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Printing with SIMATIC HMI Operator Panels

WinCC (TIA Portal) / V16 / Comfort Panel /
PDF printout

<https://support.industry.siemens.com/cs/ww/en/view/58205602>

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1 Introduction

1.1 Overview

Function-tested printers are available for SIMATIC Comfort Panels. This ensures that the printers are compatible with the SIMATIC Comfort Panel in use.

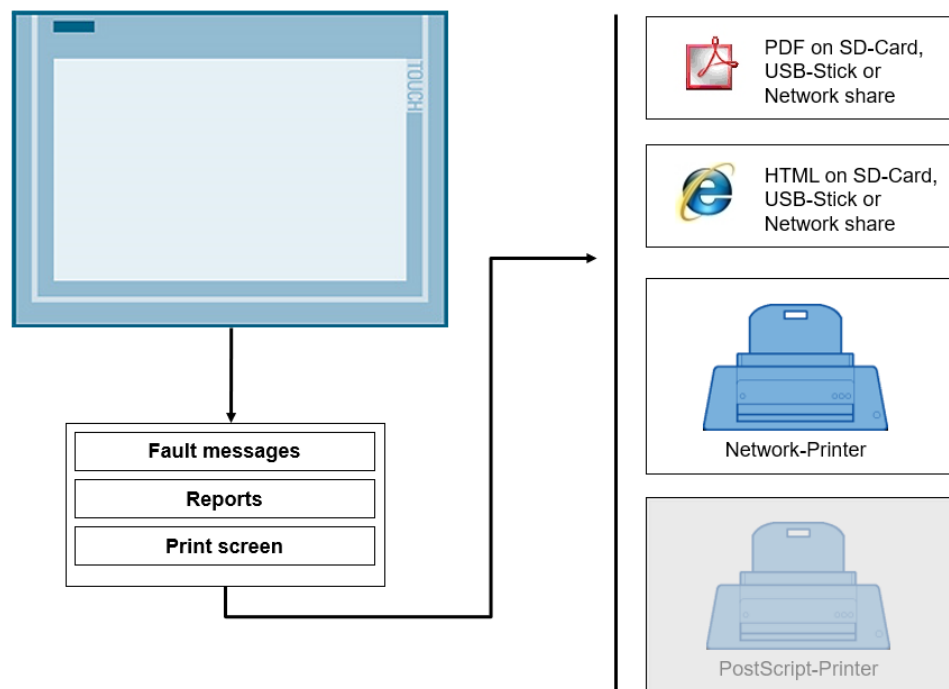
Because of the manufacturer-specific, high innovation cycles of the printers, the following problems arise for the user:

- Availability of the approved printers.
Can the printers still be purchased from retailers?
- Spare parts supply
How long can spare parts be purchased for the printer type?

For this reason, we recommend the following alternatives for printing fault messages and screen contents.

- Output to a file in PDF format.
- Output to a file in HTML format
- Using a network printer.
- Use of a PostScript printer.
It is possible to use a PostScript printer, but it should be replaced by one of the previously mentioned methods.

Figure 1-1

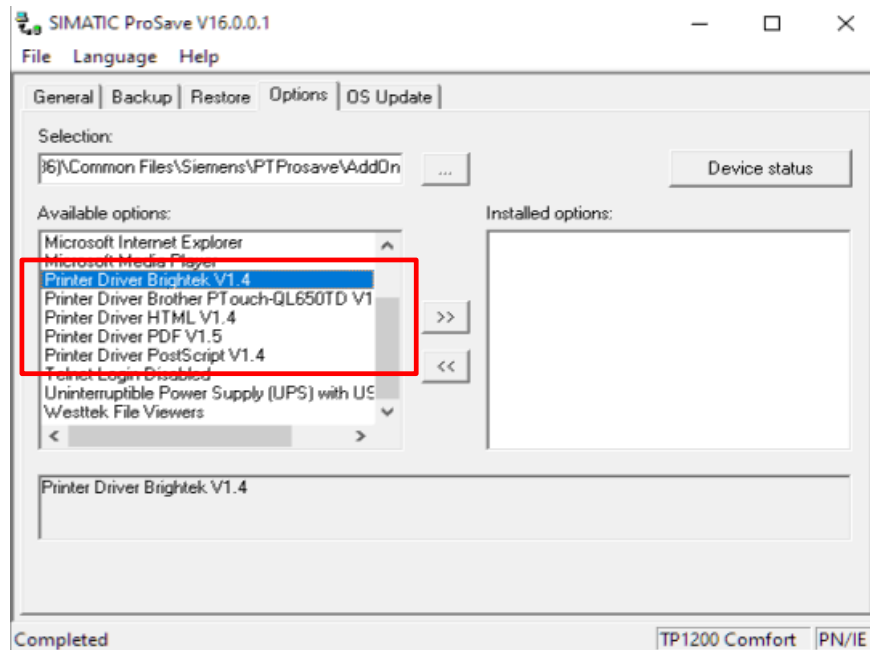


1.2 Principle of Operation

Various printer drivers are made available via the "ProSave" software.

- PDF print (printout as PDF file)
- HTML print (printout as HTML file)
- etc.

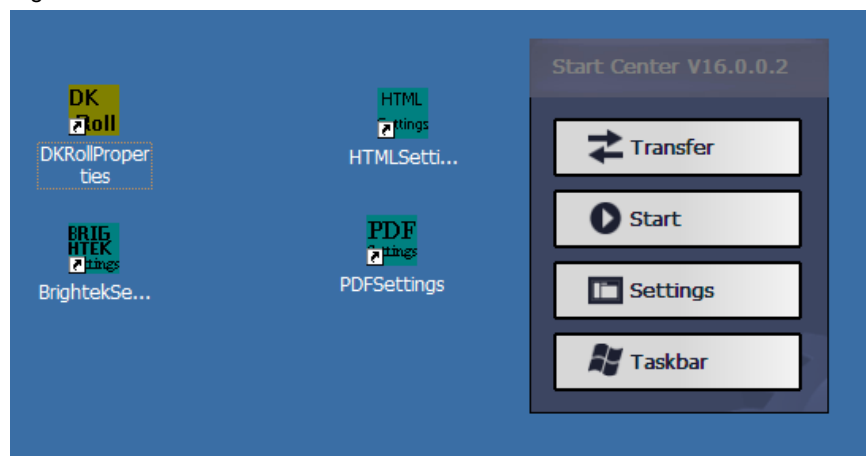
Figure 1-2



The printer drivers ("AddOn") are transferred to the Operator Panel, depending on the application, and can then be parameterized.

The following image shows the desktop of a TP1200 Comfort Panel with the "shortcuts" of the installed printer drivers. In the following, the individual printer drivers and their user interfaces will be described in detail.

Figure 1-3



1.3 Description of the Core Functionality

The application example describes...

- the steps to install the printer drivers.
- the functions of the printer drivers.
- all necessary settings on the Operator Panel.

Furthermore, a typical use case is utilized to show you how to

- print fault messages in a report.
- print fault messages.

Note

As an alternative to saving the data on a network drive, you can also save the reports on an SD card/USB stick.

1.4 Components Used

The following hardware and software components were used to create this application example:

Table 1-1

Component	Quantity	Article number	Note
WinCC (TIA Portal) V16	1	6AV210.-....6-0	Or later version
TP1200 Comfort Panel	1	6AV2124-0MC01-0AX0	Operator Panels that support scripting applications.

This application example consists of the following components:

Table 1-2

Component	File name	Note
Documentation	58205602_Printing_ComfortPanel_DOC_v16_en.pdf	
Sample project	58205602_Printing_ComfortPanel_CODE_v16	

2 Engineering

2.1 Requirement

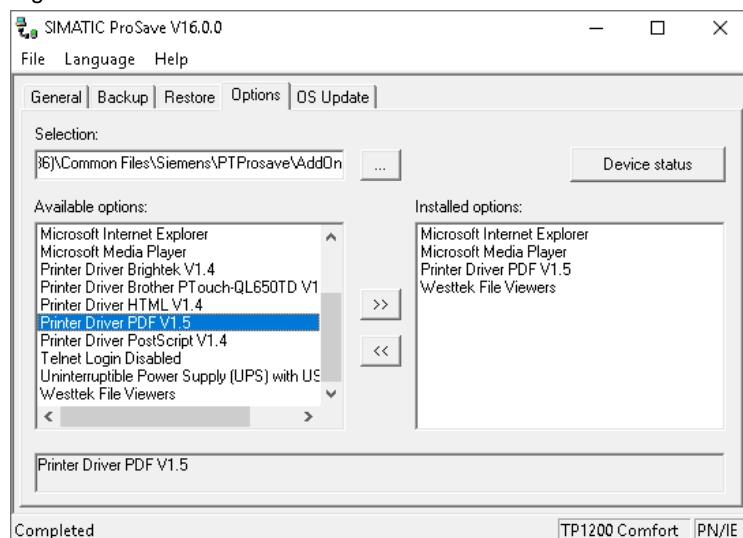
To transfer the printer drivers to the Comfort Panel, the "ProSave" software must be installed.

ProSave is installed by default with the installation of WinCC (TIA Portal). Alternatively, install only ProSave from the WinCC (TIA Portal) installation DVD. Within the "Support" folder, you will find the installation files of ProSave. The printer drivers are automatically installed with the installation of ProSave.

2.2 Transferring the Printer Drivers to the Operator Panel

1. Open ProSave
Open ProSave via "Start > Siemens Automation > ProSave > SIMATIC ProSave".
2. ProSave – General tab
 - a. Select the "General" tab.
 - b. Use the drop-down list "Device type" to select the Operator Panel (in this case, "TP1200 Comfort").
 - c. Use the "Connection" drop-down list to select the connection (in this case, "PN/IE").
 - d. Enter the IP address of the Operator Panel (in this case, "172.16.34.200") in the IP address field.
3. ProSave – Options tab
 - a. Select the "Options" tab.
 - b. Various options are displayed here. Among others, the various printer drivers such as "Printer Driver PDF V1.5".
 - c. Select a printer driver and transfer the option to the Operator Panel via ">>".
 - d. Repeat the steps for all printer drivers that you need on the Operator Panel.

Figure 2-1



This completes the transfer of the printer drivers.

2.3 Calling/Opening the Printer Drivers

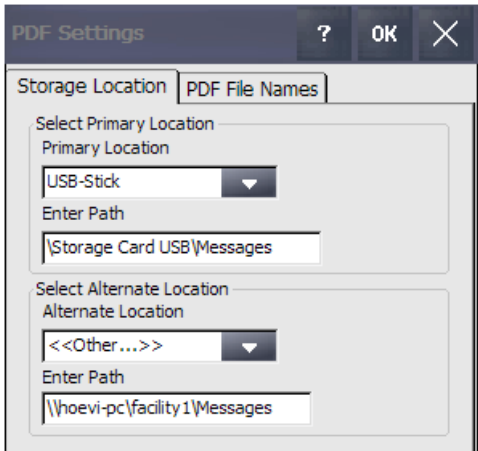
The parameterization of the printer drivers, e.g. "PDFSETTINGS", is started by double-clicking the corresponding icon. The icons are located on the desktop of the Operator Panel.

2.4 PDF Printer Driver

The individual parameters of the PDF printer driver are described below. The data is printed out in a PDF file.

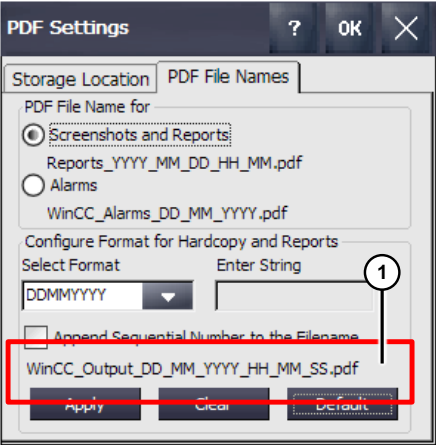
"Storage Location" Dialog Box

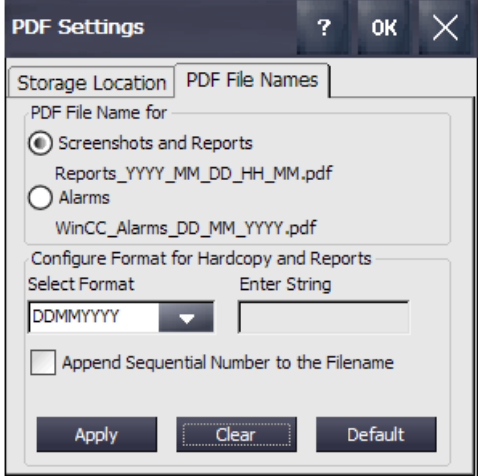
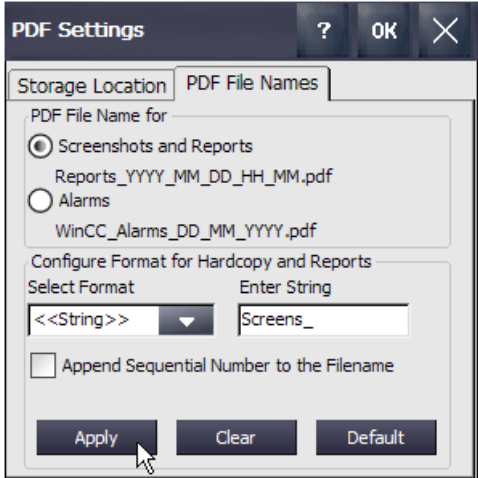
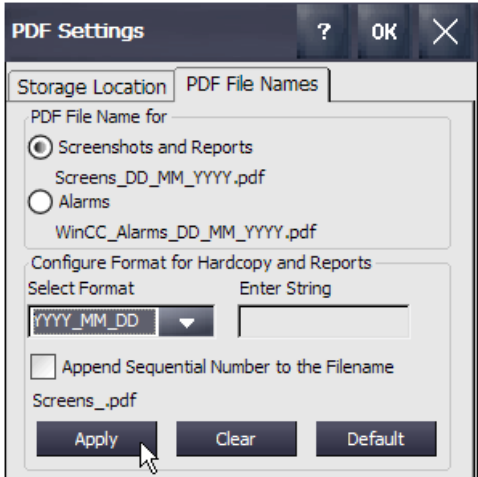
Table 2-1

No.	Action	Screens
1.	<p>In the Storage Location dialog box, specify the location of the PDF file.</p> <p>You can specify two locations for this purpose.</p> <ul style="list-style-type: none"> • a main location • an alternative location <p>If the main storage location is not available, the alternative location is automatically used.</p> <p>Select Primary Location:</p> <ul style="list-style-type: none"> • Primary Location The following storage locations can be specified via the drop-down list. <ul style="list-style-type: none"> - SD/MMC - USB stick - <<Other...>> • Enter Path Depending on the previously specified storage location, the location is preassigned with a "Default name". You can add "folder names" to the structure (see figure: for example, "\Messages"). <p>Note:</p> <ul style="list-style-type: none"> • A specified folder must exist on the storage device. • When selecting the storage location "<<Other...>>", you can, for example, specify a network path as the storage location. Example: \\Computer name\Release name\Folder\ <p>Select Alternate Location:</p> <p>The parameters correspond to those in "Select Primary Location".</p>	

"PDF File Names" Dialog Box

Table 2-2

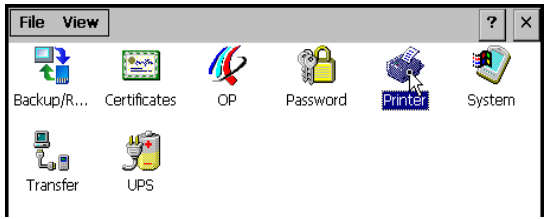
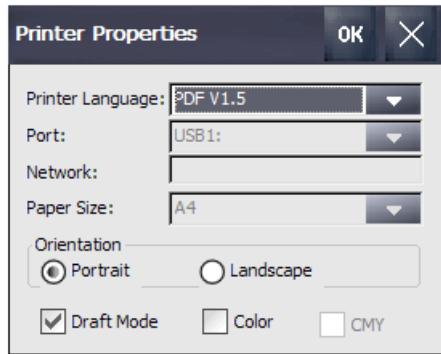
No.	Action	Screens
<p>1.</p>	<p>In the "PDF File Names" dialog box, you can change the file name. You can individually change the name of the file for...</p> <ul style="list-style-type: none"> • screen and report printout • alarm messages <p>PDF File Name for</p> <ul style="list-style-type: none"> • screenshots and reports • alarms <p>You can specify one file name for the printout, depending on whether or not the checkbox is checked.</p> <p>Select Format: You can assign different "time formats" or a "string" to the file name via the drop-down list.</p> <p>Buttons:</p> <ul style="list-style-type: none"> • "Apply" button: The button is used to apply the name settings. • "Clear" button: To specify a new name, delete the "old" name using this button. • "Default" button: This button is used to specify a "default name". <p>Note: The "compiled" name (1) is displayed above the buttons.</p> <p>The following example shows how you can compose the file names individually.</p>	
<p>2.</p>	<p>Setting up file names</p> <p>Example: The file name under "Screenshots and Reports" should look like this. "Screen_Year_Month_Day.pdf"</p>	

No.	Action	Screens
3.	<p>Setting up file names</p> <p>PDF File Name for</p> <ul style="list-style-type: none"> Check the checkbox "Screenshots and Reports". <p>Delete the existing file name</p> <ul style="list-style-type: none"> Before you set a new name, delete the existing file name using the "Clear" button. 	
4.	<p>Select Format</p> <ul style="list-style-type: none"> Use the drop-down list to select the format "<<String>>". <p>Enter String</p> <ul style="list-style-type: none"> Enter the name "Screens_" in the input field. <p>Apply the settings via the "Apply" button.</p>	
5.	<p>Select Format</p> <ul style="list-style-type: none"> Use the drop-down list to select the format "YYYY_MM_DD" (year_month_day). <p>Apply the settings via the "Apply" button.</p> <p>The name is now created as follows "Screens_YYYY_MM_DD.pdf" (See the next figure).</p> <p>If necessary, you can add more "formats/texts" to the name. To do this, repeat the steps described above.</p> <p>Complete the entry using the "Ok" button. The window is closed.</p>	
6.	<p>Note: The assignment of the file name using "Alarms" is analogous to the description above.</p>	

Settings under the "Printer Properties"

To print the files, you must select the appropriate printer on the Operator Panel.

Table 2-3

No.	Action	Screens
7.	<p>Selecting printer options</p> <ul style="list-style-type: none"> Open the "Settings" in the desktop view of the Operator Panel and the "Start Center". Open the "Printer Properties" dialog via the "Printer" icon. 	
8.	<p>Printer Properties</p> <p>Printer Language: Select the printer "PDF V1.5" from the drop-down list.</p> <p>Orientation:</p> <ul style="list-style-type: none"> "Portrait" Printout is in "portrait format". "Landscape" Printout is in "landscape format" (only for screenshot printout). <p>Checkbox:</p> <ul style="list-style-type: none"> "Draft Mode" By activating this option, the printout of the file can be accelerated. "Color" Specify here whether the printout should be in color. "CMY" When using the "Color" option, the "CMY" option can also be selected. This option reduces the color space. 	

2.5 HTML Printer Driver

The individual parameters of the HTML printer driver are described below. The data is printed out in an HTML file.

"Storage location" dialog box

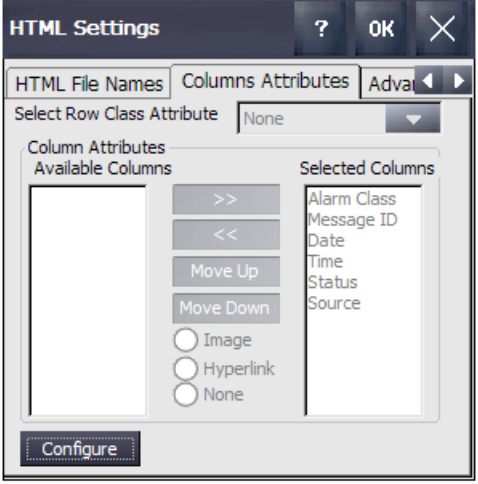
The settings correspond to those in the Section [2.4](#) "[PDF Printer Driver](#)". Please have a look at [Table 2-1](#).

"HTML FileNames" dialog box

The settings correspond to those in the Section [2.4](#) "[PDF Printer Driver](#)". Please see [Table 2-2](#).

"Columns Attributes" dialog box

Table 2-4

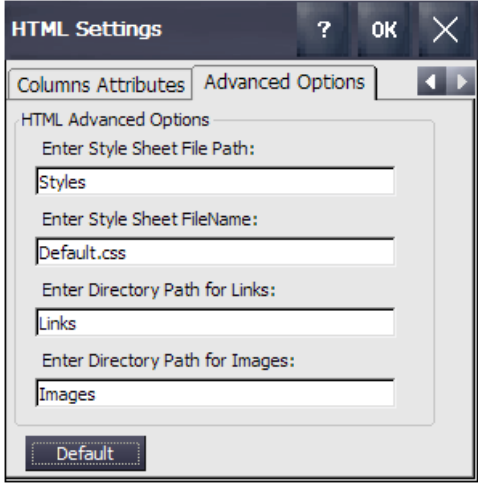
No.	Action	Screens
1.	<p>The alarm messages are output in the form of a table.</p> <p>In the "Columns Attributes" dialog box, you can influence the table with respect to...</p> <ul style="list-style-type: none"> • Arrangement of the table headers • table content <p>Furthermore, you can assign additional options to each cell header (e.g., a hyperlink).</p> <p>Select Row Class Attribute: Depending on the selected option, you can specify the "layout" of the printed table via a "*.css file". An example of this can be found in Section 2.5.4.</p> <p>Available Columns: This area lists the cell headers that should not be displayed in the table.</p> <p>Selected Columns: This area lists the cell headers that will be displayed later in the table.</p> <p>Buttons: You can use the ">>" or "<<" buttons to remove or add cell headers from a list. You can use the "MoveUp" or "Move Down" buttons to influence the order of the cell headers. You can find an example of this in the Section 2.5.2.</p> <p>Checkboxes: The checkboxes allow you to assign an option to each cell headers. An example of this can be found in Section 2.5.4.</p> <p>Configure:/Default: The button has two switch positions.</p> <ul style="list-style-type: none"> • Press the "Configure" button to edit the table properties. • Press the "Default" button if you want to use the default setting. 	 <p>The screenshot shows the 'HTML Settings' dialog box with the 'Columns Attributes' tab selected. The 'Select Row Class Attribute' dropdown is set to 'None'. The 'Column Attributes' section contains two lists: 'Available Columns' (empty) and 'Selected Columns' (containing Alarm Class, Message ID, Date, Time, Status, and Source). Between the lists are buttons for '>>', '<<', 'Move Up', and 'Move Down'. Below these are three radio buttons: 'Image', 'Hyperlink', and 'None'. A 'Configure' button is located at the bottom left of the dialog box.</p>

Advanced Options

You can configure various settings for the layout of the printed HTML pages.

Note These settings are not necessary for a "standard printout".

Table 2-5

No.	Action	Screens
1.	<p>Enter Style Sheet File Path: Enter the name and the location for the folder in which the "*.css file" is stored.</p> <p>Enter Style Sheet FileName: Enter the file name of the "*.css file".</p> <p>Enter Directory Path for Links: If you have assigned a "hyperlink" to a "cell header", then place the linked files in this folder.</p> <p>Enter Directory Path for Images: If you have assigned an "image" to a "cell header", then the linked files are located in this folder.</p> <p>Notes:</p> <ul style="list-style-type: none"> • If the HTML files are stored in the same folder as the folder/file listed here, then no "subfolders" need to be specified. • The file and folders must exist on the storage device. 	

Note The files specified in the "**Advanced Options**" tab are usually located on a PC through which the HTML files are viewed and printed. They can also be stored on an SD/MMC memory card or USB stick.

"Printer Properties" settings

To print the files, you must select the appropriate printer on the Operator Panel.

The settings correspond to those from [Table 2-3](#).

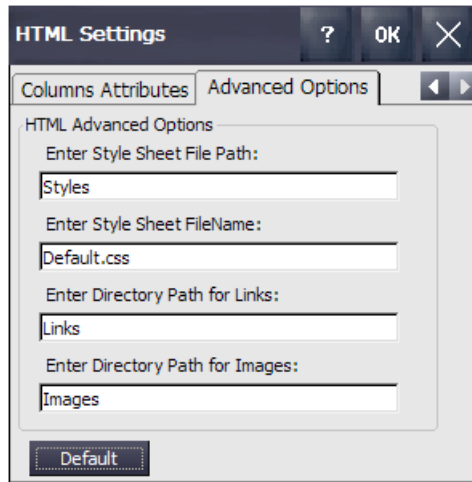
(Select the printer driver "HTML V1.4" in the "Printer Properties" under the item "Printer Language" via the drop-down list).

2.5.1 Other HTML Settings

"Advanced Options" tab details

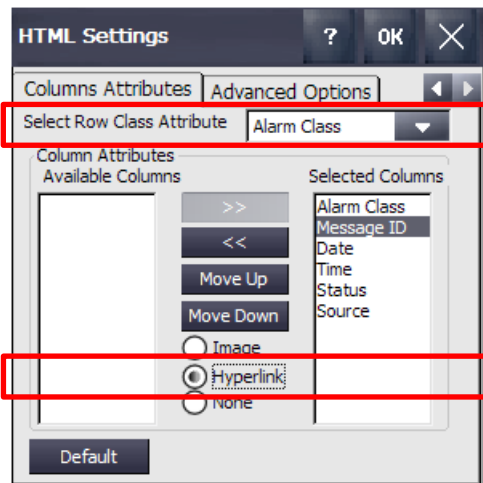
The following image shows the HTML printer driver tab "Advanced Options" with the "Default" settings.

Figure 2-2



You only need the settings under the "Advanced Options" menu if you have selected an option under "Select Row Class Attribute" in the "Columns Attributes" menu or have assigned the option "Image" or "Hyperlink" to a cell header under "Checkbox".

Figure 2-3


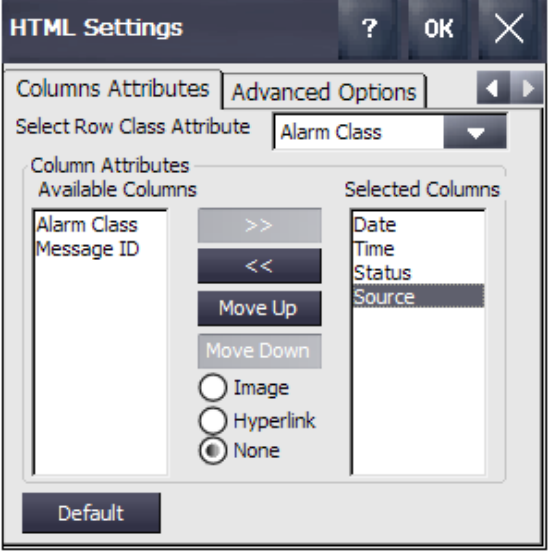


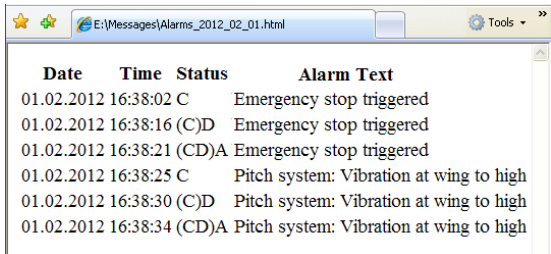
In Section [2.5.3](#), the differences between a "standard printout" and a printout with options applied are shown with an example.

2.5.2 Customize HTML Table Header

Handling example of how to customize the order and number of cell headers for an "Alarm message report".

Table 2-6

No.	Action	Screens
1.	<p>Example: HTML Alarm message report</p> <p>The accompanying image shows an excerpt from a printed HTML alarm message report. The "Default" settings were used.</p> <p>The following example shows how you can customize...</p> <ul style="list-style-type: none"> the table contents the order of the table headers. 	
2.	<p>Editing table layout</p> <p>In order to be able to adjust the properties of the table, you must click the "Default" button and then "Configure". (The button has two switch positions).</p> <p>Adjusting table contents:</p> <ul style="list-style-type: none"> In the "Selected Columns" field, mark a cell header. Use the "<<" button to remove the selected cell header from the list. Repeat the last two steps for all "cell headers" that you do not need. <p>Arrangement of the table headings:</p> <ul style="list-style-type: none"> In the "Selected Columns" field, mark a cell header. Use the "MoveUp" or "Move Down" buttons to move the selected "cell header" up or down. Repeat the last two steps for all "cell headers" you want to move. <p>Note: The fault message text is always automatically added as the last entry in the table.</p>	

No.	Action	Screens																												
3.	<p>Sample printout with the changed data</p> <p>The accompanying image shows the customized "HTML alarm message report". In contrast to the "Default setting", this printout only outputs...</p> <ul style="list-style-type: none"> • the date • the time of day • the status <p>The fault message itself is automatically added last.</p>	 <table border="1"> <thead> <tr> <th>Date</th> <th>Time</th> <th>Status</th> <th>Alarm Text</th> </tr> </thead> <tbody> <tr> <td>01.02.2012</td> <td>16:38:02</td> <td>C</td> <td>Emergency stop triggered</td> </tr> <tr> <td>01.02.2012</td> <td>16:38:16</td> <td>(C)D</td> <td>Emergency stop triggered</td> </tr> <tr> <td>01.02.2012</td> <td>16:38:21</td> <td>(CD)A</td> <td>Emergency stop triggered</td> </tr> <tr> <td>01.02.2012</td> <td>16:38:25</td> <td>C</td> <td>Pitch system: Vibration at wing to high</td> </tr> <tr> <td>01.02.2012</td> <td>16:38:30</td> <td>(C)D</td> <td>Pitch system: Vibration at wing to high</td> </tr> <tr> <td>01.02.2012</td> <td>16:38:34</td> <td>(CD)A</td> <td>Pitch system: Vibration at wing to high</td> </tr> </tbody> </table>	Date	Time	Status	Alarm Text	01.02.2012	16:38:02	C	Emergency stop triggered	01.02.2012	16:38:16	(C)D	Emergency stop triggered	01.02.2012	16:38:21	(CD)A	Emergency stop triggered	01.02.2012	16:38:25	C	Pitch system: Vibration at wing to high	01.02.2012	16:38:30	(C)D	Pitch system: Vibration at wing to high	01.02.2012	16:38:34	(CD)A	Pitch system: Vibration at wing to high
Date	Time	Status	Alarm Text																											
01.02.2012	16:38:02	C	Emergency stop triggered																											
01.02.2012	16:38:16	(C)D	Emergency stop triggered																											
01.02.2012	16:38:21	(CD)A	Emergency stop triggered																											
01.02.2012	16:38:25	C	Pitch system: Vibration at wing to high																											
01.02.2012	16:38:30	(C)D	Pitch system: Vibration at wing to high																											
01.02.2012	16:38:34	(CD)A	Pitch system: Vibration at wing to high																											

2.5.3 HTML Options, View of a Sample Printout

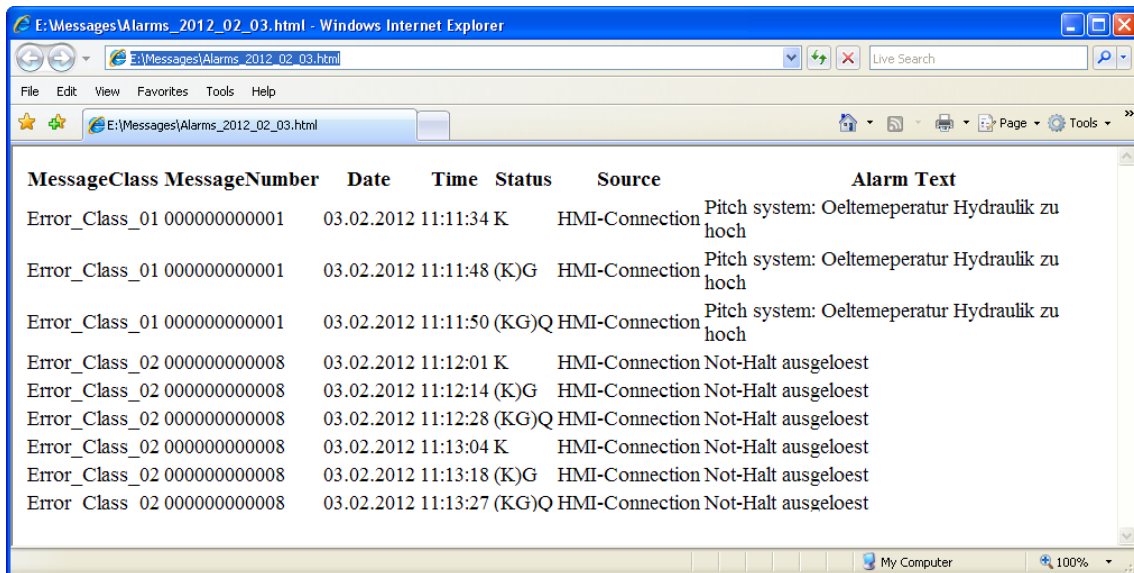
Under the HTML menu "Columns Attributes", you can assign different options to the "cell headers". Furthermore, you can influence the "layout" of the HTML page under the "Advanced Options" menu.

The following two images show an example of what the options do.

Printing without "Options"

View a printout without using special options.

Figure 2-4



Printout with "Options"

View a printout using an option and a "*.css file".

Figure 2-5

MessageClass	MessageNumber	Date	Time	Status	Source	Alarm Text
Error_Class_01	000000000001	03.02.2012	11:21:54	K	HMI-Connection	Pitch system: Oeltemperatur Hydraulik zu hoch
Error_Class_01	000000000001	03.02.2012	11:22:03	(K)G	HMI-Connection	Pitch system: Oeltemperatur Hydraulik zu hoch
Error_Class_01	000000000001	03.02.2012	11:22:06	(KG)Q	HMI-Connection	Pitch system: Oeltemperatur Hydraulik zu hoch
Error_Class_02	000000000008	03.02.2012	11:22:13	K	HMI-Connection	Not-Halt ausgelost
Error_Class_02	000000000008	03.02.2012	11:22:27	(K)G	HMI-Connection	Not-Halt ausgelost
Error_Class_02	000000000008	03.02.2012	11:22:35	(KG)Q	HMI-Connection	Not-Halt ausgelost
Error_Class_02	000000000008	03.02.2012	11:23:18	K	HMI-Connection	Not-Halt ausgelost
Error_Class_02	000000000008	03.02.2012	11:23:26	(K)G	HMI-Connection	Not-Halt ausgelost
Error_Class_02	000000000008	03.02.2012	11:23:35	(KG)Q	HMI-Connection	Not-Halt ausgelost

2.5.4 HTML Options, Influence Layout

The following example shows how you can influence the layout of the printed HTML table via the options (see HTML menu "Columns Attributes" and "Advanced Options").

Note

To edit the HTML files or to create a "*.css" file, some basic knowledge of HTML programming is required.

HTML documents can be viewed and edited with any word processing program. However, it is recommended to use configuration tools such as "FrontPage" (part of MS Office).

Furthermore, you will find a large number of free configuration tools on the internet.

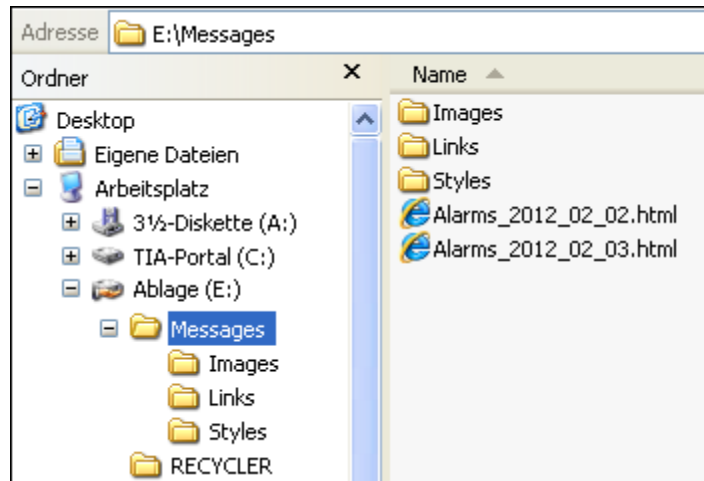
Specification

The HTML files generated via the Operator Panel are stored on a PC in the "Messages" folder via a network.

The following folders were created in the "Messages" folder...

- Images
- Links
- Styles

Figure 2-6

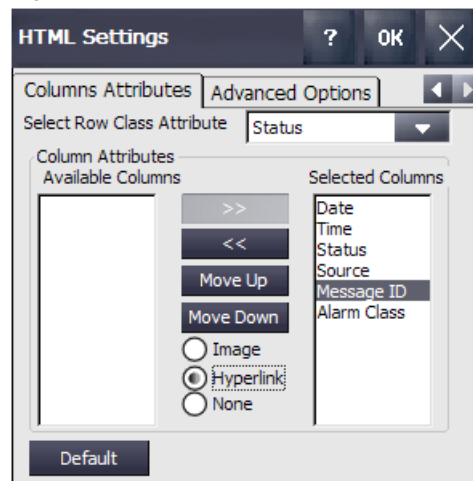


"Columns Attributes" HTML setting

Under the "Columns Attributes" tab, the following settings were used (see figure). The "cell header" Message ID was additionally assigned the "Hyperlink" option.

No other "cell headers" have options assigned to them.

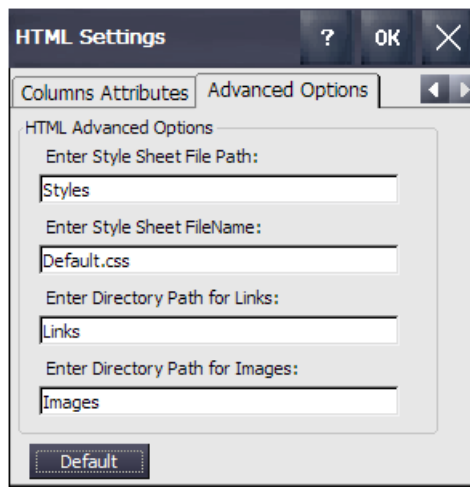
Figure 2-7



"Advanced Options" HTML setting

The default settings were used.

Figure 2-8



HTML file view

To clarify the functionality of the "*.css" file, as well as the "linking", the following image shows the "HTML code" of the file "Alarms_2012_02_03.html".

Figure 2-9

```

1 <html><head><meta http-equiv="Content-Type" content="text/html; charset=UTF-8"></head><link rel="st
2 <body><table><th>MessageClass</th>
3 <th>MessageNumber</th>
4 <th>Date</th>
5 <th>Time</th>
6 <th>Status</th>
7 <th>Source</th>
8 <th>Alarm Text</th>
9 <tr class="K" ><td>Error_Class_01</td><td><a href="Links\000000000001.html">000000000001</a></td><t
10
11 <tr class="(K)G" ><td>Error_Class_01</td><td><a href="Links\000000000001.html">000000000001</a></td>
12
13 <tr class="(KG)Q" ><td>Error_Class_01</td><td><a href="Links\000000000001.html">000000000001</a></t
14
15 <tr class="K" ><td>Error_Class_02</td><td><a href="Links\000000000008.html">000000000008</a></td><t
16
17 <tr class="(K)G" ><td>Error_Class_02</td><td><a href="Links\000000000008.html">000000000008</a></td>
18
19 <tr class="(KG)Q" ><td>Error_Class_02</td><td><a href="Links\000000000008.html">000000000008</a></t
20
21 <tr class="K" ><td>Error_Class_02</td><td><a href="Links\000000000008.html">000000000008</a></td><t
22
23 <tr class="(K)G" ><td>Error_Class_02</td><td><a href="Links\000000000008.html">000000000008</a></td>
24
25 <tr class="(KG)Q" ><td>Error_Class_02</td><td><a href="Links\000000000008.html">000000000008</a></t
26
27 </table></body></html>

```

Because of the HTML setting "**Status**" under "Select Row Class Attribute", the HTML element "class=" is prepended to the status output of the fault message. The HTML element "**class=**" indicates that the HTML element belongs to a specific style sheet. This stylesheet is stored in the "*.css file".

The cell header "Message ID" has been assigned the option "**Hyperlink**" under the HTML setting "Columns Attributes".

This prepends the HTML element "**href=**" to the report number, including the link to an HTML page. The name of the "link" corresponds to the configured message number.

According to the message number, the user must have stored an HTML page under the "**Links**" folder. The page can, for example, contain additional information on the fault message.

Default.css file

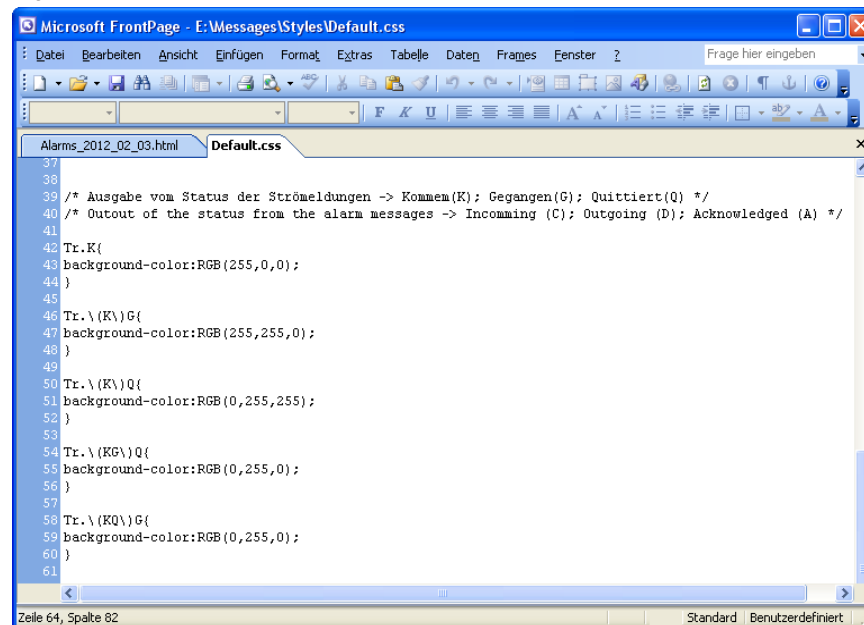
Note

You can define the layout of the HTML file via the "*.css" file. For example, you can specify which table and text paragraphs are displayed.

Please refer to the internet for further information on this topic of "CSS". It is beyond the scope of this application.

The following image shows a section of the "Default.css" file. The user creates the file individually for each configuration.

Figure 2-10



Brief description (example):

By default "Tr.K" and the color assignment, the "received message" is displayed in red.

Due to the default "Tr.\(K)G" and the color assignment, the "sent message" is displayed in yellow.

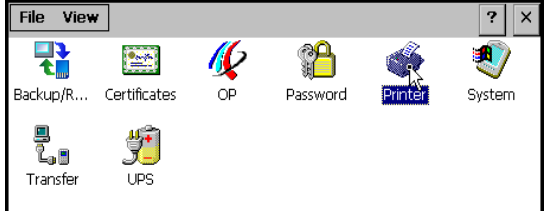
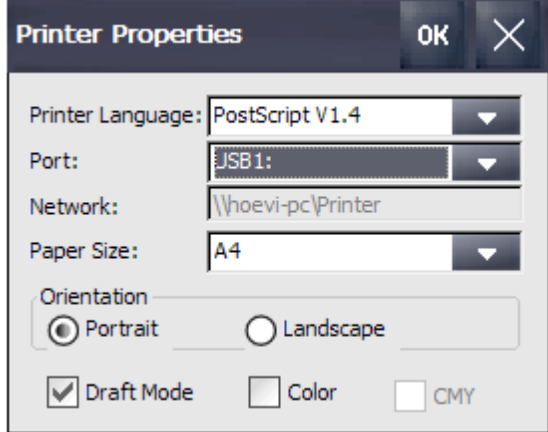
Figure 2-11

MessageClass	MessageNumber	Date	Time	Status	Source	Alarm Text
Error_Class_01	000000000001	03.02.2012	11:21:58	K	HMI-Connection	Pitch system: Oeltemperatur Hydraulik zu hoch
Error_Class_01	000000000001	03.02.2012	11:22:03	(K)G	HMI-Connection	Pitch system: Oeltemperatur Hydraulik zu hoch
Error_Class_01	000000000001	03.02.2012	11:22:06	(K)G	HMI-Connection	Pitch system: Oeltemperatur Hydraulik zu hoch
Error_Class_02	000000000008	03.02.2012	11:22:18	K	HMI-Connection	Not-Halt ausgeloeset
Error_Class_02	000000000008	03.02.2012	11:22:27	(K)G	HMI-Connection	Not-Halt ausgeloeset
Error_Class_02	000000000008	03.02.2012	11:22:35	(K)G	HMI-Connection	Not-Halt ausgeloeset
Error_Class_02	000000000008	03.02.2012	11:23:11	K	HMI-Connection	Not-Halt ausgeloeset
Error_Class_02	000000000008	03.02.2012	11:23:26	(K)G	HMI-Connection	Not-Halt ausgeloeset
Error_Class_02	000000000008	03.02.2012	11:23:38	(K)G	HMI-Connection	Not-Halt ausgeloeset

2.6 PostScript Printer Driver Description

The individual parameters of the PostScript printer driver are described below. The data is output directly via a "PostScript"-capable printer.

Table 2-7

No.	Action	Screens
1.	<p>Selecting printer options</p> <ul style="list-style-type: none"> Open the "Settings" in the desktop view of the Operator Panel and the "Start Center". Open the "Printer Properties" dialog via the "Printer" icon. 	
2.	<p>PostScript parameter</p> <p>Printer Language: Use the drop-down list to select the "PostScript V1.4" printer.</p> <p>Port: Use the drop-down list to select the interface via which the Operator Panel is connected to the printer.</p> <ul style="list-style-type: none"> Network PrintServer USB1 <p>Network or IP:Port: Depending on the settings made under "Port:", enter the network address or the IP port of the "Print Server" via which the printer can be reached.</p> <p>Paper Size: Use the drop-down list to specify the paper size.</p> <p>Orientation: Use the checkboxes to specify whether the printout should be in portrait or landscape format.</p> <p>Other checkboxes:</p> <ul style="list-style-type: none"> 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. 	

2.7 Printing from a Network Printer

When printing via a network printer, the printer is not connected directly to the Operator Panel. The printout is made from the Operator Panel via a printer integrated with the Ethernet network.

For detailed information on setting up a connection between the Operator Panel and a network printer, refer to the application example "Integrating HMI Operator Panels into TCP/IP Networks and Accessing an NAS or Windows Folder Share" under the entry ID:
<https://support.industry.siemens.com/cs/ww/en/view/92346478>

If you want to connect a printer directly to the Operator Panel, use a printer with an integrated "print server". Information on setting up the "Print Server" can also be found in the application example described above.

3 Printing Reports and Alarm Messages

3.1 Settings on the Operator Panel

3.1.1 Printer Driver

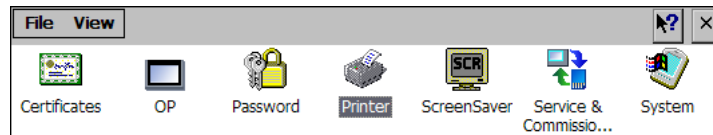
The PDF/HTML printer driver has been installed on the Operator Panel. In this regard, please see Section [2.2](#).

3.1.2 Settings under the "Printer Properties"

To print the files, you must select the appropriate printer on the Operator Panel.

1. Open the "Settings" in the desktop view of the Operator Panel and the "Start Center".
2. Open the "Printer Properties" dialog via the "Printer" icon.

Figure 3-1



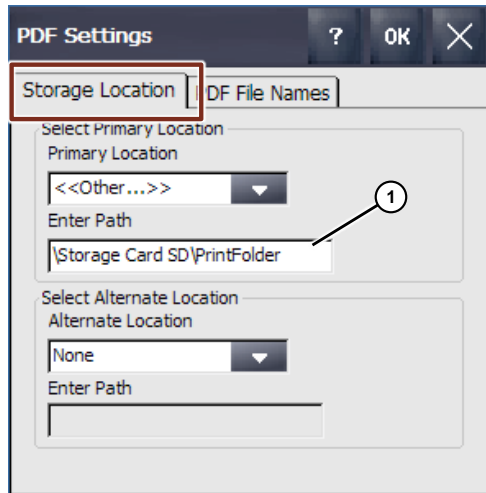
3. Printer Language: Use the drop-down list to select the printer type. In this case, "PDF V1.5".

Figure 3-2



3.1.3 Settings under the "PDF Settings"

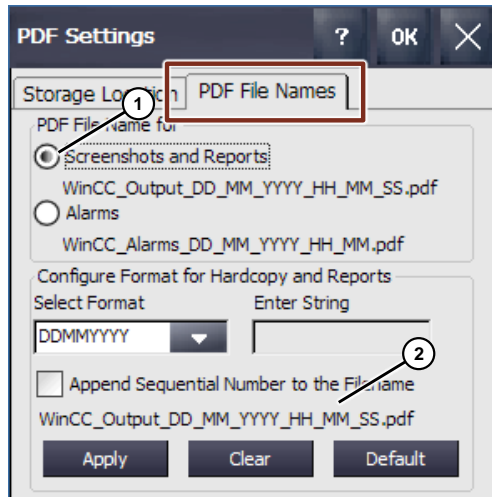
1. Open the settings for PDF printing on the Comfort Panel via the "PDF Settings" icon.
2. Specify the storage location under the "Storage Location" tab (1). Information on this can be found in Section [2.4](#).
Figure 3-3



Settings for reports and screenshots

3. Open the "PDF File Name" tab.
 - a. Enable the option "Screenshots and Reports" (1).
 - b. Specify a file name (2). Information on this can be found in Section [2.4](#).

Figure 3-4



Setting for the printout of alarms

4. Open the "PDF File Names" tab.
 - a. Enable the "Alarms" option (1).
 - b. Specify a file name (2). Information on this can be found in Section [2.4](#).

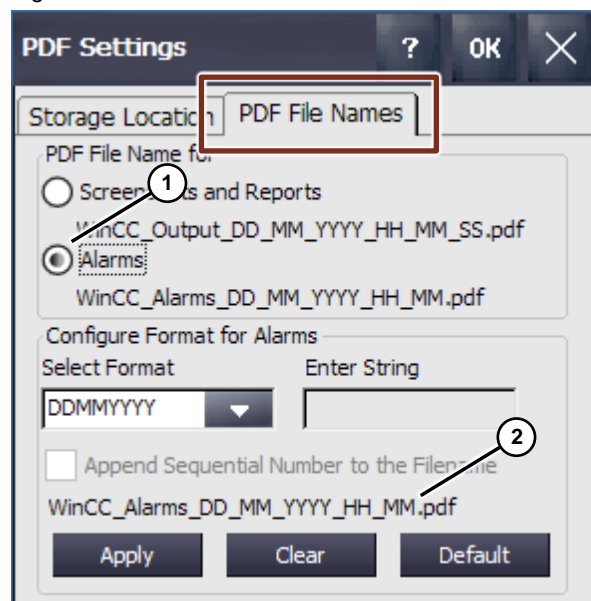
Note:

Pay special attention to the "time range" you choose when formatting the name.

Example 1: Time range "..._HH_MM_SS.pdf" (_SS = seconds).
Assumption: In a system, a fault message occurs every second.
With the name formatting "x_hour_minute_second", a PDF document would then be created every second, in which **one** fault message is listed in each case. Expand this over an hour and 3600 PDF documents would be created!

Example 2: Time range "..._HH_MM.pdf" (_MM = minutes).
Assumption: In a system, a fault message occurs every second.
With the name formatting "x_hour_minute", a PDF document would then be created every minute in which 60 fault messages are listed. Expand this over an hour and 60 PDF documents would be created!

Figure 3-5

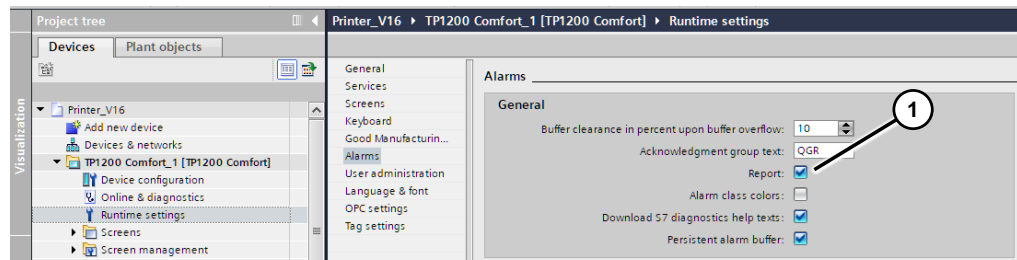


3.2 Configuration Settings

3.2.1 Runtime Settings

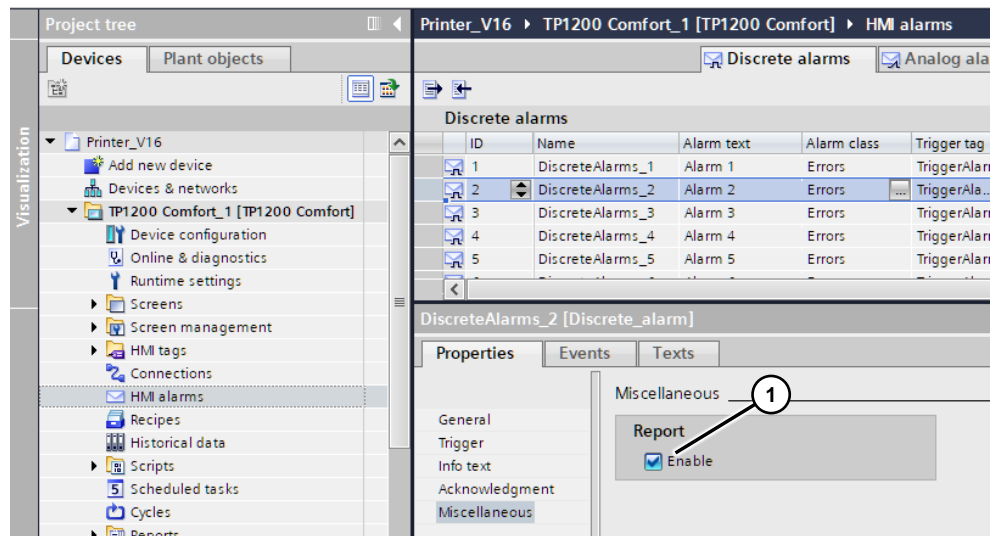
1. Enable the option "Protocol" (1) under the Runtime settings. (Runtime settings > messages).

Figure 3-6



2. Enable the option "Report" under the properties for all messages. (Properties > Properties > Miscellaneous).

Figure 3-7

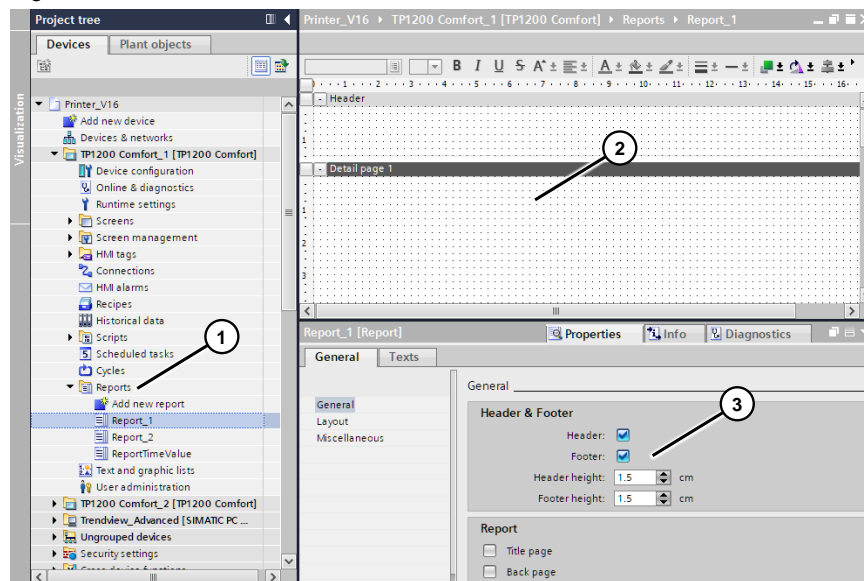


3.2.2 Reports Settings

Creating a report

1. Open the "Reports" folder via the project navigation and create a new report (1).
2. A window opens in which you can edit the report (2). For details on this and which properties you can change (3), please refer to the manual [3](#) or use the help function.

Figure 3-8



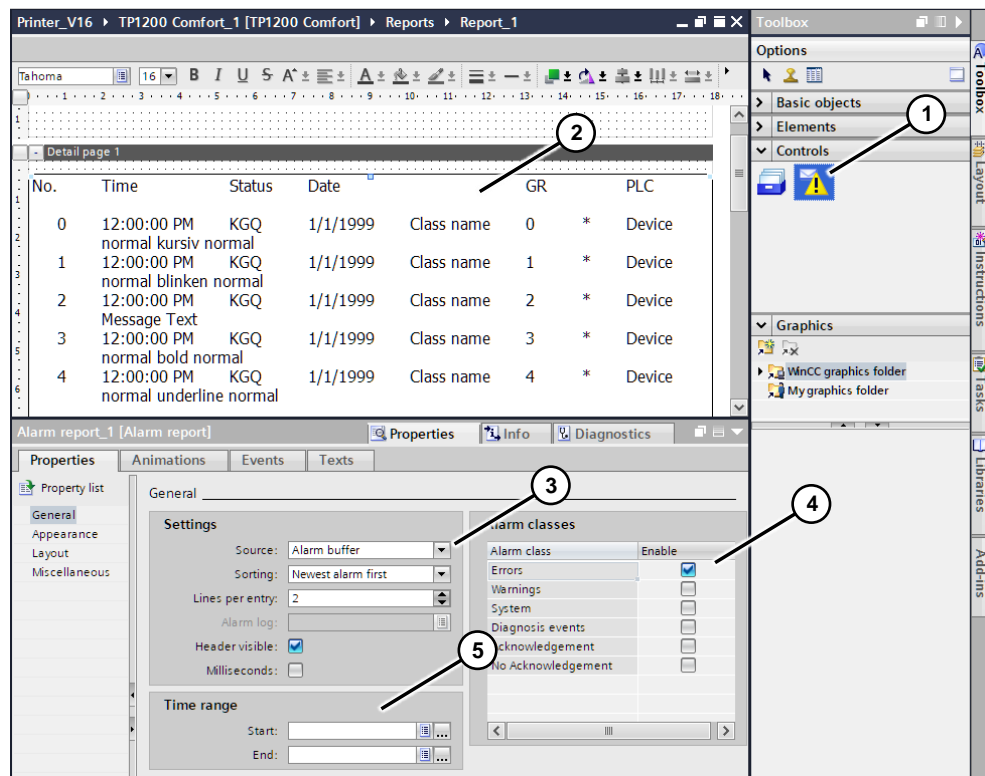
3. Insert the "Message log" Control (1) via "Drag&Drop" into the newly created report (2) (see [Figure 3-5](#)).
4. Via "Properties > Properties > General", you can define the most important properties for the later printout.
(3) Select "Message buffer" via the drop-down list.
(4) Enter the message class here that will be printed out later.

Note:

If, for example, you want to assign alarms to different reports, you must first have assigned the respective alarms their own "message class".

- (5) Here you can specify a time range for the messages to be printed.

Figure 3-9



3.2.3 Report Printing

To print the message log, use the system function "Print report". Link the system function to an event, e.g. when a button is pressed or via the task scheduler.

3.2.4 Printing Screen Content

To print the screenshot printout in PDF format, follow the steps below.

1. For example, configure a button into the screen you want to print.
2. Under "Properties > Events > Press", use the system function "PrintScreen". Alternatively, you can, for example, trigger the system function via a control tag in conjunction with the "Value change" event.

3.3 Sample project

A sample project is available for download along with the application example. The sample project is used to become familiar with the functionality of a report printout.

For this,

- Simulated system messages are output (1).

3 Printing Reports and Alarm Messages

- Simulated fault messages are output (2).
- A report printout can be created (3).
- A screenshot printout can be created (4).
- The time range for the report printout can be specified (5).

"Reports" screen example

Figure 3-10

The screenshot displays the 'Reports' screen in SIMATIC Comfort Panels. At the top, there is a header bar with 'Printing with SIMATIC Comfort Panels' and a status bar showing 'State: Undefined', 'Current Recipe', 'Operator: User Name', and 'Date and Time: 1/26/2021 12:37:00 PM'. Below this is a table of system alarms with columns for No., Time, Date, Status, Text, and Acknowledge gr... The table contains several rows of system alarms (System Alarm 1 through System Alarm 10) and some fault messages. Below the table, there are five buttons: 'Pre set time for print report', 'Simulate system messages', 'Simulate fault messages', 'Print report', and 'Print screen'. The 'Print report' button has a sub-button 'Print screen' below it. A 'Clear alarm buffer' button is also present. The bottom of the screen shows a navigation bar with 'Overview', 'Report', 'FileExplorer', and several 'Not used' buttons. Circled numbers 1 through 5 are overlaid on the image, pointing to the 'Simulate system messages' button (1), 'Simulate fault messages' button (2), 'Print report' button (3), 'Print screen' button (4), and 'Pre set time for print report' button (5).

No.	Time	Date	Status	Text	Acknowledge gr...
\$ 60000	12:36:...	1/26/2021	I	System Alarm 10	0
\$ 60000	12:36:...	1/26/2021	I	System Alarm 9	0
\$ 60000	12:36:...	1/26/2021	I	System Alarm 8	0
\$ 60000	12:36:...	1/26/2021	I	System Alarm 7	0
\$ 60000	12:36:...	1/26/2021	I	System Alarm 6	0
I 6	12:36:...	1/26/2021	I	Alarm 6	0
I 5	12:36:...	1/26/2021	I	Alarm 5	0
I 4	12:36:...	1/26/2021	I	Alarm 4	0
I 3	12:36:...	1/26/2021	I	Alarm 3	0
I 2	12:36:...	1/26/2021	I	Alarm 2	0
I 1	12:36:...	1/26/2021	I	Alarm 1	0
\$ 60000	12:36:...	1/26/2021	I	System Alarm 5	0
\$ 60000	12:36:...	1/26/2021	I	System Alarm 4	0
\$ 60000	12:36:...	1/26/2021	I	System Alarm 3	0
\$ 60000	12:36:...	1/26/2021	I	System Alarm 2	0
\$ 60000	12:36:...	1/26/2021	I	System Alarm 1	0
\$ 1100...	12:35:...	1/26/2021	I	Change to operating mode 'online'.	0
\$ 2700...	12:35:...	1/26/2021	I	Project modified: Alarms cannot be restored from the persistent alarm buffer.	0

4 Appendix

4.1 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:

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:

support.industry.siemens.com/cs/my/src

SITRAIN – Digital Industry Academy

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:

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:

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 iOS and Android:

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

4.2 Industry Mall



The Siemens Industry Mall is the platform on which the entire Siemens Industry product portfolio is accessible. From the selection of products to the order and the delivery tracking, the Industry Mall enables the complete purchasing processing – directly and independently of time and location:

mall.industry.siemens.com

4.3 Links and literature

Table 4-1

No.	Subject
\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/58205602
\3\	SIMATIC STEP 7 Basic/Professional V16 and SIMATIC WinCC V16 https://support.industry.siemens.com/cs/ww/en/view/109773506
\4\	SIMATIC ProSave service tool https://support.industry.siemens.com/cs/ww/en/view/10347815

4.4 Change documentation

Table 4-2

Version	Date	Change
V2.0	03/2021	Complete revision