

# Generating GSDML files for SINAMICS

Script to generate GSDML files

[Application description](#) • September 2017

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# Generating GSDML files for SINAMICS

Installation and description

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# 1 Motivation

At the present time, SINAMICS S110, S120, S150, G130 and G150 devices are not integrated or not completely integrated in Startdrive. As a consequence, drives based on these devices are currently configured in STARTER.

TIA Portal applications, which use these SINAMICS devices, must use GSD configurations for these devices.

Configuring in parallel in the TIA Portal and in STARTER is possible under the following general conditions:

- Telegrams are configured manually and separately in the TIA Portal and in STARTER.
- Telegram configurations are not synchronized with one another.
- Changes to the configuration must be updated on both sides.

As a consequence, configuring costs increase and also the possibility of making mistakes.

The scripts presented here generate GSDML files for specific drive configurations. The script runs in the context of STARTER. The user installs the generated GSDML files in the TIA Portal, and there they are directly available in the hardware catalog.

The above-mentioned points can be significantly improved with this approach:

- Telegrams are only configured in STARTER.
- Configuring telegrams in the TIA Portal is synchronized with configuring telegrams in STARTER.
- Changes to the configuration only have to be updated in STARTER.

## 1.1 Boundary conditions

Configuring a drive must comply with the following conditions in order that the script can create a GSDML file:

- It involves a SINAMICS S110, S120, S150, G130 or G150 device.
- The device has firmware version V4.3 or higher.
- Cyclic communication is configured via PROFINET; optionally on board or with the Communication Board Extension (CBE).
- Cyclic communication is realized via the logical IF1 interface.

## 1.2 Context

The script has been implemented and tested using STARTER V4.4 SP1 HF1 and the TIA Portal V13 SP1 including update 6. The extensions in script version V2.2.0 regarding SINAMICS S110 have been tested with STARTER V4.5 SP1 HF5 and TIA Portal V14 SP1 Update 2.

Both development environments can be installed on the same computer – or on different computers. In the second case, the generated GSDML files must be copied by the user to the computer where the TIA Portal is installed.

The script has been developed under the assumption that it can also run in higher versions of the development environments mentioned above and will also generate error-free GSDML files. Of course, this cannot be guaranteed. If you are already using higher versions of these development environments, please check whether an updated version of the script is available.

Lower versions of the development environments mentioned above have not been tested, and the functionality is not explicitly guaranteed.

Further, without being able to absolutely guarantee the functionality, the script can be run within the context of SIMOTION SCOUT. It is potentially possible to install the generated GSDML files in SIMATIC STEP7 Classic as well as in the appropriate environments provided by third-party suppliers.

Further, Microsoft Internet Explorer 8 or higher as well as Microsoft XML Core Services V6.0 are used. As standard, both are installed with Windows 7. The script interface was tested with Internet Explorer 11.

### Note

We recommend that Internet Explorer is updated to the currently available version.

## 2 Integration in a project

Irrespective of the deployed development environment (STARTER or SIMOTION SCOUT), the procedure for integrating the script to generate GSDML files in a project does not change.

Only the screenshots shown here can differ in detail for the concrete constellation, with regard to

- Type of the deployed development environment
- Version of the deployed development environment
- Language setting of the operating system, respectively the user-interface language set for the development environment.

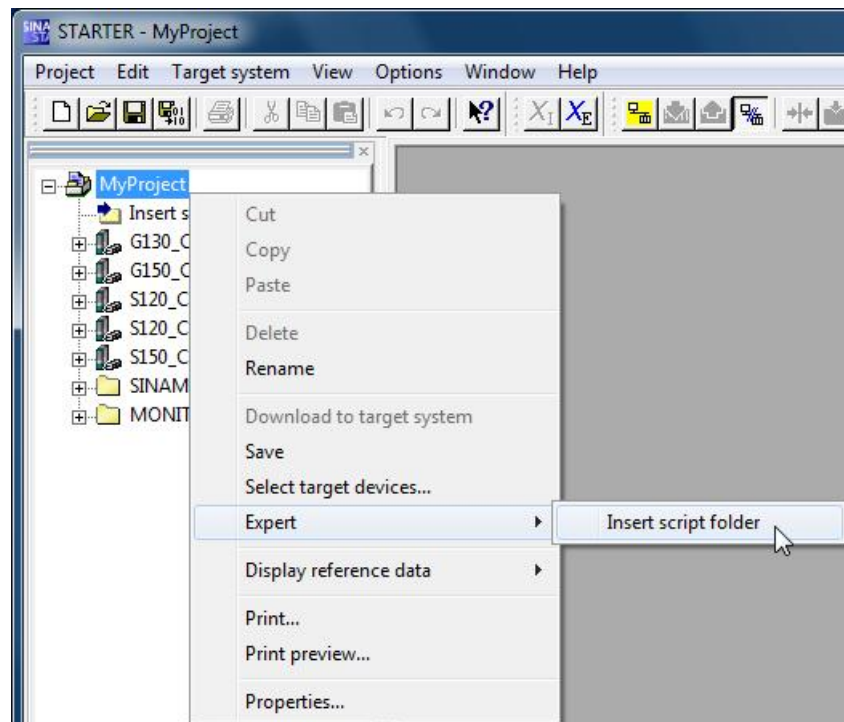
The screenshots shown here were created with Windows 7 Ultimate 64 bit English and STARTER V4.4 with an English user interface.



## 2.1 Inserting a script folder

Open STARTER and the required project. Unless performed previously, select the project level in the Project Navigator and create a script folder from the context menu (*Expert* → *Insert script folder*).

Fig. 2-1: Inserting a script folder

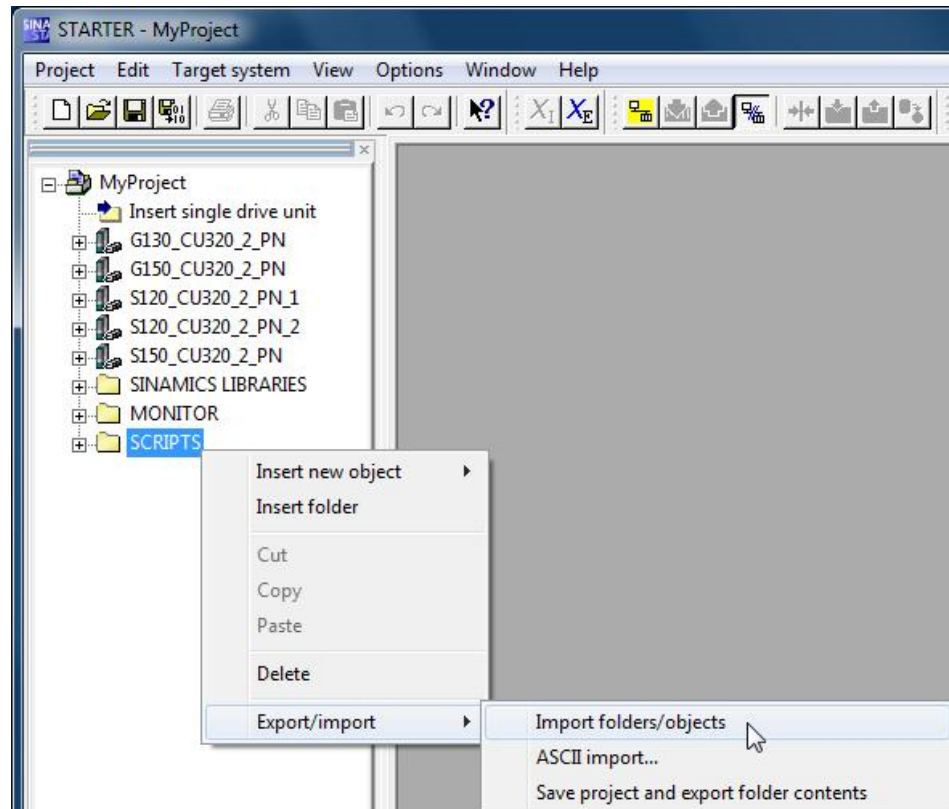


## 2.2 Importing the script

Unzip the script in the ZIP format into a folder that you have selected.

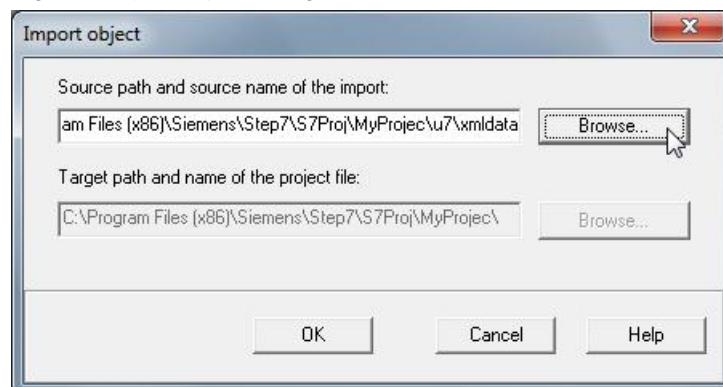
The script to generate GSDML files is available as XML export. To import into the currently opened project, select the *Export/import* → *Import folders/objects* menu item in the context menu of the script folder.

Fig. 2-2: Importing a script



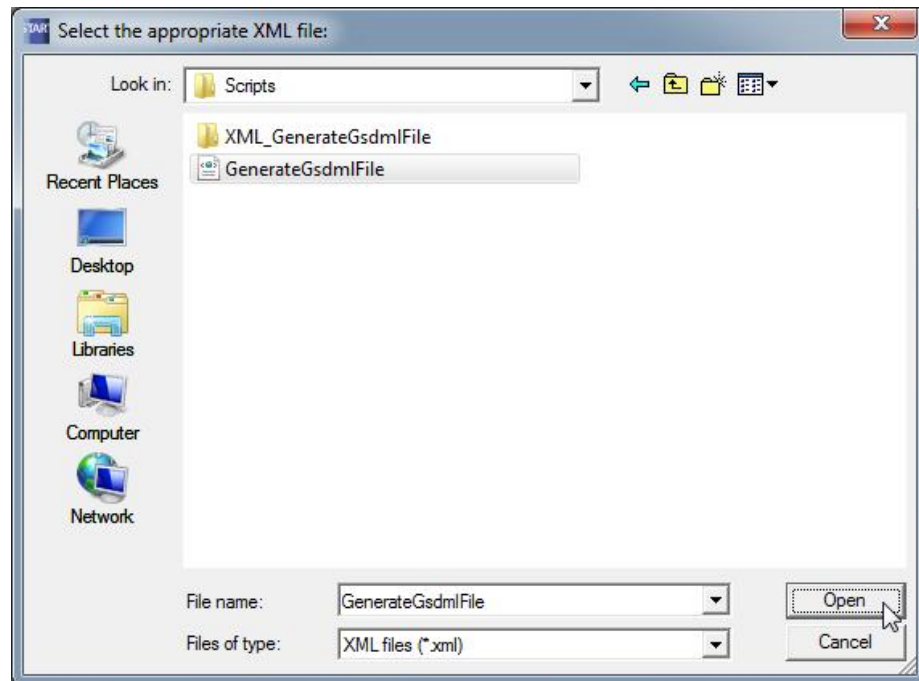
In the following dialog, select the directory with the script by clicking the *Browse...* button.

Fig. 2-3: *Import object* dialog



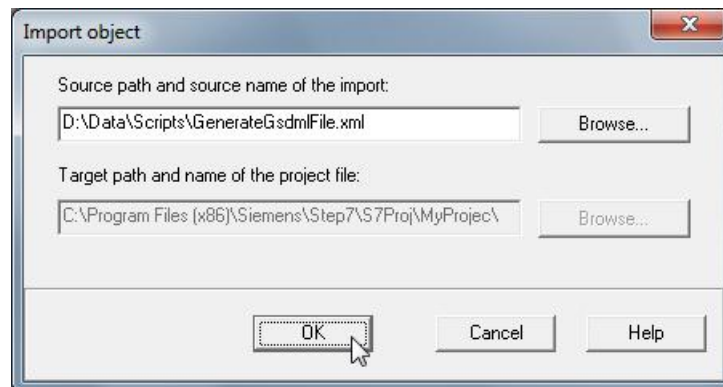
In the following dialog, select the **GenerateGsdmlFile.xml** file.

Fig. 2-4: Dialog to select the XML file



Now click the *Open* button to accept the file selection (shown in the upper text field).

Fig. 2-5: *Import object* dialog



The import has now been completed. The script is contained in the script folder that has been created and can be executed immediately.

#### Note

The script has no reference to the context (position of the script folder); there is always an absolute reference to a specific project. As a consequence, the script can be saved in any script folder.

We recommend that the script is saved in the script folder at the project level.

## 3 Application

### 3.1 General

The screenshots shown here were created with Windows 7 Ultimate 64 bit English, Internet Explorer 11, TIA Portal V13 including update 4 and STARTER V4.4 with an English user interface.

#### User interface language

The language in the script dialogs matches that in the STARTER development environment. German and English are currently supported.

If French, Italian or Spanish is set as language, English will be displayed in the script dialogs.

#### Log file

The script documents its actions in the details display. This is done in the same language as the above-mentioned user interface language.

The output can also be written in the details display in a log file. The log file exists in the project directory and has \*.log as file extension.

If the log file does not yet exist, it will be created implicitly by the script. An existing log file will never be overwritten; new entries are written as new text lines at the end of the log file.

Fig. 3-1: Example extract from a log file

```
### -----
8/22/2014 10:52:55 AM Script GenerateGsdmlFile V2.0.1 started
8/22/2014 10:52:55 AM Current project: MyProject
8/22/2014 10:52:55 AM Current original SINAMICS S120 GSDML file: D:\Data\GSDMLs\Original\GSDML-V2.31-Siemens
8/22/2014 10:52:55 AM Current original SINAMICS S150 GSDML file:
8/22/2014 10:52:55 AM Current original SINAMICS S130 GSDML file:
8/22/2014 10:52:55 AM Current original SINAMICS G150 GSDML file:
8/22/2014 10:52:55 AM Current path to save the generated GSDML files: D:\Data\GSDMLs\Specific\
8/22/2014 10:53:04 AM Determine available SINAMICS devices ...
8/22/2014 10:53:04 AM . SINAMICS S120 device S120_CU320_2_PN_2 found
8/22/2014 10:53:04 AM . SINAMICS S120 device S120_CU320_2_PN_1 found
8/22/2014 10:53:04 AM . SINAMICS G150 device G150_CU320_2_PN found
8/22/2014 10:53:04 AM . SINAMICS G130 device G130_CU320_2_PN found
8/22/2014 10:53:04 AM . SINAMICS S150 device S150_CU320_2_PN found
8/22/2014 11:16:24 AM Determine telegram configuration of device S120_CU320_2_PN_1 ...
8/22/2014 11:16:24 AM . Read telegram configuration of drive object Control_Unit
8/22/2014 11:16:25 AM . Read telegram configuration of drive object Supply
8/22/2014 11:16:25 AM . Read telegram configuration of drive object Encoder_1
8/22/2014 11:16:26 AM . Read telegram configuration of drive object Drive_1
8/22/2014 11:16:26 AM . Read telegram configuration of drive object Drive_2
8/22/2014 11:16:26 AM . Read telegram configuration of drive object TM31
8/22/2014 11:16:26 AM This is the determined telegram configuration of device S120_CU320_2_PN_1:
8/22/2014 11:16:26 AM . Slot 1: - Name: Control_Unit - Type: CU
8/22/2014 11:16:26 AM . . Subslot 1.1: Telegram IDS_MAP (In: 0 Out: 0)
8/22/2014 11:16:26 AM . . Subslot 1.2: Telegram IDS_NOSAFE (In: 0 Out: 0)
8/22/2014 11:16:26 AM . . Subslot 1.3: Telegram IDS_TEL390 (In: 2 Out: 2)
8/22/2014 11:16:26 AM . . Subslot 1.4: Telegram IDS_ADD (In: 4 Out: 2)
```

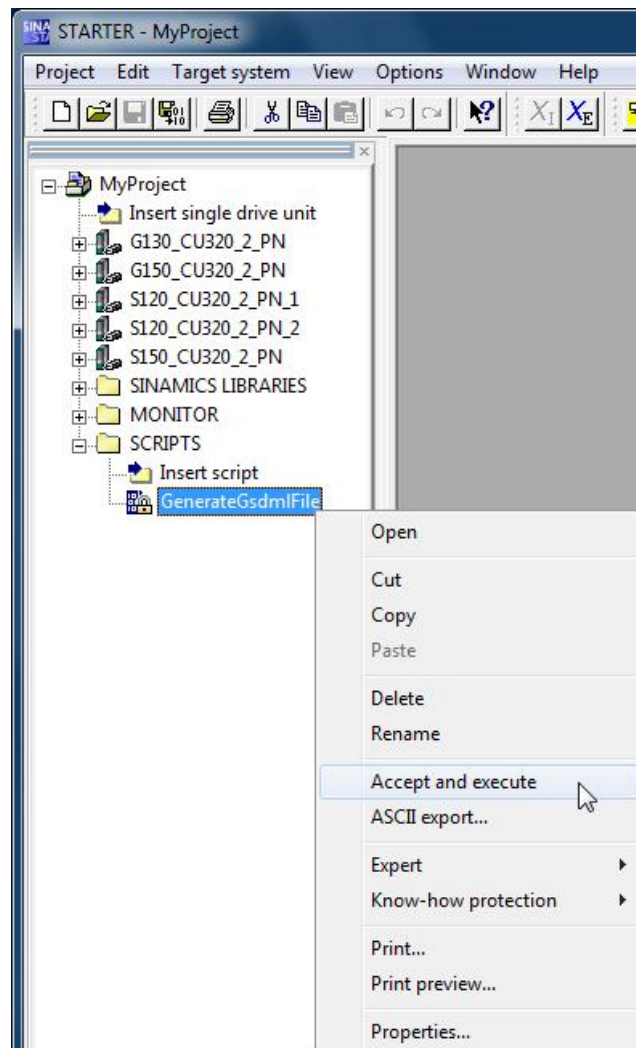
#### Note

Because the log file is contained in the project directory, it will also be archived automatically.

## 3.2 Executing the script

Start the script in the Project Navigator with *Accept and execute* from the context menu.

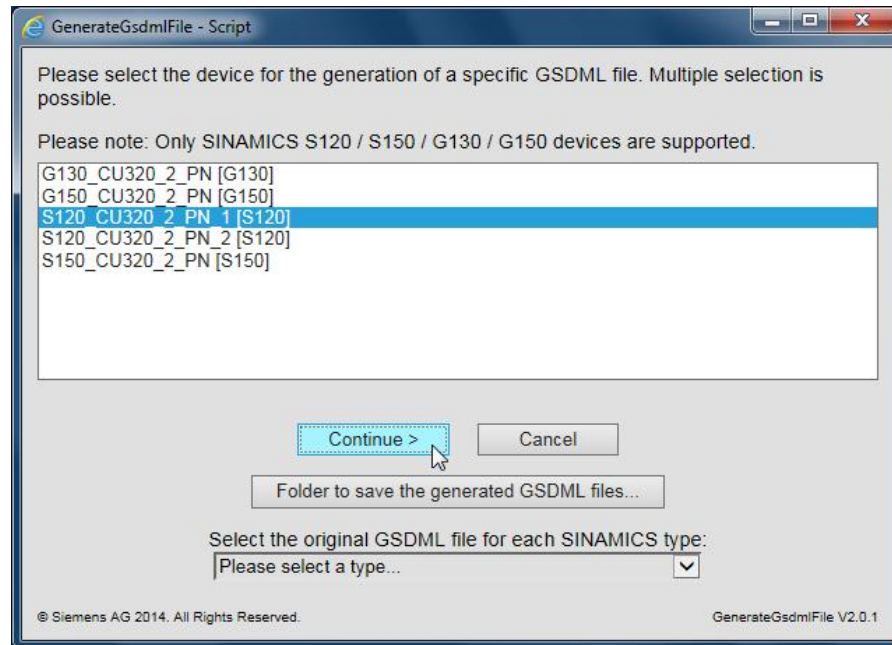
Fig. 3-2: Executing the script



### Select a device

The subsequent dialog is displayed to select the SINAMICS devices.

Fig. 3-3: Dialog to select devices



In the dialog that is displayed, select the SINAMICS device for which a GSDML file is to be generated. A separate GSDML file is generated for each selected device.

No device is selected by default. You can change the selection using the mouse or with the Shift and Ctrl keys.

You only have to double-click on the associated entry if a GSDML file is to be generated for only one device.

The selected devices are individually handled in one of the following dialogs by pressing the *Continue >* button.

Click the *Cancel* button to terminate the script without performing any action.

#### Note

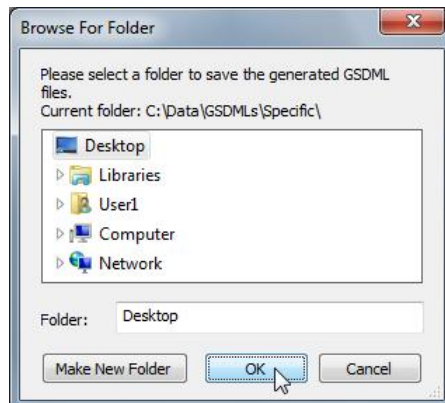
If possible, terminate the script using the *Cancel* button rather than using the *Executing script* dialog. The latter does not close the script dialog.

### Directory for generated GSDML files

If the script is being used for the first time, then to start, the directory for the generated GSDML files should be selected. This is also possibly required when transferring the project to another computer.

A Browse For Folder dialog is displayed by pressing the *Folder to save the generated GSDML files...* button. Select a directory of your choice.

Fig. 3-4: Directory for generated GSDML files



#### Note

The setting made here is permanently saved in the project path (also see Section "Script history" at the end of the chapter as well as Chapter 3.4, Section "Removing the script history").

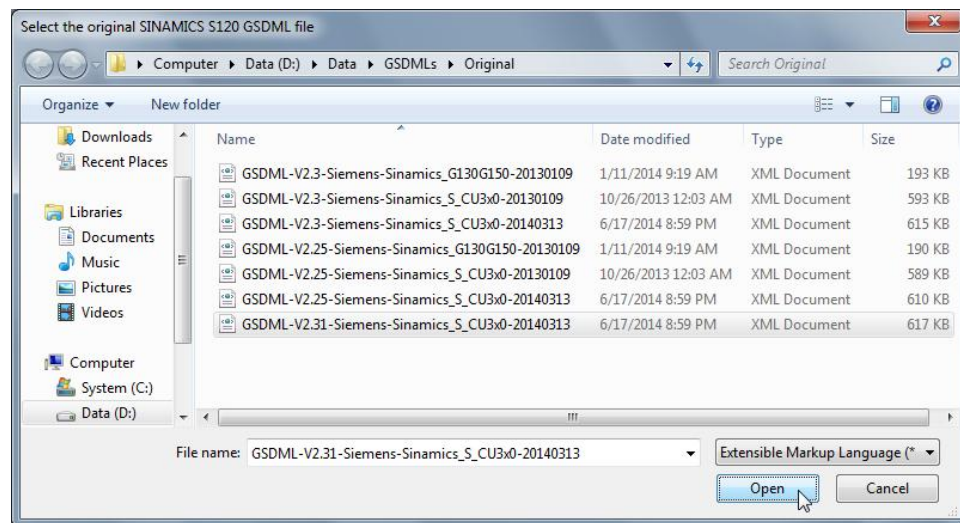


### Original SINAMICS GSDML file

If the script is being used for the first time, then to start the original SINAMICS GSDML files should be selected. For each device type (S110, S120, S150, G130, G150) a separate original GSDML file has to be selected, even if the same file is referenced several times.

An open file dialog is displayed by pressing the *Original SINAMICS GSDML file...* drop-down list. Select an original GSDML file (provided by Siemens).

Fig. 3-5: Selecting the original GSDML file (here: SINAMICS S120)



**Note** Depending on the specific operating environment, the open file dialog can have a different appearance as well as various properties.

**Note** You can find the original GSDML files for SINAMICS e.g. in the firmware in the SIEMENS\SINAMICS\DATA\CFG\PNGSD.zip file.

Copy the unzipped GSDML files and the graphic file into the directory that you have selected.

**Note** The setting made here is permanently saved in the project path (also see Section "Script history" at the end of the chapter as well as Chapter 3.4, Section "Removing the script history").

**Note** Usually the usage of the original GSDML files content bases on the communication interface and the firmware version to generate a specific GSDML file.  
However, using SINAMICS S110 with firmware V4.4.x the DAP (Device Access Point) incl. hotfix state is used (DAP-ID: IDD\_CU305PN-V4.4HF).  
In this case please use the original GSDML file from the correspondent firmware (current: GSDML-V2.3-Siemens-Sinamics\_S110-20141024.xml).



### GSDML file name

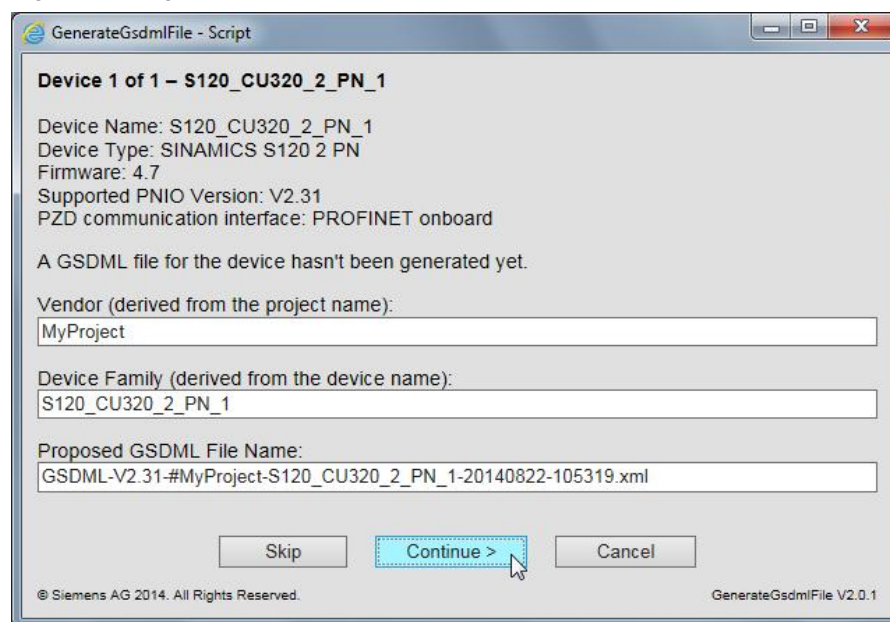
The following dialog is displayed for each selected device.

Information regarding the device is displayed in the upper section.

- Device name
- Device type
- Firmware version
- PROFINET IO version (from the original GSDML file)
- PZD communication interface

Further, data regarding the last generation are displayed.

Fig. 3-6: Dialog for the GSDML file names



The project name and the device name, taken from the STARTER project, are preset in the text fields *Vendor* and *Device Family*. The names are used for the GSDML file names, as well as for the visible names in the TIA Portal hardware catalog.

The write-protected text field *Proposed GSDML File Name* shows the GSDML file name to be generated based on the entries of the other two text fields and the actual system time.

### Note

The allocation of names for GSDML files is clearly defined; the range of characters that can be used is quite restrictive.

The script automatically replaces the hyphens generally used in project and device names by underscore characters.

The script rejects other entries with invalid characters with an appropriate note.

**Note**

The name components (manufacturer and device name) are permanently saved in the project path (also see Section "Script history" at the end of the chapter as well as Chapter 3.4, Section "Removing the script history").

This is the reason that when changing project names or device names in the STARTER project, the previous name components still remain available.

**NOTICE**

**If a GSDML file was already generated for the device, then the name components (manufacturer and device family) should no longer be changed.**

**Otherwise, when importing the GSDML file, the device will be identified as a new device and not as a more recent version of an existing device.**

If a GSDML file cannot be generated as a result of the secondary conditions (see Chapter 1.1), then the cause is displayed in the dialog. The text fields are grayed out and the *Continue* > button is deactivated.

The GSDML file is generated by pressing the *Continue* > button. The script then continues with the next device. The script is exited if it involves a single device or the last device.

The device is skipped without generating a GSDML file by pressing the *Skip* button. The script is exited if it involves a single device or the last device.

Click the *Cancel* button to exit the script without performing any further action.

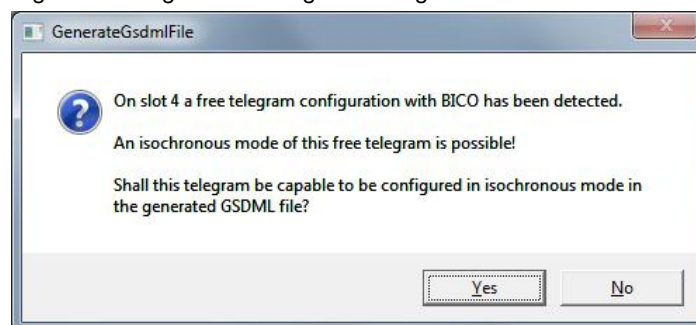
**Note**

If possible, terminate the script using the *Cancel* button rather than using the *Executing script* dialog. The latter does not close the script dialog.

**Free telegram configuration with BICO**

The script checks if there is a free telegram configuration with BICO. If the SINAMICS device also supports a free telegram with isochronous capability the following prompt is shown.

Fig. 3-7: Dialog for free telegram configuration



Click the Yes button to generate a free telegram with isochronous capability.

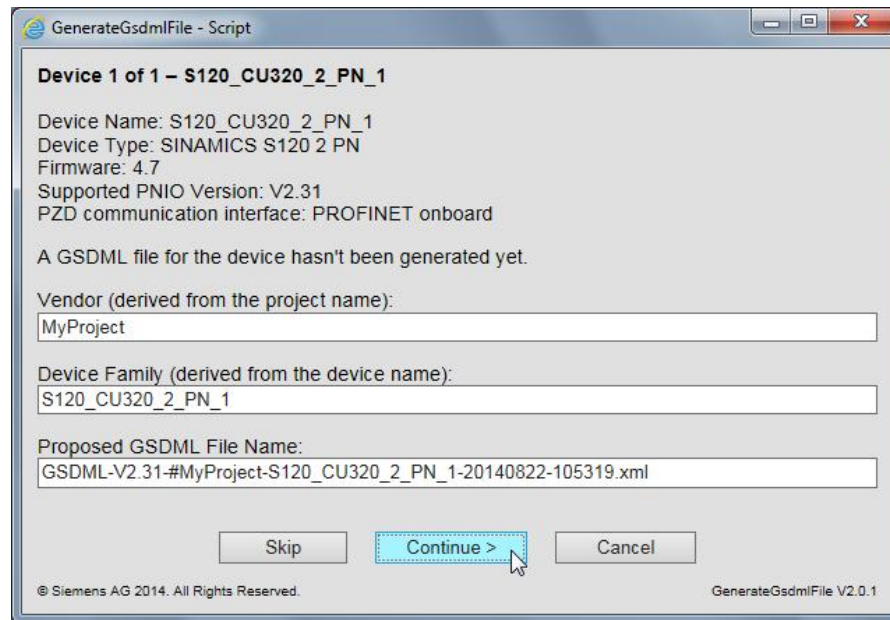
### **Graphics file**

If there is an associated graphic file for the device, then this is also copied into the directory of the generated GSDML file.

## Summary

In the final dialog a summary is displayed.

Fig. 3-8: Summary dialog



## Script history

The script saves the necessary information in an XML file in the project directory. This involves the following:

- Internal information (script name, script version etc.)
- Settings that have been made
  - Original SINAMICS GSDML files
  - Directory for generated GSDML files
- Project information
  - Current project name
  - Project name that is used (→ name of the manufacturer)
  - Project ID (a unique identification number)
- Device information (possibly available a multiple number times)
  - Name of the manufacturer
  - Current device name
  - Device name that is used (→ device family)
  - Device ID (also a unique identification number)
  - Type ID (identification number for the device type)
  - Data of the last generation (date, file name)

### 3.3 Using the GSDML file in the TIA Portal

The following example of a telegram configuration is available in STARTER. It involves a SINAMICS S120 CU320-2 PN with firmware version V4.7. The screen shots in the Chapters 3.1 and 3.2 are based on the same application case.

The following was selected as original GSDML file:

- GSDML-V2.31-Siemens-Sinamics\_S\_CU3x0-20140313.xml

Fig. 3-9: Example of a telegram configuration in STARTER

IF1: PROFIdrive PZD telegrams | IF2: PZD telegrams |

Communication interface: PROFINET - Control Unit onboard (isochronous)  
The PROFIsafe communication is performed via this interface

The PROFIdrive telegrams of the drive objects are transferred in the following order:

**The input data corresponds to the send and the output data of the receive direction of the drive object.**

**Master view:**

Object	Drive object	-No.	Telegram type	Input data	Output data
				Length	Length
1	Control_Unit	1	SIEMENS telegram 390, PZD-2/2	2	2
			Supplementary Data	4	2
2	Supply	2	SIEMENS telegram 370, PZD-1/1	1	1
3	Encoder_1	5	SIEMENS telegram 81, PZD-2/6	6	2
4	Drive_1	3	Standard telegram 4, PZD-6/14	14	6
			Telegram extension	1	1
5	Drive_2	4	Free telegram configuration with BICO	14	10
6	TM31	9	Free telegram configuration with BICO	2	2
Without PZDs (no cyclic data exchange)					

A GSDML file is generated for the device using the script. The GSDML file name was derived from the project and the device names, and is:

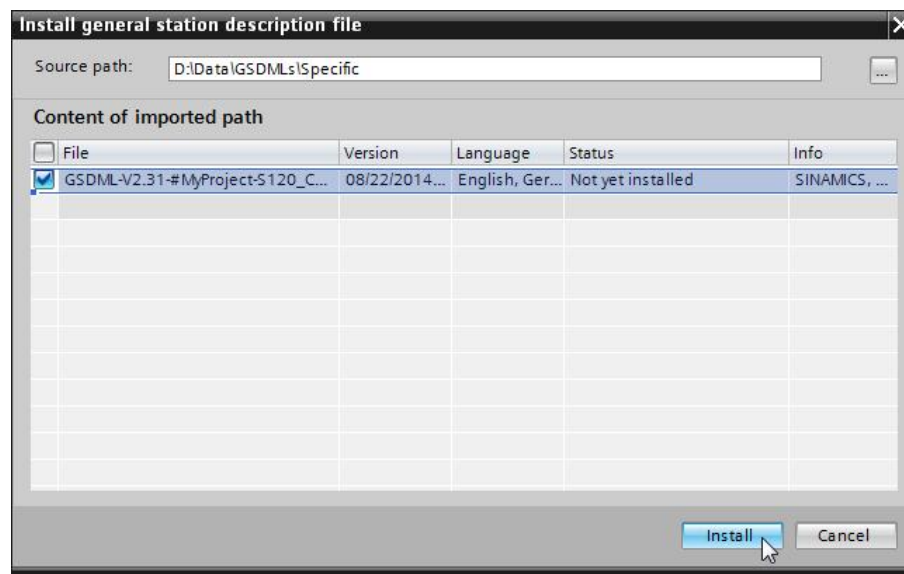
- GSDML-V2.31-#MyProject-S120\_CU320\_2\_PN\_1-20140822-105319.xml

### 3.3.1 Installation in the TIA Portal

Start the TIA Portal and change to the project view. A generated GSDML file is installed using the menu command *Options* → *Install general station description file (GSD)*. It is irrelevant as to whether a project has already been opened.

In the *Install general station description file* dialog, navigate in the directory, in which the generated GSDML file is saved. Select the checkbox in front of the file and press the *Install* button.

Fig. 3-10: Installing the general station description file



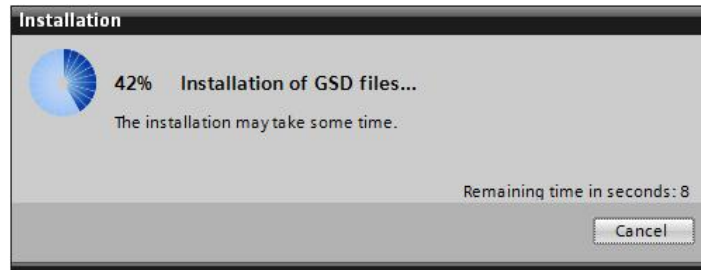
Confirm the following confirmation prompt with *OK*.

Fig. 3-11: Confirmation prompt before the installation



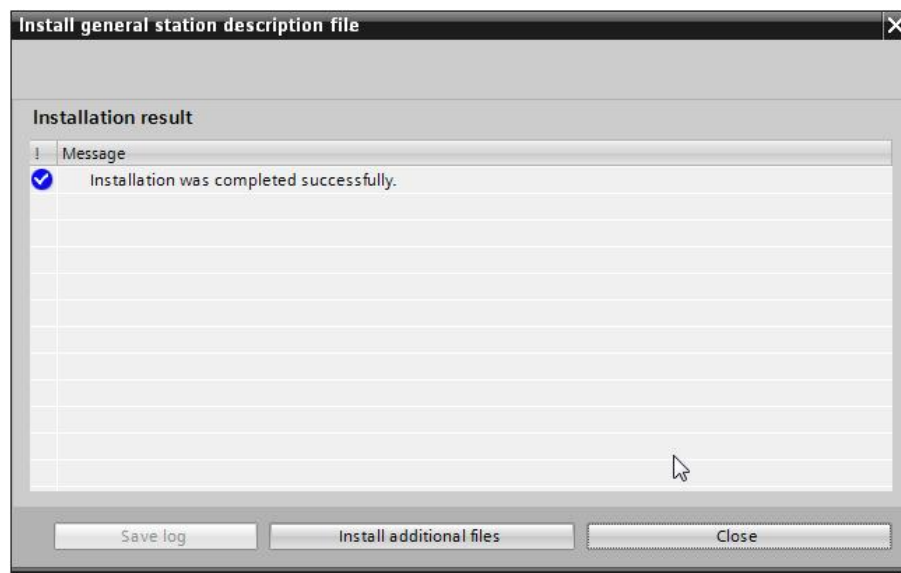
The GSDML file is now installed. The progress is displayed in a dialog. Generally, it takes a few seconds to install a GSDML file.

Fig. 3-12: The GSDML file is being installed



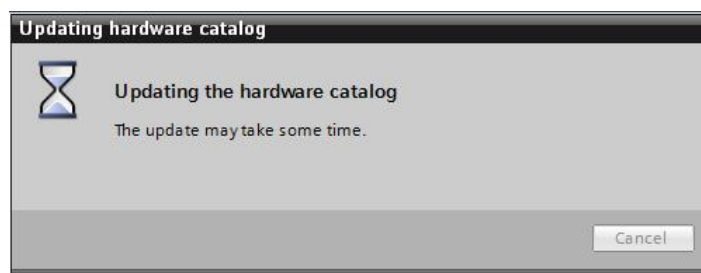
A message is output once the installation has been completed.

Fig. 3-13: The GSDML file has been successfully installed



The information is transferred into the hardware catalog by pressing the *Close* button.

Fig. 3-14: Updating the hardware catalog

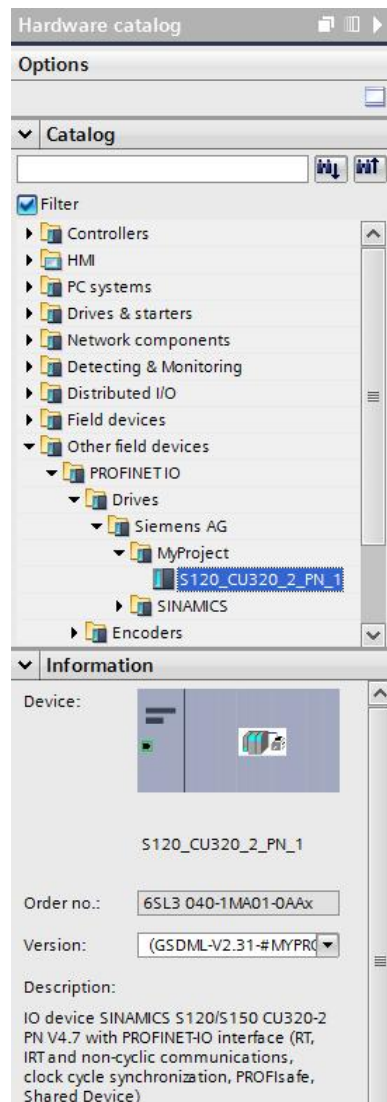


The device is now available in the hardware catalog.

You can find the device under *Other field devices* → *PROFINET IO* → *Drives* → *Siemens AG* → *<Vendor>* → *<Device family>*.

You can specify the place holders *<Vendor>* and *<Device family>* in the script. As default, the name of the STARTER project (in this case: *MyProject*) and the device (in this case: *S120\_CU320\_2\_PN\_1*) are used.

Fig. 3-15: Specific drive configuration in the hardware catalog



If several versions of the GSDML file have been installed, then the required version can be selected using the *Version* drop-down list.



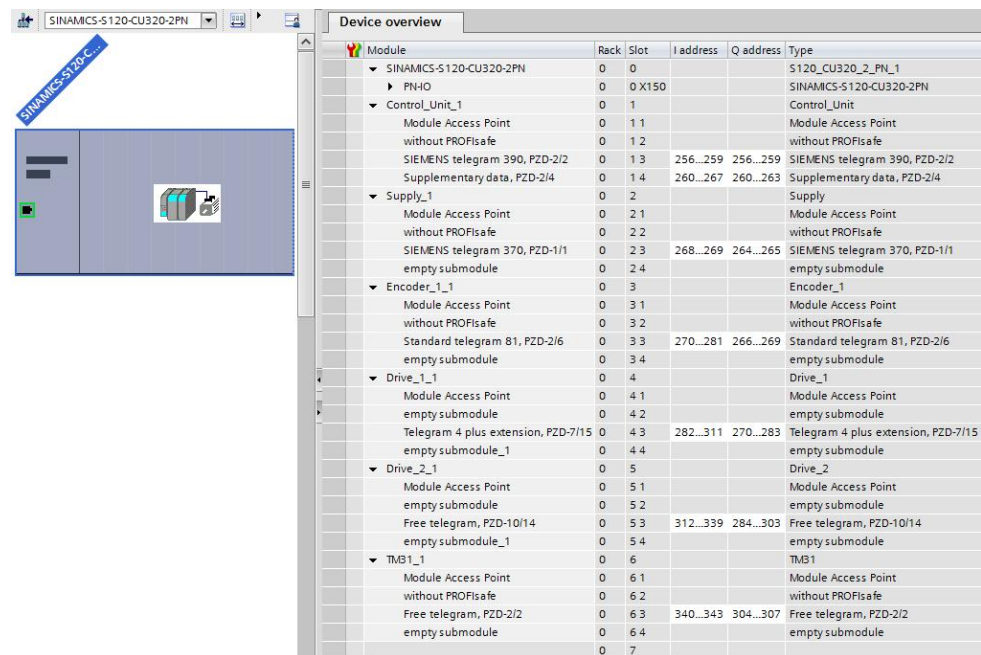
### 3.3.2 Instantiating the device in the TIA Portal project

The device installed in the TIA Portal using the GSDML file can be instantiated just like any other device.

Contrary to a standard GSDML file of a SINAMICS S120, for this device, the slots and their sub slots are already assigned corresponding to the telegram configuration in the STARTER project.

When assigning to an IO system, the IO addresses are automatically preassigned.

Fig. 3-16: Device instance in a TIA project



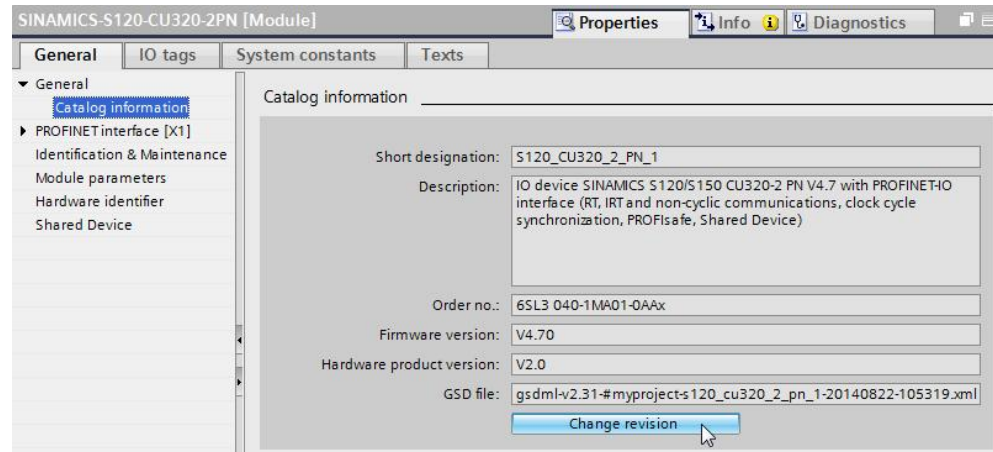
Module	Rack	Slot	I address	Q address	Type
▼ SINAMICS-S120-CU320-2PN	0	0			S120_CU320_2_PN_1
▶ PN-IO	0	0 X150			SINAMICS-S120-CU320-2PN
▼ Control_Unit_1	0	1			Control_Unit
Module Access Point	0	1 1			Module Access Point
without PROFIsafe	0	1 2			without PROFIsafe
SIEMENS telegram 390, PZD-2/2	0	1 3	256...259	256...259	SIEMENS telegram 390, PZD-2/2
Supplementary data, PZD-2/4	0	1 4	260...267	260...263	Supplementary data, PZD-2/4
▼ Supply_1	0	2			Supply
Module Access Point	0	2 1			Module Access Point
without PROFIsafe	0	2 2			without PROFIsafe
SIEMENS telegram 370, PZD-1/1	0	2 3	268...269	264...265	SIEMENS telegram 370, PZD-1/1
empty submodule	0	2 4			empty submodule
▼ Encoder_1_1	0	3			Encoder_1
Module Access Point	0	3 1			Module Access Point
without PROFIsafe	0	3 2			without PROFIsafe
Standard telegram 81, PZD-2/6	0	3 3	270...281	266...269	Standard telegram 81, PZD-2/6
empty submodule	0	3 4			empty submodule
▼ Drive_1_1	0	4			Drive_1
Module Access Point	0	4 1			Module Access Point
empty submodule	0	4 2			empty submodule
Telegram 4 plus extension, PZD-7/15	0	4 3	282...311	270...283	Telegram 4 plus extension, PZD-7/15
empty submodule_1	0	4 4			empty submodule
▼ Drive_2_1	0	5			Drive_2
Module Access Point	0	5 1			Module Access Point
empty submodule	0	5 2			empty submodule
Free telegram, PZD-10/14	0	5 3	312...339	284...303	Free telegram, PZD-10/14
empty submodule_1	0	5 4			empty submodule
▼ TM31_1	0	6			TM31
Module Access Point	0	6 1			Module Access Point
without PROFIsafe	0	6 2			without PROFIsafe
Free telegram, PZD-2/2	0	6 3	340...343	304...307	Free telegram, PZD-2/2
empty submodule	0	6 4			empty submodule
	0	7			

Subsequently changing, expanding or deleting modules and submodules is neither desirable nor possible.

### Updating a GSDML file

If an update of the GSDML file is installed, then instances are not automatically upgraded to reflect this update. To do this, in the properties of the instance, under the *General* tab, the revision should be changed using the *Change revision* button.

Fig. 3-17: Changing the revision



#### NOTICE

Depending on the type of change in the telegram configuration, in the TIA Portal it is not possible to change the revision.

In this case, the device must be reinstanciated with the required revision.

## 3.4 Special application cases

### Removing installed GSDML files from the TIA Portal

This is not possible with the current version of the TIA Portal.

### Working in parallel on a project

If several users are working in parallel on duplicates of a STARTER project, and if GSDML files are generated from these projects, then the user(s) must ensure the appropriate consistency (e.g. the generated GSDML file names).

### Accessing an older, backed-up project version

The user must ensure the consistency (e.g. the generated GSDML file names).

### Upgrading a project to a higher STARTER version

The availability and consistency are implicitly guaranteed.

If, in this context, devices are upgraded to a higher firmware version, then the application scenario "Upgrading a device to a higher firmware version" applies.

### Upgrading a device to a higher firmware version

The "entry point" into the GSDML file is the DAP (**D**evice **A**ccess **P**oint). This differs according to the CU type (CU310, CU320), according to PROFINET interface (onboard or CBE) and also according to the firmware being used. The differences in the capabilities regarding PROFINET are saved in the individual DAP versions.

The script uses the original SINAMICS GSDML file as template to generate the specific GSDML file. All of the available DAPs are deposited in the original SINAMICS GSDML file. Based on the specifically selected device (CU type, firmware version) the script searches for the DAP required, and from this develops the specific GSDML file.

As a consequence, this means

1. that for a higher firmware version, the original GSDML file must as a minimum support the more recent firmware version, and
2. the GSDML files generated up until now for this device are not compatible with those for the more recent firmware version.

### Removing the script history

The script history is saved in the project directory in an XML file.

The history can be completely deleted using Windows Explorer by deleting the XML file. Alternatively, part of the history can be deleted or manipulated using the (XML) editor. The XML elements used are self-explanatory.

No warranty is given when manual interventions are made.

For this special application case, we recommend that the project is backed up or as a minimum, the XML file involved.

#### Renaming a project

The project name is used as manufacturer name for the generated GSDML files, as part of the GSDML file name. Further, the project name is entered within the GSDML file; this is used to assign the project name within the tree-type structure of the hardware catalog.

If the project name is changed, and if this change were to be transferred into the names of newly generated GSDML files, then this would mean multiple entries in the tree-type view of the TIA Portal hardware catalog.

The script uses the project ID to identify the project. This means that in spite of the changed name, the script can uniquely identify the project.

After changing the project name, when the script is executed, users have the option of deciding as to whether the previous project name (updated GSDML files are recognized as updates of previous GSDML files) is used, or the new project name (updated GSDML files are recognized as separate GSDML files, the previous GSDML files still remain visible in parallel).

#### Renaming a device

For the generated GSDML files, the device name is used as a component of the file name. Further, the device name is entered within the GSDML file; this is used to assign the device name within the tree-type structure of the HW catalog within the hardware catalog.

If the device name is changed, and if this change were to be transferred into the name of an updated GSDML file, then this would mean a duplicate in the hardware catalog.

The script uses the device ID to identify the device. This means that in spite of the changed name, the script can uniquely identify the device.

After changing the device name, when the script is executed, users have the option of deciding as to whether the previous device name (an updated GSDML file is recognized as update of a previous GSDML file) is used, or the new device name (updated GSDML file is recognized as separate GSDML files, the previous GSDML files still remain visible in parallel).

#### Identical names assigned in different projects

If the project name as well as the device name are identical in different STARTER projects, then it is possible that generated GSDML files are recognized as an update of already installed GSDML files.

This can be desirable, for instance, if it involves a standard device that is used in various projects.

However, if this is to be avoided, then the project name or the device name can be changed in the STARTER project so that it is unique.

Alternatively, it is possible to specifically override the manufacturer's name or the name of the device family while the script is being executed. These changes are retentively saved in the project path; as a consequence, they are automatically available for another generation.

**Duplicating a project #1**

If the project is duplicated using the STARTER menu command *Project* → *Save and create copy...* and if the option *With reorganization (slow)* is deactivated, then the script history is also duplicated. The project ID remains in the duplicated project (there are now two projects with the same ID). This means, that in spite of the changed name, the script can uniquely identify the project.

As a consequence, the "Rename project in STARTER" application case applies.

**Duplicating a project #2**

If the project is duplicated using the STARTER menu command *Project* → *Save and create copy...* and if the option *With reorganization (slow)* is activated, then the script history is not transferred into the new project.

As a consequence, the "Remove the script history" application case applies.

**Duplicating a device**

If a device is duplicated within the project, then the duplicated device is allocated a new name and a new ID.

As a consequence, the script does not know the duplicated device. From the perspective of the script, a GSDML file is being generated for the first time. If the device name is not specifically changed, then for the TIA Portal, this involves a device description that is still unknown.

## 4 Contact person

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## 5 History

Table 5-1

Version	Date	Change
V1.0	2014-05-26	First Edition
V2.0	2014-08-22	Support of SINAMICS S150, G130, G150
V2.1	2016-02-29	Free telegrams in isochronous mode
V2.2	2017-09-22	Support of SINAMICS S110