

## SIMATIC HMI

### WinCC V7.3 SE incl. Update 1 WinCC/WebUX - Documentation

System Manual

Printout of the Online Help

## 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.

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indicates that death or severe personal injury <b>will</b> result if proper precautions are not taken.
<b>⚠ WARNING</b>
indicates that death or severe personal injury <b>may</b> result if proper precautions are not taken.
<b>⚠ CAUTION</b>
indicates that minor personal injury can result if proper precautions are not taken.
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# WebUX - Overview

## Overview

WinCC WebUX provides a solution for device- and browser-independent operator control and monitoring of the automation system. Only secure HTTPS connections with SSL certificates are possible for the communication.

WinCC V7.3 SE including Update 1 initially supports restricted functionality for mobile devices. Some Graphics Designer objects are not supported. Global Scripting is supported without access to the graphics system; screen-local scripting is not supported.

## Distinction WebUX - WebNavigator

WebUX	WebNavigator
Based on generally established web standards	Based on ActiveX technology from Microsoft
Can be used with any browser	Only supports Microsoft Internet Explorer
Can be used for a large number of devices regardless of the operating system, for example, tablets, computers and smartphones	Can only be used with Windows computers
Does not require a client installation	Requires a client installation
Standard user rights are sufficient	Requires administrator rights for installation

## Visualization in WebUX

WinCC pictures and the supported WinCC controls are displayed in the Web browser with the "HTML5" and "SVG" standards:

- The graphic elements are created with SVG elements.
- The dynamic updating of the process picture is performed via a permanent connection between the browser and server.

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### Note

#### Browser-dependent display is occasionally possible

Minor differences in display and behavior are possible for the different browser versions.

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## Supported Graphics Designer objects

- All standard objects except "Connector"
- The following smart objects:
  - Picture window
  - I/O field
  - Graphic object
  - Status display
  - Text list
  - Multiple row text
  - Combo box
  - List box
- All Windows objects
- All tube objects
- The WinCC AlarmControl can run as a WinCC Alarm Web control in WebUX, with the following functional scope:
  - Message lists: Message lists, short-term archive lists, and long-term archive lists
  - Message blocks with a few exceptions
  - Standard sorting
  - Configuration dialog: some of the properties are available
  - Filter settings in the configuration dialog are supported during runtime.
  - Properties dialog with reduced selection of supported properties
- The WinCC OnlineTrendControl can run as a WinCC OnlineTrend Web Control in WebUX, with the following functional scope:
  - Data source: Archive tags and online tags
  - Multiple trend windows
  - Multiple value axes and time axes
  - Properties dialog with reduced selection of supported properties

## Limitations as compared to WinCC Runtime

Unsupported Graphics Designer objects:

- Standard objects
  - Connectors. For dynamized user objects connected by means of the "Connector" object, dynamizations are not displayed via WebUX. The connector is handled in the same way as the static object "Line". The ends of a line can have a different design.
- Smart objects
  - Application window
  - Control
  - OLE object
  - Bar and 3D bar
  - Faceplate instance
  - .NET control and WPF control
  - Group display
- No ActiveX controls are supported because ActiveX controls are not browser-independent. This means the controls would not run on all devices and operating systems

The WinCC AlarmControl can run as a WinCC Alarm Web control in WebUX, whereby the following are not supported:

- Message lists
  - Lock list
  - Hit list
  - List of hidden messages
- Message blocks
  - Daylight saving/standard time
  - Archiving
  - Logging
  - Class priority
  - Frequency
  - Sum +/-, Sum +/\*1, Sum +/\*2, Sum +/+
  - Average +/-, Average +/\*1, Average +/\*2, Average +/+
  - Apply project settings
- Hiding and showing messages
- Acknowledging a central signaling device
- Flashing messages

- Configuration of the filter in Runtime
- User-defined sorting of the displayed messages
- Exporting Runtime data
- Online configuration in Runtime
- Generation of operator messages
- Operator authorization for the key functions in the toolbar
- Paging through long-term archive list
- Print function
- Dynamization of properties
- The contents of the columns "Class", "Type", "Date" and "Time" are displayed in one column

The WinCC Online TrendControl is executable as a WinCC Online Trend Web control in WebUX, whereby the following are not supported:

- User scaling
- Displaying trends:
  - Filled
  - Limits
  - The trend type "Display values"
- Exporting Runtime data
- Online configuration in Runtime
- Operator authorization for the key functions in the toolbar
- Zoom functions
- Statistics and ruler functions
- Trend selection
- Print function
- Dynamization of properties



Unsupported properties of Graphics Designer objects:

- For I/O field:
  - "Clear on New Input" (Internet Explorer only)
  - "Apply on Full"
  - "Clear on Invalid Input"
  - "Cursor Control"
- More than 512 entries are not displayed for the following objects:
  - Combo box
  - List box
  - Text list
- For text list:
  - "Tooltip text"
  - "Cursor Control"
  - Texts of a text list that are connected with a tag of the "Text reference" data type do not change into the selected language when the language is switched. The texts are still displayed in the runtime language that is set in the computer properties.
- "Operator Message"
- "Operator Activities Report" for the following objects:
  - I/O field
  - Combo box
  - List box
  - Text list
- For picture window:
  - "Foreground"
  - "Scaling Factor"
  - "Window Mode"
  - "Monitor Number"
  - "Independent Window"
  - "Menu/Toolbar Configuration"
- No input possible for "Multiple row text"
- For graphic object and status display:
  - "Picture Transparent Color" or "Basic Picture Transparent Color"
  - "Picture Transparent Color On" or "Basic Picture Transparent Color On"

- The line ends do not flash
- Print function
- Central color palette and global design. The configured colors are displayed instead.
- "WinCC Style". Shows the object according to the respective settings instead.
- "Global Shadow". The shadow is not displayed.
- "Draw inside border" Always drawn inside.

"Tooltip text" is not supported for grouped objects.

Touch operation is not optimized.

The event "Focus Change" has a different reaction than in WinCC Runtime

All unsupported objects are hidden in WebUX.

## Licensing

The WinCC/WebUX basic package with an integrated WinCC WebUX Monitor license are already included in WinCC.

The licensing packages are as follows and run in parallel on the WinCC/WebUX server:

- WinCC WebUX Monitor: User has read-only access
- WinCC WebUX Operate: User has read and write access

The licensing packages are available with 1, 5, 10, 50 and 100 clients. The packages are not version-dependent and can be combined with each other.

# How to use WebUX

## Introduction

To be able to use WinCC WebUX on end devices, you first need to configure WebUX and the WinCC project.

## Requirement

- Microsoft Internet Information Service (IIS) is installed.
- The WinCC basic system is installed.
- The "WinCC WebUX" program package is installed.
- The "WinCC WebUX" license is installed.

## Configuring the WebUX web page

After the installation of WinCC and WinCC WebUX and following a restart, the WinCC WebUX Configurator opens. You use the WebUX Configurator to set up the standard configuration for the use of WebUX and the Internet Information Service. During the course of initial configuration, you specify whether you wish to create a new default web page or a new virtual directory. If IIS has already been configured, edit the settings of the existing web server or the virtual directory using the WebUX Configurator.

1. Click "Apply configuration". The standard configuration is set up. The "IIS configuration" dialog opens.
2. Enter a name for the web page.
3. If you only operate the WebUX web page on the server, select the "Create a new website" option.
4. Enter the number of the port used for access in the "Port" field. The HTTPS standard port "443" is set by default. If you select a different port number, that number has to be appended to the server name in the address bar of the browser on logon to the end device.
5. For a HTTPS connection, you need a digital certificate for the server. Select one of the following options:
  - Select an existing certificate.
  - Create a new certificate:
    1. Activate the "Create a new certificate" option.
    2. Enter a name of your choice.When the configuration is completed, a self-signed certificate will be created. The certificate is valid for one year.
  - Install a certificate later.

Detailed information is available in the Microsoft Support under "How To Set Up an HTTPS Service in IIS" (<http://support.microsoft.com/kb/324069>).
6. If you wish to set up the website as a virtual directory, at least one website with activated SSL encryption must be present on the system. The websites that meet this criterion are shown in the selection list "Select the higher-level website:"  
Select a higher-level website. The WebUX Configurator takes the port number and the SSL settings from the IIS settings.  
To access the web page, add the name of the virtual directory to the URL in the browser.
7. Click "OK".
8. When the configuration has been set up, click "Exit".
9. You need to perform a restart after configuration.

For later configuration, you can open the WinCC WebUX Configurator via the start menu under "Siemens Automation > SIMATIC > WinCC > Tools > WinCC WebUX Configuration Manager".

## Configuring the WinCC project for WebUX use

You need to configure the WinCC project for WebUX use as follows:

1. You have to prepare the WinCC pictures for WebUX access.  
In the object properties of the picture object in Graphics Designer, set the property "Web-enabled" under "Miscellaneous" to "Yes" for each picture to be displayed. The pictures are saved in "\*.rdf" format in addition to "\*.pd" format.
2. You have to create or set up users for WebUX in the WinCC User Administrator.  
Activate the "WebUX" option in the user properties and select the WebUX start picture for the user.

## Using WebUX on the end device

### Requirement:

- A "WinCC WebUX" license is installed on the server.
- The WinCC project is in Runtime.

### Procedure:

1. Go to the address bar of the browser and enter the address "https://<server name>" of the WebUX server.  
If you are not using the standard port, the port number needs to be added to the URL, e.g. "https://<server name>:<port number>".  
If you are using a virtual directory instead of a web page, the name of the virtual web folder needs to be added to the URL, e.g. "https://<server name>/<directory name>".
2. Type in the user name and password.

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### Note

The IIS on Windows 7 supports a maximum of 10 connections or instances. If the limit is exceeded, you can no longer operate the instances already connected.

WebUX requires more than one connection at the time. This means a maximum of 3 or 4 WebUX clients can connect under Windows 7. You should generally use a server operating system for such Web applications.

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