



## Webserver: Setup and access

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### Content

Introduction .....	2
C6 HMI with ARM processor .....	2
C6 IPC with X86 processor .....	9
Create an IIS-directory on the IPC.....	12
Java-settings .....	15
Alternative: Access to the Webserver with COMBIVIS WebClient-program .....	17
Disclaimer .....	19

## Introduction

This document contains a description how to configure the HMI project, the C6 HMI and/or the C6 IPC to create a webserver-surface and reach it from an external client. A webclient (Browser, e.g. Firefox or Internet Explorer) on the user-PC is necessary. The example project in this document is called "WebServerTest.cvshmpj". It is tested with Internet Explorer version 11.0.9600.17358. The browser will use the Java-application to connect to the webserver. Therefore a short description of the java-setup is added. Also an alternative access to the webserver with the COMBIVIS WebClient – program is described in this manual.

## C6 HMI with ARM processor

1. Create a new HMI project and add a screen. Convert this into a HTML-page by using „Create HTML page based on this screen“. You can set the **"Full Screen"** (it will fix the screen size automatically to the browser size) or a fixed size of the window. In case of a low band connection the option **"Low Band Network"** optimizes the webserver-management to improve the performance. In this example the screen is named "Screen1" and the project "WebSeverTest".

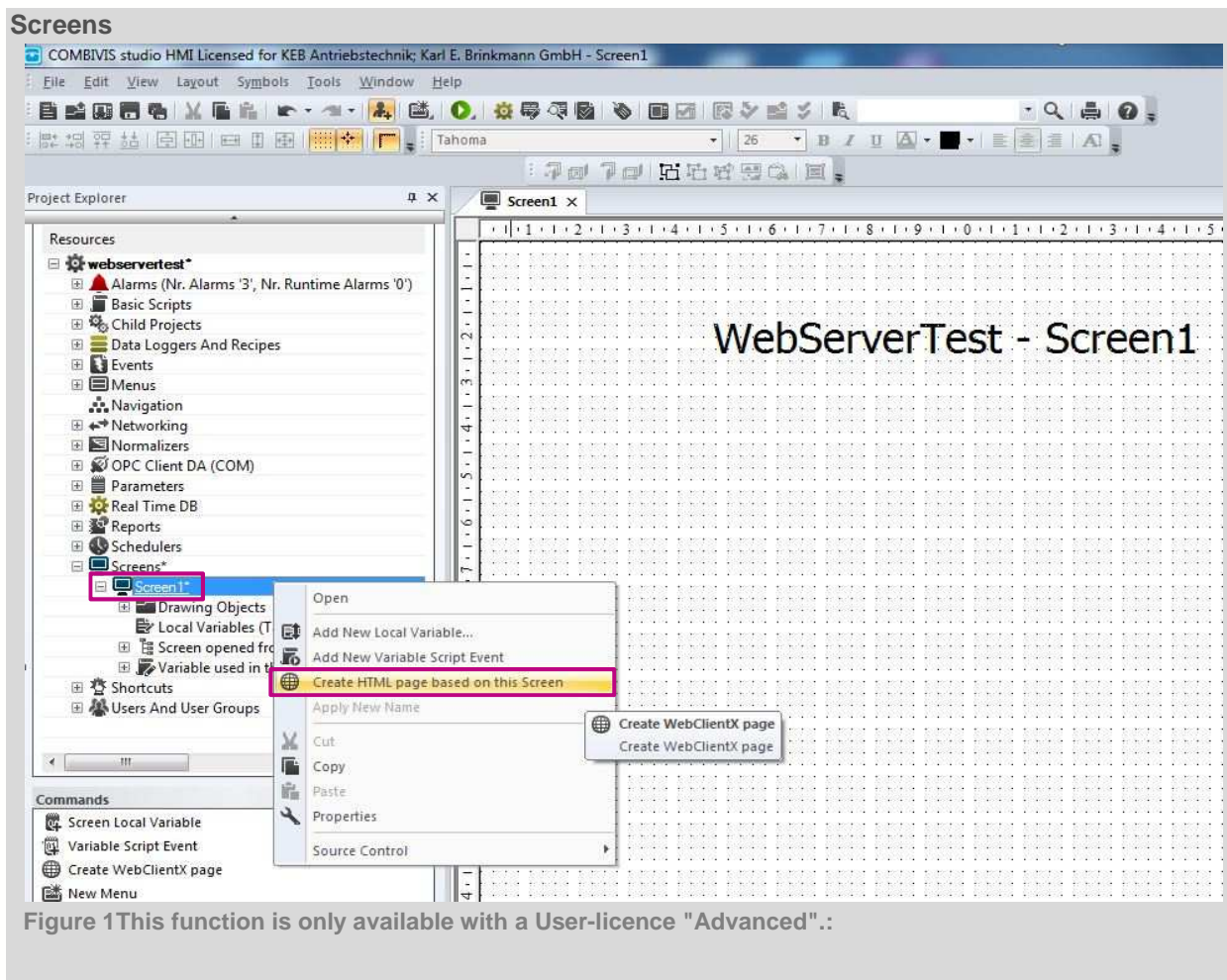


Figure 1 This function is only available with a User-licence "Advanced".:

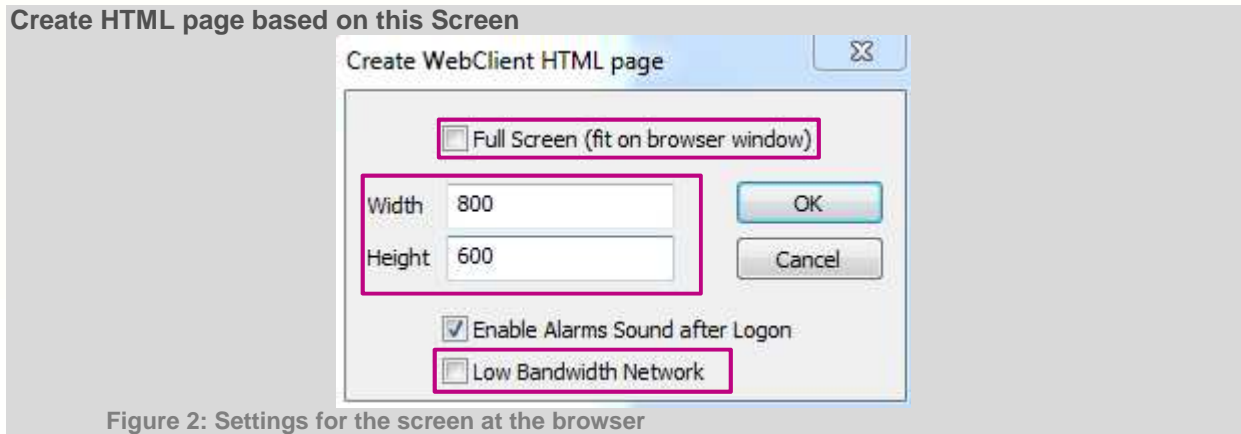
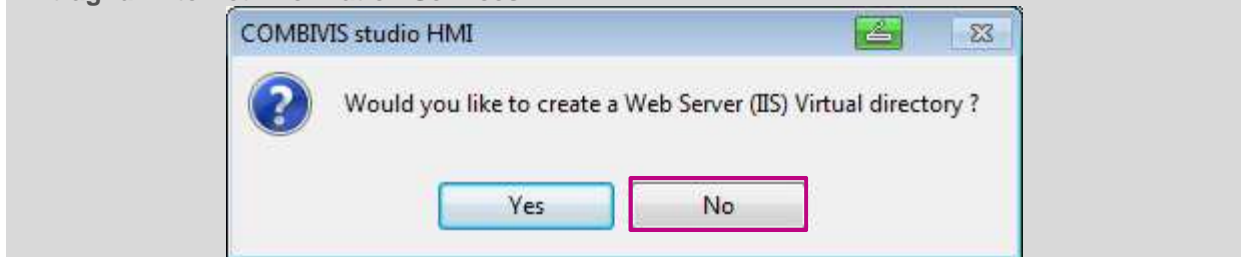


Figure 2: Settings for the screen at the browser

After pressing the OK button you see a window with the suggestion for an automatically creation for an Internet Information Services (IIS) directory. Refuse it with No.

### Eintrag für Internet Information Services



Note: You need a HMI with advanced licence to use the webserver functionality. It also has to be set in the project-properties.

### Screen > Properties

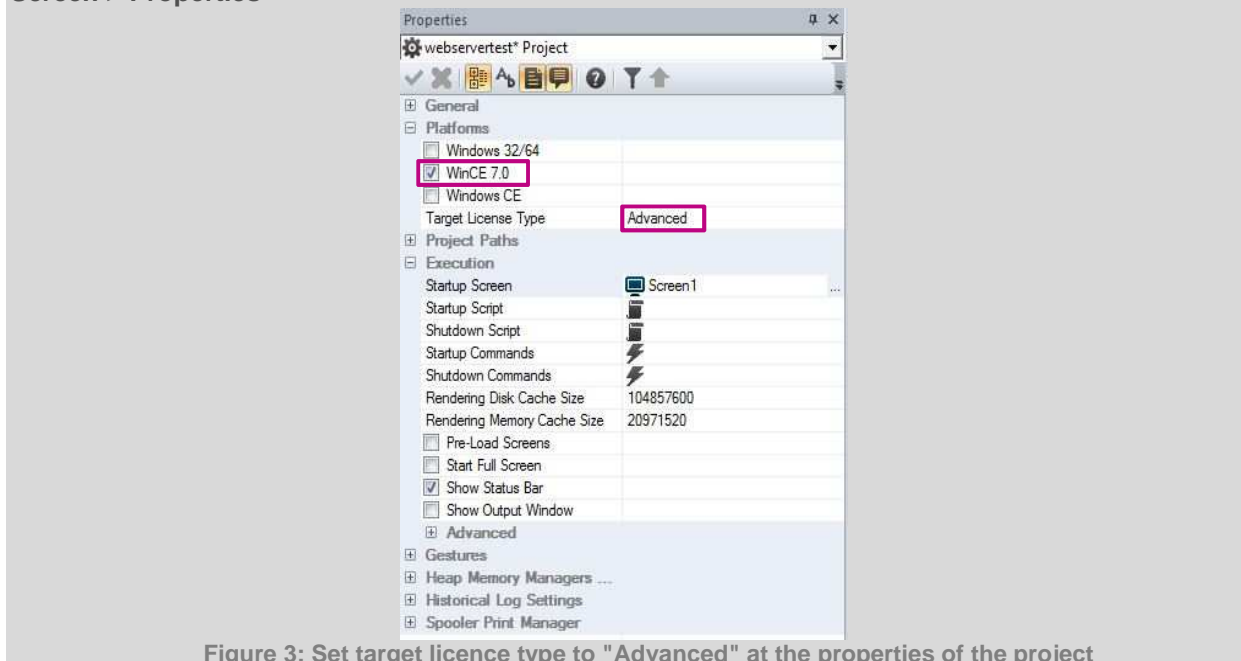


Figure 3: Set target licence type to "Advanced" at the properties of the project

2. Upload the HMI project to the C6 HMI (IP-address of the device necessary) in the root directory "MMCMemory". You can choose the folder by "Upload Device Path". In this example the folder is named "WebServerTest".

## Upload Project to Device/FTP...

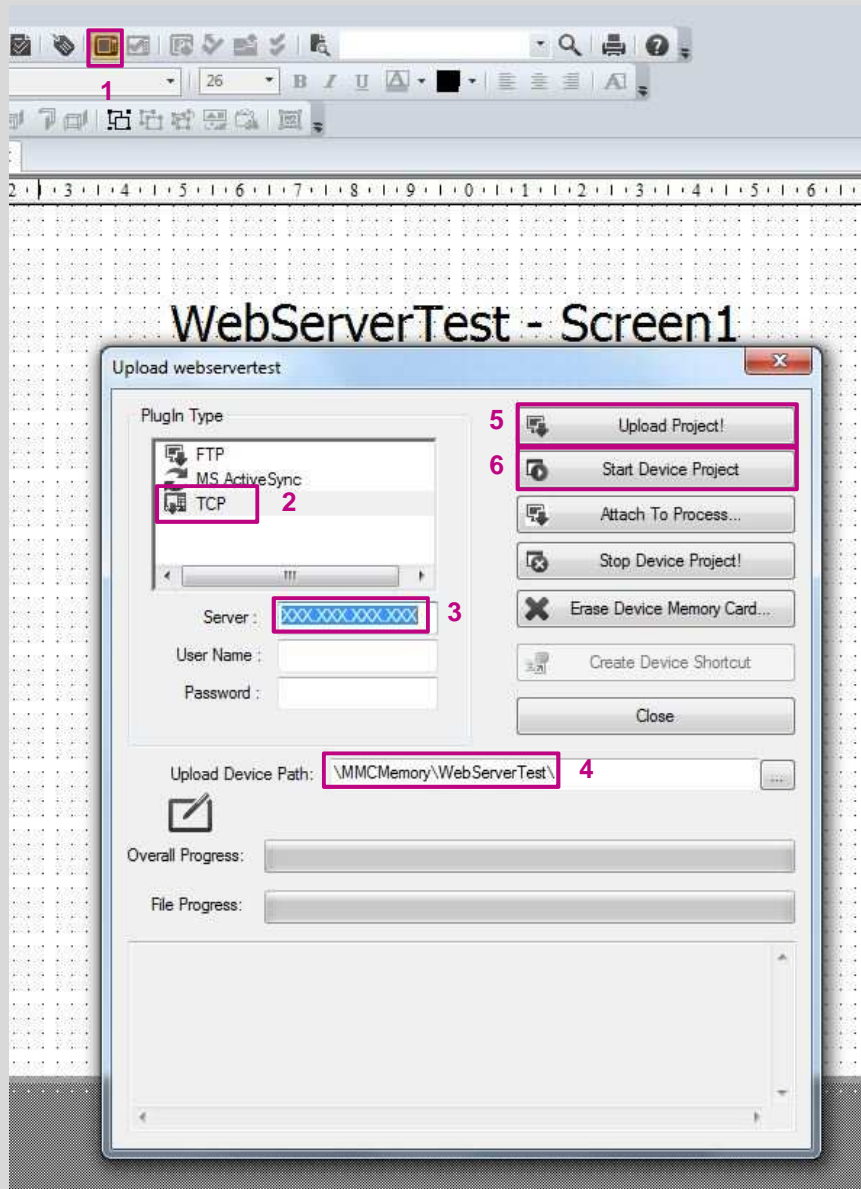


Figure 4: Input of the IP-address, device-path and upload to the C6 HMI.

3. After the successful upload you have to edit the registry setup. You can open it by **Start > Run** and insert **"regedit"**.

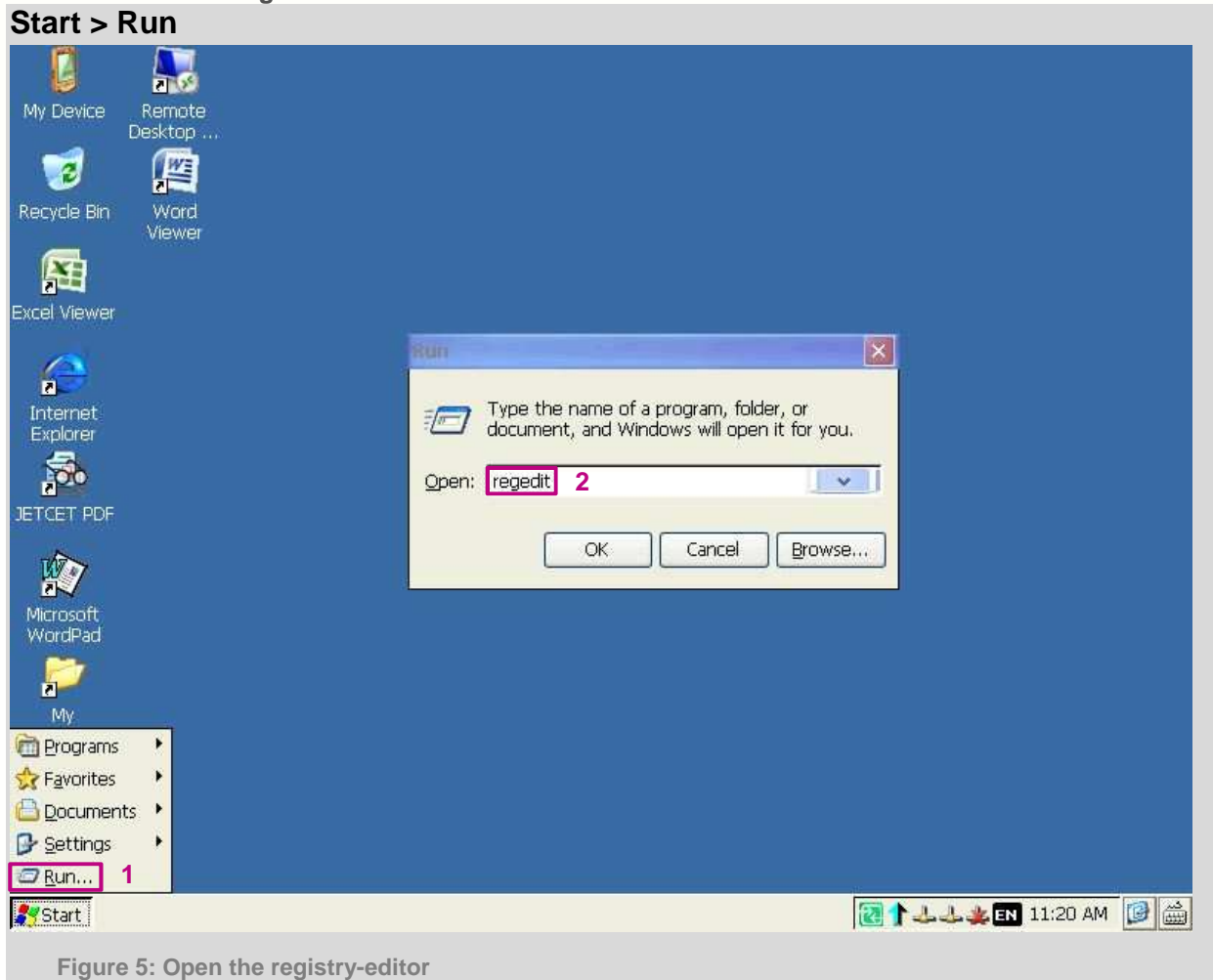
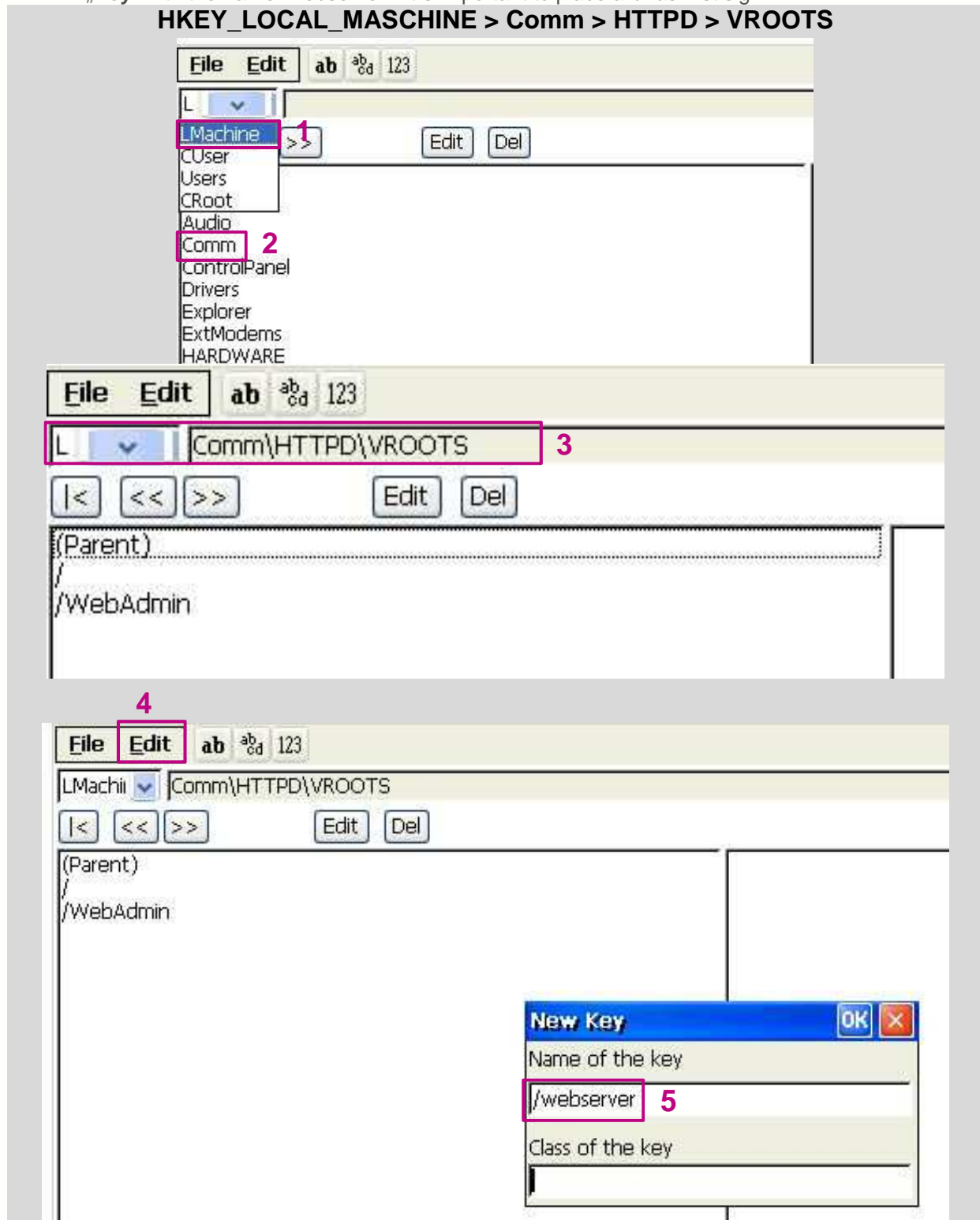


Figure 5: Open the registry-editor

- Now choose the folder **HKEY\_LOCAL\_MACHINE\Comm\HTTPD\ROOTS** and create a new „Key“ with the name “webserver”. It’s important to place a “/” as first sign.

## HKEY\_LOCAL\_MACHINE > Comm > HTTPD > VROOTS



5. Create a DWORD-variable, named „A“ and a SZ-variable „Default“. The variable „A“ defines the access-authorisation of the user to the webserver. To permit the access by “anonymous user” the value has to set to “0”. The whole device-path of the webserver has to be recorded in the variable “Default“. The syntax of the input is: **\\MMCMemory\Name of projectfolder\RESOURCES\Name of the project**.  
E.g.: \\MMCMemory\WebServerTest\RESOURCES\WEBSEVERTEST

HKEY\_LOCAL\_MACHINE > Comm > HTTPD > VROOTS > webserver

2

3

5

6

Name	Size	Type	Date Modified
combisvisstudiohmiwebclient	469KB	JAR File	5/17/2013 11:46 AM
combisvisstudiohmiwebclien...	469KB	JAR File	5/17/2013 11:46 AM
keb	726 bytes	DRVSETTINGS File	10/22/2014 8:09 AM
keb	46 bytes	DYNSETTINGS File	1/16/2015 7:51 AM
schaltflächenleiste	2.93KB	HTML Document	10/22/2014 12:09 PM
screen1	3.23KB	CVSHMISCR File	1/16/2015 7:51 AM
screen1	983 bytes	CVSHMISCR_C File	1/16/2015 7:51 AM
screen1	2.98KB	HTML Document	1/16/2015 9:11 AM
TwinCAT	590 bytes	DRVSETTINGS File	12/17/2014 7:59 AM
twincat	46 bytes	DYNSETTINGS File	1/16/2015 7:51 AM

- After closing the RegEdit-program, the settings have to be saved by **Start => Settings => Control Panel => Registry Saver**.

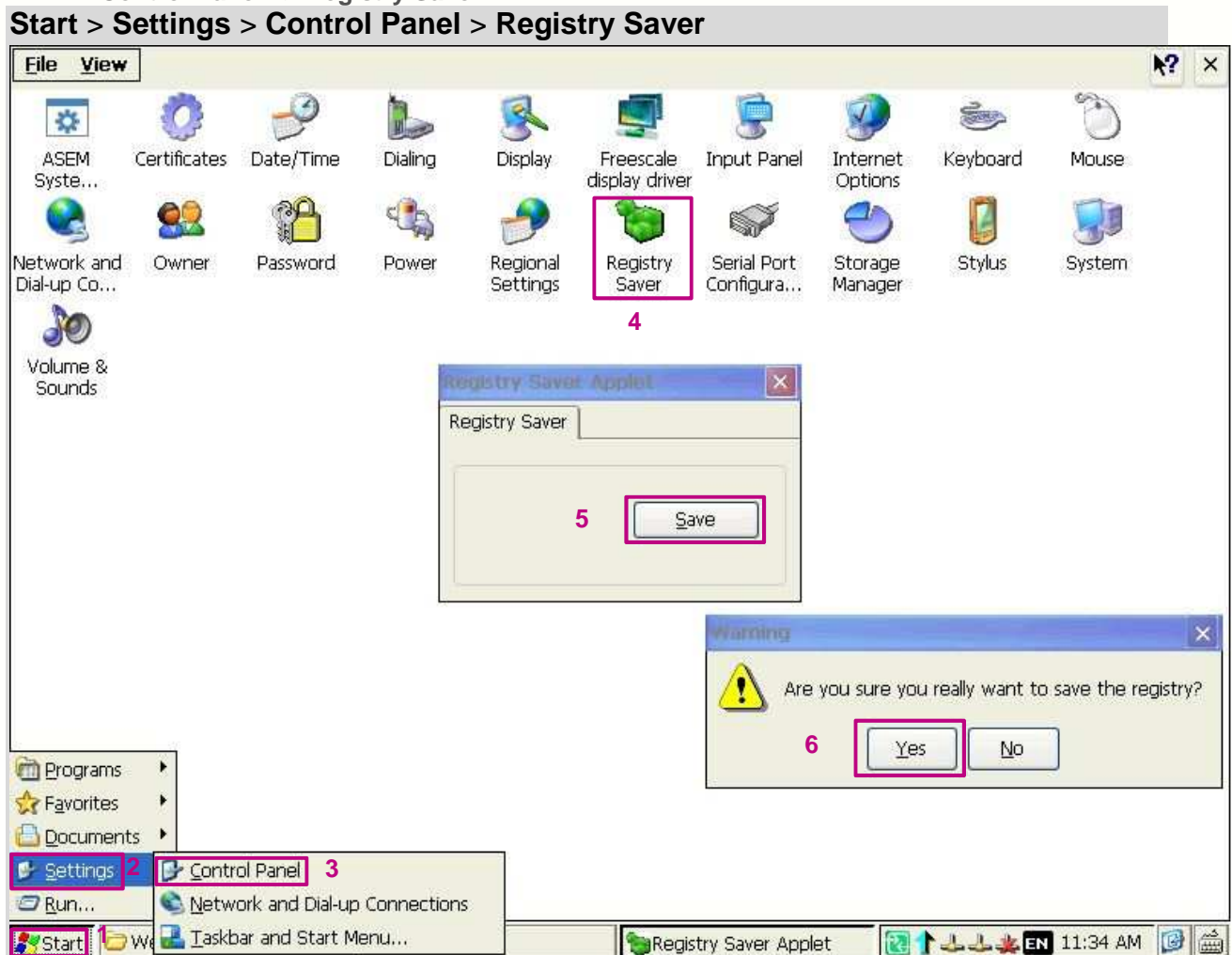


Figure 6: The new registry-settings have to be saved by the "Registry Saver".

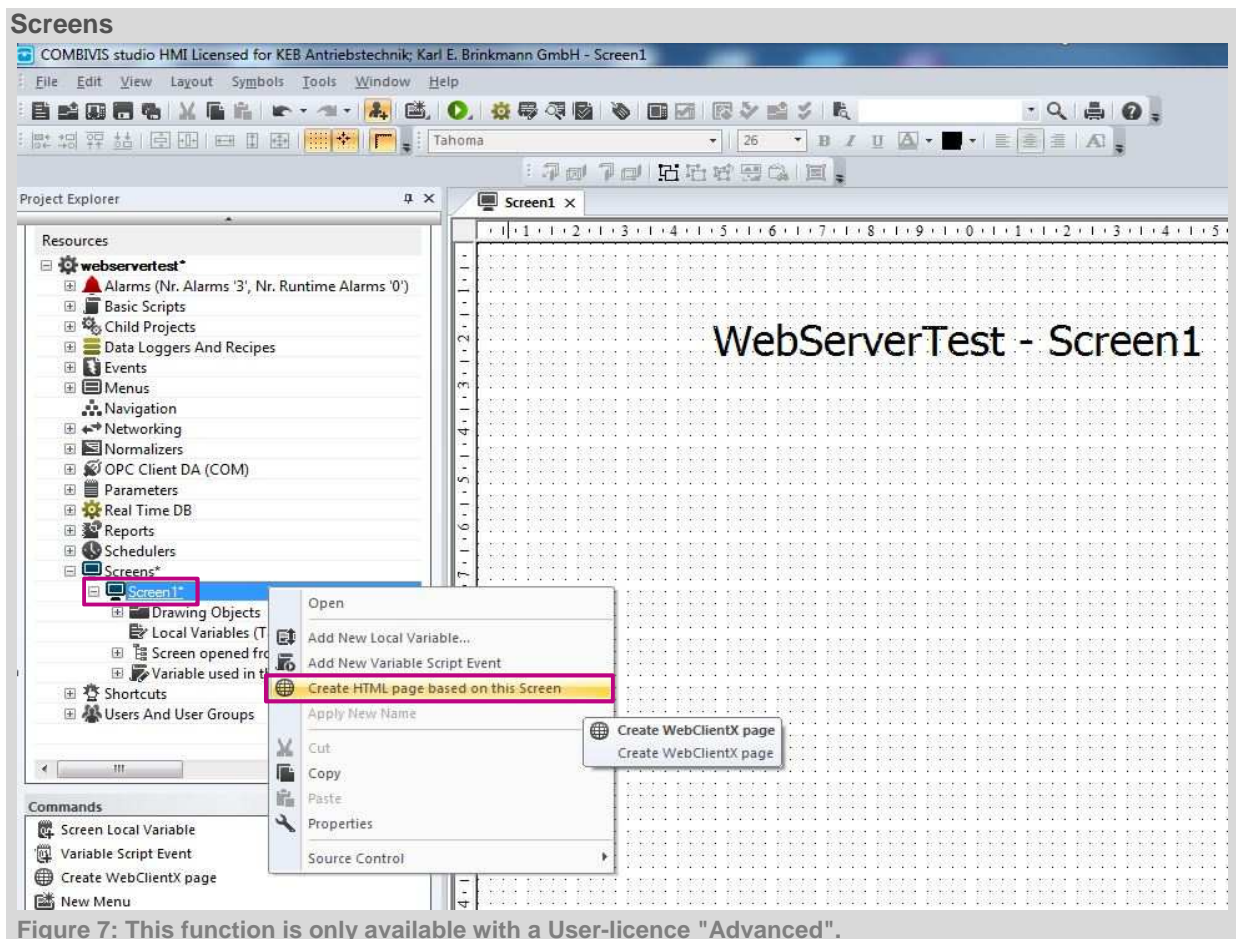
- Restart the C6 HMI (Power off/on).
- After the restart the Boot-project will start automatically. To connect to the HTML-page, you have to open your browser on PC (Firefox, Internet Explorer, Chrome, etc.) and input the following syntax:
  - http://“IP Address”/“Name of Screen“.html**
    - IP-address: The IP-address of the C6 HMI
    - Name of screen: Opens the HTML-page of HMI-project (preferred the start-up-screen)



10. If the user-PC and C6 HMI are not in the same network-area, the ports 80 (for http), 12233, 50993, 51027 and 51028 (for Java) have to be opened. This is necessary for the routing of the data. If these ports are closed the client will display a grey screen with java-logo on it and an error-message "Timeout error 101".

## C6 IPC with X86 processor

1. Create a new HMI project and add a screen. Convert this into a HTML-page by using „**Create HTML page based on this Screen**“. You can set the "**Full Screen**" (it will fix the screen size automatically to the browser size) or a fixed size of the window. In case of a low band connection the option "**Low Band Network**" optimizes the webserver-management to improve the performance. In this example the screen is named "Screen1" and the project "WebSeverTest".



## Create HTML page based on this Screen

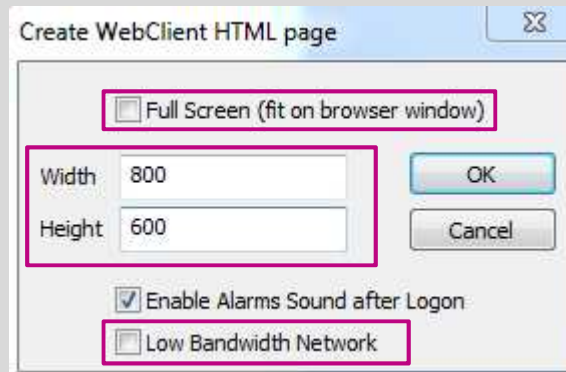
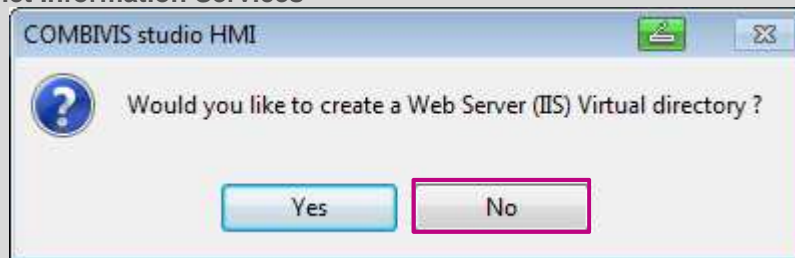


Figure 8: Settings for the screen at the browser

After pressing the OK button you see a window with the suggestion for an automatically creation for an Internet Information Services (IIS) directory. Refuse it with No.

## Eintrag für Internet Information Services



Note: You need a HMI with advanced licence to use the webserver functionality. It also has to set in the project-properties.

## Screen > Properties

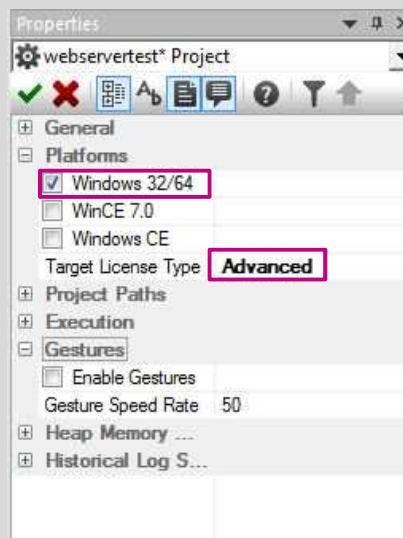


Figure 9: Set target licence type to "Advanced" at the properties of the project

2. Upload the HMI project to the C6 IPC (IP-address of the device necessary) in the root directory "D:\". You can choose the folder by "Upload Device Path". In this example the folder is named "WebServerTest". Now start the Device Project.

## Upload Project to Device/FTP...

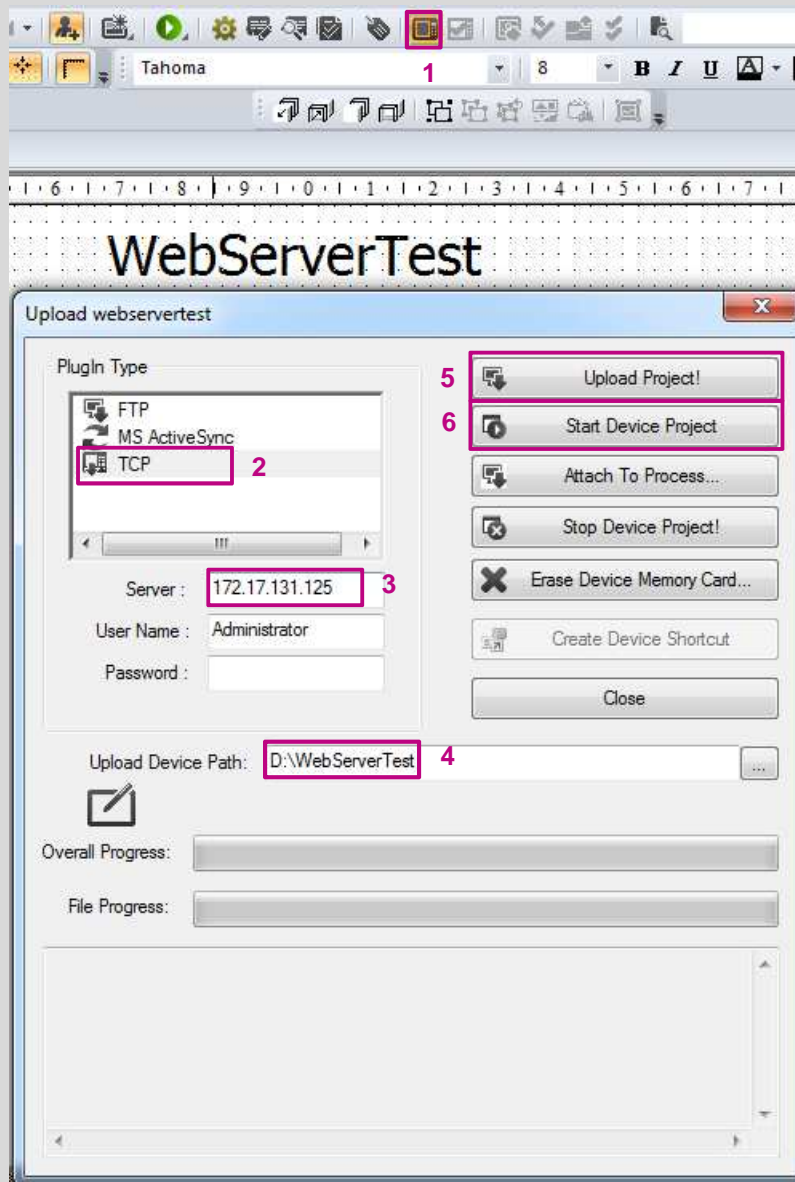


Figure 10: Input of the IP-address, device-path and upload to the C6 IPC.

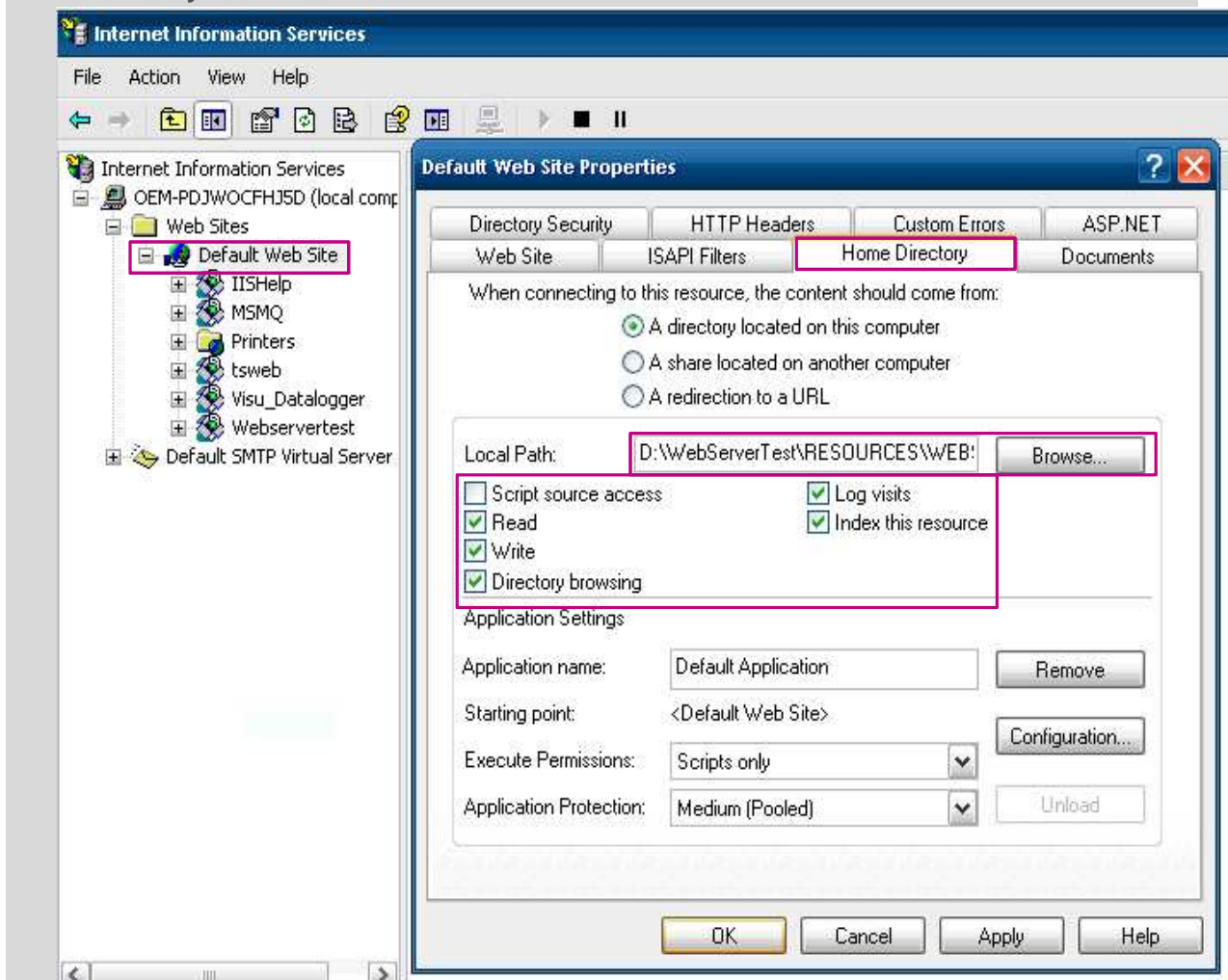
3. You have to create the IIS-directory on the IPC manually. You can find a description in "Create an IIS-directory on the IPC".

## Create an IIS-directory on the IPC

Use following description to create an IIS directory on the IPC:

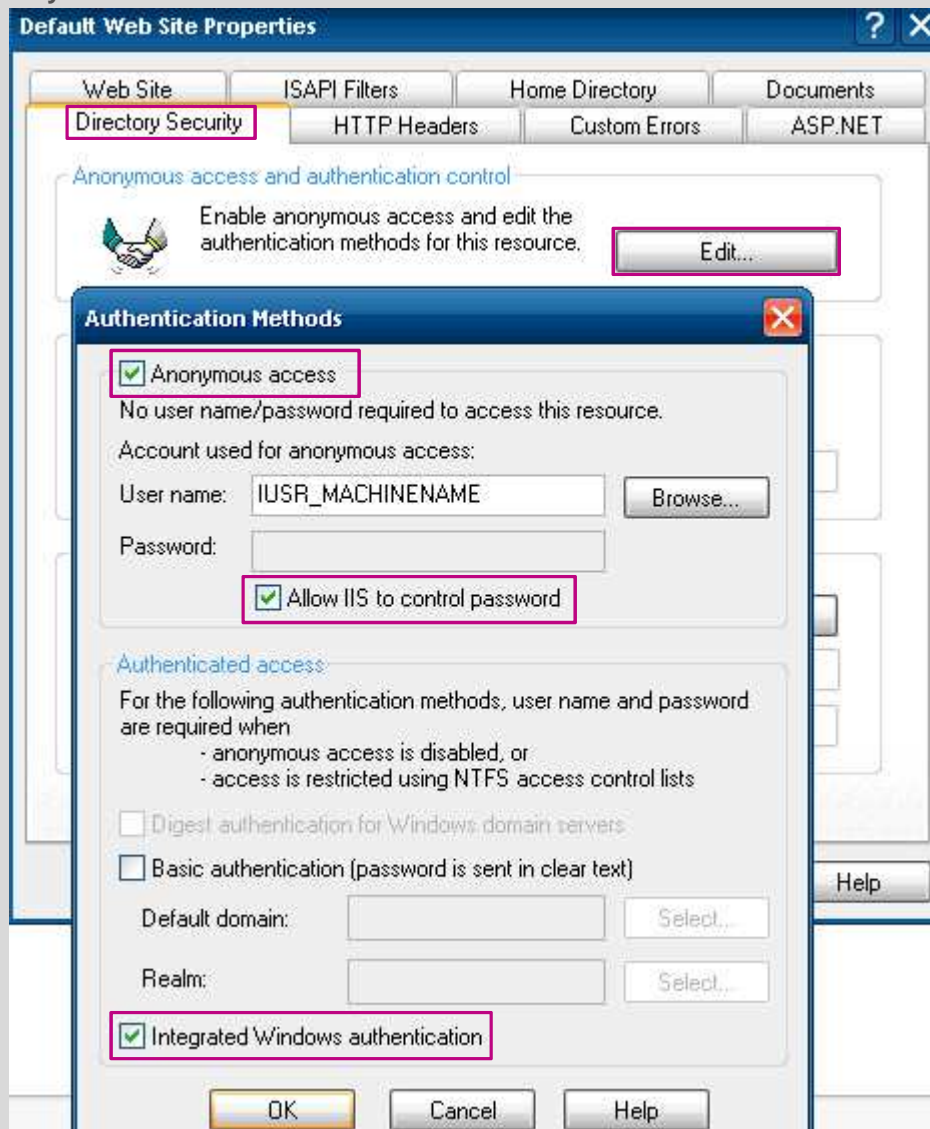
1. Open “Start > Control Panel > Administrative Tools > Internet Information Services“ of the IPC.
2. Right-click on „Default Web Site > Properties“
3. Fill in the path of the HTML-page to the „Local Path“ of the tab “Home Directory“. You can find the file in „D:\ „Name of project-folder“\RESOURCES\ „Name of project“. Also activate the access permissions as set in figure below.

Start > Control Panel > Administrative Tools > Internet Information Services > Default Web Site > Home Directory



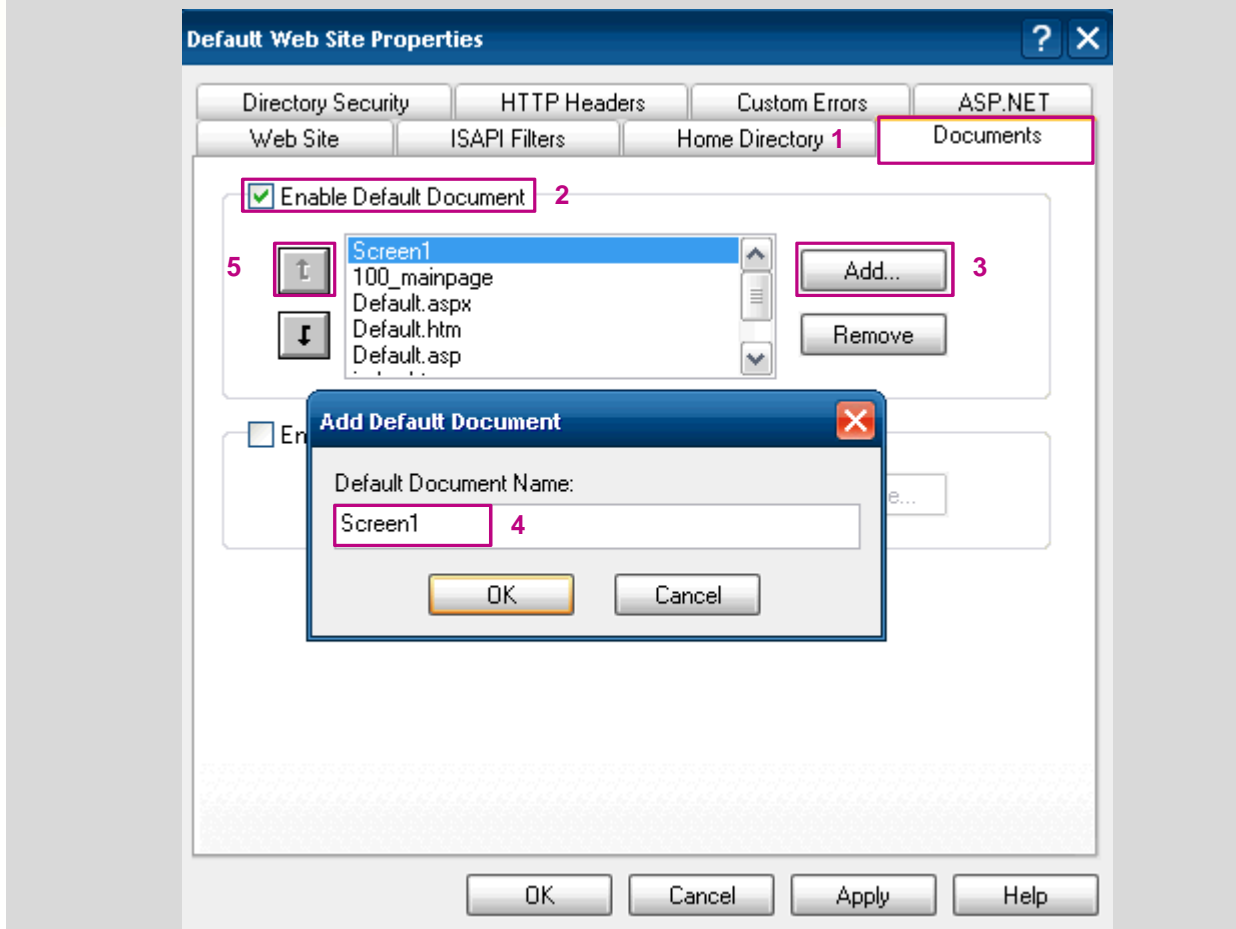
4. Select the **“Directory Security”** tab and click on the **“Edit”** button from the **“Anonymous access and Authentication Control”** group to open the **“Authentication Methods”** dialog window below and set as follows:
  - a. Enable **“Anonymous access”**
  - b. Enable **“Allow IIS to control password”**
  - c. Enable **“Integrated Windows authentication”**

Start > Control Panel > Administrative Tools > Internet Information Services > Default Web Site > Directory Security



5. Select the “Documents” tab, activate the “Enable Default Document” and add the screen-name of the HTML-page. Move the page to the top of the list.

Start > Control Panel > Administrative Tools > Internet Information Services > Default Web Site > Documents



6. Close the windows with OK. For activating the changing, stop and restart the IIS-program. After restart press the buttons on top of the IIS-command menu .



7. If the settings are correct and the boot-project is started, you can reach the webserver by a browser. To connect to the HTML-page, you have to open your browser on PC (Firefox, Internet Explorer, Chrome, etc.) and input the following syntax:

**Fehler! Hyperlink-Referenz ungültig.-address"/"Name of screen".html**

- IP-address: The IP-address of the C6 HMI
- Name of screen: Opens the HTML-page of HMI-project (preferred the start-up-screen)

## Java-settings

1. To ensure the access to the webserver by Java, you have to reduce the security-level. The settings are to find at **Start => Configure Java => Security**. Add the HTML-page of the start-up-screen to the exception-list. Use following syntax

**http://\*IP-address\*/webserver/\*Name of screen\*.html**

### Start > Configure Java > Security

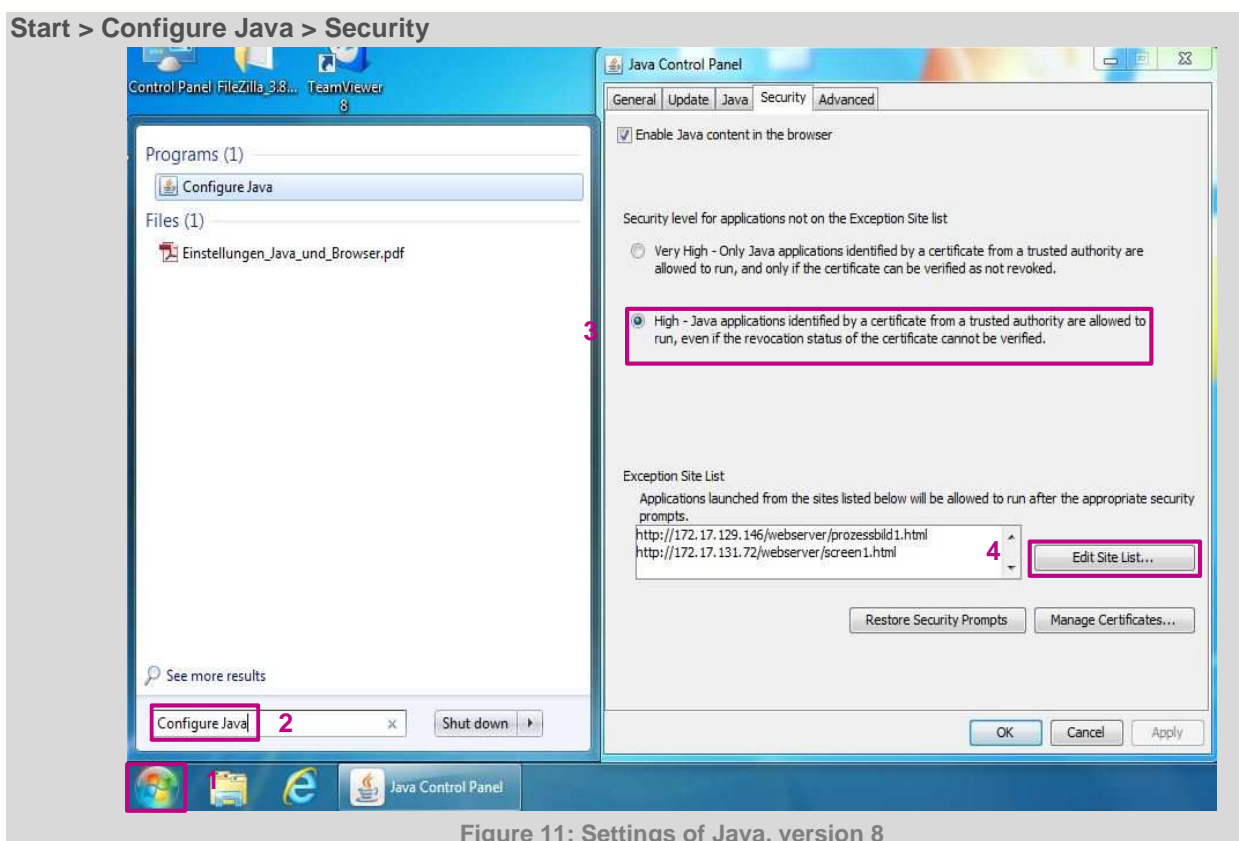
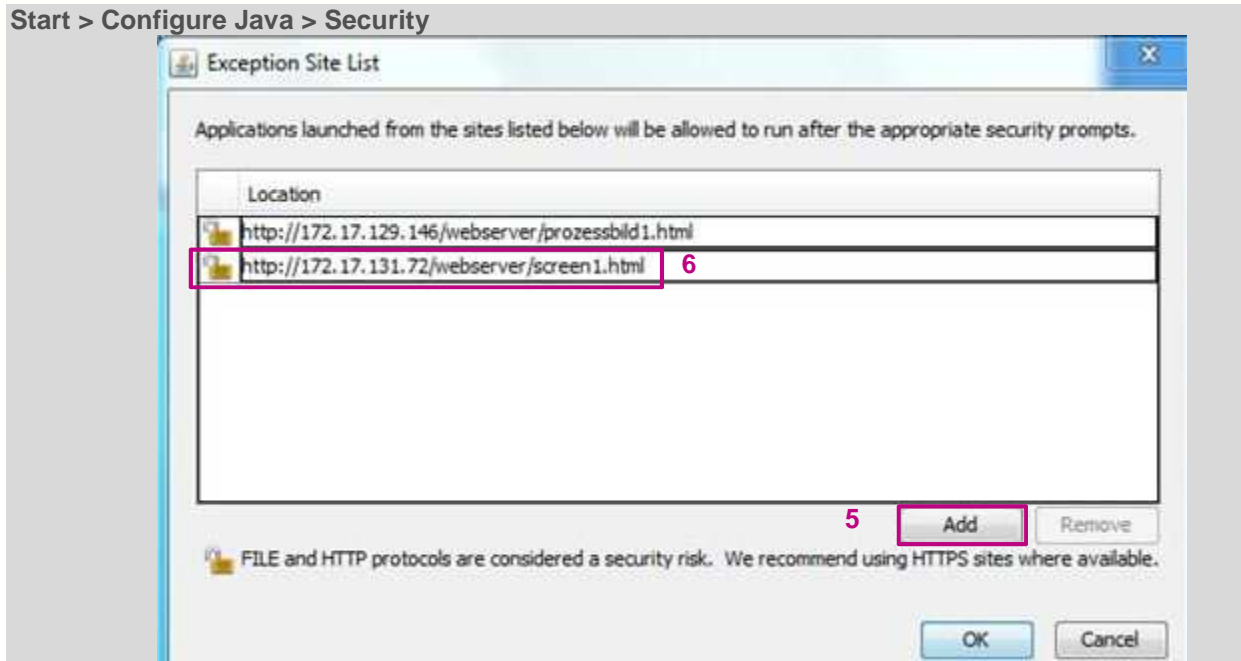


Figure 11: Settings of Java, version 8

Start > Configure Java > Security



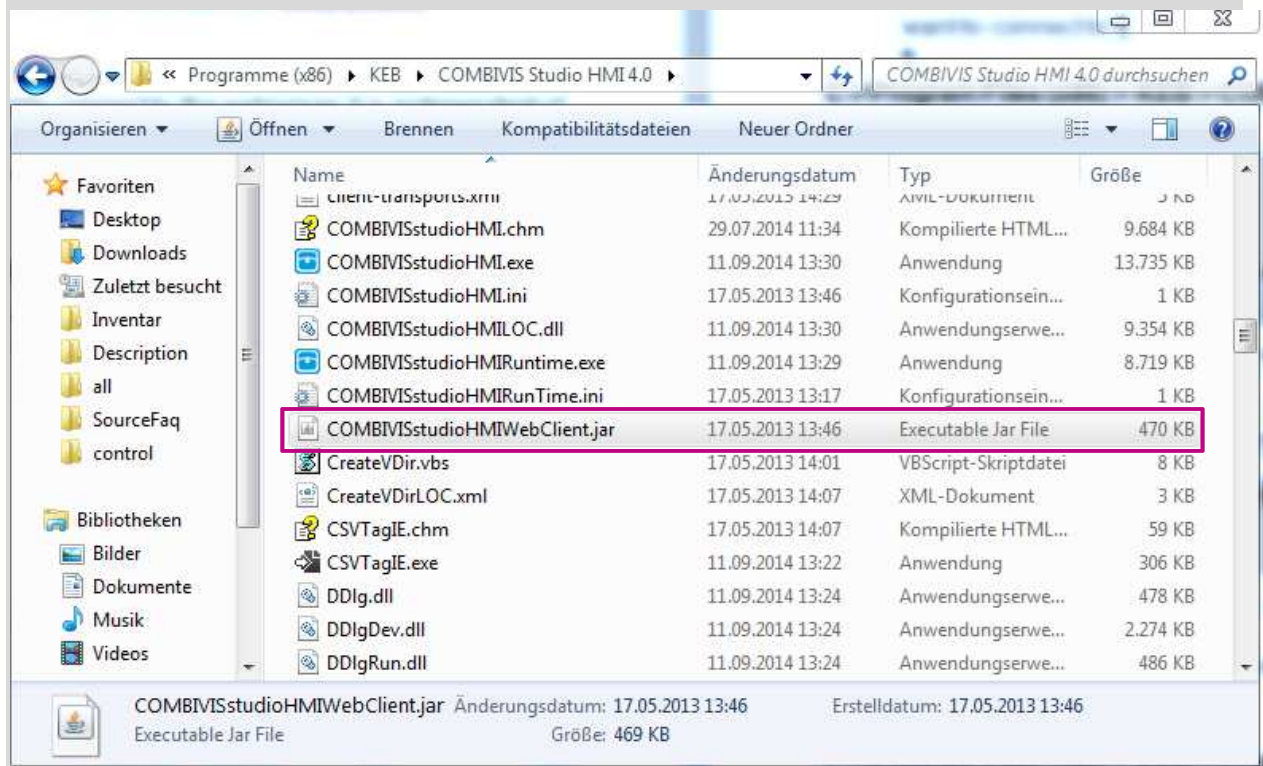
Note: If you use older versions (Java version 6 or 7) it is possible to set the security-level to „medium“. Then it is not necessary to use the exception-list.



## Alternative: Access to the Webserver with COMBIVIS WebClient-program

1. If you use the COMBIVIS WebClient to connect to the webserver it is independent of Java- or Browser-version. The program is automatically installed with COMBIVIS Studio HMI 4.0. You can find it at the installation-folder of the COMBIVIS Studio HMI 4.0. It's also placed in the project-folder of the HMI on the PC.

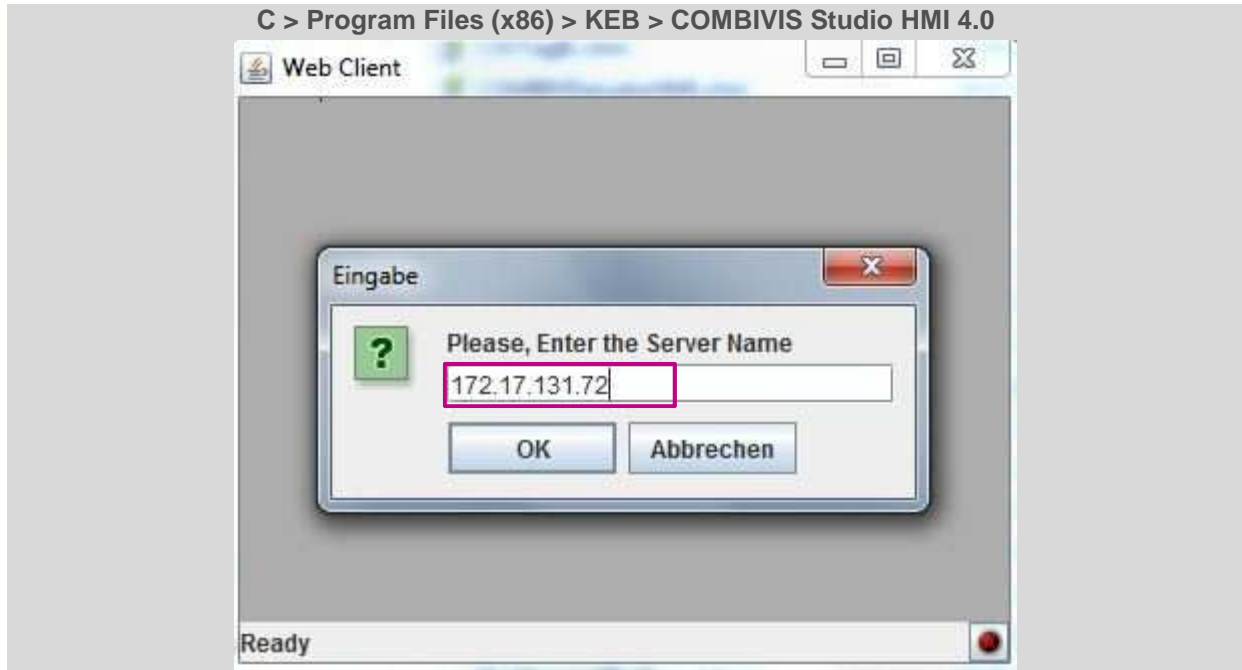
C > Program Files (x86) > KEB > COMBIVIS Studio HMI 4.0  
"Project-folder" > RESSOURCES > "Project-name"



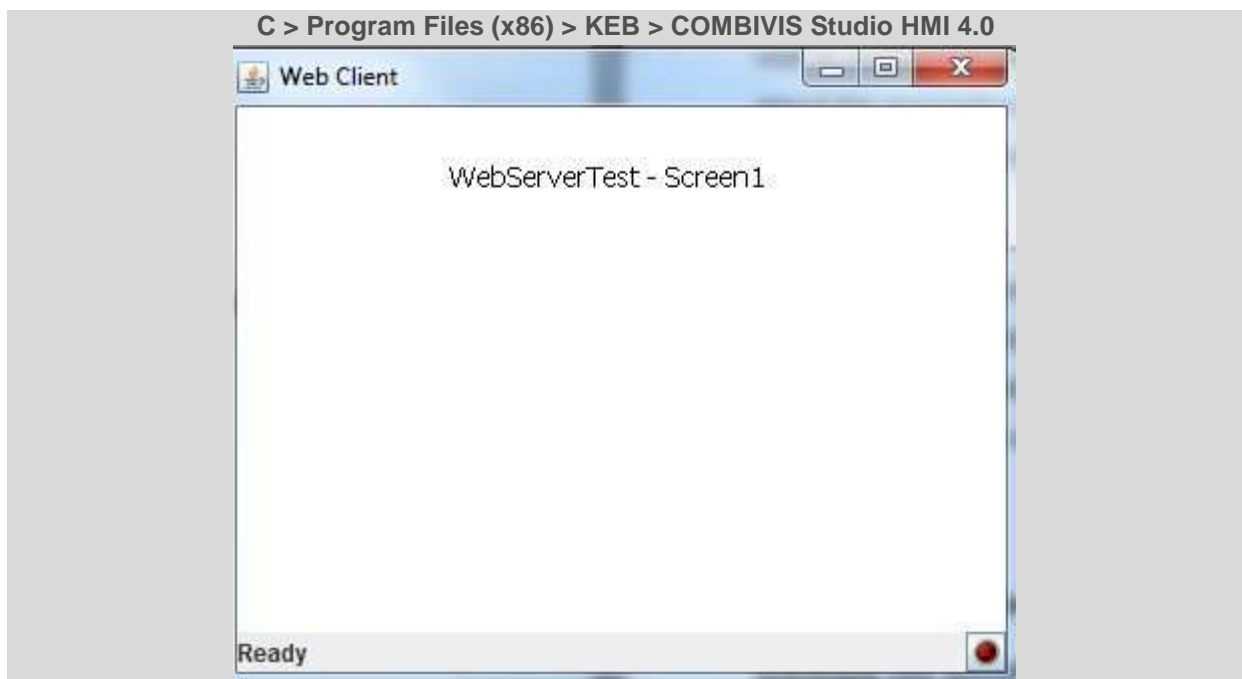
# FAQ COMBIVIS studio HMI



2. After the start of the program you have to insert the IP-address of the C6 device you want to connect to. It could be necessary to enter a username and password. This can be added / changed in the user-management of the HMI project.



3. If the connection to the webservice was successful, the start-up-screen will be displayed.



## Disclaimer

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**Application and use of our units in the target products is outside of our control and therefore lies exclusively in the area of responsibility of the user.**

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