



WebConfig

Version 3.1

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WebConfig

Basic Information

Loading page

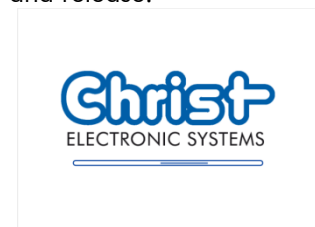


Start WebConfig

To start the WebConfig click the left bottom corner (1)



and release.



After this click the left top corner (2)



and release.



Tab the two buttons in an interval of 1.5 seconds one after another.

WebConfig

Basic Information

Show failures

To show the failures occurring while loading the website click the right bottom corner (3)



and release.



After this click the right top corner (4)



and release.



Tab the two buttons in an interval of 1.5 seconds one after another.

WebConfig

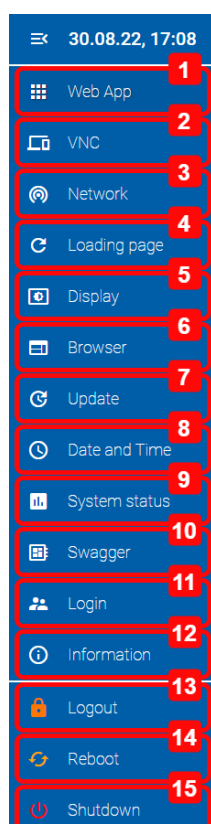
Basic Information

WebConfig



1. Return
2. Password: The standard password is: christ
3. Show password: To show the password in plain text click on this icon
4. Login: To login to the WebConfig click the login button
5. Menu
6. Reboot
7. Shutdown
8. Language: Change language. (Available: German, English)
9. Keyboard: The standard on screen keyboard will be enabled by this option
10. Dark mode

Taskbar



1. Web App configuration
2. VNC configuration
3. Network configuration
4. Loading Page configuration
5. Display configuration
6. Browser configuration
7. Update
8. Date and Time configuration
9. System status
10. Swagger
11. Login configuration
12. Information
13. Logout from the WebConfig
14. Reboot the system
15. Shutdown the system

WebConfig

Basic Information

Web App configuration

Web App

In the "Web App" menu item

Web App

The screenshot shows the 'Web App' configuration window. It has a title bar 'Web App' and two buttons: 'Save' (labeled 6) and 'Test URL' (labeled 7). Below these are several input fields: 'Protocol' (labeled 1) with a dropdown menu showing 'http://', 'URL' (labeled 2) with the text 'localhost:8080', and 'Start delay in seconds' (labeled 3) with the value '2'. At the bottom are two checkboxes: 'Ignore CURL test on startup' (labeled 4) and 'Stop webconfig server' (labeled 5).

1. Protocol: Select the protocol used:
 - http://
 - https://
 - local (for a locally hosted website. Files must be stored in folder /usr/share/webconfig/local)
2. URL: Add the URL where to start
3. Start delay: Setting a start delay - This is the waiting time until the browser redirects to the URL
4. Ignore CURL test on startup: To deactivate the CURL test on starting up of a webpage check this box.
Information on this configuration: The reachability of the URL is not checked with CURL at startup. This can speed up the start-up process.
5. Stop webconfig server: To terminate the Webconfig server after the successful connection with the WebApp, this option must be enabled.
Information on this configuration: Webconfig server will be shut down after entering webapp. You can enter the webconfig only directly after a reboot. This can increase the performance of the Webapp.
6. Save
7. Test URL – Note the entry Test Connection

Check connection

In the "Web App" menu item under "Test URL"

Web App

The screenshot shows the 'Check connection' dialog box. It has a title bar 'Check connection' and two tabs: 'Connection' and 'Result'. Below the tabs are three input fields: 'Protocol' (labeled 1) with a dropdown menu showing 'http://', 'URL' (labeled 2) with the text 'localhost:8080', and 'Timeout' (labeled 3) with the value '1 s'. At the bottom are three buttons: 'Apply' (labeled 4), 'Cancel' (labeled 5), and 'Test' (labeled 6). There is also a 'Press Test' button with a red 'X' icon.

1. Protocol: Select the protocol for the connection check
2. URL: Enter the URL for the connection check
3. Timeout: Select a timeout
4. Apply: This will write the entered protocol and URL to the standard settings. To save it finally it is necessary to click on Save in the Web App configuration (Number 6).
5. Cancel
6. Test: This will test the connection. The state will be showed in the line above.

WebConfig

Basic Information

Show Result

In the "Web App" menu item under "Test URL"

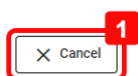
Web App

Check connection

Connection

Result

Extended connection results



1. Cancel: This will close the result window.

WebConfig

Basic Information

VNC configuration

VNC

In the "VNC" menu item

The screenshot shows the VNC configuration page. At the top right is a blue button labeled 'VNC'. The main form has a 'VNC' header and a 'Save' button (12). Below the header are several settings: a checkbox for 'VNC' (1), input fields for 'Host' (2) and 'Port' (3), input fields for 'Username' (4) and 'Password' (5) with a note 'Password is saved in plaintext', checkboxes for 'Scale viewport' (6) and 'Scale fullscreen' (7), a checkbox for 'Switch red and blue' (8), a 'Quality level' slider (9) set to 6, a 'Compression level' slider (10) set to 2, a 'Background color' section with a black circle selector (11), and a 'Save' button (12).

1. VNC: To open the VNC connection - instead of the Web App - after restarting the device, activate this option
2. Host: Enter the IP address of the host
3. Port: Enter the port of the VNC server
4. Username: Enter the username to connect to the VNC server
5. Password: Enter the password for the connection to the VNC server
6. Scale viewport: If enabled the remote session will be scaled to Viewport
7. Scale fullscreen: If enabled the VNC connection display will be scaled to the width of the viewport. Attention: It may lead to distortion of the image.
8. Switch red and blue: This option can be set if the colours red and blue are displayed reversed in the VNC display.
9. Quality level: This slider changes the quality of the displayed JPEG images. Setting 0 means low quality and setting 9 means high quality.
10. Compression level: This slider changes the compression of the VNC display transmission. The setting 0 means no compression. The Level 1 setting means little compression and the Level 9 setting means high compression. High compression is recommended for slow network connections.
11. Background color: Change the background color for VNC viewer
12. Save

WebConfig

Basic Information

Network configuration

Network settings

In the "Network" menu item

The screenshot shows the 'Network settings' page. At the top right is a 'Network' button. Below it are 'Save' (10), 'Refresh' (9), and 'Ping' (8) buttons. The 'Hostname' field (1) contains 'christ'. Below is a tab selector with 'enp1s0 Cable unplugged' (2) and 'enp2s0 Cable plugged in'. The 'DHCP' checkbox (3) is unchecked. Below it are four input fields for IPv4 Address (4) with values 172, 19, 31, 32. The 'Netmask' dropdown (5) shows '255.255.255.0/24'. Below it are four input fields for Gateway (6) with values 172, 19, 31, 250. The 'DNS' section (7) has four 'DNS' labels. The 'enp2s0' tab is selected.

1. Hostname: Change the hostname by clicking in the textfield
2. Tab - Ethernet adapter: To change the ethernet adapter switch here.
3. DHCP:
 - If this checkbox is checked, the dynamic network informations are configured. The configurations 4-7 are no more possible to change.
 - If this checkbox is unchecked, the static network informations are configured. The configurations 4-7 are possible.
4. IP4 Address
5. Netmask
6. Gateway
7. DNS
8. Ping: It is necessary to configure and save the network settings before using the ping function. It is possible to check if the device can ping another device inside the network. Therefore it is necessary to enter the IP of the other device.
9. Refresh: This will refresh the network information.
10. Save

Ping

In the "Network" menu item under "Ping"

The screenshot shows the 'Network ping' page. At the top is a 'Network ping' button. Below it is the 'Adapter' section with 'enp2s0'. Below that are four input fields for IP addresses (1) with values 172, 19, 31, 32. Below these are 'Cancel' (2) and 'Ping' (3) buttons.

1. IP3-IP0: IP address to be pinged
2. Cancel
3. Ping


WebConfig

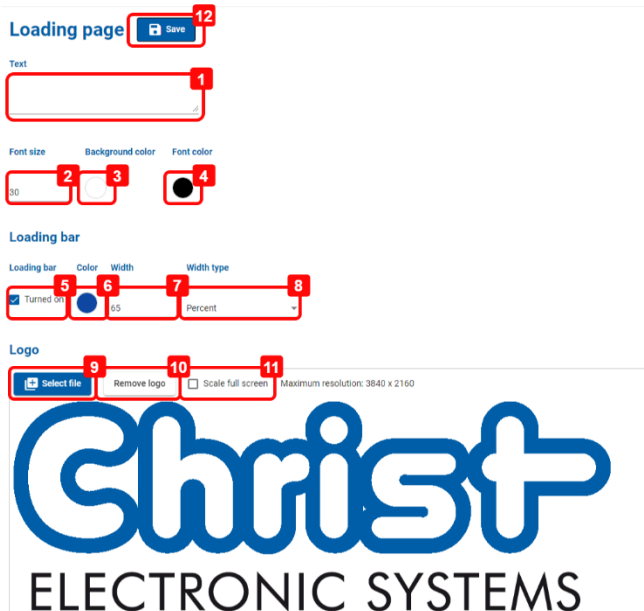
Basic Information

Loading Page configuration

Loading page

In the "Loading Page" menu item

 Loading page



The screenshot shows the 'Loading page' configuration window. It includes a 'Text' input field (1), 'Font size' (2), 'Background color' (3), and 'Font color' (4) settings. Below these is a 'Loading bar' section with a 'Turned on' checkbox (5), a 'Color' selector (6), a 'Width' input (7), and a 'Width type' dropdown (8). At the bottom is a 'Logo' section with a 'Select file' button (9), a 'Remove logo' button (10), a 'Scale full screen' checkbox (11), and a 'Maximum resolution: 3840 x 2160' label. A large 'Christ ELECTRONIC SYSTEMS' logo is displayed at the bottom of the window. A 'Save' button (12) is located at the top right of the configuration area.


1. Text: Change the Starting text
2. Font size: Change the Font size
3. Background color: Select the Background color
4. Font color: Select the Font color
5. Turned on: Enables the loading bar
6. Loading bar color: Select the Loading bar color
7. Loading bar width: Configure the loading bar width
8. Loading bar width type: Select the loading bar width type. The options are percent and pixel.
9. Select file: This option is only available when entering the WebConfig from an external device for example from a desktop PC. (See chapter -> Remote access)
To change the Logo the image has to be selected on the external device. To save the new image it is necessary to cut the picture. Refer to the next picture.
10. Remove Logo: This option is only available when entering the WebConfig from an external device. (See chapter -> Remote access) This option will delete the Logo.
11. Scale full screen: This option is only available when entering the WebConfig from an external device. (See chapter -> Remote access) This option will scale the picture to full screen at the loading page.
12. Save

WebConfig

Basic Information

Change Logo

In the "Loading Page" menu item under "Logo"

 Loading page

Logo



1. Crop Image: After selecting a file it is necessary to crop the image before saving the changes.
2. Scale: If the selected picture is too big, it is possible to scale it.

WebConfig

Basic Information

Display configuration

Display

In the "Display" menu item

The screenshot shows the 'Display' configuration page. At the top right is a blue button labeled 'Display' with a gear icon. Below it, the 'Display' title is followed by a 'Save' button with a floppy disk icon, which is highlighted with a red box and a red circle containing the number 6. Below the 'Display' title are three sections: 'Backlight', 'Rotation', and 'Keyboard'. The 'Backlight' section has three dropdown menus: 'Brightness level' (set to 4, with a red circle 1), 'Time until dimming' (set to Off, with a red circle 2), and 'Time until complete dimming' (set to Off, with a red circle 3). The 'Rotation' section has a dropdown menu for 'Rotationangle' (set to 0°, with a red circle 4). The 'Keyboard' section has a checkbox labeled 'Turned on' which is checked, with a red circle 5.

1. Backlight level: This will change the brightnesslevel of the device instantly. Possible values are: 1 to 7.
2. Time until dimming: To add an energy saving timeout, select a time here. After the time is up, screen saver is activated. To bright up the display it is necessary to click on it.
3. Time until complete dimming: To add a blanking time, select a time here. After the time is up, the backlight will be switched off. To bright up the display it is necessary to click on it.
4. Rotationangle: To rotate the display select a rotationangle here.
5. Turned on: The standard on screen keyboard will be enabled by this option
6. Save

WebConfig

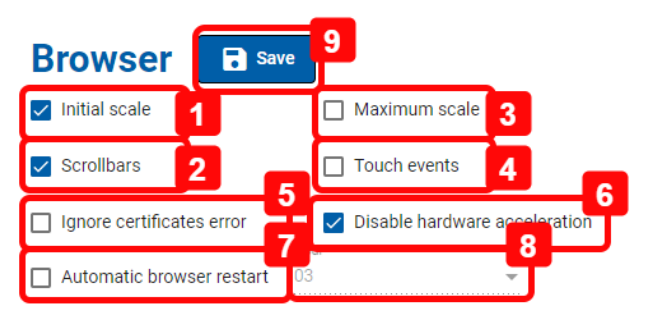
Basic Information

Browser configuration

Browser

In the "Browser" menu item

Browser

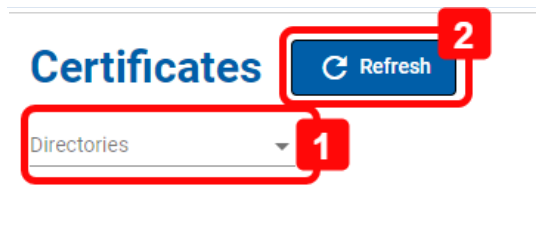


1. Initial scale: If the startpage is scaled incorrectly check this box
2. Scrollbars: Enables the scrollbars in the browser
3. Maximum scale: If the startpage is scaled incorrectly check this box
4. Touch events: Enables the touch events
5. Ignore certificates error: Just for x86 devices. Enables the option to display the start URL with the https protocol even though there is a certificate error. **Warning! By activating this option, you run the risk that a website can cause damage to your system!**
6. Disable hardware acceleration
7. Automatic browser restart: Enables the automatic browser restart at the configured time
8. Hour: Configures the time for the browser restart
9. Save

Manage certificates

In the "Browser" menu item in the "Certificates" subsection

Browser

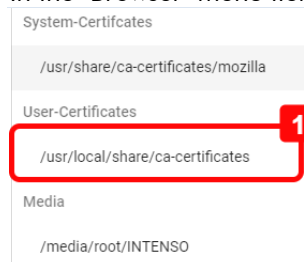


1. Directories: Display and manage certificates – For further information refer to chapter Managing certificates
2. Refresh

Show imported certificates

In the "Browser" menu item in the "Certificates" subsection

Browser




1. The user certificates are displayed under "User Certificates". This generated folder is only displayed after the import and a restart of the browser. To display the list with user certificates, directories must be clicked in the Browser menu. This folder is stored on the device and the certificates in this folder are used by the browser. The name of the folder depends on the architecture (ARM or x86).

WebConfig

Basic Information

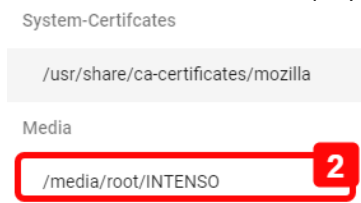
Import certificates

In the "Browser" menu item in the "Certificates" subsection

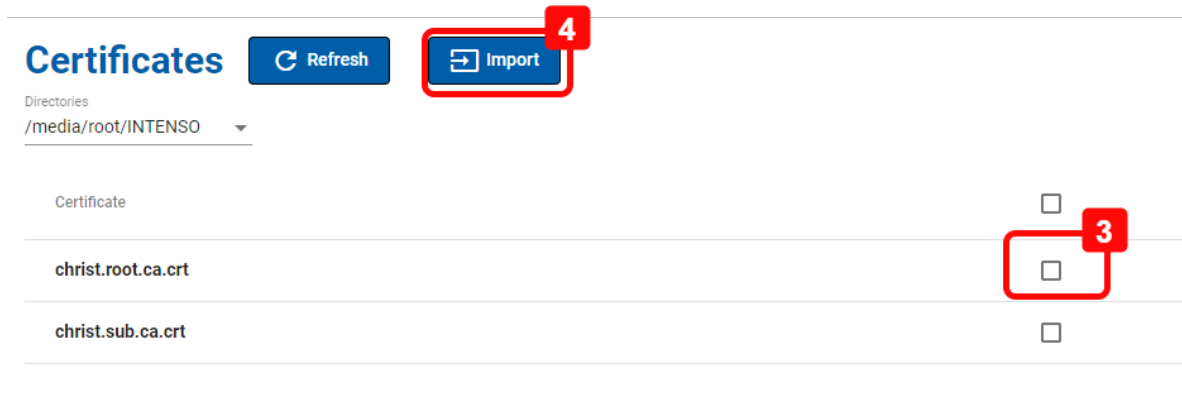
 Browser



1. Directories: To display all available certificates click on directories

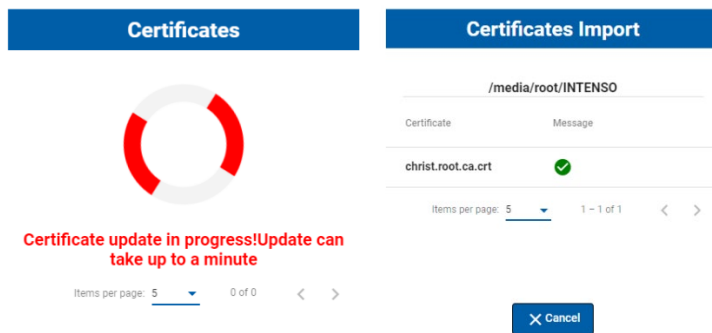


2. Select folder under "Media", which displays the content of the inserted USB stick. It's necessary to input a USB-Stick to the device which contains the certificate in the root folder. If no certificate is shown click on refresh.



3. Select the certificate which should be imported
4. Import: The certificate will be imported. In case it's the first import of a user certificate, a new folder on the device will be generated.

After this the browser will restart and the following hints are displayed:




It's not necessary to click on it.

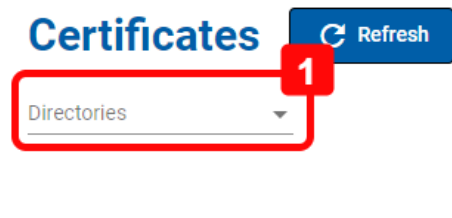
WebConfig

Basic Information

Delete certificates

In the "Browser" menu item in the "Certificates" subsection

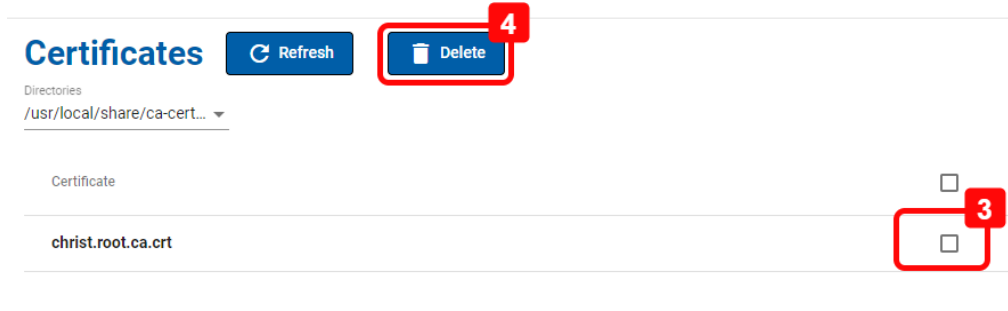
 Browser



1. Directories: To display all available certificates click on directories

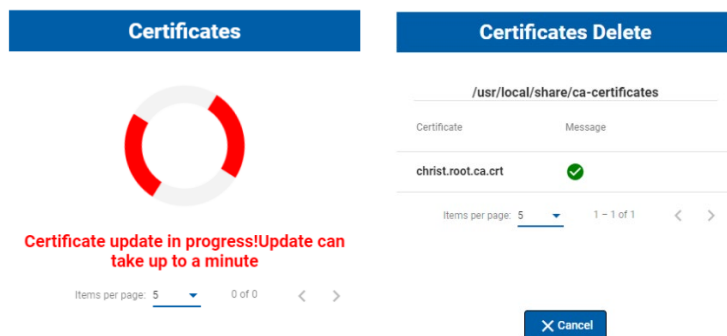


2. Click on the folder with the user certificates



3. Select the certificate which should be deleted
4. Delete: The certificate will be deleted. In case it's the last user certificate, the folder on the device will be deleted too.

After this the browser will restart and the following hints are displayed:



It's not necessary to click on it.

After the browser restart, the certificate is no longer available in the folder or, in the case described above, the folder is also deleted. To show this list click on Directories (1) in the menu Browser.


WebConfig

Basic Information

Update


RAUC Update

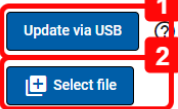
In the "Update" menu item in the "RAUC" subsection

 Update

RAUC

Update can take up to 7 minutes


 Do not shutdown or remove power source from your device during the process!



1. Update from USB: To update the system from USB an USB device containing the new version has to be plugged in.
2. Select File: This option is only available when entering the WebConfig from an external device. (See chapter -> Remote access)
To update the system from a file the new version has to be selected on the external device.

CURT Update

In the "Update" menu item in the "CURT" subsection

 Update

CURT


Christ update & recovery tool



1. Start CURT (Christ Update and Recovery Tool): CURT is the update tool. Please refer to the CURT documentation. By clicking this button it is necessary to have a USB-Device plugged in to the device with the CURT software. The USB-Device has to contain also the new image file. Start CURT is rebooting the system and after rebooting the CURT is starting.

Factory Reset

In the "Update" menu item in the "Factory Reset" subsection

 Update

Factory reset

Reset your device to factory settings



1. Factory reset: To reset the configurations this button has to be clicked.

WebConfig

Basic Information

Date and Time

Date and Time

In the "Date and Time" menu item

1. NTP: This option enables the NTP Server. To change the date and time manually this option has to be deactivated.
2. Time zone: Select time zone
3. Date: To change the date manually the option NTP (1) has to be deactivated.
4. Hour: To change the time manually the option NTP (1) has to be deactivated.
5. Minute: To change the time manually the option NTP (1) has to be deactivated.
6. Save

Timezone

In the "Date and Time" menu item under "Time zone"

1. Arrows left and right: Search for the time zone group
2. Select a time zone by clicking on it
3. Time zone: Select the time zone
4. Cancel
5. Ok: To save the selected time zone – Click the save button in the screen before


WebConfig

Basic Information

System status information

Systemperformance

In the "System status" menu item in the "System performance" subsection

 System status

Systemperformance

Uptime: 0d 1h 49min 24s

CPU utilization: 3 %



RAM utilization: 19 %




CPU Temperature: 37°



1. Systemperformance: This shows information about the current systemperformance

USB and Storage Information

In the "System status" menu item in the "USB and Storage information" subsection

 System status

USB and storage information

 USB	5	▼
 Storage	8	▼

1. USB and Storage Information: This shows information about the current USB and Storage.

WebConfig

Basic Information

Swagger

Swagger

In the "Swagger" menu item in the "Backlight" subsection

Swagger

1. Selecting an API endpoint: The methods for this endpoint are shown
2. Selecting a method: The description of this method is shown
3. Try it out: To check the endpoint and its method click on try it out

Try it out

In the "Swagger" menu item in the "Backlight" subsection

Swagger

1. Cancel: Cancel the check
2. In this example: Execute the GET method for the endpoint backlight

WebConfig

Basic Information

Response

In the "Swagger" menu item in the "Backlight" subsection

Swagger

GET /backlight

Returns the value of backlight

Parameters

No parameters

Execute Clear

Responses

Curl

```
curl -X GET \
  http://192.168.100.51:8080/api/backlight \
  -H accept: application/json
```

Request URL

http://192.168.100.51:8080/api/backlight

Server response

Code	Details
200	<p>Response body</p> <pre>{ "backlight": 7 }</pre> <p>Response headers</p> <pre>access-control-allow-origin: * content-length: 15 content-type: application/json; charset=utf-8 date: Wed, 06 Jul 2022 13:32:46 GMT etag: W/"T-S9cllhvmry6JLxtr+658BrgFPPJc" vary: Accept-Encoding x-powered-by: Express</pre>

Responses

Code	Description	Links
200	successfull response	No links

Media type

application/json

Controls Accept header.

1. Execute the method again
2. Clear the operation
3. Response

WebConfig

Basic Information

Login configuration

Login

In the "Login" menu item

 Login



The screenshot shows the 'Login' configuration page. It features a 'Login' header with a 'Save' button (callout 5). Below the header are three input fields: 'Current password' (callout 1), 'New password' (callout 2), and 'Validate new password' (callout 3). To the right of each input field is a 'Show password' icon (callout 4).

1. Current password: Enter the current password.
2. New password: Enter a new password. It has to have between 6 and 16 characters without space.
3. Validate new password: Enter the new password again.
4. Show password: To show the password (1-3) in plain text.
5. Save


WebConfig


Basic Information

Information

Export system information

In the "Information" menu item

 Information

 Export system information

1. Export system information: A USB stick must be connected to the device in order to export the system information. The function of the button is to generate a .txt file into the root directory on the USB Stick.

Product information

In the "Information" menu item in the "Product information" subsection

 Information


Product information

Product ID	PA10004647
Revision	2
Serial number	0110837-000-001

1. Product information: This are the same informations as on the label on the back of the device

System information

In the "Information" menu item in the "System information" subsection

 Information

System information

Operating system	Linux
Kernel	5.10.0-8-amd64
Browser version	Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/104.0.0.0 Safari/537.36
Webconfig version	3.0.0
Distro version	11"
RAUC compatible	✓

Hardware information

In the "Information" menu item in the "Hardware information" subsection


 Information

Hardware information

Architecture	x64
CPU type	Intel(R) Celeron(R) CPU N3350 @ 1.10GHz
RAM	3866 Mb
Resolution	800w x 480h

License information

In the "Information" menu item in the "License" subsection

 Information

License

Webconfig license information

The MIT License

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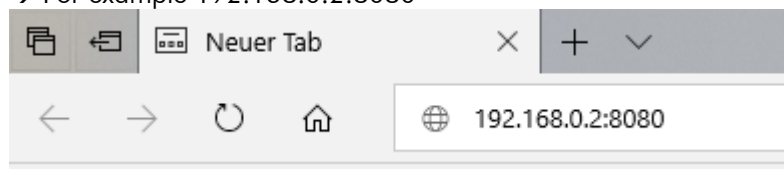
WebConfig

Basic Information

Remote access

In order to access the WebConfig remotely from another device (for example a desktop PC) in the network, the device IP address must be entered in the browser's address bar of the desktop PC. The IP needs to be followed by the port 8080. IP and Port are divided by ":".

→ For example 192.168.0.2:8080



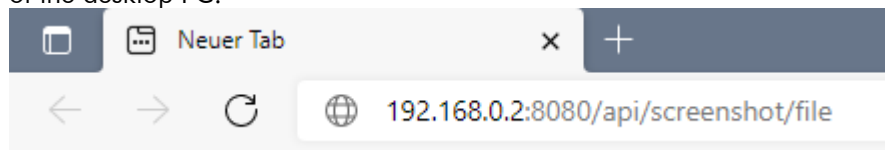
You can find the device IP address in the Network menu (see Chapter "Network" → IP 4-Adress).

Screenshot

In order to take a screenshot of the current screen of the WebPanel, connect remotely to the WebPanel (refer to "Remote access").

Enter the command "<IP-Address of the WebPanel>:8080/api/screenshot/file" to the browser's address bar and click "Enter".

After clicking "Enter" the download starts automatically and the picture is downloaded to the "Downloads" folder of the desktop PC.



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