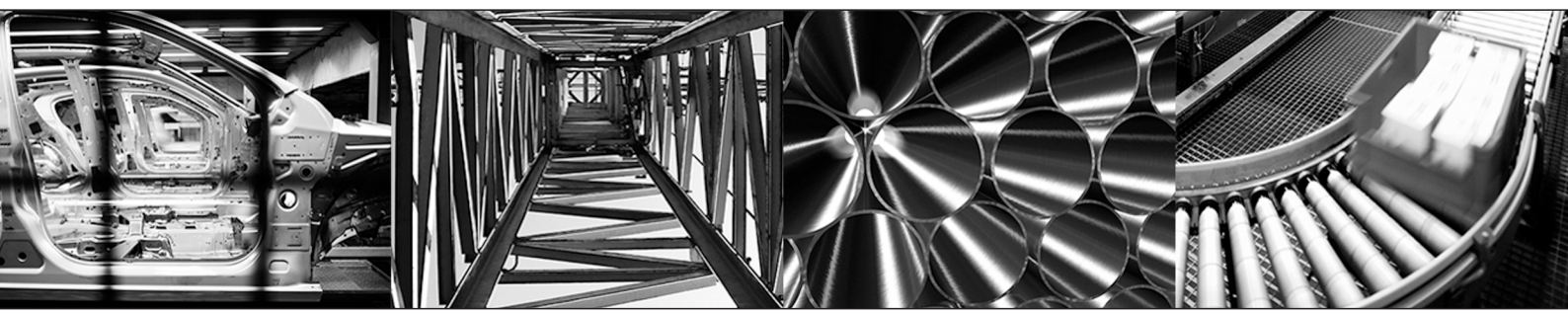
U

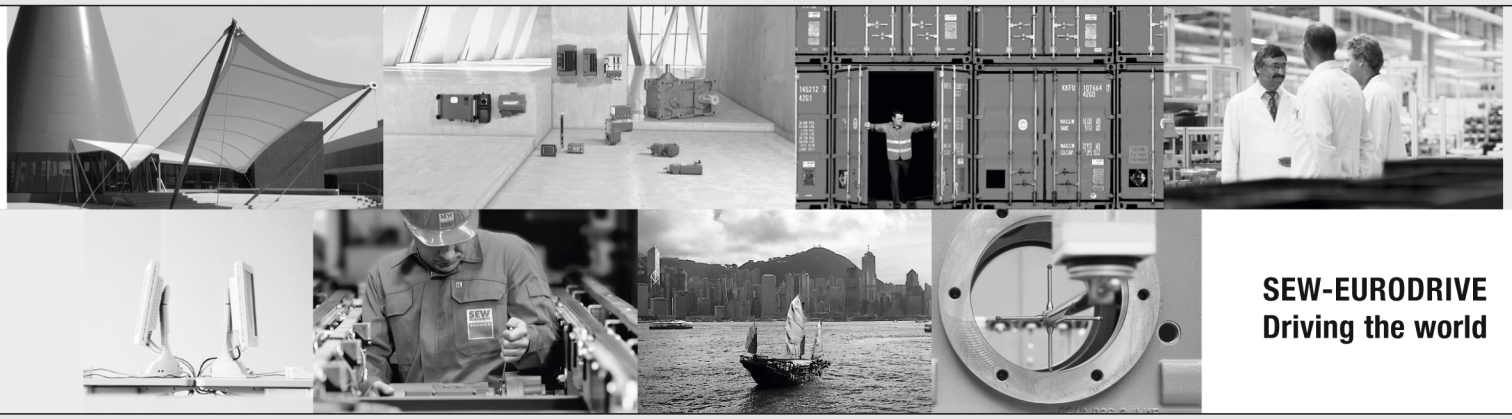
Use, designated 5

V

Virus scanner, installation problems 11

29130654/EN – 09/19





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