Overview

SIMATIC Basic Panel, Touch Panels (TP), Operator Panels (OP), Mobile Panel, Multifunctional Platforms (MP)[1] and the SIMATIC HMI software package for PC WinCC flexible Runtime support HMI functionality in conjunction with:

- SIMATIC S7
- SIMATIC S5
- SIMATIC 505
- SIMOTION
- SINUMERIK [2]
- Non-Siemens controllers:
  - Allen Bradley - DF1, DH485 and Ethernet IP protocols
  - GE Fanuc - SNP/SNPX protocol
  - LG GLOFA GM - dedicated protocol
  - Mitsubishi - FX and MP 4 protocols
  - Modicon - Modbus RTU and TCP/IP protocols
  - Omron I - Link/MultiLink protocol
  - Telemecanique - UNI-TELWAY protocol

For more detailed information, refer to the WinCC flexible user manual, the "Windows-based systems communication" manual, and the WinCC flexible online help.

1) For the sake of simplicity, SIMATIC TP/OP/MP is always used in the text below. This is not restrictive, as the information is valid for all systems referred to above. If there are constraints, direct reference is made to them in the text.

2) Required under WinCC flexible: "SINUMERIK HMI copy license WinCC flexible CE" and "SINUMERIK HMI copy license OA". For configuring, a "SINUMERIK HMI engineering package WinCC flexible" is also necessary.

Note

Interface options for HMI devices: See the individual device descriptions.

Extended functionality with WinCC flexible

WinCC flexible supports OPC communication for Multi Panel and WinCC flexible Runtime and HTTP communication for all panels with integrated Ethernet interface. Both OPC and HTTP communication can be used in parallel with the process links to SIMATIC S7/S5/505 or non-Siemens PLCs.

OPC Data Access
(MP 277, MP 377, WinCC flexible Runtime only)

OPC Data Access is an open standard for exchanging both local and remote variables between various applications via Industrial Ethernet. The original version of OPC is based on Microsoft COM/DCOM and, therefore, requires a Microsoft Windows-based PC operating system (not Windows CE) on both clients and servers. As OPC XML, communication is based on the Internet standard SOAP/XML and is, therefore, suitable for embedded systems with Windows CE.
Options that are required: WinCC flexible/OPC server

HTTP communication for the variable exchange between SIMATIC HMI systems
(only TP 177B DP/PN, OP 177B DP/PN, Mobile Panel 177 PN, TP 277, OP 277, Mobile Panel 277, Mobile Panel 277 IWLAN, MP 277, MP 377, WinCC flexible Runtime)

Communication based on HTTP message frames enables variables to be exchanged between SIMATIC HMI systems.
Options that are required: WinCC flexible/Sm@rt Access

Communication standard	SIMATIC HMI				
Version	**TP 177B DP/PN** **OP 177B DP/PN** **Mobile Panel 177 PN** **MP 177**	**TP 277** **OP 277**	**Mobile Panel 277** [6] **Mobile Panel 277 IWLAN** **MP 277** **MP 377**	**WinCC flexible Runtime**	**Connection via**
OPC Data Access V2.05a + OPC Data Access XML V1.00					
OPC client (COM/DCOM)	–	–	–	•	**Industrial Ethernet** (see Catalog IK PI)
OPC server (COM/DCOM)	–	–	–	•[1]	**Industrial Ethernet** (see Catalog IK PI)
OPC XML client (SOAP/XML)	–	–	–	•[2]	**Industrial Ethernet** (see Catalog IK PI)
OPC XML server (SOAP/XML)	–	–	•[3]	–	**Industrial Ethernet** (see Catalog IK PI)
HTTP communication for variable exchange between SIMATIC HMI systems					
HTTP client	•[4]	•[4]	•[4]	•[5]	**Industrial Ethernet** (see Catalog IK PI)
HTTP server	•[4]	•[4]	•[4]	•[5]	**Industrial Ethernet** (see Catalog IK PI)

• System interface possible
– System interface not possible

1) Option WinCC flexible/OPC Server for WinCC flexible Runtime required
2) Only with DCOM/XML gateway included in the scope of delivery of WinCC flexible for access to MP 277, MP 377 and MP 370 OPC XML servers
3) Option WinCC flexible/OPC Server for SIMATIC Multi Panel required
4) Option WinCC flexible/Sm@rtAccess for SIMATIC Panel required
5) Option WinCC flexible/Sm@rtAccess for WinCC flexible Runtime required
6) Depending on the terminal box used