

SIMATIC/SIMOTION ProjectGenerator

Release notes and limitations of functionality

These notes have a higher priority than information in the documentation.
Please read these notes carefully.

1 General notes (SIMOTION and SIMATIC devices)

Number	Description
001	<p>Preselected equipment modules at creating a new CPU</p> <p>With opening a project the checkboxes in the equipment module selection get preselected by using information from the particular XML file and data from the project. If you create a new CPU these equipment modules get preselected although this CPU isn't configured yet and in fact empty. In the further usage the ProjectGenerator behaves correct.</p>
002	<p>Adaption of the PG / PC - interface when creating a new project</p> <p>If you create a new project by using the ProjectGenerator, it is based on the "basic project", which is stored in the subfolder "Projects" of the ProjectGenerator. In this project exists a PG / PC station with the IP address 169.254.11.99 which is already connected to the internal Ethernet - interface of a virtual machine (VM). If you are using virtual machines, only an adjustment of the IP address of your VM is required. Otherwise you have to map your network interface to the PG / PC station. It is also possible to store a user-defined "basic project".</p>
003	<p>Two projects with the same name</p> <p>When creating a new project with a project name length greater than 8 characters, the project folder is limited to the first 8 characters. If you use the ProjectGenerator to create a second project, which has the same name (more than 8 characters), this will not be verified by the ProjectGenerator up to version 1.0.2 and an error message appears at generating the project.</p>
004	<p>Documentation in other languages</p> <p>Because the language of the ProjectGenerator is English, only the English version of the suitable documents is opened by the call of the help functionality (help or info button) of the ProjectGenerator in the modules. Other languages and additional documents, as for example the release notes lie in parallel in the suitable subfolder of the ProjectGenerator.</p>
005	<p>Change of naming of OMAC modules</p> <p>With ProjectGenerator version V1.2.0 the OMAC modules were renamed:</p> <ul style="list-style-type: none"> - 'OMAC_LPMLV30' → 'OMACV30_LPML' (OMAC Mode and State Manager) - 'InterfaceGenerator' → 'OMACV30_PackTags' (OMAC Data Interface)
006	<p>Change of path of the base project</p> <p>With ProjectGenerator version V1.2.0 the base project 'Project_Basis' was moved from folder \SIMOTION\Projects to folder \ProjectGenerator\Projects.</p>

Number	Description
007	<p>Interface description files for OMAC and Weihenstephan Standard</p> <p>With ProjectGenerator version V1.2.0 the interface description files for OMAC and Weihenstephan Standard have to be put into the corresponding subfolder in folder \ProjectGenerator\MachineInterface.</p>
008	<p>Consistency of an existing project</p> <p>An existing project must be consistent, before it is processed by the ProjectGenerator.</p>
009	<p>Scrollbars in the ProjectGenerator window</p> <p>With changed display settings (texts and other elements are not shown in normal size) the ProjectGenerator window shows scrollbars.</p>
010	<p>Leave event of controls</p> <p>When the command DestroyForm is being executed the leave event of controls might be activated. If there is any eventhandler for this event it is necessary to check if controls still exist before using them.</p> <p>Example:</p> <pre>If Not IsNothing(control) Then // execute code End If</pre>
011	<p>Application.StartupPath</p> <p>In order to access the root directory of the ProjectGenerator, the usage of the property MyApp.StartupPath instead of Application.StartupPath is recommended.</p> <p>The return value of MyApp.StartupPath does not contain the trailing backslash '\'. If needed it has to be added by the user to be able to access subfolders.</p>
012	<p>Display of PGenLogfile.xml</p> <p>Please acknowledge the question for showing blocked contents in internet explorer for a correct display of the log file.</p>
013	<p>Name of devices/stations</p> <p>The name of a new device or station must consist of at least 2 characters. Due to ST and PROFINET naming conventions it is recommended not to use '_' and '-' in device/station names.</p>
014	<p>Error message version of integrated ProjectGenerator and SCOUT are incompatible</p> <p>Start of SCOUT integrated ProjectGenerator (possible as of SCOUT V4.4) causes an error message (Version -1.-1) if SIMOTION SCOUT was started in SIMATIC Manager before.</p> <p>Workaround:</p> <p>SCOUT has to be started directly in Windows and not in SIMATIC Manager to ensure correct operation of ProjectGenerator.</p>
015	<p>Handling of ET200 modules</p> <p>As of ProjectGenerator V1.4.0 ET200 (S, SP, Pro, Eco) head modules and I/O modules can be created (AddPNDevice, AddPNDeviceModule) and parameterized (SetDeviceProperty).</p> <p>Constraint:</p> <p>IRT settings are not available for part number MLFB 6ES7 155-6AR00-0AN0 (ET200SP BA V3.2) and may not be set.</p>

Number	Description
016	<p>Extension of command SetDeviceProperty</p> <p>The following extension for writing parameters is available.</p> <p>ObjectType:-></p> <ul style="list-style-type: none"> - „Parameter“ - „ParameterChannel0“ - „ParameterChannel1“ - „ParameterChannel2“ - „ParameterChannel3“ - „ParameterChannel4“ - „ParameterChannel5“ - „ParameterChannel6“ - „ParameterChannel7“ <p>See example in FAQ module chapter 12: IRT Reference Application</p>
017	<p>IRT settings when creating devices from a GSD(ML) file</p> <p>All devices of a Profinet-IO System are set to mode Sync-Slave when using the command ConfigureProfinetIRT. In some cases GSD(ML) devices have to be configured to Servo mode in addition.</p> <p>To achieve this the property "PN_EQUIDISTANT_CYCLE" of the related interface and all equidistant (sub-) modules has to be set to „1“with the command SetDeviceProperty.</p>
018	<p>Prefix needed when creating devices by part number (MLFB)</p> <p>If the creation of a device by part number (MLFB) using commands CreatePNDevice or CreatePNDeviceModule is not possible, then it should be checked whether a leading prefix is needed at the part number. Another reason could be a wrong device version when creating the device. This can be verified with the help of a corresponding HW-Config export.</p>
019	<p>Usage of multiple rails with SIMOTION C240 or SIMATIC S7</p> <p>ProjectGenerator supports only one rail (rack 0).</p>
020	<p>Using a configuration file to create a project with Converting module</p> <p>It is not possible to create a project with a (predefined) configuration file with the equipment module of branch Converting.</p>

2 SIMOTION

Number	Description
101	<p>Error text files for user-defined messages on the storage medium</p> <p>The ProjectGenerator only transfers the text files in folder "pLMsgHdl" of module Message Handling to the SIMOTION via FTP. The user-defined messages in folder "fLMsgHdlInit" will never be overwritten by the ProjectGenerator. They will be stored on the PC if they are available on the storage medium. If you don't get texts for your user-defined messages and you are using the ST unit to configure them, then you have to delete the folder "fLMsgHdlInit" on the storage medium. You can find it on the storage medium at USER\SIMOTION\USER_DIR\UPP\UNITDS\flmsghdlinit. If you want to overwrite the user-defined messages with the delivered files of the ProjectGenerator, you have to customize the XML file for Message Handling.</p>
102	<p>FTP – issues at using a proxy server</p> <p>If you are using a proxy server, it is possible that the IT DIAG pages are not transferred via FTP due to an error message. Typical error numbers are 407, 502, 504. The used proxy server doesn't support the up-/ download from/to a server. In this case please deactivate the proxy settings of your internet browser temporarily during the usage of the ProjectGenerator.</p>
103	<p>Create own device exports</p> <p>The ProjectGenerator can be extended with own devices. When exporting a device in SIMOTION SCOUT existing connections to Ethernet bus subsystems will not be exported. Therefore the device will not be imported as a connected device.</p> <p>Workaround:</p> <p>Adapt the configuration file in the export folder of the device. Open the "S7Station.cfg" included in the subfolder of the device and insert the following syntax below the desired interface: LINKED_SUBNETNAME "Ethernet(1)"</p> <p>"Ethernet(1)" is the name of the Ethernet bus subsystem to which the CPU shall be connected.</p>
104	<p>Changes in the directory structure of the technology objects compared to V1.0.0</p> <p>There are new directories below "SIMOTION/TechnologyObjects", which correspond to the type of technology objects. For example:</p> <p>Axes = SIMOTION_AXES</p> <p>Cams = SIMOTION_CAMS</p>
105	<p>Combination of SIMOTION and SINAMICS versions</p> <p>When creating older SIMOTION device versions actual SINAMICS device versions can be selected even if this combination is not allowed regarding the compatibility list. However, the ProjectGenerator does not prevent this.</p>
106	<p>Project setting 'use symbolic assignment'</p> <p>In a project generated with the ProjectGenerator (< V1.3) the symbolic assignment is not activated. This can be set afterwards by the user in SIMOTION SCOUT. As of ProjectGenerator V1.3 and SIMOTION SCOUT V4.4 the setting symbolic assignment is activated automatically by the externally executed ProjectGenerator.</p> <p>It is recommended to deactivate the setting symbolic assignment and compile the project before modifying it with the integrated ProjectGenerator.</p>
107	<p>Configuration of SINAMICS Integrated using ProjectGenerator < V1.3</p> <p>A SINAMICS Integrated is always coupled to a SIMOTION CPU. It cannot be generated via an import of a SINAMICS station. Should a preconfigured SINAMICS Integrated be imported into a project, this must take place in a SIMOTION CPU.</p>

Number	Description
108	<p>Version update of Equipment Module OMACV30_LPML (OMAC Mode and State Manager)</p> <p>With a version update of the equipment module OMACV30_LPML (OMAC Mode and State Manager) from version V1.3.1 to a more actual version the software portion in addition programmed by the user is deleted in the source pOmacV30. This is fixed in OMACV30_LPML V1.3.2.</p>
109	<p>Select Technology Packages</p> <p>After the project generation the product version of technology packages must be checked for the SIMOTION CPUs (right click on CPU in the SCOUT project navigator → select technology packages). The actual product version has to be selected manually if a newer hotfix is installed.</p>
110	<p>Update of program units and libraries</p> <p>When using the command 'RestoreDefines' the old compiler settings are restored after the software update. This can lead to a not desired behavior if the new software version needs other settings. In this case the new settings are to be given by means of 'DeleteDefine' and 'SetDefine' in the xml file of the equipment module explicitly.</p>
111	<p>Using commands for creating a SINAMICS device</p> <p>When using commands for creating a SINAMICS device, the Multithreading mode of ProjectGenerator should be disabled. In addition the first line in file \ProjectGenerator\framework.xml must be adapted as follows: <code><CommandList Name="ProjectGenerator" DisableMultiThreading="True"></code></p>
112	<p>Display existing drive objects (DOs) on SINAMICS_INTEGRATED</p> <p>While creating SIMOTION devices that already contain drive objects (DOs) on the SINAMICS_INTEGRATED, these objects are not displayed in the ProjectGenerator user interface. Only by renewed opening of the project with ProjectGenerator these can be selected.</p>
113	<p>Generating SINAMICS devices with PROFINET connection</p> <p>Generated SINAMICS devices with PROFINET connection have to be manually parameterized for synchronous operation in HW Config after project generation.</p>
114	<p>Assignment of axis (TO) and drive (DO)</p> <p>Before a TO of type axis and a SINAMICS DO can be assigned with the command 'SetTODOConnection', a suitable telegram with input and output addresses must be configured for the DO. The command 'SetTODOConnection' is used e.g. in the module AxisFB_LMCBasic.</p>
115	<p>Necessary Technology Package TControl for Equipment Module 'Modules for filling and sealing machines' respectively PackagingLibrary_LPac</p> <p>After the generation of a project with the equipment module PackagingLibrary_LPac the technology package TControl must be selected in the SCOUT for the SIMOTION CPU (right click on CPU in SCOUT project navigator → Select technology packages).</p>
116	<p>Usage of the FAQ module</p> <p>The usage of the FAQ module requires write access on the storage medium. This means that this module cannot be started from a CD or DVD. No compilable project can be generated if the FAQ module is included.</p>
117	<p>Using projects with WinCC flexible components</p> <p>If a project with a WinCC flexible component should be used, the setting "Use and display WinCC flexible component" has to be deactivated in SIMOTION SCOUT. This setting can be found in the menu under: Options → Settings → WinCC flexible.</p>

Number	Description
118	<p>16452 performance warning</p> <p>If the modules Startup Check, LCom, Weihenstephan and SINAMICS DRIVE-CLiQ Topology are used a performance warning will be caused by the units pStartupCheck, pCom, pWeihenstephan ReadDQTopology.</p>
119	<p>Command SetLibraryTP</p> <p>By using the command SetLibraryTP with the setting “automatic” technology packages can be set on SIMOTION devices with the firmware version 4.3. Technology packages of SIMOTION devices with lower firmware versions will not be influenced by this command.</p>
120	<p>SIMOTION AxisFB - Set up Technology Object (TO) to Drive Object (DO) connection</p> <p>Drive objects on the SINAMICS Integrated which are contained within the export of a SIMOTION station will not be shown in the dialog 'Assign TO - DO' of the module AxisFB. If these drive objects should still be used, a project with the corresponding station export has to be generated first and after this the project needs to be reopened with the ProjectGenerator.</p>
121	<p>Necessary settings within HW-Config for CU320-2 PN</p> <p>For CU320-2 PN stations which were created or respectively imported through the ProjectGenerator the setting for the Isochronous Mode of the IO-Device needs to be set to “Servo” afterwards by the user.</p>
122	<p>Necessary settings within HW-Config for CU320-2 DP</p> <p>For CU320-2 DP stations which were created or respectively imported through the ProjectGenerator the setting for the synchronization on the equidistant DP-Cycle needs to be set by the user afterwards to “Servo”. As an alternative as of ProjectGenerator V1.4 this can also be achieved using command ConfigureProfinetIRT.</p>
123	<p>MaxNumberOfModules in modules</p> <p>Within the CommandList of a module the attribute 'MaxNumberOfModules' can be set to a numerical value. If the value is set to 1 the module can only be used once within a controller. For values unequal 1 no check on the number of instances of a module will be executed.</p>
124	<p>Renaming of SINAMICS Integrated</p> <p>The name of the SINAMICS Integrated of SIMOTION D4xx devices cannot be changed by the ProjectGenerator. If there are more SIMOTION D4xx devices in one project the names will be adjusted automatically by SIMOTION SCOUT.</p>
125	<p>SIMOTION AxisFB – Add SINAMICS</p> <p>It is possible to add a CX32 at the DP_INT for SIMOTION devices of type D410 and D410-2; this selection is not allowed.</p> <p>It is possible to select the physically not existing DRIVE-CLiQ Ports 14 (X104) and 15 (X105) for SIMOTION devices of type D425, D435 und D425-2; this selection is not allowed.</p>
126	<p>Command SetSinamicsDeviceSettings</p> <p>It is not possible to add devices of type CU320-2DP with the command SetSinamicsDeviceSettings.</p>

Number	Description
127	<p>SIMOTION IT web pages integrated into SIMOTION IT framework</p> <p>As of SIMOTION V4.4 all web pages included in ProjectGenerator modules are prepared for the usage in the SIMOTION IT framework. The files needed for the IT framework are transferred automatically by ProjectGenerator. For a correct display of the IT framework the setting 'standAlone' in the settings page of the webserver has to be activated.</p> <p>Should the user-defined web pages be displayed as usual (EmbeddedSimple) in the User's Area, the web pages must be copied to folder HMI\FILES and the following changes have to be done in the MBS files.</p> <p>Example where to comment lines in module StartupCheck.mbs for deactivating the IT framework integration:</p> <pre data-bbox="397 594 1437 703"><!--In case of using with "Embedded Simple" mode, please comment below two lines --> <!--<link href="/files/SIMOTIONIT/STYLE/main.css" rel="stylesheet" type="text/css"/> --> <!--<script src="/files/SIMOTIONIT/SCRIPT/main.js" type="text/javascript"></script> --></pre>
128	<p>SIMOTION IT web pages repository</p> <p>As of ProjectGenerator V1.3.0, all user-defined SIMOTION IT web pages will only be stored in folder \PGEN_Data_Files\Card_Files within the project directory. Until now the files were also copied to Windows Temp folder.</p>
129	<p>Add CX32 to a project</p> <p>It is not possible to add any CX32 controller extension to a project when ProjectGenerator is executed integrated in SCOUT (possible as of SCOUT V4.4). ProjectGenerator has to be executed externally to avoid this.</p>
130	<p>SIMOTION AxisFB – Add SINAMICS</p> <p>Drive objects (DO) can be added to a SINAMICS_Integrated in module AxisFB as of ProjectGenerator V1.3.0. It is only possible if the name is SINAMICS_Integrated, i.e. with several SIMOTION devices only the first one will be handled correctly.</p> <p>Different identifiers must be provided for the SINAMICS_Integrated stations in the importable devices alternatively.</p>
131	<p>SIMOTION AxisFB – Available axes in project</p> <p>Technology objects (TO) which are contained within the export of a SIMOTION station will not be shown in the dialog 'Import AxisFB -> Available axes in project' of the module AxisFB. If these technology objects should still be used, a project with the corresponding station export has to be generated first and after this the project needs to be reopened with the ProjectGenerator.</p> <p>Constant NUMBER_OF_AXES_ITDIAG_HMI in source xPTemplAxisFB is affected.</p>
132	<p>SIMOTION SCOUT as of V4.4 – subfolder in project navigator</p> <p>Program sources of module Message Handling that are contained in a subfolder in SCOUT will not be stored in this folder after an update with ProjectGenerator. They can be found at the upper level of the program folder.</p>
133	<p>Add CX32 and CU to a project</p> <p>If CX32(-2) and CU320(-2) shall be added to the same project, CX have to be added first and CUs afterwards.</p>
134	<p>Messages "Deactivate symbolic assignment" and " Activate symbolic assignment "</p> <p>If ProjectGenerator is executed integrated in SCOUT (possible as of SCOUT V4.4), a message appears at the beginning of generation "Deactivate symbolic assignment". To ensure a fault free generation, this message should be acknowledged with "Yes". After project generation the symbolic assignment can be activated in SCOUT message "Activate symbolic assignment".</p>

Number	Description
135	<p>Created SINAMICS topology when using CreatePNTopology</p> <p>SINAMICS CUs are always created in a line topology at PROFINET port 1 of SIMOTION devices. This cannot be changed using command CreatePNTopology.</p>
136	<p>Adjusting the Ti/To mode of the IO controller (Sync-Master)</p> <p>The Ti/To mode (Isochronous Tasks – Details for Servo) of the IO controller (Sync-Master) can be adjusted to the following modes with the corresponding commands.</p> <p>automatic: <Command ID="301" Name="SetDeviceProperty"> <Parameter DeviceName="MySimotion" SlotNumber="2" SubSlotNumber="" Name="IRT_ISOCHROME_MODE_OB61" Value="0" ObjectType=""/></p> <p>fixed factor: <Command ID="301" Name="SetDeviceProperty"> <Parameter DeviceName="MySimotion" SlotNumber="2" SubSlotNumber="" Name="IRT_ISOCHROME_MODE_OB61" Value="1" ObjectType=""/></p> <p>in device: <Command ID="301" Name="SetDeviceProperty"> <Parameter DeviceName="MySimotion" SlotNumber="2" SubSlotNumber="" Name="IRT_ISOCHROME_MODE_OB61" Value="2" ObjectType=""/></p>
137	<p>Adjusting the Ti/To mode of the IO device (Sync-Slave)</p> <p>The Ti/To mode (IO Cycle – Isochronous Mode) of the IO device (Sync-Slave) can be adjusted to the following modes with the corresponding commands.</p> <p>automatic: <Command ID="301" Name="SetDeviceProperty"> <Parameter DeviceName="MyCU320" SlotNumber="0" SubSlotNumber="1" Name="IRT_TI_TO_MODE" Value="0" ObjectType=""/></p> <p>fixed: <Command ID="301" Name="SetDeviceProperty"> <Parameter DeviceName="MyCU320" SlotNumber="0" SubSlotNumber="1" Name="IRT_TI_TO_MODE" Value="1" ObjectType=""/></p>
138	<p>Adjusting the update time mode of the IO device (Sync-Slave)</p> <p>The update time mode (IO Cycle – Update Time) of the IO device (Sync-Slave) can be adjusted to the following modes with the corresponding commands.</p> <p>automatic: <Command ID="301" Name="SetDeviceProperty"> <Parameter DeviceName="MyCU320" SlotNumber="0" SubSlotNumber="1" Name="PN_FIXED_UPDATE_TIME" Value="0" ObjectType=""/></p> <p>fixed factor: <Command ID="301" Name="SetDeviceProperty"> <Parameter DeviceName="MyCU320" SlotNumber="0" SubSlotNumber="1" Name="PN_FIXED_UPDATE_TIME" Value="1" ObjectType=""/></p> <p>fixed update time: <Command ID="301" Name="SetDeviceProperty"> <Parameter DeviceName="MyCU320" SlotNumber="0" SubSlotNumber="1" Name="PN_FIXED_UPDATE_TIME" Value="2" ObjectType=""/></p>
139	<p>Command RenameFOO</p> <p>As of ProjectGenerator V1.4.3 a new optional parameter was added at command RenameFOO (Rename following object of a following axis):</p> <p>OldName (optional): Previous name of FOO. Necessary for clear determination of the corresponding FOO if more than one FOO is present. If this parameter is not set and more than one FOO exists a random FOO will be renamed.</p> <p>The parameter Index should not be used any more.</p>

Number	Description
140	<p>Command SetValue</p> <p>The set value (e.g. the maximum number of axes per SIMOTION device) can be determined at runtime via the prefix <code>__call__</code> and a generic constant (e.g. <code>MAXNUMBER_OF_AXES</code>) at the parameter <i>Value</i>. This may not work correctly if there are several SIMOTION devices in one project.</p> <p>The command <i>SetValue</i> with the functionality described above is used, among other things, in the modules Message Handling and Startup Check.</p> <p>After the integration of e.g. module Message Handling into a project, the values for the public "quantity structure" constants must be modified by the user (e.g. <code>LMSGHDL_NUMBER_OF_AXES</code> in <code>LMsgHdl.cPublic</code>).</p>
141	<p>Module "Ethernet Communication LCom V2"</p> <p>This module must not be used together with the modules Weihenstephan or Machine Data Acquisition, as these modules use LCom V1 internally. This means that if one of these modules is selected, the library LCom V1.x.x is imported into the project.</p>

3 SIMATIC

Number	Description
201	SIMATIC CPUs S7-300 with firmware V3.2 The SIMATIC CPUs available in the ProjectGenerator of the device type S7-300 are based on the firmware version V3.2. Precondition for a successful generation of a project with these CPUs is that these are installed in the hardware catalog of SIMATIC Manager.
202	Creating a SIMATIC project in Silent Mode of the ProjectGenerator If a SIMATIC project is generated in the Silent Mode (no user interface visible), it can happen that message boxes of STEP7 are shown when blocks are renamed or replaced and require a manual user input (e.g., version update in the Silent Mode).
203	SIMATIC Equipment Module OMACV30_LPML (OMAC Mode and State Manager) For using the boolean inputs UnitModeBool and CntrlCmdBool of the function block FBLPMLV30ModeStateManager instead of the inputs UnitMode and CntrlCmd the variable boBoollInterface in the structure sConfig (sLPMLV30ModeStateConfigType) in the instance data block has to be set to TRUE.
204	SIMATIC Equipment Module OMACV30_PackTags In order to generate the module OMACV30_PackTags correctly the mnemonics have to be set to English in SIMATIC Manager (Options → Customize → Language).

Contact

Application center

Siemens AG
Digital Industries
Factory Automation
Production Machines
DI FA PMA APC
Frauenauracher Str. 80
91056 Erlangen, Germany
mailto: tech.team.motioncontrol@siemens.com

Internet links:

www.siemens.com/simotion
www.siemens.com/sinamics
www.siemens.com/motioncontrol/apc