

Legal information

Use of application examples

Application examples illustrate the solution of automation tasks through an interaction of several components in the form of text, graphics and/or software modules. The application examples are a free service by Siemens AG and/or a subsidiary of Siemens AG ("Siemens"). They are non-binding and make no claim to completeness or functionality regarding configuration and equipment. The application examples merely offer help with typical tasks; they do not constitute customer-specific solutions. You yourself are responsible for the proper and safe operation of the products in accordance with applicable regulations and must also check the function of the respective application example and customize it for your system.

Siemens grants you the non-exclusive, non-sublicensable and non-transferable right to have the application examples used by technically trained personnel. Any change to the application examples is your responsibility. Sharing the application examples with third parties or copying the application examples or excerpts thereof is permitted only in combination with your own products. The application examples are not required to undergo the customary tests and quality inspections of a chargeable product; they may have functional and performance defects as well as errors. It is your responsibility to use them in such a manner that any malfunctions that may occur do not result in property damage or injury to persons.

Disclaimer of liability

Siemens shall not assume any liability, for any legal reason whatsoever, including, without limitation, liability for the usability, availability, completeness and freedom from defects of the application examples as well as for related information, configuration and performance data and any damage caused thereby. This shall not apply in cases of mandatory liability, for example under the German Product Liability Act, or in cases of intent, gross negligence, or culpable loss of life, bodily injury or damage to health, non-compliance with a guarantee, fraudulent non-disclosure of a defect, or culpable breach of material contractual obligations. Claims for damages arising from a breach of material contractual obligations shall however be limited to the foreseeable damage typical of the type of agreement, unless liability arises from intent or gross negligence or is based on loss of life, bodily injury or damage to health. The foregoing provisions do not imply any change in the burden of proof to your detriment. You shall indemnify Siemens against existing or future claims of third parties in this connection except where Siemens is mandatorily liable.

By using the application examples you acknowledge that Siemens cannot be held liable for any damage beyond the liability provisions described.

Other information

Siemens reserves the right to make changes to the application examples at any time without notice. In case of discrepancies between the suggestions in the application examples and other Siemens publications such as catalogs, the content of the other documentation shall have precedence.

The Siemens terms of use (https://support.industry.siemens.com) shall also apply.

Security information

Siemens provides products and solutions with industrial security functions that support the secure operation of plants, systems, machines and networks.

In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial security concept. Siemens' products and solutions constitute one element of such a concept.

Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the Internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place.

For additional information on industrial security measures that may be implemented, please visit https://www.siemens.com/industrialsecurity.

Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats.

To stay informed about product updates, subscribe to the Siemens Industrial Security RSS Feed at: https://www.siemens.com/industrialsecurity.

Table of contents

informa	tion	2
Introduc	etion	4
1.1 1.2 1.3 1.4	Printer compatibilities	4 7
PDF, HT	ML printing and Postscript universal driver	8
Commis	sioning the laser printer	13
3.1 3.2		
Commis	sioning of a released thermal printer	15
4.1 4.1.1 4.1.2	Configuration of HMI operator panel	15
Tips and	d tricks	18
5.1 5.2 5.3	Links and Literature	20
	1.1 1.2 1.3 1.4 PDF, HT Commis 3.1 3.2 Commis 4.1 4.1.1 4.1.2 Tips and 5.1 5.2	1.2 Printer compatibilities 1.3 Released printers 1.4 Validity: PDF, HTML printing and Postscript universal driver Commissioning the laser printer 3.1 Printer configuration 3.2 Configuration of HMI operator panel Commissioning of a released thermal printer 4.1 Printer configuration 4.1.1 Configuration of HMI operator panel 4.1.2 Report Logging / printing Tips and tricks 5.1 Service and Support 5.2 Links and Literature

1 Introduction

1.1 Overview

An HMI operator panel makes it possible to output a shift log or alarm message log as well as the screen content of the HMI operator panel via a printer or to save it in a PDF file.

This configuration guide shows you how to download, install and parameterize the printer drivers for the printers released for SIMATIC HMI operator panels.

1.2 Printer compatibilities

You can find all the compatibility statements for the printers in the Siemens compatibility tool.

The compatibility tool offers the following options among others:

- 1. Compatibility statement of selected printer operator panel pair
- Compatibility list for an operator panel
 The compatibility tool generates an Excel file with compatible hardware and software products.

Procedure for compatibility statement:

 Open the compatibility tool with the following link: www.siemens.com/kompatool

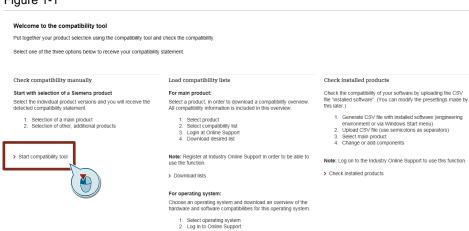
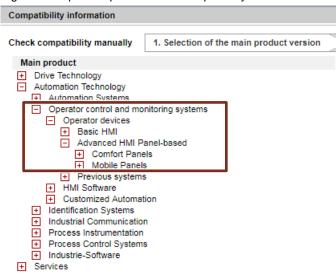


Figure 1-1

- 2. Click on "Start compatibility tool".
- 3. Select the operator panel as the main product.
- 4. To do this, click in the product tree on "Automation technology > Operation and observation systems > Operator panels" and select your operator panel.

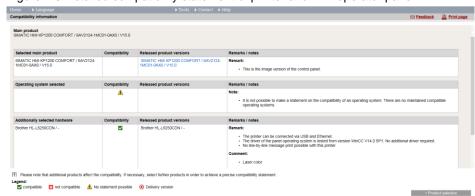
Figure 1-2 Operator panels in the compatibility tool



- 5. Click on the "Continue to the next step" button.
- 6. Select your printer under "Other products > Printers".
- 7. Click on the "Show compatibility" button:

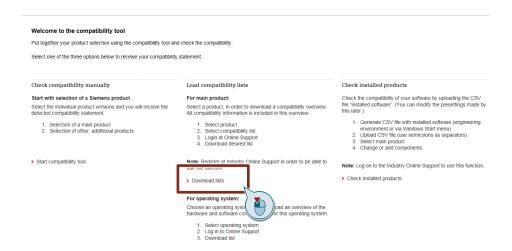
You will receive a detailed statement on compatibility as well as configuration instructions for the printers.

Figure 1-3 Detailed compatibility statement of printer and HMI operator panel



Procedure for compatibility list

1. Open the compatibility tool with the following link: www.siemens.com/kompatool



- 2. Click on "Download Lists".
- 3. Now select an operator panel under "Hardware" (1), e.g. SIMATIC HMI TP1200 Comfort.

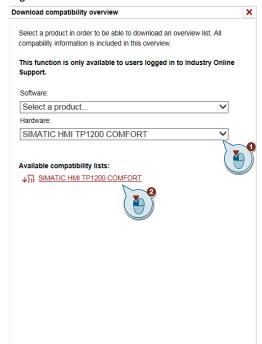


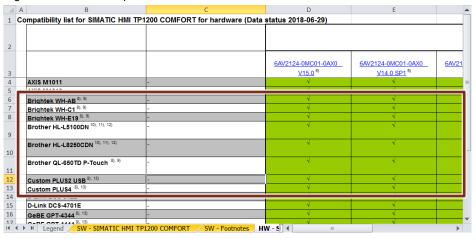
Figure 1-4

 To download the compatibility list, click on the download link under "Available compatibility lists".

Close

- 5. In the Excel file, you have all the compatibilities at a glance:
 - Software compatibilities
 - Hardware compatibilities
 - Operating system compatibilities

Figure 1-5 Printer compatibilities



1.3 Released printers

This document contains configuration notes and installation instructions for the shared printers.

Table 1-1 Overview or printers

Manufacturer	Туре	Instructions
Universal	Printout as a PDF file	Chapter 2
	Printout as a HTML file	
	Printers that support PostScript	
Brother (example)	Laser printer (color and b/w)	Chapter 3
Brother or Brightek (example)	Label printer (thermo b/w)	Chapter 4.1

1.4 Validity:

The following descriptions apply from printer driver V1.4.

The configuration instructions are designed for the engineering software starting from WinCC Comfort / Advanced V14.

2 PDF, HTML printing and Postscript universal driver

If you want to set up a PDF, HTML printing or a PostScript-compatible printer, you must transfer the corresponding printer driver to the HMI operator panel via SIMATIC ProSave.

Requirement

SIMATIC ProSave is installed on your PC.

Check whether the following path is available in the start menu on your PC: ("Start> Siemens Automation> Options and Tools> HMI Tools> SIMATIC ProSave").

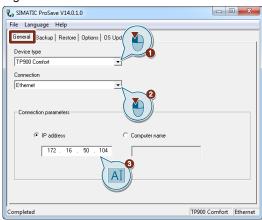
If you have not already installed ProSave, then install it. The installation file can be found on the WinCC installation DVD under the following path: "InstData> Prosave> Media> setup.exe".

Transfer printer driver

To transfer the printer drivers via ProSave to the HMI operator panel, proceed as follows:

- Start ProSave on your PC. ("Start> Siemens Automation> Options and Tools> HMI Tools> SIMATIC ProSave")
- 2. In the "General" tab, select the corresponding operator panel type and the connection type between the operator panel and the PC.

Figure 2-1



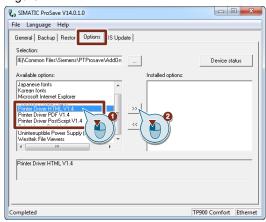
- 3. Select the "Options" tab.
- 4. Set "Transfer" mode on the operator panel.

If automatic transfer mode is enabled on the operator panel, the operator panel automatically sets "Transfer" mode when a transfer is initiated.

- 5. Select the desired printer driver under "Available options".
 - Printer driver HTML V1.x
 - Printer driver PDF V1.x
 - Printer driver PostScript V1.x

6. Start the transfer on the PC with the ">>" button.

Figure 2-2



During the installation of the printer driver, a status display appears indicating the progress of the operation.

As soon as the printer driver appears under "Installed Options", the installation of the printer driver is finished. You can stop SIMATIC ProSave on your PC.

Note

The expression of fault messages occurs line by line. If the page with fault messages is full, another page is automatically added to the PDF or HTML document.

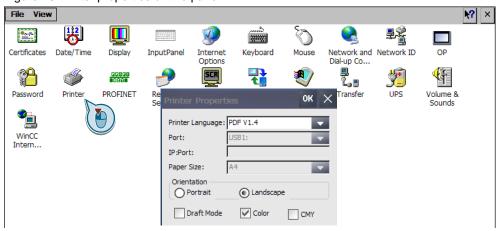
Configuration of HMI operator panel

You can edit the print properties in the "Control Panel" of the HMI operator panel. You can connect a PostScript-compatible printer as a network printer via USB or via a print server. Depending on the printer driver selected, set the following values:

Table 2-1 Print properties of printer on the HMI operator panel

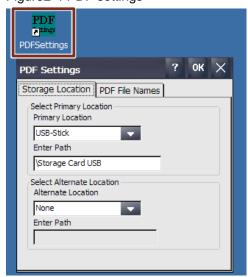
Property	PDF printing	HTML printing	Postscript
Printer Language	"PDF V1.x"	"HTML V1.x"	"Postscript V1.x"
Port			"Network", "Printserver" or "USB1:"
Network:			Enter the IP address of the network printer or the print server. Add the port ": 9100", e.g. "192.168.0.100:9100"
Paper Size			e. G." A4 "
Orientation	Choose "Portrait" or "Landscape"		
Draft Mode	This can speed up the printout.		
Color	Specify here whether the printout should be in color.		
СМҮ	When using the "Color" option, the option "CMY" can be selected. This option reduces the color space.		

Figure 2-3 Printer properties on the panel



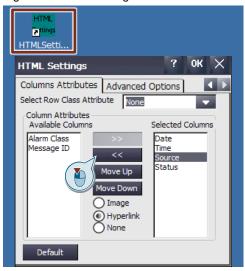
With the installation of the HTML and PDF drivers, the icons "PDFSettings" or "HTMLSettings" are stored on the start screen of the HMI operator panel. You can use these settings, for example, to specify the locations and file names of the files created:

Figure 2-4 PDF settings



With the HTML settings, you also have the option of adjusting the columns of the fault message list.

Figure2-5 HTML settings



Editing the HTML table arrangement

To edit the table layout, click the "Configure / Default" button so that it displays "Default".

- 1. In the "Selected Columns" field, mark a cell header.
- 2. Use the "<<" button to remove the selected cell header from the list.
- 3. Repeat the last two steps for all "cell headers" that you do not need.
- 4. Use the "MoveUp" and "MoveDown" buttons to change the order of the columns.

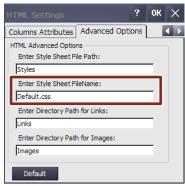
Note

The fault message text is always automatically added as the last entry in the table.

Changing the HTML table style

With the default settings under "Advanced Options", you get a standard table without formatting.

Figure 2-6



You can insert your own table styles by attaching your own style sheet file (*.css file). The "Default.css" file can be found in the filing folder of the HTML file in the subfolder "**Styles**".

3 Commissioning the laser printer

Note

Detailed features and printer hints can be found in the compatibility tool at www.siemens.com/kompatool.

Additional information about the compatibility tool can be found in the chapter 1.2.

The following properties apply for laser printers:

Table 3-1 Currently released printers

Property	Laser printer
Printer type	Black/white or color printer, see printer specifications
Comfort Panels	USB Ethernet
Comfort Outdoor Panels	USB Ethernet
Printer language	PCL 6
Device drivers	No additional driver necessary.

Note

For current printer specifications, contact the printer manufacturer.

You can improve the print quality of graphics by using the "Postscript" printer driver instead of the default printer driver. Postscript is advantageous for printouts with a high percentage of graphics.

The setup of the Postscript printer driver is shown in chapter 2.

3.1 Printer configuration

On the printer, select if you want to connect the printer via USB or network.

3.2 Configuration of HMI operator panel

You do not need to install any drivers on the HMI operator panel. The printers work with the standard printer driver of the HMI operator panel. Just put the printer driver on your printer.

Proceed as follows:

- 1. Open the "Control Panel" on the HMI operator panel.
- 2. Double-click the "Printer" button.

3. Enter the following values in the "Printer Properties":

Table 3-2 Print properties of the HMI operator panel

Property	Input
Printer Language	"PCL Laser".
Port	Select "USB1:" if you connect the printer directly to the HMI panel or "PrintServer:" if you want to connect the printer via a network.
IP: Port:	Enter the network address of the printer when adding the printer via a network. Add the port "9100" after the IP address: For example: "192.168.0.3:9100"
Paper Size	Select a paper size, such as DIN A4.
Orientation	Choose "Portrait" or "Landscape"
Draft Mode	This can speed up the printout.
Color	Specify here whether the printout should be in color.
CMY	When using the "Color" option, the option "CMY" can be selected. This option reduces the color space.

Figure 3-1: Configuration: Laser printer via USB

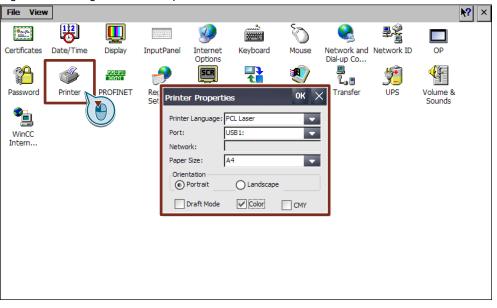
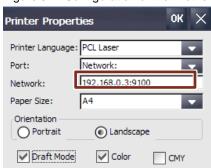


Figure 3-2: Configuration of the Brother laser printer via network



4 Commissioning of a released thermal printer

4.1 Printer configuration

No specific settings need to be made on the printer.

Note

You can find out which thermal printers are released for your operator panel in the compatibility tool:

www.siemens.com/kompatool

Note

Contact the printer manufacturer directly for compatibility statements, e.g. for the manufacturers "GEBE", "Star" and "Costum".

4.1.1 Configuration of HMI operator panel

For the following printers, you must install the "option package printer driver V1.x" on the PC and then transfer the printer drivers via SIMATIC ProSave to the HMI operator panel:

Note

Detailed instructions on how to load the printer drivers via ProSave to an HMI operator panel can be found in <u>chapter 2</u>.

Follow these steps:

- 1. Start SIMATIC ProSave.
- Transfer the required printer drivers to the HMI operator panel with SIMATIC ProSave.

You will find the suitable printer driver in the selection list, for example For **Brightek** printers: Brightek V1.4

- 3. Open the HMI operator panel control panel.
- 4. Double click on "Printer".
- 5. Set the following values:

Table 4-1 Print properties of printer on the HMI operator panel

Property	Input
Printer Language	Brightek example: "Brightek V1.4"
Port	Select "USB1:".
IP: Port:	
Paper Size	Letter
Orientation	Select "Portrait"
Draft Mode	This can speed up the printout.
Color	Specify here whether the printout should be in color.
CMY	Only for "Color": This option reduces the color space.

Parameterization of the printer driver on the HMI operator panel

After installing one of the named printers, the file "DKRollProperties.exe" is located on the desktop of the HMI operator panel. Double-click on the file and set the following values:

Figure 4-1 Example configuration "DKRollProperties.exe"



Table 4-2 Configuration "DKRollProperties.exe"

Property	Values
"DK Rolls"	Shipping labels 62 x 100 mm Address labels 29 x 90 mm
"Label Height"	"Value" in mm If you have selected continuous labels under the "DK Rolls" parameter,
	specify the length of the labels that are to be issued automatically.
"AutoCut"	Enable this option field if the label paper is to be cut
	automatically after printing.

4.1.2 Report Logging / printing

In the page settings in WinCC (TIA Portal), set the following values:

Table 4-3 Page settings in the TIA Portal:

Property	Value
Format	"User defined"
Page height	Height of the labels (subtract from the value 6 mm)
Page width	Width of the labels (subtract from the value 6 mm)

Figure4-2 Printer properties on the panel for Brightek printer

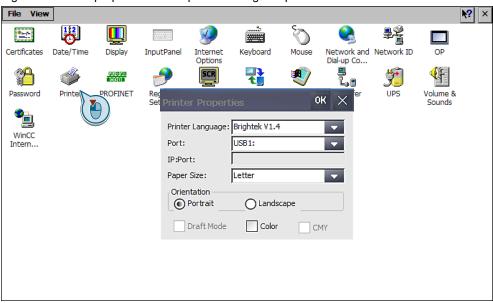
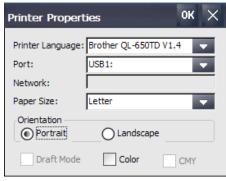


Figure 4-3: Printer properties on the panel



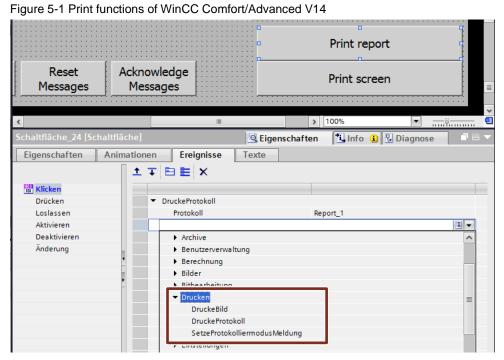
Note

The Brother QL-650TD is used for issuing logs, whereby the logs are designed in the shape and size of "labels".

5 Tips and tricks

Use print functions in WinCC Comfort/Advanced V14

In WinCC V14, the following print functions are available in the standard functions:



For example, you can attach these functions to a button as a click event or at a specified interval.

Additional information can be found in the WinCC Advanced V14 manual under the following link:

https://support.industry.siemens.com/cs/ww/en/view/109742297/90865774731

Use print functions in WinCC Professional V14

In WinCC Professional, you can use the print jobs ("Project navigation > Print jobs") to print logs at a fixed interval or at a specified time.

Message sequence log (RT Professional)

If the message sequence log is activated, every status change of a message is continuously output to a printer in runtime. No action is required for this in runtime.

Additional information can be found in the WinCC V14 Professional manual under the following link:

https://support.industry.siemens.com/cs/ww/en/view/109742302/87895274123

5.1 Service and Support

Industry Online Support

Do you have any questions or need assistance?

Siemens Industry Online Support offers round the clock access to our entire service and support know-how and portfolio.

The Industry Online Support is the central address for information about our products, solutions and services.

Product information, manuals, downloads, FAQs, application examples and videos – all information is accessible with just a few mouse clicks: https://support.industry.siemens.com

Technical Support

The Technical Support of Siemens Industry provides you fast and competent support regarding all technical queries with numerous tailor-made offers – ranging from basic support to individual support contracts. Please send queries to Technical Support via Web form:

www.siemens.com/industry/supportrequest

SITRAIN - Training for Industry

We support you with our globally available training courses for industry with practical experience, innovative learning methods and a concept that's tailored to the customer's specific needs.

For more information on our offered trainings and courses, as well as their locations and dates, refer to our web page: www.siemens.com/sitrain

Service offer

Our range of services includes the following:

- Plant data services
- Spare parts services
- Repair services
- On-site and maintenance services
- Retrofitting and modernization services
- Service programs and contracts

You can find detailed information on our range of services in the service catalog web page:

https://support.industry.siemens.com/cs/sc

Industry Online Support app

You will receive optimum support wherever you are with the "Siemens Industry Online Support" app. The app is available for Apple iOS, Android and Windows Phone:

https://support.industry.siemens.com/cs/ww/en/sc/2067

5.2 Links and Literature

Table 5-1

No.	Торіс
\1\	Siemens Industry Online Support https://support.industry.siemens.com
\2\	Link to the entry page of the application example https://support.industry.siemens.com/cs/ww/en/view/11376409
/3/	Link to Compatibility tool for automation and drive technology http://www.siemens.com/kompatool
\4\	Link to Download "Optional package printer driver" https://support.industry.siemens.com/cs/ww/en/view/11376409

5.3 Change documentation

Table 5-2

Version	Date	Change
V1.0	06/2017	First version
V1.1	09/2018	Revision, extension of chapter 1.2 (compatibility tool)