

12/2017

Release notes SINUMERIK Operate programming package, version 4.8 SP2

New features in V4.8 SP2

Development PC: Windows 7 (32-bit) OR Windows 10 (32-bit), Microsoft Visual Studio 2008

- *Qt interfaces* (Qt 4.8)
 - o Display Manager

New Features in V4.8 SP1

Development PC: Windows XP OR Windows 7 (32-bit), Microsoft Visual Studio 2008
(Windows 7 64-bit only for .NET/CPP interfaces)

- *Qt interfaces* (Qt 4.8)
 - o SIGfwVNCViewer
 - o MMC commands

New features in V4.7 SP3

Development PC: Windows XP OR Windows 7 (32-bit), Microsoft Visual Studio 2008
(Windows 7 64-bit only for .NET/CPP interfaces)

- *Qt interfaces* (Qt 4.8)
 - o SideScreen
- *CPP interfaces*
 - o Notification about plugging in/removing drives

New features in V4.7 SP2 HF1

Development PC: Windows XP OR Windows 7 (32-bit), Microsoft Visual Studio 2008
(Windows 7 64-bit only for .NET/CPP interfaces)

- *Qt interfaces* (Qt 4.8)
 - o SIGraphWidget
 - o Multitouch operation with gestures
- *.NET interfaces*
 - o NC/PLC connection status
 - o SINUMERIK Operate status

New features in V4.7 SP1

Development PC: Windows XP OR Windows 7 (32-bit), Microsoft Visual Studio 2008
(Windows 7 64-bit only for .NET/CPP interfaces)

- ***Qt interfaces*** (Qt 4.8)
 - o Tool data depending on the cursor position
 - o Using the Qwt library
 - o Migrating the Qt application to SINUMERIK Operate
 - o Wildcard search for OEMFrame
- ***.NET interfaces***
 - o ToolManagement service
 - o Action log service
- ***CPP interfaces***
 - o Notification about a change in the event list
 - o Notification about a change in an individual event
 - o ToolManagement service
 - o Action log service

New features in V4.7

Development PC: Windows XP OR Windows 7 (32-bit), Microsoft Visual Studio 2008
(Windows 7 64-bit only for .NET/CPP interfaces)

- ***Qt interfaces***
 - o Displaying subwindows in the Machine area
 - o Manipulating headers
- ***.NET interfaces***
 - o Copying/deleting several files with one call
- ***CPP interfaces***
 - o Archive service
 - o TraceDataRecorder service
 - o Infrastructure services

New Features in V4.5 SP3

Development PC: Windows XP OR Windows 7 (32-bit), Microsoft Visual Studio 2008
(Windows 7 64-bit only for .NET/CPP interfaces)

- ***No new features compared to V4.5 SP2***

New Features in V4.5 SP2

Development PC: Windows XP OR Windows 7 (32-bit), Microsoft Visual Studio 2008
(Windows 7 64-bit only for .NET/CPP interfaces)

- **Qt interfaces**
 - o 1:N support for SIQCap and SIQFileSvc
- **.NET interfaces**
 - o Subscription with event list
 - o Subscription with individual events
 - o Creating, acknowledging and canceling alarms
 - o 1:N support for DataSvc and FileSvc
- **CPP interfaces**
 - o Drive machine data service
 - o 1:N support for SIDataSvc and SIFileSvc

New Features in V4.5 SP1

Development PC: Windows XP OR Windows 7 (32-bit), Microsoft Visual Studio 2008
(Windows 7 64-bit only for .NET/CPP interfaces)

- **Qt interfaces**
 - o Grid widget
- **CPP interfaces**
 - o Communication with the NC/PLC
 - o Program Instance Services (PI Services)
 - o Access to alarms and events
 - o Folder and file services

New features in V4.5

Development PC: Windows XP OR Windows 7 (32-bit), Microsoft Visual Studio 2008
(Windows 7 64-bit only for .NET interfaces)

- **Qt interfaces**
 - o Access to energy management (CTRL-Energy)
- **.NET interfaces**
 - o TraceDataRecorder service

New Features in V2.7 SP1

Development PC: Windows XP OR Windows 7 (32-bit), Microsoft Visual Studio 2008
(Windows 7 64-bit only for .NET interfaces)

- **Qt interfaces**
 - o Drive machine data service
- **.NET interfaces**
 - o Drive machine data service

New Features in V2.7

Development PC: Windows XP, Visual Studio 2008

- *Qt interfaces*
 - o Archive service
- *.NET interfaces*
 - o Archive service

New features in V2.6 SP1

Development PC: Windows XP, Visual Studio 2008

- *Qt interfaces*
 - o OEM exit point
- *.NET interfaces*
 - o Communication with the NC/PLC
 - o Program Instance Services (PI Services)
 - o Access to alarms and events
 - o Folder and file services
 - o Infrastructure services

New features in V2.6

Development PC: Windows XP, Visual Studio 2008 OR Visual Studio .NET 2003

- *Qt interfaces*
 - o Action log service
 - o Tool management service
 - o Integrating OEMFrame applications
 - o OEM subdirectories
 - o Versioning OA applications
 - o Integrating an online help for user-specific alarms (HMI, PLC)

New features in V2.5

Development PC: Windows XP, Visual Studio .NET 2003

- *Qt interfaces*
 - o Trace service
 - o Integrating an online help

New features in V2.1

Development PC: Windows XP, Visual Studio .NET 2003

- *Qt interfaces*
 - o GUI framework
 - o Communication with the NC/PLC
 - o Access to alarms and events
 - o Folder and file services

The formulation "SINUMERIK Operate Programming Package" and "SINUMERIK Integrate Create MyHMI / 3GL" designate the same product.

Convert the project from Microsoft Visual Studio 2008 to Microsoft Visual Studio 2015:

Working with Microsoft Visual Studio 2015 on the development computer is possible under the following preconditions:

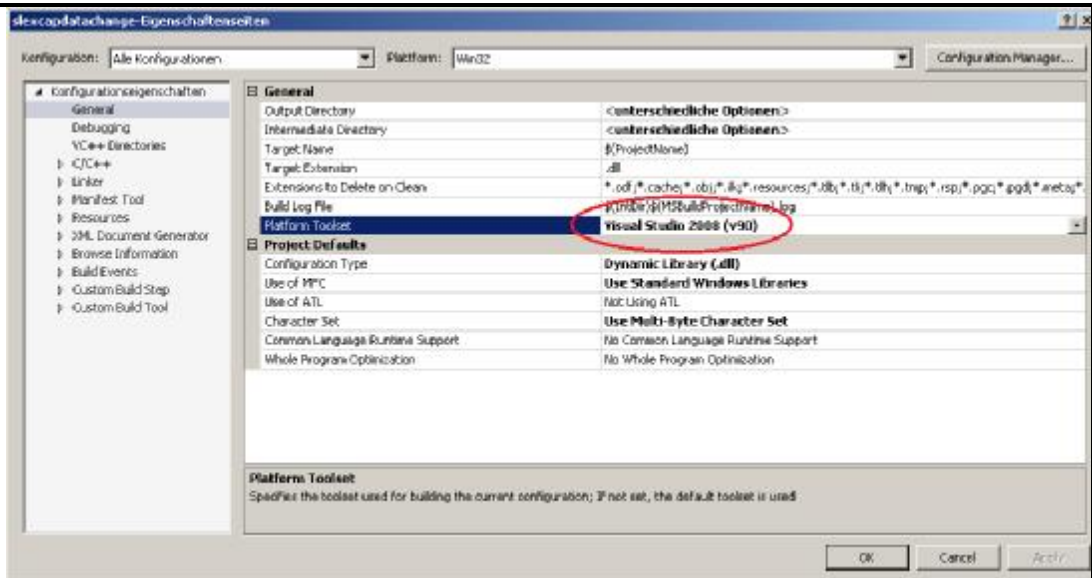
- Installation of Microsoft Visual Studio 2008 OR
- Installation of Microsoft Visual Studio 2008 Express (C++, C#, Basic)
- Microsoft .NET Framework 4.6.1
- Microsoft Windows SDK for Windows 7 (7.1)

The following steps are necessary if the preconditions are satisfied:

- Start the Microsoft Visual Studio 2015 via the entry in the start menu:
*Start → Programs → Siemens Automation → Sinumerik
→ SINUMERIK Integrate Create MyHMI -3GL → Tools → Visual Studio 2015*
- Open the project file to be converted (vcproj)
- Confirm the conversion by Microsoft Visual Studio 2015

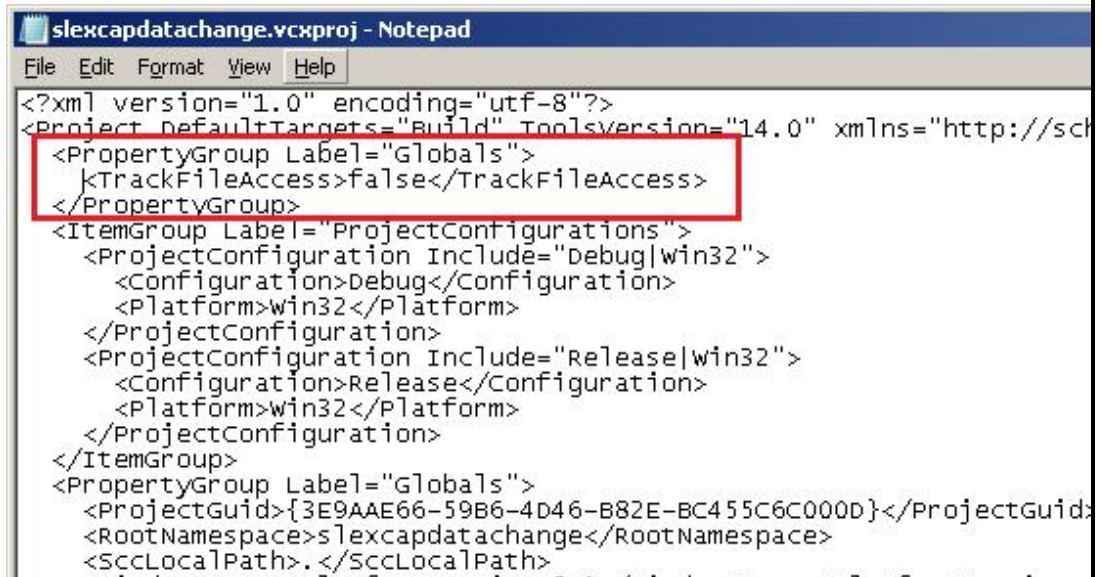


- Set the platform tool set in the project settings to "Visual Studio 2008 (vc90)"



- Close the Microsoft Visual Studio 2015.
- Open the converted project file (vcxproj) using an editor, and add the following entry:

```
<PropertyGroup Label="Globals">
  <TrackFileAccess>false</TrackFileAccess>
</PropertyGroup>
```



You can now compile and debug using Microsoft Visual Studio 2015. The Visual Studio Wizard for creating new projects is not available in Microsoft Visual Studio 2015.

Requirements for using the SINUMERIK Operate .NET interfaces:

1. Check installation

The following packages should be available on the development PC or on the PCU50. They are usually installed automatically with Visual Studio 2008 or SINUMERIK Operate.

“Microsoft .NET Framework 3.5 Service Pack 1”

<http://www.microsoft.com/downloads/details.aspx?familyid=AB99342F-5D1A-413D-8319-81DA479AB0D7&displaylang=de>

“Microsoft Visual C++ 2008 Redistributable Package (x86)”

<http://www.microsoft.com/downloads/thankyou.aspx?familyid=9b2da534-3e03-4391-8a4d-074b9f2bc1bf&displayLang=en>

“.Net Framework SDK”

<http://www.microsoft.com/downloads/details.aspx?displaylang=de&FamilyID=fe6f2099-b7b4-4f47-a244-c96d69c35dec>

2. .NET DLLs registration in the GAC

Registration of the .NET DLLs in the GAC is performed automatically on the development PC and on the PCU50.

If .Net DLLs from older SINUMERIK Operate programming packages (< V4.5 SP1) have been installed using the "gacutil.exe" tool, they must be deregistered manually:

Open a command prompt (cmd.exe) and change to the directory in which the "gacutil.exe" tool is located.

PCU50: "E:\Program Files\Microsoft.NET\SDK\v2.0\Bin\gacutil.exe"

Development PC: "C:\Program Files\Microsoft SDKs\Windows\v6.0A\bin"

Issue the following calls:

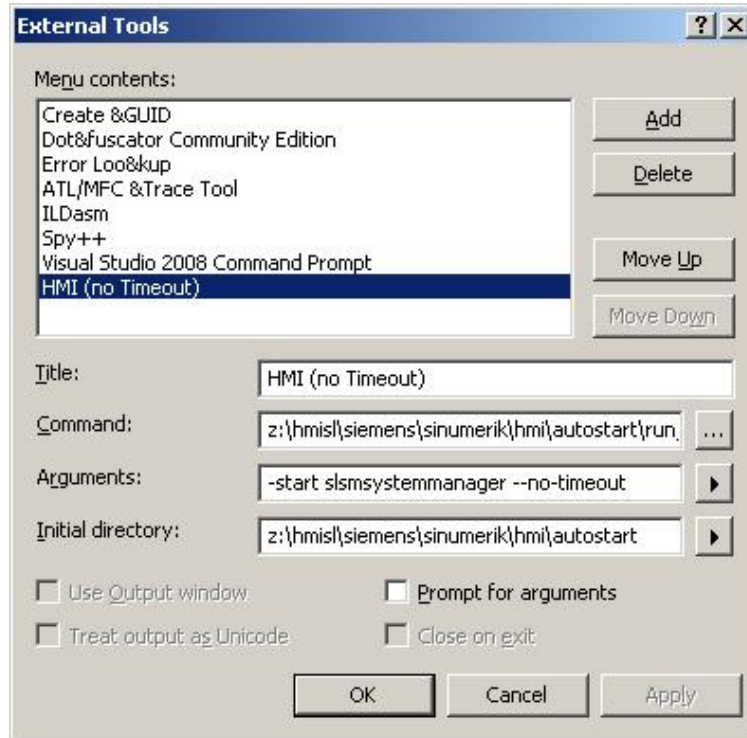
```
gacutil /u Siemens.Sinumerik.Operate.Services
```

```
gacutil /u Siemens.Sinumerik.Operate.Services.Wrapper
```

```
gacutil /u policy.X.X.Siemens.Sinumerik.Operate.Services
```

Set up "HMI (no timeout)" external tool for VS2008:

In order to be able to start SINUMERIK Operate directly from the Visual Studio 2008, make the following entry under the "Tools/External Tools..." menu:



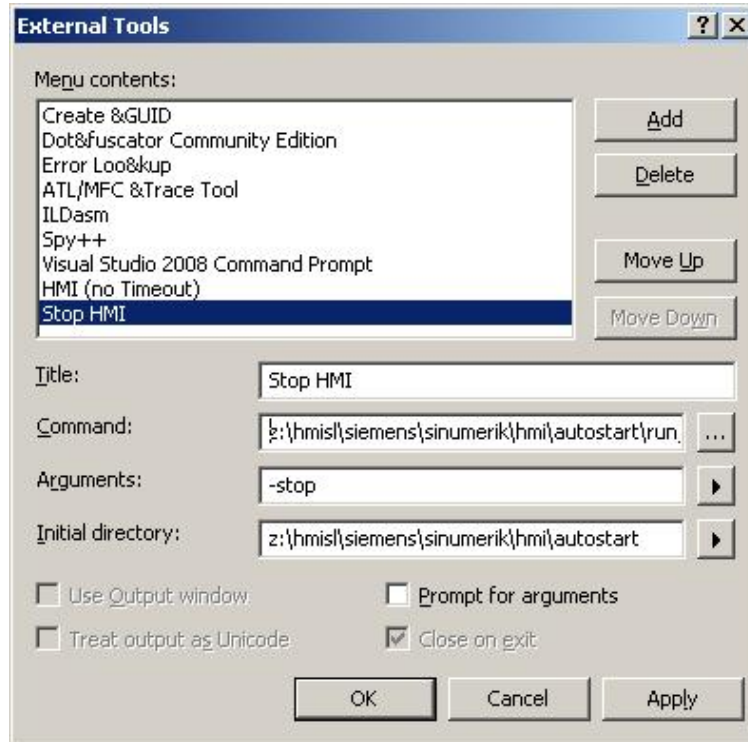
Title	è HMI (no timeout)
Command	è z:\hmis\siemens\sinnerik\hmi\autostart\run_hmi.exe
Arguments	è -start slmsystemmanager --no-timeout
Outgoing directory	è z:\hmis\siemens\sinnerik\hmi\autostart

("z:" is the substitution drive of the SINUMERIK Operate programming package)

There is now a new menu option "HMI (no timeout)" in the "Tools" menu from which SINUMERIK Operate can be started on a PC/laptop.

Set up "Stop HMI" external tool for VS2008:

In order to be able to start SINUMERIK Operate directly from the Visual Studio 2008, make the following entry under the "Tools/External Tools..." menu:



Title è Stop HMI
 Command è z:\hmis\siemens\sinnerik\hmi\autostart\run_hmi.exe
 Arguments è -stop
 Outgoing directory è z:\hmis\siemens\sinnerik\hmi\autostart
 ("z:" is the substitution drive of the SINUMERIK Operate programming package)

There is now a new menu option "Stop HMI" in the "Tools" menu from which SINUMERIK Operate can be started on a PC/laptop.

Conversion of projects created with SINUMERIK Operate programming package V2.6 SP1:

Instead of "[SUBST:]\\debug" and "[SUBST:]\\release", there is now just one "[SUBST:]\\hmis" directory with the SINUMERIK Operate programming package V4.5 SP1 and higher. To permit projects that were created with the SINUMERIK Operate programming package V2.6 SP1 also to be compiled, various project properties (Custom Build Steps) must be adapted accordingly. The following tool can be used for this purpose:

*Start è Programs è Siemens Automation è Sinnerik
 è SINUMERIK Integrate Create MyHMI -3GL è Tools è sHmiConverterGui*

The conversion adapts only unchanged project settings (from examples or the SINUMERIK Operate wizard). Any manipulated entries must be edited manually afterwards. The conversion creates an additional project file (default:[Name]CONVERTED.vcproj). The original project file remains unchanged during the conversion.

Generation for the Linux-Embedded target system:

Instead of the previously used "coLinux" tool, only an Oracle Virtual Box (V5.2.2) with a Linux distribution Fedora 24 is used. This means that the SINUMERIK Operate programming package can now also be used in a 64 bit windows 7 or Windows 10 environment.

Longer generation times (test PC, example è 3-5min) can be expected when compared to "coLinux".

Installation of an older SINUMERIK Operate programming package:

If an older SINUMERIK Operate programming package is installed after the installation of the current V4.8 SP1, you must then reinstall the V4.8 SP1 as an update so that the "VersionSwitch" tool and the "Visual Studio " wizard function properly.

.NET – interface – DataSvc:

- a) Only the default machine name is mapped if, for a 1:N constellation, a DataSvc object is created without specifying a server. As a consequence, it is not possible to access the GUDs/machine data of other machine names. This can be resolved by creating a dummy DataSvc object for all of the available machine names in the project:

```
DataSvc m_MyWorkingObject = new DataSvc();  
DataSvc m_DummyNCU1 = new DataSvc("NCU840D_1");  
DataSvc m_DummyNCU2 = new DataSvc("NCU840D_2");
```

GUIFramework:

- a) A dialog name must not include any keywords (e.g. "preload") from the systemconfiguration.ini file.
- b) When creating a help file (HTML file), any anchor used must not be used in the middle of the text paragraph. It must always be located directly at the beginning:
WRONG: <p>...text text anchor text text text</p>
RIGHT: <p>...text text text</p>“,
- c) The previous plug-in mechanism macros **SL_GFW_BEGIN_PLUGIN_EXPORT / SL_GFW_END_PLUGIN_EXPORT** are replaced by **SL_GFW_BEGIN_PLUGIN_EXPORT_MODULE / SL_GFW_END_PLUGIN_EXPORT_MODULE**. In addition, the library name can be transferred there as parameter. It is recommended that all the projects are converted over to the new macro.

Visual Studio Wizard:

- a) The created projects must not contain the "dialog" string.
- b) Uppercase letters must not be used in the "configuration file" and "screen layout file" parameters.

USB notification:

- a) The USB notification only functions if the symbolic names assigned when setting up the drive are used.

SITrc:

- a) When using the SITrc::QString2cz() function, on LinuxEmbedded the following trace output can occur:

ERROR: Use of QString2cz() without provided buffer not allowed outside of trace macros because of heap corruption!

An initial check should be made as to whether the function SITrc::QString2cz() can actually only be used in SITrc trace parameters. If this is the case, then the trace output can be ignored, as this can also be initiated if the software release of the SINUMERIK Operate programming package is not identical to that of the target system (e.g. service pack or another build version on the target system).

- b) The Qt functions qInstallMsgHandler() and qInstallMessageHandler() should not be used as the SITrc uses them and only one Message Handler can be defined throughout the whole application.