SIEMENS

SIMATIC HMI

WinCC flexible 2008 SP4
Smart Panels

System Manual

06/2012

Legal information

Warning notice system

This manual contains notices you have to observe in order to ensure your personal safety, as well as to prevent damage to property. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring only to property damage have no safety alert symbol. These notices shown below are graded according to the degree of danger.

> ⚠ **DANGER**
>
> indicates that death or severe personal injury **will** result if proper precautions are not taken.

> ⚠ **WARNING**
>
> indicates that death or severe personal injury **may** result if proper precautions are not taken.

> ⚠ **CAUTION**
>
> with a safety alert symbol, indicates that minor personal injury can result if proper precautions are not taken.

> **CAUTION**
>
> without a safety alert symbol, indicates that property damage can result if proper precautions are not taken.

> **NOTICE**
>
> indicates that an unintended result or situation can occur if the relevant information is not taken into account.

If more than one degree of danger is present, the warning notice representing the highest degree of danger will be used. A notice warning of injury to persons with a safety alert symbol may also include a warning relating to property damage.

Qualified Personnel

The product/system described in this documentation may be operated only by **personnel qualified** for the specific task in accordance with the relevant documentation, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.

Proper use of Siemens products

Note the following:

> ⚠ **WARNING**
>
> Siemens products may only be used for the applications described in the catalog and in the relevant technical documentation. If products and components from other manufacturers are used, these must be recommended or approved by Siemens. Proper transport, storage, installation, assembly, commissioning, operation and maintenance are required to ensure that the products operate safely and without any problems. The permissible ambient conditions must be complied with. The information in the relevant documentation must be observed.

Trademarks

All names identified by ® are registered trademarks of Siemens AG. The remaining trademarks in this publication may be trademarks whose use by third parties for their own purposes could violate the rights of the owner.

Disclaimer of Liability

We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

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1.1 Security note

Security information

Siemens offers IT security mechanisms for its portfolio of automation and drive products in order to support secure operation of the plant/machine. Our products are also continuously developed further with regard to IT security. We therefore recommend that you keep yourself informed about updates and upgrades for our products and always use the latest version of each product. For information on this topic, refer to: http://support.automation.siemens.com (http://www.siemens.de/automation/csi_en_WW) You can register for a product-specific newsletter here.

For the safe operation of a plant/machine, however, it is also necessary to integrate the automation components into an overall IT security concept for the entire plant/machine which corresponds to the state-of-the-art IT technology. You can find information on this under:

http://www.siemens.com/industrialsecurity. (http://www.siemens.com/industrialsecurity)

Products used from other manufacturers should also be taken into account here.

1.2   General Notes

Contents

General information on WinCC flexible that could not be included in the manual or Online Help.

"Date/time" area pointer

Note that when you enter the year, values 90-99 result in years 1990 through 1999 and the values 0-89 result in the years 2000 through 2089.

Copying HMI devices with system functions

If you copy, delete and reinsert an HMI device that contains system functions, it is possible that the system functions are no longer available.

Support for new HMI devices

Two new HMI devices are available to you in WinCC flexible 2008 SP4:

1. Smart 700 IE
2. Smart 1000 IE

Color depth

The Smart 700 IE and Smart 1000 IE HMI devices have a color depth of 16 bits. This means that objects can be displayed with a higher quality in the graphic view.

Dynamic control of the operability of objects.

The "Operability" animation is available to you for the following objects:

-   User view
-   Date/time field
-   I/O field
-   Graphic I/O field
-   Alarm view
-   Switch
-   Button

- Symbolic I/O field

- Recipe view
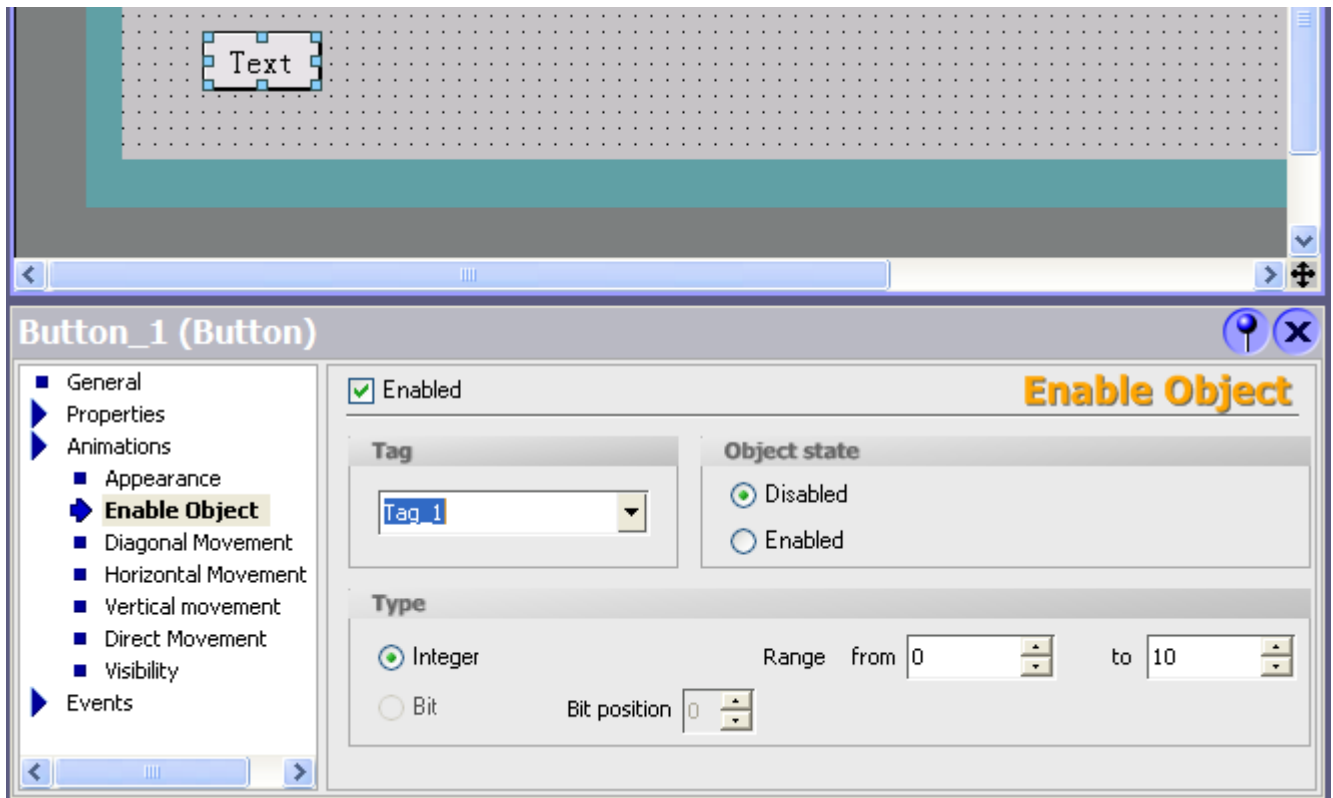
Example at "Button" object:

Depending on the value of a tag, the user may or may not be able to operate the button in Runtime. You use this dynamic control so that the user can operate the button only in certain situations, for example, during maintenance work.
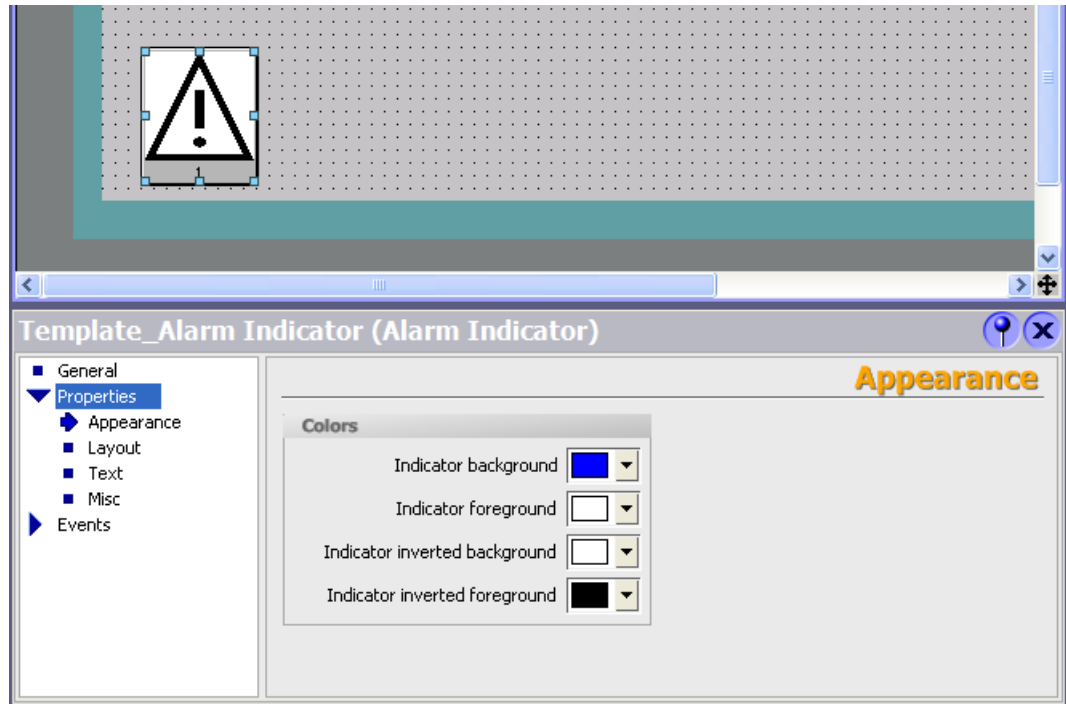
HMI devices concerned:

1. Smart 700 IE

2. Smart 1000 IE

Alarm indicator with advanced properties

The alarm indicator offers two new properties:

1. Size
   The size of the alarm indicator is freely scalable. You change the size in the screen or in the properties window under "Layout" in the "Properties" group.

2. Color
   Select the different color settings under "Appearance" in the "Properties" group of the properties window.

HMI devices concerned:

1. Smart 700 IE

2. Smart 1000 IE

Ethernet communication

The "Ethernet" transfer mode has been added to the transfer dialog.

HMI devices concerned:

1. Smart 700 IE

2. Smart 1000 IE

Communication with SIMATIC S7-200 Smart and SIMATIC S7-200

WinCC flexible 2008 SP4 supports both communication drivers. The transfer takes place serially via Ethernet.

Communication with Modicon Modbus

A new PLC is available for the Modicon Modbus communication driver.

Select the "Modicon Modbus" communication driver in the working area of the "Connections" editor. Select the CPU type "Delta" on the "Parameters" tab.

HMI devices concerned:

1. Smart 700 IE
2. Smart 1000 IE

Communication with LOGO! (0BA7)

WinCC flexible 2008 SP4 supports the LOGO! communication driver. The transfer takes place via Ethernet.

HMI devices concerned:

1. Smart 700 IE
2. Smart 1000 IE

Extended address area for OMRON communication driver

The address area for the "DM" user data type has been extended. The address range is between "0" and "32767".

HMI devices concerned:

1. Smart 700 IE
2. Smart 1000 IE

Address area for 3rd party controllers

Check the address area that is valid or usable for communication with 3rd party HMI Panel and controllers.

Validity of documents in the online help

The documents specified in the WinCC flexible SP2 or SP3 online help are also valid for WinCC flexible SP4 without limitation.

Performance features

<div style="text-align: right; font-size: 3em;">2</div>

2.1 Smart Panels

Introduction

The following table provides assistance in estimating whether a specific project is still within the performance features of the HMI device.

The stated maximum values are not additive. We cannot guarantee proper functioning of configurations that make full use of all system limits on the HMI devices.

In addition to the specified limits, the transfer time of process values must be observed during serial communication. A low baud rate may have the result that process values are not updated.

Smart Panels

	Smart 700 Smart 1000	Smart 700 IE Smart 1000 IE
Variables		
Number of variables in the project	500	800
Number of PowerTags	--	--
Number of elements per array	100	100
Number of local variables	--	--
Alarms		
Number of alarm classes	32	32
Number of discrete alarms	200	200
Number of analog alarms	15	15
Character length of an alarm	80	80
Number of process values per alarm	8	8
Size of the alarm buffer	256	256
Number of queued alarm events	64	64
Images		
Number of screens	50	100
Number of variables per screen	30	100
Number of complex objects per screen	5	5
Recipes		
Number of recipes	5	5
Number of elements per recipe	20	20
User data length in bytes per data record	--	--

	Smart 700 Smart 1000	Smart 700 IE Smart 1000 IE
Number of data records per recipe	20	20
Number of recipe elements in the project	--	--
Reserved memory for data records in the internal Flash	40 KB	40 KB
Logs		
Number of logs	--	--
Trends		
Number of trends	25	25
Text lists and graphics lists		
Number of graphic lists	100	100
Number of text lists	150	150
Total number of lists	150	150
Number of entries per text or graphic list	30	30
Number of graphic objects	500	500
Number of text elements	500	500
Scripts		
Number of scripts	--	--
Communication		
Number of serial connections	4	4 *)
Number of Ethernet connections	--	3
Number of connections based on the "SIMATIC HMI http Protocol"	--	--
Help system		
Number of characters in a help text	320	320
Languages		
Number of runtime languages	5	5
Scheduler		
Tasks	--	--
User administration		
User groups	50	50
Permissions	32	32
Passwords	50	50
Project		
Size of the project file "*.srt"	1024 KB	2048 KB

*) For the following communication types, only a serial connection is possible: Mitsubishi FX, S7 200 Smart, S7 200 and Modbus RTU (CPU type: "Delta CPU").

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