How do I use WinCC/WebNavigator or WinCC/DataMonitor with Microsoft Edge?

WinCC Runtime V7
WinCC Professional Runtime V17

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1 Introduction

Up to now, the operation of a WinCC WebNavigator or DataMonitor client (web client) via a browser has been documented in the WinCC manual exclusively for Microsoft "Internet Explorer" (IE). This document describes how to configure IE compatibility mode for the Microsoft Edge browser as an alternative.

In IE compatibility mode, you can operate a web client via the Edge browser even if IE has been disabled in Windows.

1.1 General Information

Edge is released as a client browser as of the following versions of the WinCC options WebNavigator and DataMonitor:

- WinCC V7.5 SP2 Update 1
- WinCC V7.4 SP1 Update 17
- WinCC Professional TIA V17

To set up a web client for Edge, the following steps are necessary:

1. Configure the IE settings via "Windows > Control Panel > Internet Options" as listed in the following instruction under "Procedure" starting at point 2:

   Manual WinCC Basic Options V7.5 SP2:
   WebNavigator, DataMonitor, WebUX
   "Internet Explorer settings"
   https://support.industry.siemens.com/cs/ww/en/view/109792604/102782686347

2. Configure the Internet Explorer mode in the Group Policies for the Edge browser.

3. Configure the web pages and create the web page list as an XML file.

See this Microsoft article for more information on how to do this:

- "Configure IE mode policies"

  https://docs.microsoft.com/en-us/deployedge/edge-ie-mode-policies

Perform these steps on all PCs that you are using as a web client.

1.2 Disable Internet Explorer

To use Edge exclusively in "Internet Explorer Compatibility Mode", disable Internet Explorer as described in this Microsoft article:

- "Disable Internet Explorer 11"

  https://docs.microsoft.com/en-us/deployedge/edge-ie-disable-ie11

If you follow these instructions for disabling Internet Explorer, the file "iexplore.exe" will still be available on the PC.

1.3 Restrictions for WinCC/DataMonitor and WinCC/WebNavigator

Notes

- **Browser data management**

  If you open web pages in Internet Explorer mode, the browser data is stored in both the Edge browser and Internet Explorer.

  If necessary, delete the browser data in both browsers, the cookies and cache data, for example.

- **WinCC/WebUX: No Internet Explorer mode**

  For WebUX, these adjustments are not necessary.

  If you are using Edge as your browser, WebUX must not be running in Internet Explorer mode.

- **Self-created ActiveX controls**

  Check the compatibility of self-created ActiveX controls in Microsoft Edge.

  More information is available in the system manual "WinCC Basic Options V7.5 SP2":

  - "Operating the WinCC project with Internet Explorer > Internet Explorer settings"

    https://support.industry.siemens.com/cs/ww/en/view/109792604/102782686347

  - "WinCC/WebNavigator Release Notes > Information about WebNavigator"

    https://support.industry.siemens.com/cs/ww/en/view/109792604/140219430667

WinCC/DataMonitor you can use without restrictions.

For WinCC/WebNavigator the following restrictions apply:

- **Re-Login after logout**

  If you have installed WinCC V7.5 SP2 Update 7 or higher, this behavior no longer occurs.

  With WinCC versions prior to this, it may be necessary to refresh the browser to log in again in the following cases, e.g. with <F5> or via the "Refresh" button:

  - The user is logged out via automatic logout (WinCC Explorer > User Administrator > Properties - User > Logout).

  - The user is logged out via the "Status.html" diagnostics page.

  - The user is logged out via the "PWRTLogout" function.

- **Licensing: Number of tabs per browser**

  After deactivating Runtime, the licensing behavior changes.

  If you open multiple tabs in the browser after reactivating the project, a license is occupied for each tab.

  To avoid this behavior, close the browser after deactivating Runtime.

  For more information on tabs in the browser, refer to the "WinCC Basic Options V7.5 SP2" system manual:

  - "Configuring the WebNavigator system: Configuring runtime settings"

    https://support.industry.siemens.com/cs/ww/en/view/109792604/124048870283

2 Preparation: Configure XML file for web pages

With a custom policy for Microsoft Edge you determine the behavior of individual web pages.

To install the policy, you create an XML file. The XML file contains the information about which web pages are displayed in Internet Explorer 11 in Enterprise mode.

The settings of the XML file then apply to the listed web pages instead of the generally specified settings.

The policy applies only to the PCs on which it is additionally installed. As a result, only the selected web pages will use Internet Explorer mode.

2.1 Enterprise Mode Site List Manager

Use the Microsoft tool to create and manage the XML file.

Download:

"Enterprise Mode Site List Manager (schema v.2)"

• https://www.microsoft.com/en-us/download/details.aspx?id=49974

More information about the Enterprise mode:

"Enterprise Mode Scheme V.2 Policies"

• https://docs.microsoft.com/en-us/internet-explorer/ie11-deploy-guide/enterprise-mode-schema-version-2-guidance

2.2 XML File - Settings

Table 2-1

Parameters	Setting
<version>	12.0.0.0
<site url>	Use the computer name or the IP address.
<compat-mode>	When using the IP address: "IE8 Enterprise Mode" When using the computer name: "Default Mode"
<open-in>	IE11 All web pages with the entry "IE11" are opened in Edge in the Internet Explorer mode.

2.3 XML File: Example for two WebNavigator servers

The client has access to the web servers "web01" and "web07".

```
<site-list version="1">
   <created-by>
      <tool>EMIESiteListManager</tool>
      <version>12.0.0.0</version>
      <date-created>02/18/2021 13:14:28</date-created>
   </created-by>
   <site url="web07">
      <compat-mode>Default</compat-mode>
      <open-in>IE11</open-in>
   </site>
   <site url="web01">
      <compat-mode>Default</compat-mode>
      <open-in>IE11</open-in>
   </site>
</site-list>
```

3 Requirements for configuring the Internet Explorer mode

- You need administrator rights to configure the Group Policy.
- The current version of "Microsoft Edge" must be installed.

  The download is available under "Microsoft Downloads":

  https://www.microsoft.com/en-us/edge/business/download
- Internet Explorer 11 must be installed on the PC.

  On PCs with Windows 7 operating system, Internet Explorer 11 may need to be post-installed.
- The Windows version on the computer is up to date.

  All pending operating system updates are installed, except for updates identified as problematic by our system test. In this regard, refer to the following FAQs:

  - "Which Microsoft patches are recommended for operating SIMATIC WinCC V7 ("Security Updates", "Critical Updates" and "Definition Updates")?"

    https://support.industry.siemens.com/cs/ww/en/view/18752994

  - "Which Microsoft patches are recommended for operating SIMATIC WinCC (TIA Portal) ("Security Updates", "Critical Updates" and "Definition Updates")?"

    https://support.industry.siemens.com/cs/en/en/view/109749283
- If you use the computer name in the "site url" setting, the name resolution must be configured in Windows.

  More information about name resolution is available in this entry:

  "What are the requirements for operating SIMATIC WinCC in a Windows network?"

  https://support.industry.siemens.com/cs/ww/en/view/868014

4 Configure Group Policy: Enable Internet Explorer mode

To use WinCC/WebNavigator with the Microsoft Edge browser, you have to change the settings for the Group Policy.

1. Install the current version of the Microsoft Edge browser.

2. Download the current policy templates:

   https://www.microsoft.com/en-us/edge/business/download

   Under "Need to download older builds and versions?" select the data of the relevant system under "Select channel/version", "Select build" and "Select platform".
   This activates the "GET POLICY FILES" button. Use this to download the corresponding policy templates.

3. Unpack the policy templates.

4. Copy the "msedge.admx" file from the path \windows\admx into this folder:

   C:\Windows\PolicyDefinitions

5. Copy the "msedge.adml" file from the path

   \windows\admx\<operating system language>

   into the following folder:

   C:\Windows\PolicyDefinitions\<operating system language>

   Example: C:\Windows\PolicyDefinitions\en-US

6. In the "Windows System" program group, select the "Command Prompt" item.

   The DOS window opens.

7. Enter the following command line:

   GPUpdate /Force

   The Group Policies are updated.

8. Enter "gpedit.msc" in the Windows search box to open the local Group Policy Editor.

9. Select "Computer Configuration > Administrative Templates > Microsoft Edge".

   To sort the list alphabetically, click the "Setting" column heading.

10. Double-click "Configure Internet Explorer Integration".

11. Select the "Enabled" option.

   In the Options field, the drop-down list displays the settings for Edge:

   Table 4-1

Internet Explorer mode	The Internet Explorer mode is not active, but can be enabled via the function "edge://flags" or via the command line.
Internet Explorer 11	The web pages are opened in an independent Internet Explorer 11 window.
None	Prevents users from configuring Internet Explorer settings via the "edge://flags" function or via command line.

12. Select "Internet Explorer mode" in the "Options" field.

13. Close the dialog with "OK".

5　　Install your own policy

1. Use the "Enterprise Mode Site List Manager" tool to create the policy with the list of web pages.

   Use "File > Save to XML" to create the policy as an XML file, e.g. "sites.xml".

   Note: The required settings are already described above, under "Preparation: Configure XML file for web pages".

2. Copy the XML file to a network path or locally to the PC, e.g. to the folder "C:/TEMP/iemode".

3. Enter "gpedit.msc" in the Windows search box to open the local Group Policy Editor.

4. Select "Computer Configuration > Administrative Templates > Microsoft Edge".

5. To sort the list alphabetically, click the "Setting" column heading.

6. Double-click "Configure Enterprise Mode Site List".

7. Select the "Enabled" option.

8. Enter the storage path of the web page list under "Options".

   Use one of the following variants to enter the storage path:

   Table 5-1

Path specification	Example
URL (HTTPS)	https://iemode/sites.xml
Network path	\\network\shares\sites.xml
Local file	file:///C:/TEMP/iemode/sites.xml

9. Close the dialog with "OK".

10. In the "Windows System" program group, select the "Command Prompt" item.

    The DOS window opens.

11. Enter the following command line:

    GPUpdate /Force

    The Group Policies are updated.

12. Open the Edge browser.

13. Enter the following call in the address line:

    edge://compat/enterprise

    In the "Microsoft Edge Compatibility" area, the "Enterprise Mode Site List" opens.

14. Click "Force update".

    The policy is loaded. The included web pages and their settings are displayed.

6 Configure Group Policies and web pages to operate in a domain

If you use WinCC/WebNavigator or WinCC/DataMonitor in a domain, follow this procedure:

1. Install the current version of the Microsoft Edge browser.

2. Download the current policy templates:

    https://www.microsoft.com/en-us/edge/business/download

    Under "Need to download older builds and versions?" select the data of the relevant system under "Select channel/version", "Select build" and "Select platform".
    This activates the "GET POLICY FILES" button. Use this to download the corresponding policy templates.

3. Unpack the policy templates on the domain controller.

4. Copy the "msedge.admx" file from the path \windows\admx into this folder:

    C:\Windows\PolicyDefinitions

5. Copy the "msedge.adml" file from the path

    \windows\admx\<operating system language>

    into the following folder:

    C:\Windows\PolicyDefinitions\<operating system language>

    Example: C:\Windows\PolicyDefinitions\en-US

6. In the "Windows System" program group, open the "Command Prompt" item as an administrator:

    Select the "Run as administrator" entry in the context menu.

    The DOS window opens.

7. Enter the following command line:

    GPUpdate /Force

    The Group Policies are updated.

8. Open the local Group Policy Editor and select the following path:

    Group Policy Management > Overall Structure > Domain > Group Policy Objects > Default Domain Policy

9. Select the "Edit" entry in the context menu.

10. Select "Computer Configuration > Administrative Templates > Microsoft Edge".

    To sort the list alphabetically, click the "Setting" column heading.

11. Double-click "Configure Internet Explorer Integration".

12. Select the "Enabled" option.

13. Select "Internet Explorer Mode" in the "Options" field.

14. Close the dialog with "OK".

15. Create the XML file and install your own policy on the domain controller.

16. Install the policy on the domain client computer:

    Open the "Command Prompt" and enter the following command line:

    GPUpdate /Force

    Open the following call in the Edge browser:

    edge://compat/enterprise

    Click "Force update" to download the policy.

    The included web pages and their settings are displayed.

7 Annex

7.1 Additional Links

System Manuals

- WinCC V7

  WinCC Basic Options V7.5 SP2: WebNavigator, DataMonitor, WebUX
  https://support.industry.siemens.com/cs/ww/en/view/109792604/141216796939

- WinCC Professional
  SIMATIC HMI WinCC (TIA Portal) WinCC Engineering V17 – Options
  https://support.industry.siemens.com/cs/ww/en/view/109794201/144184611595

Updates

- Updates for WinCC V7.5 SP2 and WinCC V7.5 SP2 ASIA

  https://support.industry.siemens.com/cs/en/en/view/109793460

- Update 19 for WinCC V7.4 SP1 and WinCC V7.4 SP1 ASIA[1]

  https://support.industry.siemens.com/cs/en/en/view/109806846

- Updates for WinCC Runtime Professional V17

  https://support.industry.siemens.com/cs/ww/en/view/109800913

[1] To be informed about updates for WinCC V7.4 SP1 that may be released after the completion of this article, subscribe to our newsletter:

- Under "Individual notifications and filters", here is a video that shows how to configure the Newsletter:

  https://support.industry.siemens.com/cs/sc/2063/useful-functions-in-the-online-support-(videos)?lc=en-WW

- Here you will find an overview of your filters and favorites: Quick guide > "Recent notifications (Newsletter)":

  https://support.industry.siemens.com/cs/start?lc=en-US

7.2 Change Documentation

Table 7-1

Version	Date	WinCC version
V1.0	2021-03-01	WinCC V7.5 SP2 Update 1
V2.0	2021-05-01	WinCC V7.5 SP2 Update 2 WinCC V7.4 SP1 Update 17
V3.0	2021-09-08	WinCC Runtime Professional V17 (TIA Portal) added
V4.0	2022-03-11	WinCC V7.5 SP2 Update 7 WinCC V7.4 SP1 Update 19 WinCC Runtime Professional V17 Update 3 (TIA Portal)