Handling of SINAMICS FW-Versions

STARTER and SINAMICS

Introduction
How to manage stored drive objects at STARTER a project

SIEMENS

Stored drive objects at a STARTER project (also called instance) have the FW-Version as a main attribute.
Over the product live cycle of the SINAMICS devices the FW-Version is changing.

The next pages shows the possibilities how to handle this theme at practical work.

- General points about the installation of STARTER and the so called SINAMICS Support Packages (SSP)
- FW-Version of the project instance and the device
- Large-scale model for all SINAMICS drives, if the respectively SSP is installed
- Alternative handling model together with SINAMICS G120, if the respectively **SSP is not installed**.
  - Known constraints at this alternative model.

General points about the installation of STARTER and the so called SINAMICS Support Packages (SSP)

STARTER

PC

STARTER Installation

Basic functionality

SINAMICS G120

SSP FW V4.5

SSP FW V4.6

SSP FW V4.7

SINAMICS S120/G150

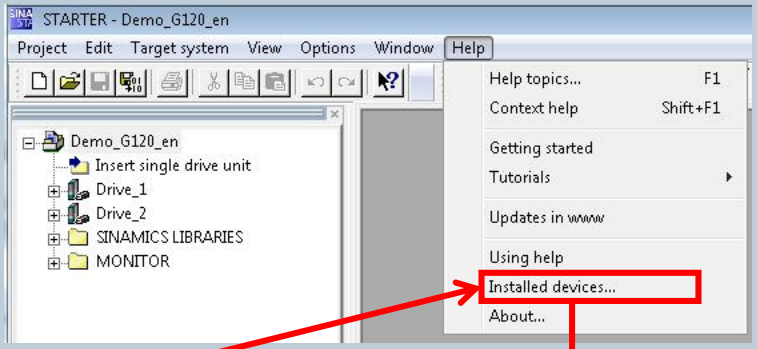
SSP FW V4.5

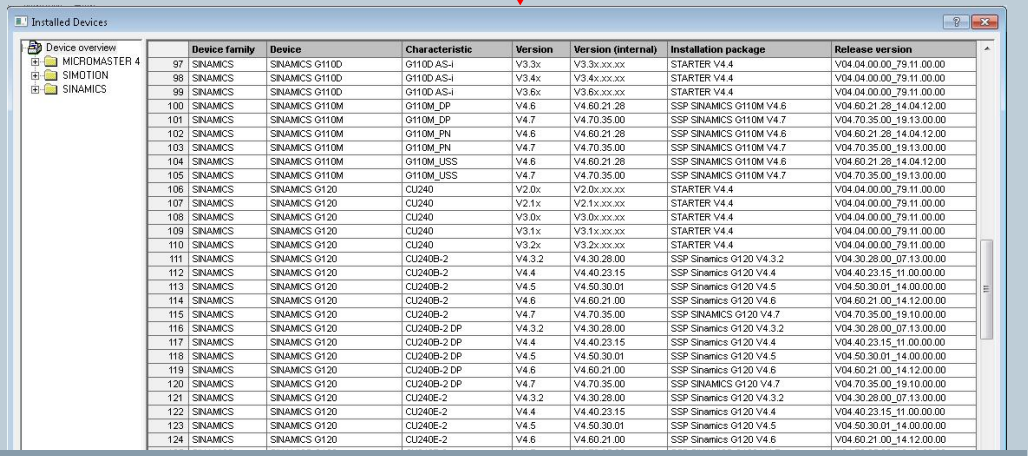
SSP FW V4.6

SSP FW V4.7

…….

optional and flexible SSP-installation via the STARTER-Setup



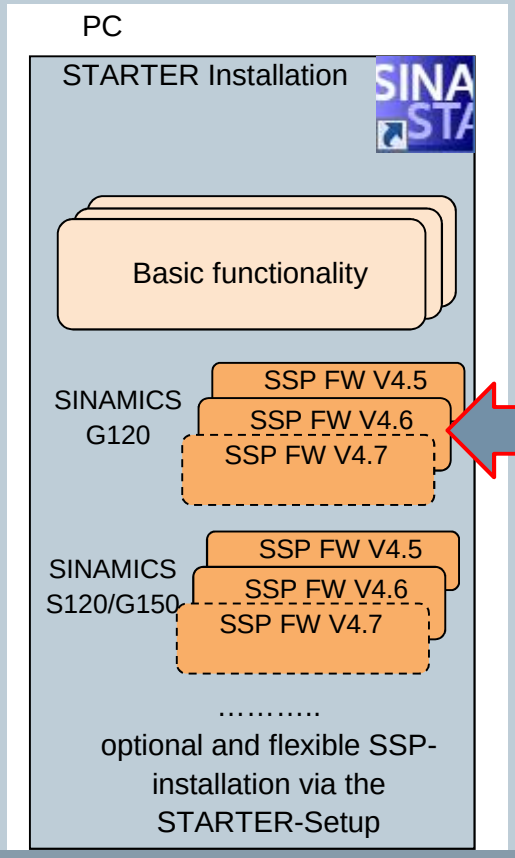


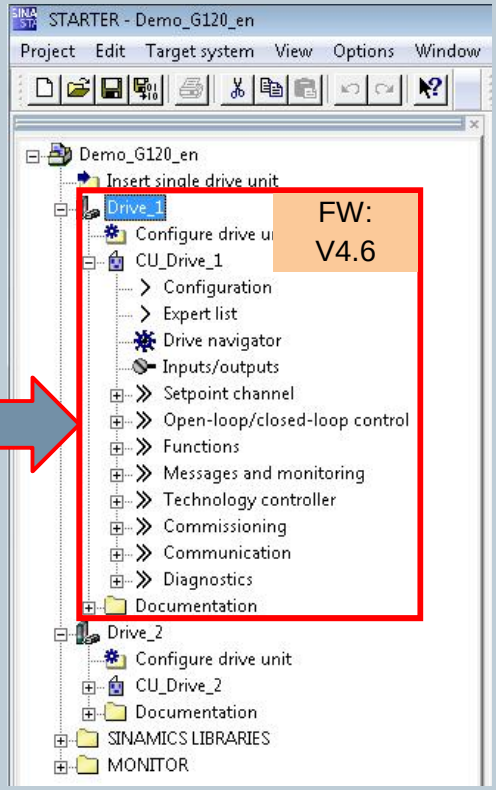
	Device family	Device	Characteristic	Version	Version (internal)	Installation package	Release version
97	SINAMICS	SINAMICS G110D	G110D AS-I	V3.3x	V3.3x.xx.xx	STARTER V4.4	V04.04.00.00_79.11.00.00
98	SINAMICS	SINAMICS G110D	G110D AS-I	V3.4x	V3.4x.xx.xx	STARTER V4.4	V04.04.00.00_79.11.00.00
99	SINAMICS	SINAMICS G110D	G110D AS-I	V3.6x	V3.6x.xx.xx	STARTER V4.4	V04.04.00.00_79.11.00.00
100	SINAMICS	SINAMICS G110M	G110M_DP	V4.6	V4.60.21.28	SSP SINAMICS G110M V4.6	V04.60.21.28_14.04.12.00
101	SINAMICS	SINAMICS G110M	G110M_DP	V4.7	V4.70.35.00	SSP SINAMICS G110M V4.7	V04.70.35.00_19.13.00.00
102	SINAMICS	SINAMICS G110M	G110M_PN	V4.6	V4.60.21.28	SSP SINAMICS G110M V4.6	V04.60.21.28_14.04.12.00
103	SINAMICS	SINAMICS G110M	G110M_PN	V4.7	V4.70.35.00	SSP SINAMICS G110M V4.7	V04.70.35.00_19.13.00.00
104	SINAMICS	SINAMICS G110M	G110M_USS	V4.6	V4.60.21.28	SSP SINAMICS G110M V4.6	V04.60.21.28_14.04.12.00
105	SINAMICS	SINAMICS G110M	G110M_USS	V4.7	V4.70.35.00	SSP SINAMICS G110M V4.7	V04.70.35.00_19.13.00.00
106	SINAMICS	SINAMICS G120	CU240	V2.0x	V2.0x.xx.xx	STARTER V4.4	V04.04.00.00_79.11.00.00
107	SINAMICS	SINAMICS G120	CU240	V2.1x	V2.1x.xx.xx	STARTER V4.4	V04.04.00.00_79.11.00.00
108	SINAMICS	SINAMICS G120	CU240	V3.0x	V3.0x.xx.xx	STARTER V4.4	V04.04.00.00_79.11.00.00
109	SINAMICS	SINAMICS G120	CU240	V3.1x	V3.1x.xx.xx	STARTER V4.4	V04.04.00.00_79.11.00.00
110	SINAMICS	SINAMICS G120	CU240	V3.2x	V3.2x.xx.xx	STARTER V4.4	V04.04.00.00_79.11.00.00
111	SINAMICS	SINAMICS G120	CU240B-2	V4.3.2	V4.30.28.00	SSP Sinamics G120 V4.3.2	V04.30.28.00_07.13.00.00
112	SINAMICS	SINAMICS G120	CU240B-2	V4.4	V4.40.23.15	SSP Sinamics G120 V4.4	V04.40.23.15_11.00.00.00
113	SINAMICS	SINAMICS G120	CU240B-2	V4.5	V4.50.30.01	SSP Sinamics G120 V4.5	V04.50.30.01_14.00.00.00
114	SINAMICS	SINAMICS G120	CU240B-2	V4.6	V4.60.21.00	SSP Sinamics G120 V4.6	V04.60.21.00_14.12.00.00
115	SINAMICS	SINAMICS G120	CU240B-2	V4.7	V4.70.35.00	SSP SINAMICS G120 V4.7	V04.70.35.00_19.10.00.00
116	SINAMICS	SINAMICS G120	CU240B-2 DP	V4.3.2	V4.30.28.00	SSP Sinamics G120 V4.3.2	V04.30.28.00_07.13.00.00
117	SINAMICS	SINAMICS G120	CU240B-2 DP	V4.4	V4.40.23.15	SSP Sinamics G120 V4.4	V04.40.23.15_11.00.00.00
118	SINAMICS	SINAMICS G120	CU240B-2 DP	V4.5	V4.50.30.01	SSP Sinamics G120 V4.5	V04.50.30.01_14.00.00.00
119	SINAMICS	SINAMICS G120	CU240B-2 DP	V4.6	V4.60.21.00	SSP Sinamics G120 V4.6	V04.60.21.00_14.12.00.00
120	SINAMICS	SINAMICS G120	CU240B-2 DP	V4.7	V4.70.35.00	SSP SINAMICS G120 V4.7	V04.70.35.00_19.10.00.00
121	SINAMICS	SINAMICS G120	CU240E-2	V4.3.2	V4.30.28.00	SSP Sinamics G120 V4.3.2	V04.30.28.00_07.13.00.00
122	SINAMICS	SINAMICS G120	CU240E-2	V4.4	V4.40.23.15	SSP Sinamics G120 V4.4	V04.40.23.15_11.00.00.00
123	SINAMICS	SINAMICS G120	CU240E-2	V4.5	V4.50.30.01	SSP Sinamics G120 V4.5	V04.50.30.01_14.00.00.00
124	SINAMICS	SINAMICS G120	CU240E-2	V4.6	V4.60.21.00	SSP Sinamics G120 V4.6	V04.60.21.00_14.12.00.00

The function „Installed devices…“ shows the installed SSP’s

General points about the installation of STARTER and the so called SINAMICS Support Packages (SSP)

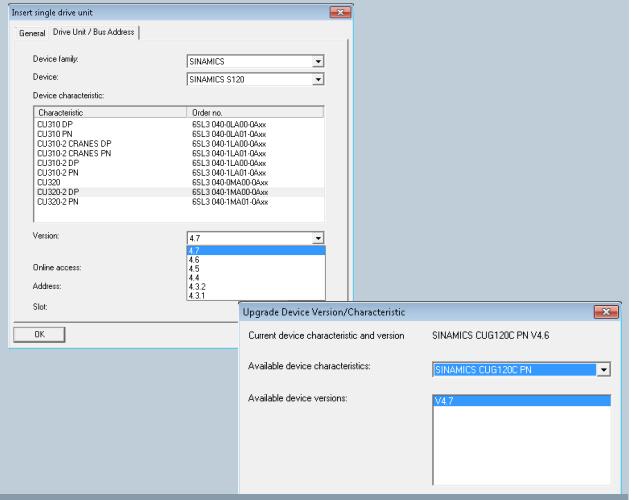
STARTER





The drive object at a STARTER project can only "managed" well, if the respectively SSP is installed:

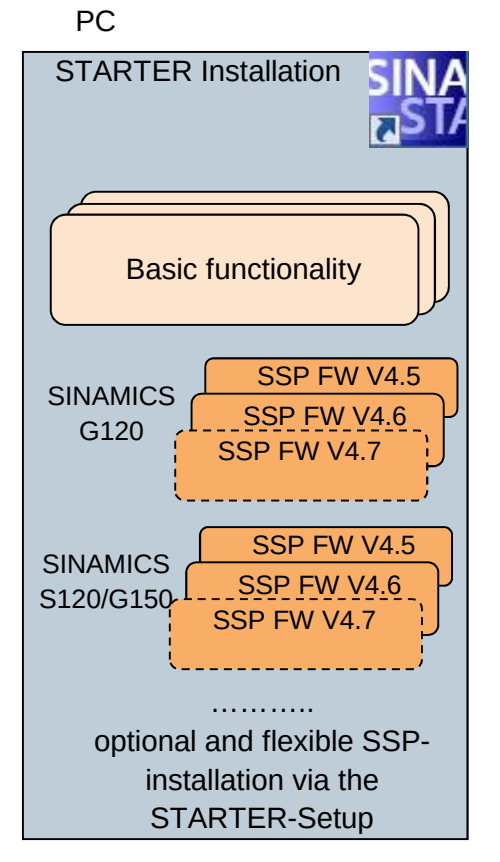
Important features:
- establish a drive object at the project (insert offline or via the function "Accessible nodes")
- communication to the drive device
- upgrade the drive version/characteristic (object)

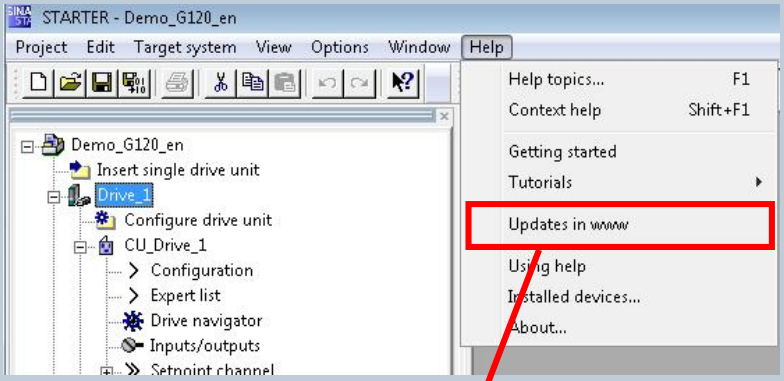


Recommendation: Keep STARTER version actual and install SSP's

How to get the SSPs?

STARTER





Link:
http://support.automation.siemens.com/WW/view/en/26233208
or further download items at
http://support.automation.siemens.com/WW/view/en/10804985/133100

an the SSPs are also part of the SINAMICS memory cards:

SD-Card (Multicard) of the G120

Memory Compact Card (S120, G150, G130…..)

Handling of drive objects stored at the STARTER project

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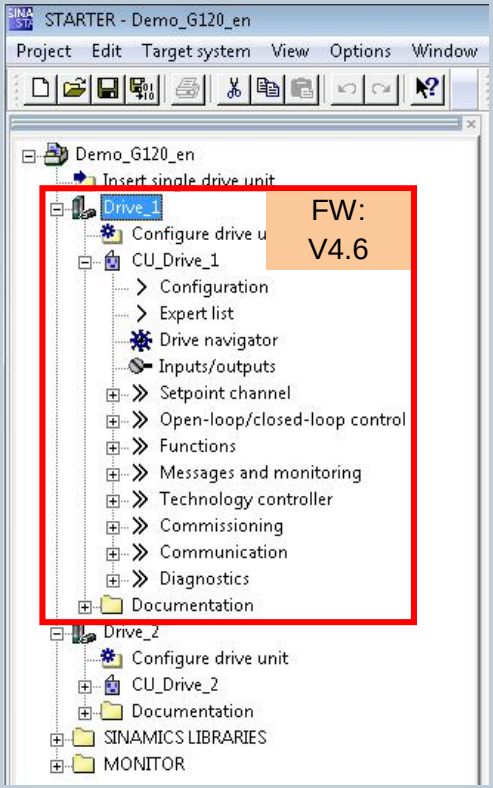


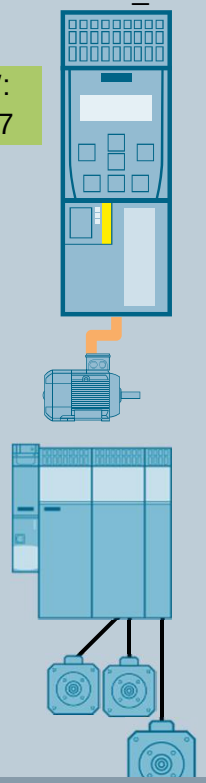
FW-Version at the drive object at the project can be different to the FW-Version of the device

Device

SINAMICS G/S

Drive_1

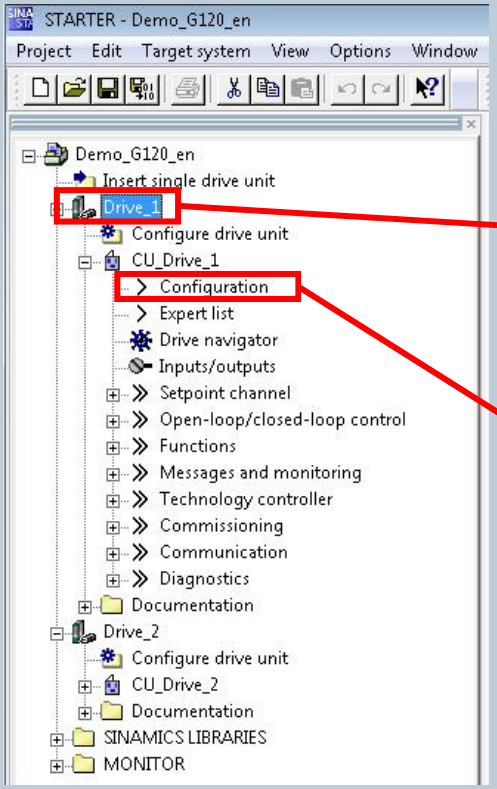
FW: V4.7

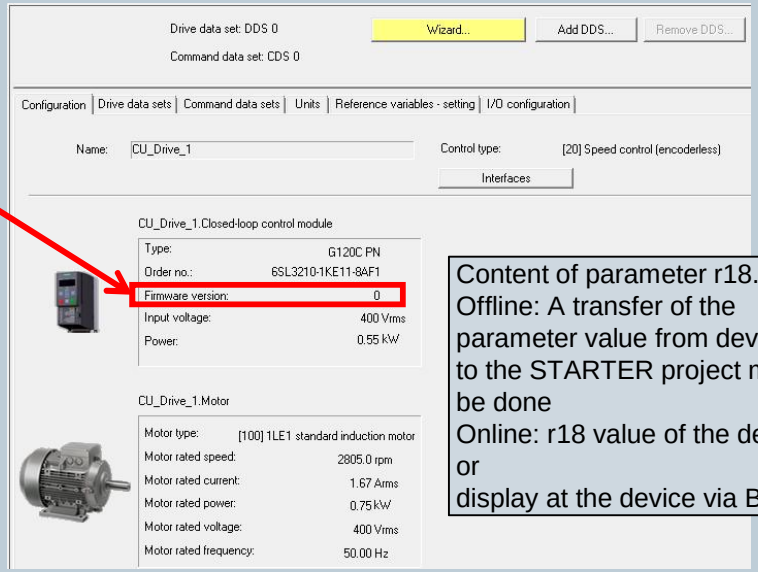


The concrete FW versions shown here are examples only

Find the attribute FW-Version of a stored drive object

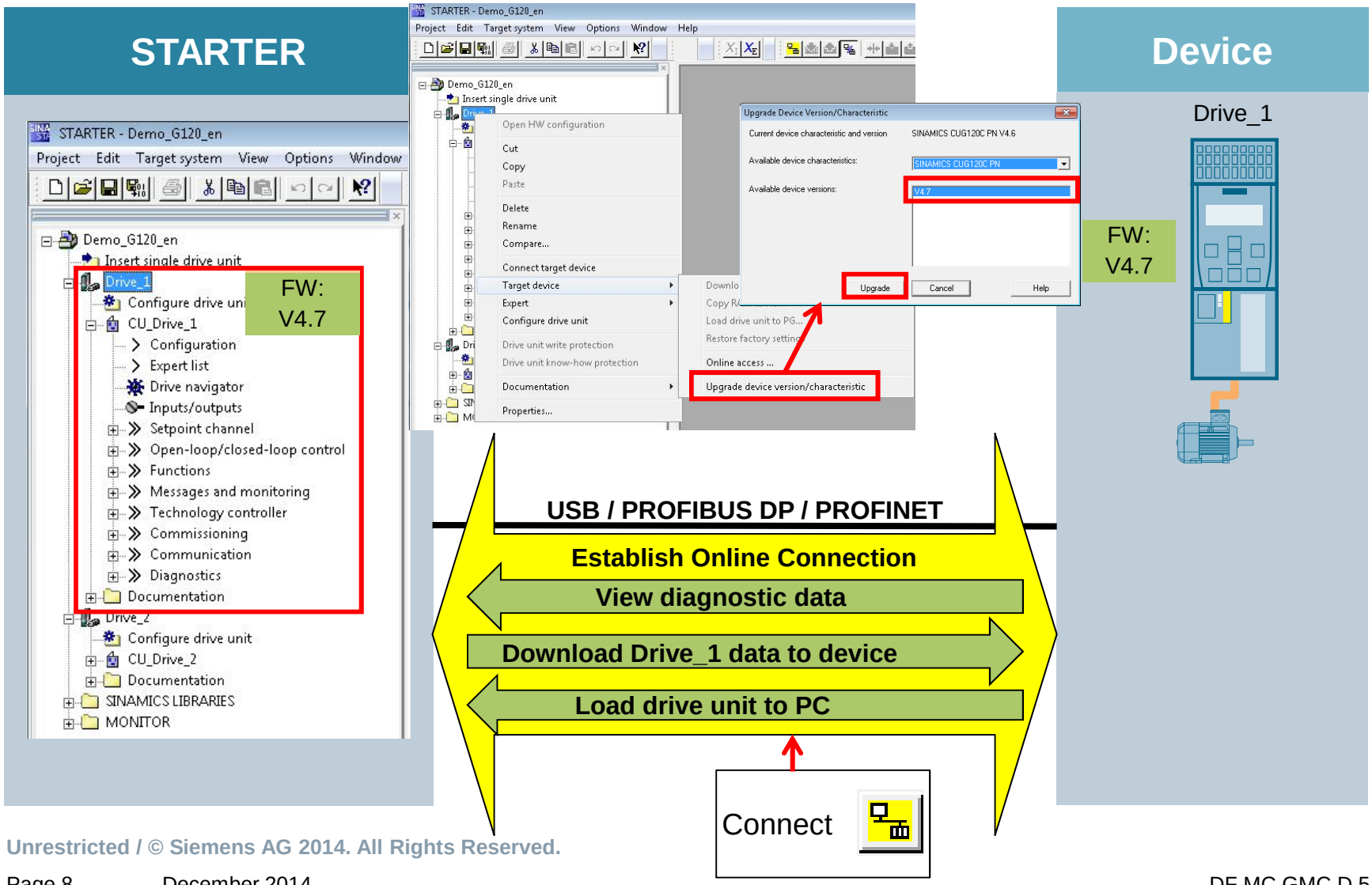
STARTER





Content of parameter r18.
Offline: A transfer of the parameter value from device to the STARTER project must be done
Online: r18 value of the device or
display at the device via BOP

Use case: Drive object at the project and the device itself has different FW-versions; General handling, if the respectively SSP is installed.



Additional handling with SINAMICS G120, **if SSP is not installed**.

Use case: Defect need a change of the drive device

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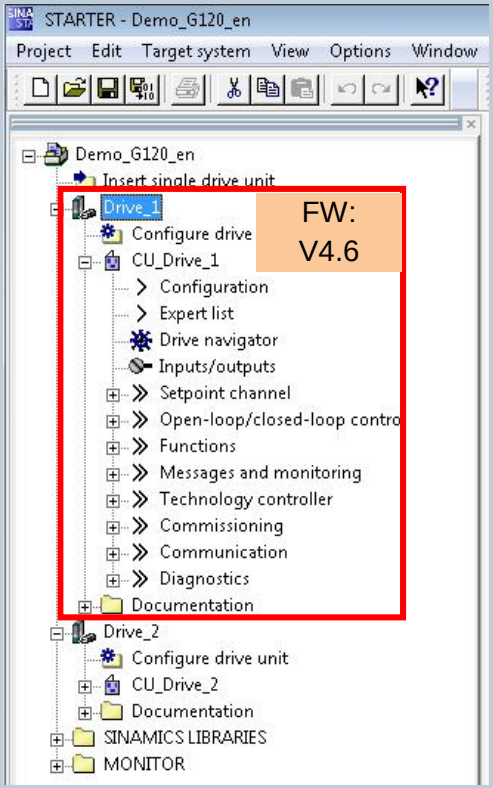


USB / PROFIBUS DP / PROFINET

Establish Online Connection

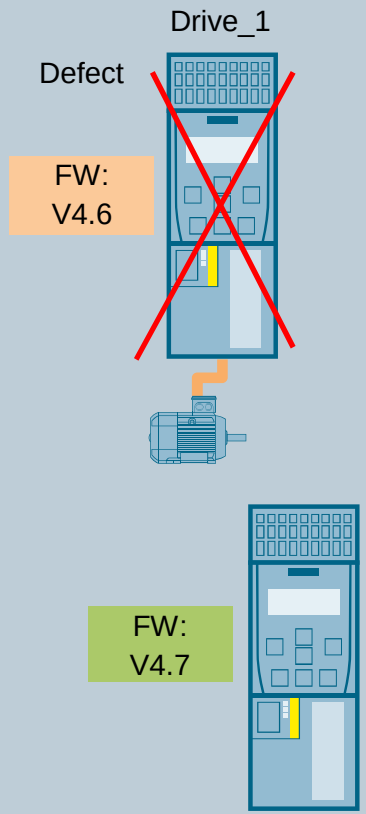
View diagnostic data

Download Drive_1 data to device

Load drive unit to PC; Not recommended!

Connect

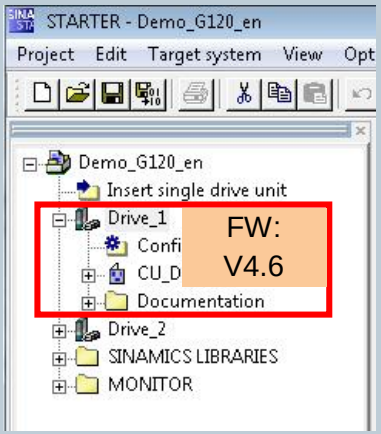
Device



Additional handling with SINAMICS G120, if SSP is not installed.

Known restrictions at STARTER < V4.4

STARTER V4.3 SP2/3



USB / PROFIBUS DP / PROFINET

Establish Online Connection

View diagnostic data

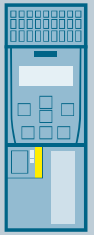
Download Drive_1 data to device

Load drive unit to PC; Not recommended!

Connect again

SINAMIC G120

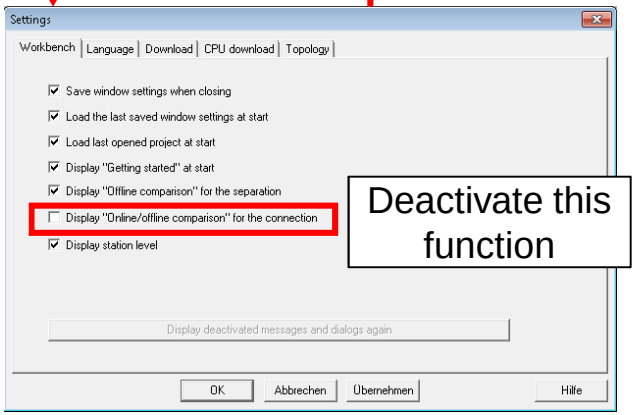
FW: V4.7



If the online connection with USB cannot be established, please change the shown setting at the STARTER workbench.

Try to establish the online connection via USB again.

However, if the online connection with USB cannot be established please check your STARTER version and if necessary upgrade to V4.4!

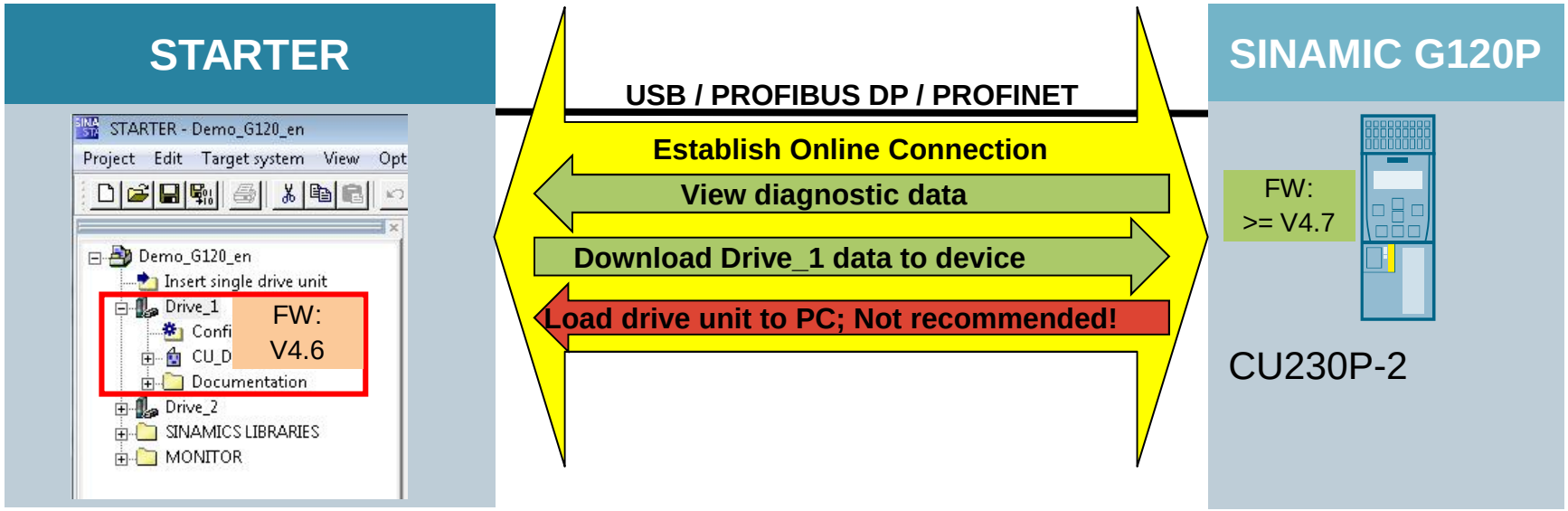


Deactivate this function

Not relevant with STARTER >= V4.4!

Additional handling with SINAMICS G120, if SSP is not installed.

Known restrictions at the download to CU230P-2

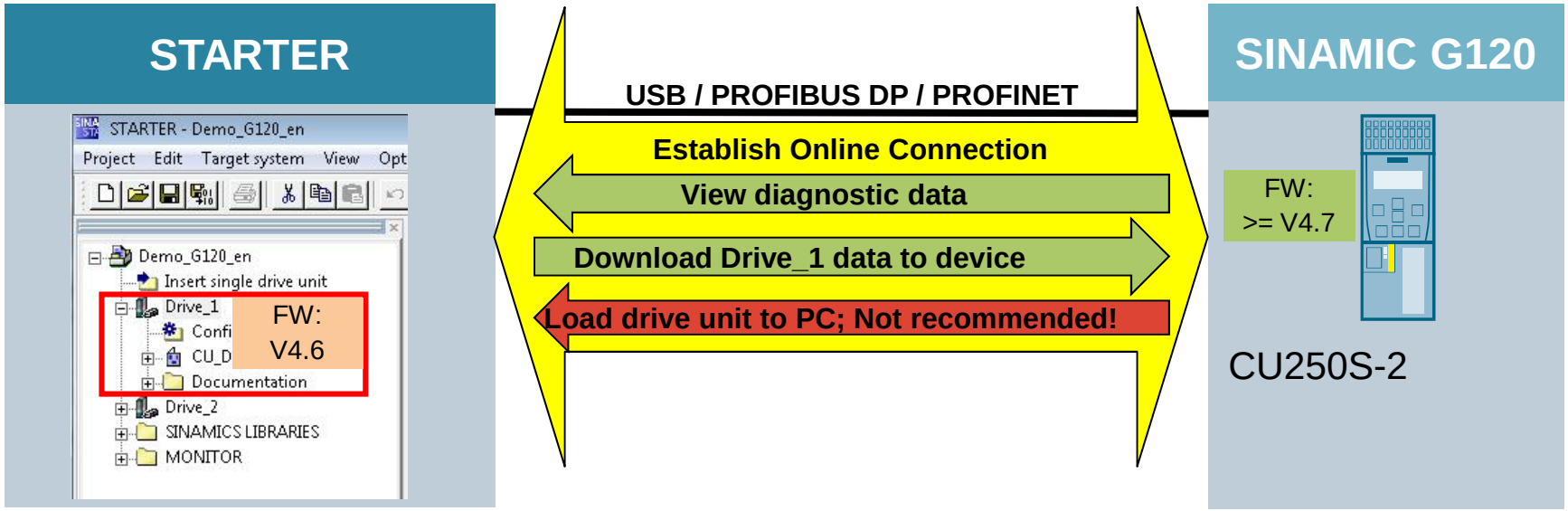


Device with FW-Version >= V4.7:
The parameter P13 and P16 could not be downloaded to FW-Version >= V4.7;
These two parameters were established at FW-Versions < V4.7 and had the BOP parameter view feature.
This feature is not relevant for the BOP-2; so this parameters are eliminated with FW-Version >= V4.7.
So this transfer notice of STARTER can be ignored.
(At system test report this case is named with „F1“)

Please verify the STARTER notices after the download to device

Additional handling with SINAMICS G120, if SSP is not installed.

Known restrictions at the download to CU250S-2



Hint according the download of an concrete STARTER instance with V4.6 in a device with FW Version >= V4.7:
There is a STARTER notice according the parameter P421[0..n] „Absolute encoder rotary multiturn resolution“: Parameter not accepted; Download finished with success.
Background for this notice: The data type for this parameter was changed from 16-Bit to 32-Bit at FW-Version >= V4.7. Please check the setting of this parameter P421 at the device by the online view of the expert list.
((At system test report this case is named with „F5“)

Please verify the STARTER notices after the download to device