Control Panels CP600 with MicroBrowser

CP620-WEB, CP630-WEB, CP635-WEB
CP650-WEB, CP660-WEB, CP675-WEB,
WinCE Edition, Version 6.0

Content

Before You Start

Safety Notices

⚠ **DANGER!**	Indicates an imminent risk. It will lead to death or serious injury if not avoided.

⚠ **WARNING!**	Indicates a possible risk. It may lead to death or serious injury if not avoided.

⚠ **CAUTION!**	Indicates a possible risk. It may lead to light or slight injury or material damage if not avoided.

Markups

- Enumeration.
- ✓ Precondition for an operation instruction or a description.
    - → Operation instruction with one step.
1. Operation instruction with several steps.
    - ➤ Result of an operation.

👆 **NOTE**	Helpful information with background information or an emphasized notice.

💡 **TIP**	Application tips or other useful information and suggestions.

License

The CP6xx-WEB Control Panels already contain the license for the MicroBrowser.

Java is a registered trademark of Sun Microsystems Inc.

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Windows NT/95/98/ME/2000/XP and WinCE are registered trade marks of Microsoft Inc.

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Pentium is a registered trademark by Intel Inc.

SpiderControl is a registrated trademark by IniNet Solutions GmbH, Switzerland.

SpiderLink is the internal API name from IniNet Solutions GmbH, Switzerland.

Abbreviations

Abbreviation	Description
MMI	Man Machine Interface, e.g. a SpiderControl views displayed at a touch panel or browser.
View	A view is what the user of a MMI sees at one moment inside a window or a browser. A *.teq file implements a view.
*.teq	File extension for a SpiderControl view file generated by the SpiderControl EDITOR.
Painter	A painter is a graphic object, which is used by the SpiderControl EDITOR. This object is programmed in Java. Several painters were packed into an applet which resides on an embedded system.
Applet	A Java program, which can be launched in a browser from within a HTML page.
PPO	Stands for process point. A process point is a variable of the user application that should be made visible towards the MMI.
Container	A container is a local variable, which has a scope within the actual applet/view. Containers are used to exchange values between different painters in a view or between different views of the same applet.

Overview

The CP600-WEB Control Panels of ABB provide an ideal solution to represent the CoDeSys in built visualization of PLCs on a brilliant touch screen.
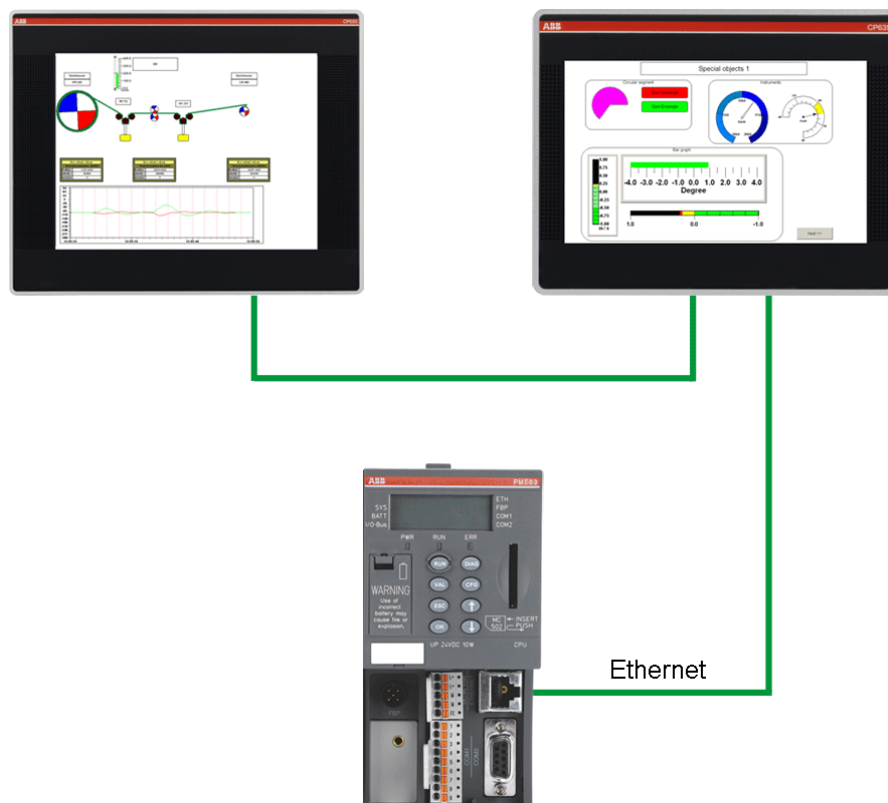
The MicroBrowser of the CP600-WEB Control Panels reflects directly the variables and pictures created in the CoDeSys visualization which are integrated and downloaded to the webserver of the PLC. No separate programming tool for the Control Panel is needed. The screens are programmed inside the PLC programming tool CoDeSys and downloaded to the PLC webserver.

The startup procedure of the CP600-WEB panels is explained in chapter "First Steps", page 6.

The CoDeSys visualization can access every variable of the PLC program without any synchronization tool. The range of features reaches from normal buttons, meter instruments, trends and histograms, integration of graphic files, alarm handling, dynamic language change, user right management and programmability of objects up to excecution of special internal programs like changeover to another PLC, exit the program or change passwords. To see all supported features by the MicroBrowser on the CP600-WEB Control Panel refer to chapter "**Error! Reference source not found.**", page **Error! Bookmark not defined.**.

The combination of a CP600-WEB Control Panel and an AC500 PLC with integrated webserver linked together via Ethernet gives an easy and professional graphical interface to the AC500 PLC. Depending on the type of AC500 up to 12 CP600-WEB Control Panels can access the AC500 webserver at a time. The built-in 2-port-Ethernet-switch of some CP600-WEB Control Panels makes an additional switch unnecessary while programming and testing or connecting more than one Control Panel to the AC500.

A short introduction of how to configure the AC500 to create an accessible visualization via the webserver is given in chapter "Configuration of an AC500 visualization", page 21.
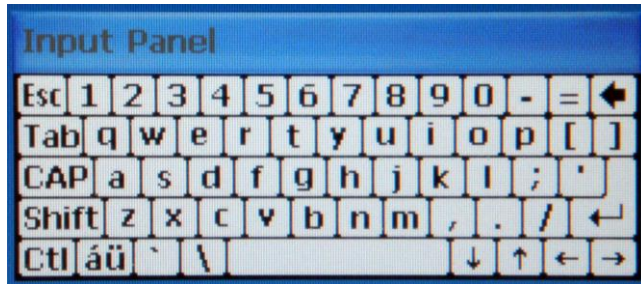
First Steps

Soft Input Panel (SIP)

Instead of connecting a keyboard via the USB port of the CP6xx-WEB Control Panel, a soft input panel can be used.

1. To access the soft input panel click on the red pencil or grey keyboard symbol on the right corner of the taskbar.
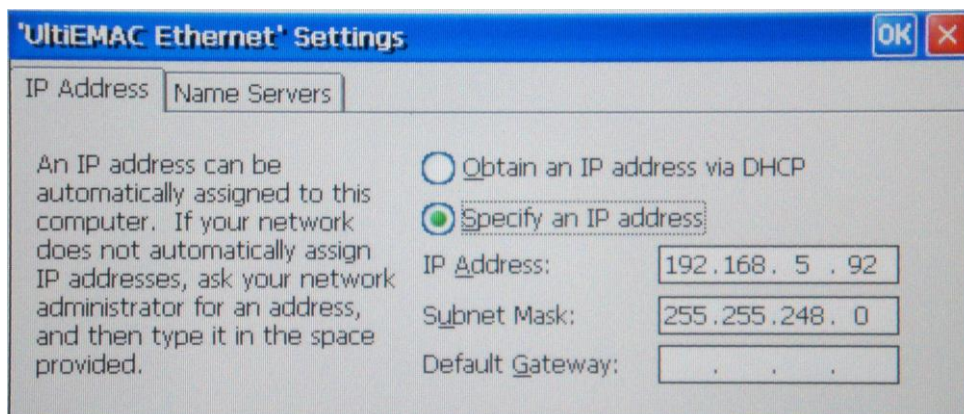

2. Select **Keyboard** to activate and **Hide Input Panel** to deactivate the keyboard.

3. Select **LargeKB** to activate a larger keyboard and **Keyboard** to return to the smaller keyboard.

Setup of the IP Address

If a fixed IP address is used instead of obtaining an IP address via DHCP.

1. Click on Windows **Start**.

2. Select **Network and Dial-up Connections**.

3. Double click on the Ethernet network symbol: **ULTIEMAC1** or **EMAC1**.

4. Change the IP address of the CP6xx-WEB Control Panel by using the soft input panel or connected USB-Keyboard.

5. IMPORTANT: To make this change permanent, exit the Network Connections and double click on the icon **Registry Save** on the desktop.

Configuration Mode of MicroBrowser (Kiosk-Mode)

The MicroBrowser can run in "Kiosk-Mode" where the menu and the task bar will disappear.

1. To activate the Kiosk-Mode open *My Device\Flash\MicroBrowser* and double click on the icon **KioskMode**.

KioskMode

2. To activate the menu and task bar double click the icon **NoKioskMode**.

Default is NoKiosk-Mode.

Autostart of MicroBrowser

1. To automatically start the MicroBrowser at startup of the Control Panel open *My Device\Flash\MicroBrowser* and double click the icon **Enable_Autostart**.
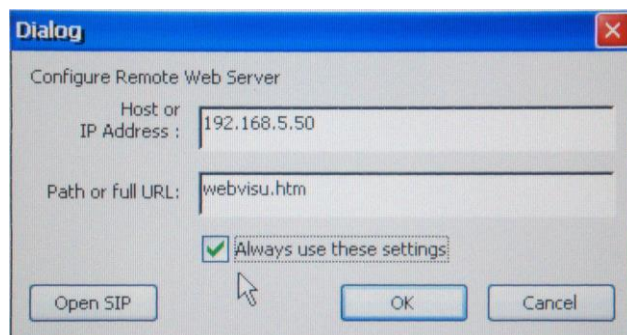

Enable_Autostart

2. To deactivate the autostart of the MicroBrowser double click the icon **Disable_Autostart**.

Start MicroBrowser

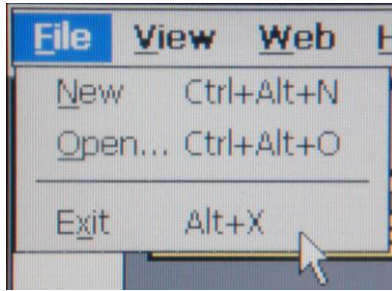1. To start the MicroBrowser double click the icon MicroBrowser.

MicroBrowser_CE

➤ The dialog of the host or IP address appears.

2. Default remote address is `http://192.168.0.10/webvisu.htm`. Change this IP address to the address of your remote web server (IP address of target PLC).

➤ This address will be stored unless you change to Kiosk-Mode or NoKiosk-Mode like described above.

3. To access the CoDeSys web server of AC500 type `webvisu.htm` in the field *Path or full URL*.

4. If you select the checkbox *Always use these settings* this configuration dialog will not appear any-more, unless you change to Kiosk-Mode or NoKiosk-Mode like described above.
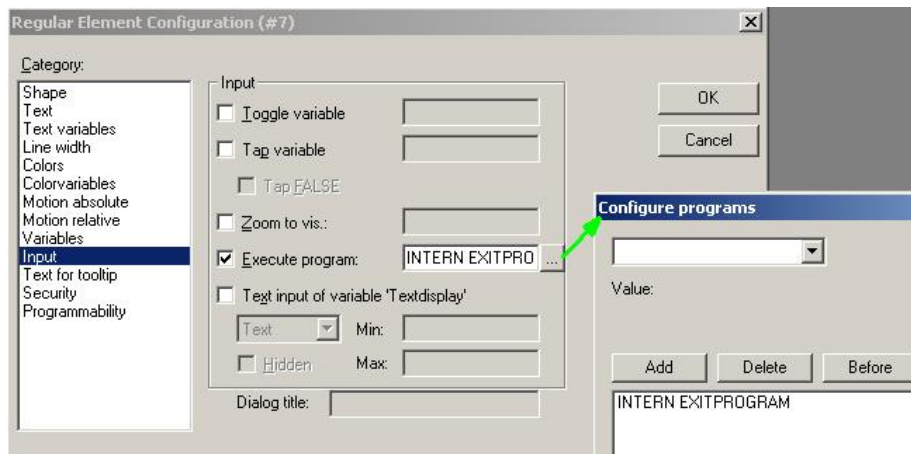
Exit MicroBrowser

→ If the MicroBrowser is not running in Kiosk-Mode use *File\Exit* from the menu bar.

→ If the MicroBrowser is running in Kiosk-Mode connect a USB-Keyboard and press <Shift> + <X>

→ In the CoDeSys visualization an exit button can be created. Choose the category **Input**.
Enable **Execute program**. Select **(INTERN) EXITPROGRAM** as configured program.

If Autostart is enabled and no keyboard is available:

1. Create a file *autoexec.bat* with the line `del \Flash\autoexec.bat`.

2. Copy this file to the root of an USB-Stick and insert it while the Control Panel is running.

3. Reboot the Control Panel. After the reboot the autostart is disabled.

Calibrate the Touch of the Display

1. Click on Windows **Start**.

2. Select **Control Panel**.

3. Double click on the symbol **System Settings**.
The system settings tool is a rotating menu through which you can scroll using the **Next** and **Back** buttons.

4. Click on **Next** until *Calibrate Touch* appears in blue in the middle.

5. Double click it and follow the instructions.

6. Exit the rotating menu by pressing the cross in the upper right corner.

Update of the MicroBrowser

→ If a newer version of the MicroBrowser is available just replace the file
`My Device\Flash\MicroBrowser\MicroBrowser_CE.exe` with the new one copied on a USB-Stick.

Be careful to select the right file for your Control Panel type.

CoDeSys Visualizations

Main feature	Supported	Not supported	Remarks
General visualization elements	Rectangle		
	Ellipse		
	Polygon		
	Polyline		
	Curve		
	Bitmap		
	Visualization		
	Button		
	WMF file		
	Scrollbar		
	Meter		
	Histogram		
	Line width (dynamic change)		
	Motion absolute		
	Motion relative		
	DEFINELANGUAGE		
	Variables: Invisible		
	Disable Buttons		
	Textdisplay variables (%s …)		
	Visu in visu with placeholder		
Text variables (dynamic change)	Text flags	Font name	Only one font supported
	Font height	Font flag: underline	
	Text color	Font flag: strike through	
Special input possibilities	CHANGEPASSWORD		
	CHANGEUSERLEVEL		After Powerup the first change of userlevel is rejected. Working fine from the second change on.
	CONNECT_TO		
		LANGUAGEDIALOG	Pulldown menu for language selection partly does not work fine. Work around: Direct buttons
	EXITPROGRAM		

Main feature	Supported	Not supported	Remarks
Color variables	Color change (normal, alarm)	Frame flags	
	Fill flag		
Bar display	Partly color change	Total color change	
Trend	Type of line (same for all lines in one trend)	Different types of line in one trend	The type of line of the first one is shown for all lines of the trend.
Input: Min/max	Min/max limitation	Displaying min/max values	Keypad and numpad
Hidden input		Showing text before hidden input	E.g. Pwd: %s results in "xxxx" instead of "Pwd: xxxx"
Num pad		Displaying min/max in title	
Keypad		Keypad	Replaced by Windows input but without title
Text		title	
		Cyrilic font	
Tables	Number of lines up to 500	Number of lines >500	Values in different columns will be mixed
Alarm table		Buttons: Play, Pause, History	
		Italic headline	
Variables		Tooltip display	
Tooltip		Text for tooltip	
Receipt		DEFINERECEIPT	
		READRECEIPT	
		WRITERECEIPT	
Watch		SAVEWATCH	
		LOADWATCH	
Writeaccess		Request/Release Writeacces	No client ID is given by the CP600 panels.

XML Configuration File

It is essential that the MicroBrowser can write, open and modify this file on the local file system. The XML file is called `uBrowser.xml` and is located in the installation directory of the *MicroBrowser_CE.exe*. The file can be edited with any ASCII text editor. The contents of this file is as follows (contents may vary):

```
10    <?xml version="1.0" encoding="UTF-8" standalone="yes" ?>

11    <uBrowser>

12          <!--Configuration file of the MicroBrowser-->

13          <version>130</version>

14          <start_page>http://192.168.0.10/webvisu.html</start_page>

15          <log_file>uBrowser.log.txt</log_file>

16          <proxy_host></proxy_host>

17          <proxy_port>80</proxy_port>

18          <vpi_user></vpi_user>

19          <vpi_pass></vpi_pass>

20          <reg_code></reg_code>

21          <prompt_url>1</prompt_url>

22          <full_redraw>1</full_redraw>

23          <debug_level>1</debug_level>

24          <kiosk>1</kiosk>

25          <keep_alive>0</keep_alive>

26          <httpd_enabled>0</httpd_enabled>

27          <httpd_port>80</httpd_port>

28          <sip>1</sip>

29          <img_mem_max>2097152l</img_mem_max>

30          <temp_dir>\Temp\~mb~</temp_dir>

31          <warn_btn>1;0;!;1,1,23,23;255,128,64;0,0,0;</warn_btn>

32          <remote_mode>0</remote_mode>

33          <teq_cache>0</teq_cache>

34          <loading_msg>1;0;Loading...;0,0,0,0;0,0,0;0,0,0;</loading_msg>

35      <show_selection>0</show_selection>

36      <config_page></config_page>

37      <config_file></config_file>

38          <httpd_debug_level>0</httpd_debug_level>

39          <boot_delay_sec>0</boot_delay_sec>

40          <set_width>0</set_width>

41          <set_height>0</set_height>

42          <inactivity_to_sec>0</inactivity_to_sec>

43          <inactivity_pts_ms>0</inactivity_pts_ms>
```

```
44        <tmz_en>0</tmz_en>

45          <mem_ramdisk_kb>0</mem_ramdisk_kb>

46          <mem_heap1_kb>0</mem_heap1_kb>

47          <mem_heap2_kb>0</mem_heap2_kb>

48          <mem_heap3_kb>0</mem_heap3_kb>

49          <mem_lrheap_kb>0</mem_lrheap_kb>

50        <mfc_http_en>1</mfc_http_en>

51        <mfc_http_cache>1</mfc_http_ cache >

52        <http_version>0</http_version>

53        <shift_hotkeys_en>1</shift_hotkeys_en>

54        <perco_file>uBrowsCo.xml</perco_file>

55        <storage_path></storage_path>

56        <built_in_dialog>0</built_in_dialog>

57     <scale_factor>1</scale_factor>

58        <export_en>1</export_en>

59        <export_path>C:\temp\Files</export_path>

60     </uBrowser>
```

<version> Version

Version of the configuration file. DO NOT MODIFY IT!

<start_page> Start Page

Start URL, to open either a local file or remote file:

· <start_page>Start.html</start_page> relative to the program path.

· <start_page>http://192.168.1.10/Start.html</start_page>

Default is "webvisu.htm".

<log_file> Log File

The MicroBrowser is able to create a log file for debug purposes. This file will increase, until it reaches 1 MB. It is cleared each time you restart the program. See also <debug_level>.

Default is "uBrowser.log.txt".

<proxy_host>, <proxy_port> Proxy

Both tags may contain the respective information. Leave the <proxy_host> empty, since these properties are not yet supported.

<vpi_user>, <vpi_pass> VPI

These properties are only needed, if you plan to access a target system over internet, using VPI-Portal. These properties contain username and password for the portal. Please contact iniNet for details.

<prompt_url> Registration Code

The license key is already available in the CP6xx-WEB Control Panel. There is no need to enter a registration code.

<prompt_url> Prompt URL

If this property is set to 1, the MicroBrowser will open the URL dialog on startup. Set to 0, to force the MicroBrowser to directly start the page defined in <start_page>. In this case, it will not open the dialog anymore (same as choosing "Do not open…").

See also shortcuts Alt-O to restore this option back.

Default is 1.

<full_redraw> Full Redraw

Sets the MicroBrowser to perform a full redraw for each update. If this property is set to 0, the MicroBrowser will perform conditionnal redraws, meaning that only changing objects will be drawn. This option improves the refresh of the MicroBrowser but requires that the HMI is well designed to support this option. Also, you can change this option at runtime, for a specific view, by writing 0 (on gain focus event) and 1 (on lost focus event) onto the container variable "@MB_FULL_REDRAW".

We suggest to leave the default option, i.e. 1.

<debug_level> Debug Level

Increasing the debug level will generate more information in the log file. 0 turns logging off, 1 is the default setting, 2 is the maximum.

<kiosk> Kiosk-Mode

Switches the MicroBrowser to the so-called Kiosk-Mode, where the menu bar will disappear. To hide the task manager bar of WinCE, use the configuration dialog of the operating system: Right button click on the task-bar, choose **hide**.

In this mode, a thin frame of 2 vertical and 5 horizontal pixels will remain. E.g. if you use a VGA resolution, choose a view size of 635 x 470 pixels to avoid scroll-bars.

- 0: Kiosk-Mode is disabled.

- 1: Kiosk-Mode with frame and task bar.

- 2: Kiosk-Mode without frame and task bar (full screen & always on top).

- 3 same as 2 but hot-keys like Shift-O, Shift-X, Alt-O, Alt-X, … are disabled.

- 4: The full screen is enabled but the view is not always on top.

- 5: This mode allows to start the MicroBrowser (XP only) by adjusting its window size with the size of the applet-tag defined in the html file of the web project. See the project configuration dialog in editor. Not full screen.

The Kiosk-Modes 0, 2, 3, 4 and 5 are implemented on MicroBrowser XP too.

<keep_alive> Keep Alive

Sets the options for HTTP 1.1 to keep a socket open. If ever possible, choose 0 to support HTTP 1.0 to avoid trouble.

<httpd_enabled> HTTPD Enabled

If this tag is set to 1, the MicroBrowser will start a web server listening on the port specified by <httpd_port>.

<httpd_port> HTTTPD Port

Port number of the enabled webserver. Should be "80".
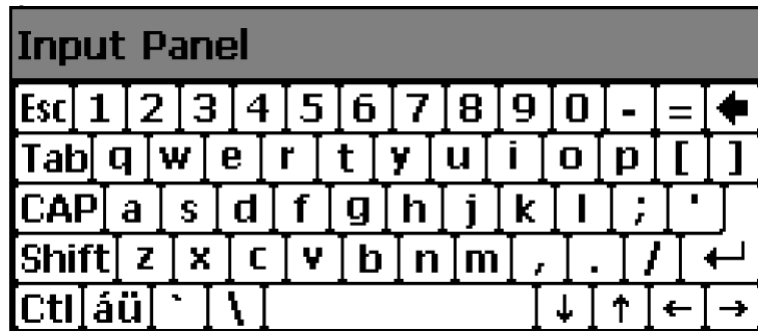
<httpd_debug_level> HTTPD Debug Level

Debug level for the webserver. 0 will turn logging off, 2 is the maximum. This option will help you to see the incoming requests from any browser on the webserver. The output file is "eweb.log".

Default is 0.

\<sip\> Soft Input Panel

SIP stands for Soft Input Panel and defines the way to edit any value on the SpiderControl MicroBrowser under Windows CE.

Set to 0 to disable the Windows SIP and use instead of the keypad.teq and alphapad.teq in your web project.

Set to 1 to enable the Windows SIP and automatically open the Windows SIP dialog (default).

Set to 2 to enable the Windows edit-box but without opening the SIP dialog. In the two latest cases, the user may edit the value with a PS2 or USB keyboard. Default is 1.

Sets the SIP method:

- 0: Windows SIP is disabled, use keypad.teq and alphapad.teq.

- 1: Windows SIP is enabled, open the SIP on edit-box (*).

- 2: Windows edit-box is enabled, but do not open the SIP dialog.

- 3: Windows SIP is enabled in edit-box, like for SIP 1. And force the opening and closing of the SIP on every Windows input dialog, like the configuration dialog.

\<img_mem_max\> Image memory max

Sets the maximum size in bytes used to cache image files in the MicroBrowser.

Default is 2 MB: "2097152".

\<temp_dir\> Temporary Directory

Sets the temporary directory but also the prefix of temporary files. Should be */Temp/~mb~* or *~mb~*. The latest will create temporary files with prefix *~mb~* on relative path.

\<warn_btn\> Warning Button

Warning button: Configure the warning button in the following way:

```
1;time_in_sec;Label;x,y,width,height;bgndRed,bgndGreen, bgndBlue; fgn-
dRed,fgndGreen,fgndBlue;
```

Explanation:

`1`: The first option allows to enable=1 or disable=0 the button.

`time_in_sec`: Time in second to display the button. 0 means always on top.

`Label`: Text in button.

`x,y,width,height`: Allows to configure the position and the size of the button.

`bgndRed,bgndGreen, bgndBlue; fgndRed,fgndGreen,fgndBlue` : Allows to define the foreground and background color in decimal RGB code.

Default: `1;0;!;1,1,23,23;255,128,64;0,0,0;`

Example: `1;0;Warning!;1,1,80,30;255,128,64;0,0,0;`

\<remote_mode\> Remote Mode

Sets the remote mode in this way:

- 0: Files and RPC are remote (default)

- 1: Local files with remote RPC

- 2: Local files with local PPO variables, but remote write.

Set this option to 1 in order to load HMI files from local file system (on MicroBrowser side) and only send CGI requests on the target. The IP address and the path comes from the start page. For example, in the URL: *http://192.168.1.2/demo/start.html* CGI requests: *http://192.168.1.2/cgi-bin/…*, and pathes for local files are: *.\demo\start.html, .\demo*.teq, .\demo*.gif, ….*

\<teq_cache\> TEQ Cache

If this option is enabled, the MicroBrowser will perform the caching of TEQ files in Ramdisk. We suggest to disable this option (= 0), and use the Windows cache, see \<mfc_http_en\> and \<mfc_http_cache\>. See also \<mem_ramdisk_kb\> if the TEQ cache is enabled.

Default is 0 for Windows and 1 for other platforms.

\<loading_msg\> Loading Message

Configure the loading message displayed on TEQ jump.

`1;Param;Text;x,y,width,height;bR,bG,bB; fR,fG,fB;`

Explanation:

`1`: The first option allow to enable=1 or disable=0 this feature.

`Param`:

- 0: Text is centred using width and height of the TEQ file.

- 1: Text is centred using following parameters: x,y,width,height.

- 2: Text is the file name of the image to display on coordinates specified by following param.: x,y,width,height.

`bR,bG,bB`: Background color (unused).

`fR,fG,fB`: RGB color of the text.

Default: `1;0;Loading...;0,0,0,0;0,0,0;0,0,0;`

Example: `0;2;sanduhr.gif;4,412,20,20;0,0,0;0,0,0;`

\<show_selection\> Show Selection

Sets the MicroBrowser to perform the drawing of the selected objects.

Default is 0.

\<config_page\> Configuration Page

Sets the MicroBrowser to open any configuration page before jumping on any URL. The MicroBrowser will ignore the start page if any configuration page is defined and if \<prompt_url\> is set to 0. If the specified URL cannot be opened, it will return to the config page, to let the user change the URL, and it will try again after a few seconds.

Default is empty.

Example: `<config_page>MB_Config/MB_Config.html</config_page>`. In this case, the MicroBrowser expects that the configuration project is placed relative to the program path, in the subfolder MB_Config and the file *MB_Config.html*. See also chapter "\<config_file\> Configuration File".

\<config_file\> Configuration File

Define the configuration file used to store data from configuration project.

The default setting is empty, but the default file name is "MB_Config.ini". See also chapter "<config_page> Configuration Page".

Example: `<config_file>MB_Config/MB_Config.ini</config_ file>`

<boot_delay_sec> Boot Delay in Seconds

Sometimes, on reboot, the MicroBrowser needs to wait for the system to initialize all resources, like network adapters. This option allows you to set the number of seconds to wait, at startup, before the MicroBrowser tries to load the start page.

Default is 0 (disabled).

<set_width> Set Width

Set the width of the view. The default behavious of the MicroBrowser is that the view is automatically resized to the size of the teq file, showing scrollbar if necessary. This property will force the width of the view and ignore the width of the teq file.

Default is 0 (auto).

Example: 320 (pixels)

<set_height> Set Height

Set the height of the view. The default behavious of the MicroBrowser is that the view is automatically resized to the size of the teq file, showing scrollbar if necessary. This property will force the height of the view and ignore the height of the teq file.

Default is 0 (automatically).

Example: 240 (pixels)

<inactivity_to_sec> Inactivity Timeout in Seconds

Set the inactivity timeout in seconds used to substitute the refresh period. See Inactivity Poll Time Substitute.

Default is 0 (disabled).

Example: 60 (seconds)

<inactivity_pts_ms> Inactivity, Poll Time Substitute in Milliseconds

Set the poll time of substitution in milliseconds, to use as soon as the timeout is reached. This feature is usefull to reduce the traffic on the network. First the MicroBrowser starts with the refresh period defined in the SpiderControl Editor project, can be fast. If no activity is detected after a time defined in „inactivity_to_sec", the MicroBrowser will use the refresh period configured in <inactivity_pts_ms>. As soon as the MicroBrowser detects any user activity again, it will restore the default refresh period from the project.

Default is 0 (disabled).

Example: 3000 (ms)

<tmz_en> Timezone Enabled

Set if time zone is enabled to display date and time for alarming and for offline trend. We suggest enabling TMZ, if the target supports time zone and generates UTC timestamp (i.e. the target is configured with local date and time, and the time zone is correctly set, or if the target is configured with the time of Greenwich and GMT+0). Thus the MicroBrowser will display dates and times depending on user local time settings, defined on his computer. For example with GST (GMT+1), the date and time is displayed with UTC time + 1 hour. In other case, if TMZ is disabled, the timestamp returned by the target will be displayed as is, without any time zone or daylight convertion. This parameter is ignored for online trend, since it always works with local time, and for SAIA alarming and offline trend, where time zone is not supported. The TMZ can be set dynamically, by writing 0 or 1 in the predefined container variable "MB_tmz_en".

Default is 0 (disabled).

Example: 1 (enabled)

<mem_ramdisk_kb> Memory RAM-Disk

Set memory size of RAM-Disk in kb. The RAM-Disk is used to create temporary files by the MicroBrowser for FileViewer and DropDownList painters, to download files from remote web server, to let files in cache, if <teq_cache> is enabled and also by the Web-Server if this latest is running. The ramdisk is cleared, on every URL jump performed by the MicroBrowser. Set the debug level to 2, to see how much memory is really used. Use this parameter with care!

Default is 0 (use the default ramdisk size of 1 MB).

Example: 1024 (kb)

<mem_heap1_kb> Memory Heap 1

Set memory size of heap 1 in kb. This memory is used to allocate painter objects of the current view and to create the list of PPO. The heap memory is cleared, on every TEQ jump. Set the debug level to 2, to see how much memory is really used. Use this parameter with care!

Default is 0 (use the default heap size of 2 MB)

Example: 2048 (kb)

<mem_heap2_kb> Memory Heap 2

Set memory size of heap 2 in kb. This memory is used for container variables, html tags from static HTML and CSV files, for trending macro instances, and for log data in online trends,… The heap memory is cleared, on every URL jump performed by the MicroBrowser. Set the debug level to 2, to see how much memory is used. Use this parameter with care!

Default is 0 (use the default heap size of 2 MB).

Example: 2048 (kb)

<mem_heap3_kb> Memory Heap 3

Set memory size of heap 3 in kb. This memory is used to store the log data from HD-Log files and from macro offline trends. The heap memory is cleared on URL jump or when the user press any Clear-Logs button on one of these macro objects. Set the debug level to 2, to see how much memory is really used. Use this parameter with care!

Default is 0 (use the default heap size of 1 MB).

Example: 1024 (kb)

<mem_lrheap_kb> Memory LR Heap

Set memory size of LR heap in kb. This memory is used to save HTML tags from dynamic CSV files. The heap memory is cleared on every HTML jump and every time, the user loads a new language file. Set the debug level to 2, to see how much memory is really used. Use this parameter with care!

Default is 0 (use the default heap size of 512 kb).

Example: 512 (kb)

<mfc_http_en> MFC HTTP

Set this option to 1, to use the Windows API to get files from the web server. Enabled, the MicroBrowser will use the Windows cache, depending on the parameter below <mfc_http_cache>. Disabled, the MicroBrowser will use the SpiderLink API to load files. And caching files depending on the parameter <teq_cache>.

Default is 1 (enabled).

Example: 0 (disabled)

<mfc_http_cache> MFC HTTP Cache

This option works if parameter <mfc_http_en> is enabled. It allows to set options of the Windows cache.

Default is 1 (re-synchronize)

Options:

- · 0: RELOAD: The caching is disabled, always reload the file.

- · 1: RE-SYN.: Load the file from cache if it is not newer.

- · 2: OFFLINE: Load the file from cache.

- · 3: Use settings defined in Windows Internet Options (IE).

<http_version> HTTP Version

Set this option to 1, to use HTTP/1.1 on http requests performed by the SpiderLink (CGI or to get files if <mfc_http_en> is disabled).

Default is 0 (HTTP/1.0).

<shift_hotkeys_en> Shift Hotkeys

Set this option to 1 to enable, or 0 to disable the Shift combinations hotkeys, like Shift-O, Shift-X, … Therefore, default hotkeys like Alt-X and Alt-O still enabled even if the Shift combinations are disabled. To disable all hotkeys (Shift- and Alt- combinations) use Kiosk-Mode 3.

Default is 1 (enabled).

Example: 0 (disabled).

<perco_file> PERCO File

Set path and file name of the perco file, where persitent container variables are saved (from "MB_PERCO_0" to "MB_PERCO_19"). The default name is "uBrowsCo.xml" and the file is placed on the program folder, but you can now specify an absolute path, like this:

Example: `<perco_file>\FlashDrv\uBrowsCo.xml</perco_file>`

<storage_path> Storage Path

Set the path where the MicroBrowser will save the trend and alarm log files. If the field is empty, the user will be prompt to specify the folder and the file name with the standard save file dialog. Otherwise, the file will automatically be saved, in the specified folder and based on the TEQ file name, like this:
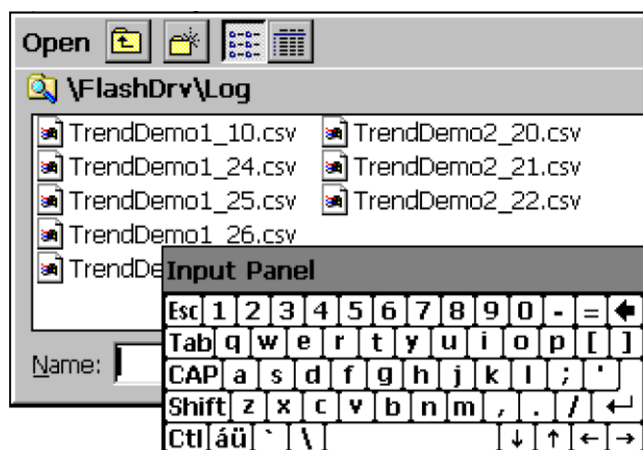
`<storage_path><teqFileName>_X.csv`

where X is an integer value, incremented every time a new file is created, depending on the existing files in the storage folder.
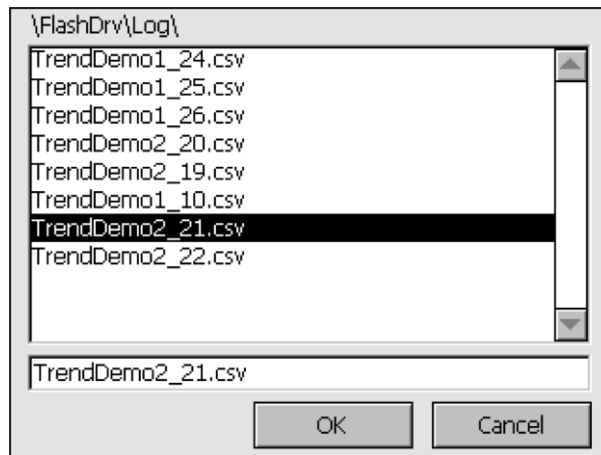
Default is empty.

Example: `<storage_path>\FlashDrv\Log\</storage_path>`

<built_in_dialog> Built-In Dialog

Set this option to 1 to enable, or 0 to disable the built-in dialog, to open trend and alarm log files. Default is disabled, the standard Windows Open File dialog is used:

Enabled, the built-in "MBFileOpenDlg.teq" is used:

<scale_factor> Scale Factor

At the moment this is only active for CoDeSys HMI's and Kiosk-Mode <kiosk> = 2. This factor sets the scaling of the whole HMI. Default is scaling factor 1, which means original size of the elements. A special case is introduced with scale_factor = 0. In this case, the MicroBrowser will scale the HMI due to the physical screen dimensions, so that the view size given by CoDeSys is streched or shrunk to meet the physical screen dimensions.

<export_en> Export Enable

When this flag is set to 1, the MicroBrowser will export all the views that are visualized to the local storage system and path given by the parameter <export_path>. This feature can also be used to translate a CoDeSys HMI into a SpiderControl HMI. In that case both, the .xml and .teq files, are being generated and stored on the local storage system.

<export_path> Export Path

This is the path to which the files are exported, when the export setting is enabled <export_en>1</export_en>.

Keyboard Shortcuts

At runtime (in Kiosk-Mode), there is no other way to control the MicroBrowser than using the following shortcuts, which can be entered by the default keyboard (also touchpad). The following keys are supported:

Exit

To exit from the MicroBrowser: Alt-X (or Shift-X if enabled).

Open Configuration Dialog

To open the dialog and modify the URL: Alt-O (or Shift-O if enabled). By clicking the OK button, the MicroBrowser will generate the configuration file (uBrowser.xml) again, with the current settings.

Toggle Full Screen

To toggle full screen on MicroBrowser XP: Alt-F11

The hot key Alt-F11 is also disabled on Kiosk-Mode 3.

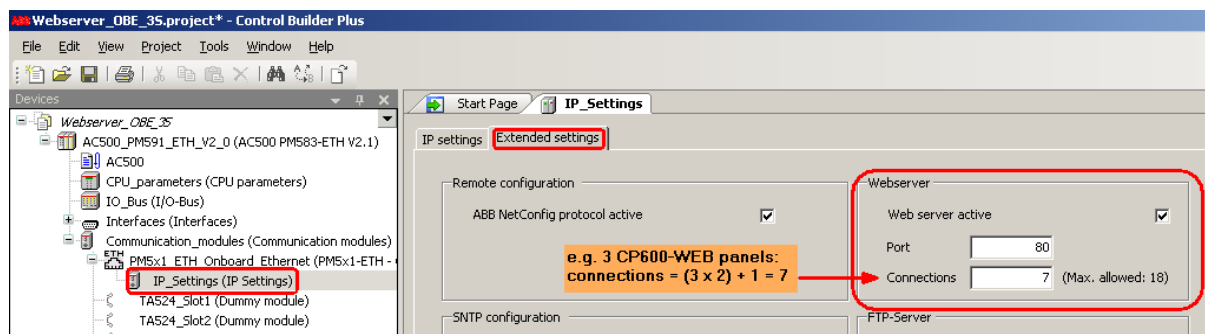# Configuration of an AC500 visualization

In order to configure and download the visualization to the webserver of an AC500 PLC check the following configuration hints.
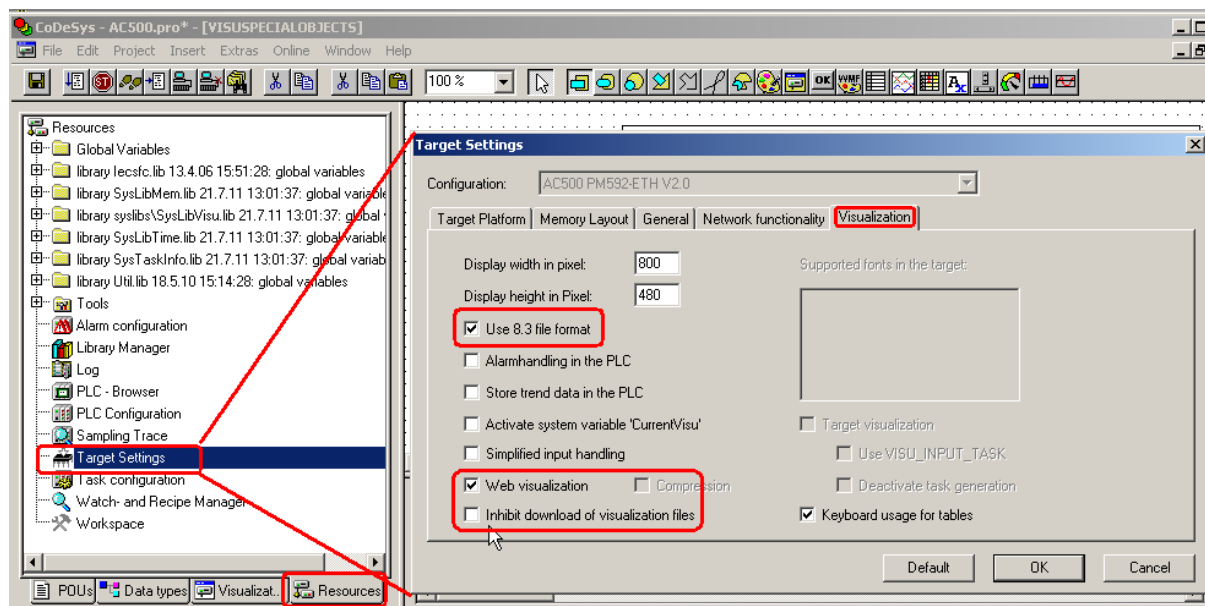
✓ Requirements:

- ・ AC500 PLC with firmware version 2.1 or higher
- ・ PS501 Control Builder Plus version 2.1 or higher

Configure the webserver in the Control Builder Plus as follows.

1. Activate the webserver.

2. Set the number of connections according to the following rule:
   Number of connections = (number of clients x 2) + 1.
   Each CP600-WEB Control Panel is one client.

3. Check "Use 8.3 format" and "Web visualization" and uncheck "Inhibit download of visualization files to PLC".

4. If you want to use also alarmhandling and trend data in the PLC check the boxes "Alarmhandling in the PLC" and "Store trend data in the PLC" as well.

5. Create your visualizations. The start visualization must be named "PLC_VISU". The names of visualizations should not consist of more than 8 characters.

CoDeSys MicroBrowser FAQ

I can not connect. It says "File Not Found!"

Possible reasons:

- Some CoDeSys PLC's are case sensitive. Older versions of MicroBrowser CoDeSys get the entry page with the name "PLC_VISU.xml" written in capital letters. But the file on the webserver is written "plc_visu.xml". Possible workaround: Modify the "webvisu.htm" file on your PLC and change this line:
  ```
  <param name="STARTVISU" value="PLC_VISU"> to
  <param name="STARTVISU" value="plc_visu">
  ```

How can I hide the menu bar and task bar?

→ Use the batch files *KioskMode.bat* to overwrite the *uBrowser.xml* with the prepared *uBrowser_Kiosk.xml*, that has the tag *<Kiosk>* already set to "2" (full screen and always on top)

→ Copy the *uBrowser.xml* file from the Control Panel to a PC, change the tag *<Kiosk>* to "2" and copy it back to the Control Panel.

The changes I made in the CoDeSys visualization are not updated on the Control Panel

If the Control Panel was already connected while changes are made in the CoDeSys PLC visualization the MicroBrowser has to be restarted to update all views.

→ Update the MicroBrowser by repowering the Control Panel or exit the MicroBrowser and restart it e.g. via *File/New* or *File/Exit*.

I changed the target system setting of my AC500 project. Now the webserver can not be found any more.

After a change of target system in the Control Builder Plus the settings for the webserver are reset.

1. Open the settings *CoDeSys/Resources/target settings/visualization*.

2. Check **Visualization** and uncheck **Inhibit download of visualization files**.

Watchlists (Recipies) can not be saved or loaded

The MicroBrowser does not support watchlists.

ABB

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