



SpiderControl™ **MICROBROWSER**

**WinCE Edition
Version 5.0**



ini

iniNet . Erfolgreiche Kunden

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Abbreviations

MMI

Man Machine Interface, e.g. a WEBfactory Mobile Pages™ view displayed at a touch panel or browser.

***.prj**

file extension for a WEBfactory Mobile Pages™ project file generated by the WEBfactory Mobile Pages™ EDITOR.
A WEBfactory Mobile Pages™ project comprises everything to form a MMI on a touch panel or in an 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 WEBfactory Mobile Pages™ view file generated by the WEBfactory Mobile Pages™ EDITOR.

Painter

A painter is a graphic object, which is used by the WEBfactory Mobile Pages™ EDITOR. This object is programmed in JAVA. Several painters were packed into a Applet which resides on a embedded system.

Applet

is 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

Installation

This software is written for use on Microsoft WindowsCE™ Operating Systems. For the different versions (3, 4, 5,...), flavors (WinCE Handheld or PocketPC) and processor technologies (StrongARM, MIPS, PPC, X86,...), a specified version of the MicroBrowser should be purchased.

System requirements

The SpiderControl MicroBrowser needs less than 500kB free space on the disk and requires at least 32MB of RAM.

To install the software, the user should copy the files from the installation directory

MicroBrowser_CE.exe

MsgBox.teq

...

to a persistent and writable area (e.g. FlashDisk) of the WinCE device. After this, the application can be started.

Installation Code

To complete the installation, a license code must be purchased from iniNet. The application will generate a target specific challenge code which consists of 16 Bytes and a CRC. This challenge code shall be sent to

Info@ininet.ch

You will receive a response code (16 Bytes) that will enable the MicroBrowser on this device.

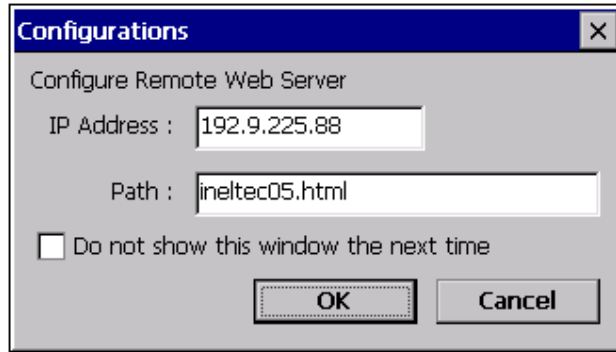
If you are planning to use many license keys, iniNet can provide you with an automated Web-Portal license generator.

Automatic Startup

To start the MicroBrowser application automatically after startup of the device, there are many different procedures. Please contact your hardware reseller for detailed information, how the autostartup procedure is implemented on your device.

First Steps

After the successful installation, the following dialog appears:



This dialog allows entering the default URL, which the MicroBrowser should open.

IP Address

The first line asks for the IP-Address of the target system webserver, where the SpiderControl MMI's are located. If your network has a DNS (Name server) and your local TCP/IP configuration on the WinCE device is configured to know the name server's address, you can alternatively use a symbolic host name instead of the IP address.

Path

The 'path'-field should contain the HTML-File name that was automatically generated by the SpiderControl Editor. If this file is stored in a subdirectory relatively to the webserver's root directory, this path information should be added here. Please use '/' as separator.

Do not show...

If you select this checkbox, the above dialog will not appear the next time that you start the MicroBrowser. All the above configurations will be stored in a XML-file that is located in the working directory of the MicroBrowser. If you need to change the settings later, but the checkbox was already set before, this file can be edited with an editor or this dialog can be reopened with the shortcut 'SHIFT-o'.

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="iso-8859-1"?>
11 <uBrowser>
12   <!--Configuration file of the micro-browser-->
13   <version>122</version>
14   <start_page>http://192.168.0.10/Sample.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>2097152</img_mem_max>
30   <temp_dir>~mb~</temp_dir>
31   <warn_btn>1;0;Warning!;0,0,120,20;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_lrheap_kb>0</mem_lrheap_kb>
49   <mfc_http_en>1</mfc_http_en>
50 </uBrowser>
```

Start page <start_page>

The first lines indicate the version and start URL. Do not modify the version tag.

Log file <log_file>

The MicroBrowser is able to create a Log-File for debug purposes. For regular operation, make sure that this tag <log_file> is empty, otherwise, the file system may have an overflow after a longer period of use.

Proxy <proxy_host> and <proxy_port>

The tags proxy-host and proxy-port may contain the respective information, if your network does not support a gateway. To use a gateway, leave the tag proxy_host empty. **Use of proxies is not supported yet.**

VPI <vpi_user> and <vpi_pass>

The VPI-tags are only needed, if you are planning to access a target system over internet using a VPI-Portal. These tags contain user-name and password for the portal. Please contact iniNet for details.

Registration code <prompt_url>

The license key that you have received from iniNet will be stored here. Since version 106.

Prompt URL <prompt_url>

If this tag is set to '1', the MicroBrowser will open the URL-Dialog after starting it. Editing this tag to '0' will never open the dialog (same as choosing 'Do not open...'). Since version 107.

Full Redraw <full_redraw>

Sets the MicroBrowser to perform a complete redraw for each update. Should be '1'. Since version 108.

Debug Level <debug_level>

Increasing the 'debug level' will generate more information in the log file. '0' will turn logging off, '2' is the maximum. Since version 109.

Kiosk-Mode <kiosk>

Since version 109:
This tag 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 635x470 pixels to avoid scroll-bars.

= 0: kiosk mode is disabled.

= 1: kiosk mode with frame and task bar.

Since version 114:

= 0: kiosk mode is disabled.

= 1: kiosk mode with frame and task bar.

= 2: kiosk mode without frame and task bar (full screen).

Since version 115:

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

Since version 120:

= 4 (xp) The full screen is enabled but the view is not always on top.

= 5 (xp) No full screen, but the window size is automatically adjusted with the html file applet size. See project configuration dialog.

(xp) Only for MicroBrowser_XP

Keep Alive <keep_alive>

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

Since version 110.

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.

Since version 110.

Httpd port <httpd_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' (turned off).

Since version 116.

SIP <sip>

Stands for Soft Input Panel. If this tag is set to '1', the MicroBrowser will use the input method of the OS to edit texts, opens the keyboard on the bottom-left corner. Otherwise the MicroBrowser will try to open the TEQ file "keypad.teq" from the web project.

Default is '1'.

Since version 111

Image memory max <img_mem_max>

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

Default is 2 MB: '2097152'.

Since version 111

Temp directory	<p><temp_dir></p> <p>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. Since version 111</p>
Warning button	<p><warn_btn></p> <p>Configure the warning button in this way 1;time_in_sec;Label;x,y,width,height;bgndRed,bgndGreen,bgndBlue;fgndRed,fgndGreen,fgndBlue; The first option allow to enable=1 or disable=0 the button. time_in_sec is the time in second to display the button but 0 means always on top. Label is the text in button. x,y,width,height allow to configure the position and the size of the button and next properties allow to define the foreground and background color in decimal RGB code. Default: 1;0;!;1,1,23,23;255,128,64;0,0,0; Ex.: 1;0;Warning!;1,1,80,30;255,128,64;0,0,0; Since version 111</p>
Remote mode	<p><remote_mode></p> <p>Sets the remote mode in this way:</p> <ul style="list-style-type: none"> = 0: Files and RPC are remote (Default) = 1: Local files with remote RPC = 2: Local files with local PPOs but remote write. <p>Set this tag to ‘1’ in order to load HMI files from local file system (on MicroBrowser side) and use Remote Procedure Calls (RPC) on the target. Since version 112</p>
Teq cache	<p><teq_cache></p> <p>Sets the MicroBrowser to perform the caching of TEQ files. Should be ‘1’. Since version 113</p>
Loading message	<p><loading_msg></p> <p>Configure the loading message displayed every time a new page is loaded. 1;Param;Text;x,y,width,height;bgndRed,bgndGreen,bgndBlue;fgndRed,fgndGreen,fgndBlue; 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 x,y,width,height. = 2: Text is the file name of the image to display on coordinates specified by x,y,width,height. Paramters: bgndRed,bgndGreen,bgndBlue; unused background color. Paramters fgndRed,fgndGreen,fgndBlue allow to define the color of the text. Default: 1;0>Loading...;0,0,0,0;0,0,0,0;0,0,0; Ex.: 0;2;sanduhr.gif;4,412,20,20;0,0,0,0;0,0,0; Since version 113</p>

Show Selection	<show_selection> Sets the MicroBrowser to perform the drawing of the selected objects. Default is '0'. Since version 115
Config Page	<config_page> Sets the MicroBrowser to open any configuration page before jumping on any URL. The MicroBrowser will ignore the start page if any config 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. See the detail in « Configuration Page on MicroBrowser.pdf ». Default is empty. Since version 115
Config File	<config_file> Define config file to save the data used by configuration pages. Default is empty. Since version 115
Boot delay in seconds	<boot_delay_sec> Sometimes, on reboot, the MicroBrowser needs to wait for the system to initialize all resources. This option allows you to set the number of seconds, the MicroBrowser have to wait before loading any file. Default is '0' (disabled). Since version 116.
Set width	<set_width> Set the width of the view. The default behaviour 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). Ex.: 320 pixels Since version 117.
Set height	<set_height> Set the height of the view. The default behaviour 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' (auto). Ex.: 240 pixels Since version 117.
Inactivity TO in sec	<inactivity_to_sec> Set the inactivity timeout in seconds used to substitute the refresh period. See Inactivity Poll Time Substitute. Default is '0' (disabled). Ex.: 60 seconds Since version 118.

Inactivity, Poll Time Substitute in ms <inactivity_pts_ms>

Set the poll time of substitution in ms, to use as soon as the timeout is reached. This feature is useful 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).

Ex.: 3000 ms

Since version 118.

TMZ Enabled <tmz_en>

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 with user local time setting, 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 offsets. This parameter is ignored for online trend, since it 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).

Ex.: 1 (Enabled)

Since version 119.

Memory RAM-Disk <mem_ramdisk_kb>

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, and also by the Web-Server if this latest is running. Set the debug level to 2 in order to see how much memory is used. Use this parameter with care!

Default is '0' (use a default ramdisk size of 1 MB)

Ex.: 1024 (KB)

Since version 121.

Memory Heap 1 <mem_heap1_kb>

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. This heap is erased on every TEQ jump. Set the debug level to 2 in order to see how much memory is used. Use this parameter with care!

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

Ex.: 2048 (KB)

Since version 121.

Memory Heap 2	<p><mem_heap2_kb></p> <p>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 macros, This heap is erased on every URL jump. Set the debug level to 2 in order to see how much memory is used. Use this parameter with care! Default is '0' (use a default heap size of 2 MB) Ex.: 2048 (KB) Since version 121.</p>
Memory LR Heap	<p><mem_lrheap_kb></p> <p>Set memory size of LR heap in KB. This memory is used to save html tags from dynamic CSV files. This heap is erased on every HTML jump and each time a new language file is reloaded. Set the debug level to 2 in order to see how much memory is used. Use this parameter with care! Default is '0' (use a default heap size of 512 KB) Ex.: 512 (KB) Since version 121.</p>
MFC HTTP	<p>< mfc_http_en ></p> <p>Set this option to 1 to use the MFC CHttp class to get file from any web server. Enabled, the MicroBrowser will use the cache settings from Internet Explorer. Disabled, the MicroBrowser will use the self coded srv_relay API. Default is 1 (Enabled) Ex.: 0 (Disabled) Since version 122.</p>

Short Cuts

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

Exit

To exit from the MicroBrowser: Shift-X

Open Configuration Dialog

To open the dialog to enter a new URL: Shift -O

Toggle Full Screen

To toggle Full Screen on MicroBrowser XP: Alt-F11
Since version 122.