

# WebConfig

Basic Information



## WebConfig

---

*Version 3.4*

### Content

Content .....	1
Loading screen .....	3
Start WebConfig .....	3
Show failures .....	4
WebConfig.....	5
Menus .....	6
Applications configuration .....	7
Applications .....	7
Web App.....	7
Browser based VNC.....	9
Native VNC .....	10
RDP.....	11
Containers .....	12
Containers .....	12
Containers .....	12
Images .....	12
Compose file.....	13
Environment file.....	13
Volumes .....	14
Network .....	14
System.....	14
Display configuration .....	15

# WebConfig

## Basic Information

Network configuration.....	16
Loading Page configuration.....	17
Date and Time .....	19
Browser configuration .....	20
System .....	24
System status information .....	27
Accounts .....	28
API.....	29
Information.....	31
Remote access .....	33
Option one .....	33
Option two .....	33
API Authentication.....	34
Purpose .....	34
Step 1 - Login - Authentication request .....	34
Step 2 - Sending the session token.....	35
Basics for Podman .....	36
Prerequisite .....	36
Pull Image .....	36
Processor - OS/Arch assignment .....	36
Save Image as tar .....	36
Build Image on the device .....	36
Build on the PC .....	37
Relevant Commands .....	38
Show Images.....	38
Show Container.....	38
Stop Container .....	38
Delete Container .....	38
Delete Image.....	38

# WebConfig

## Basic Information

### Loading screen



### Start WebConfig

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



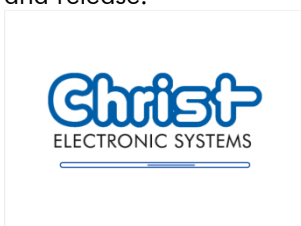
and release.



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

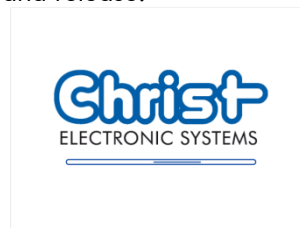
## Basic Information

### 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.

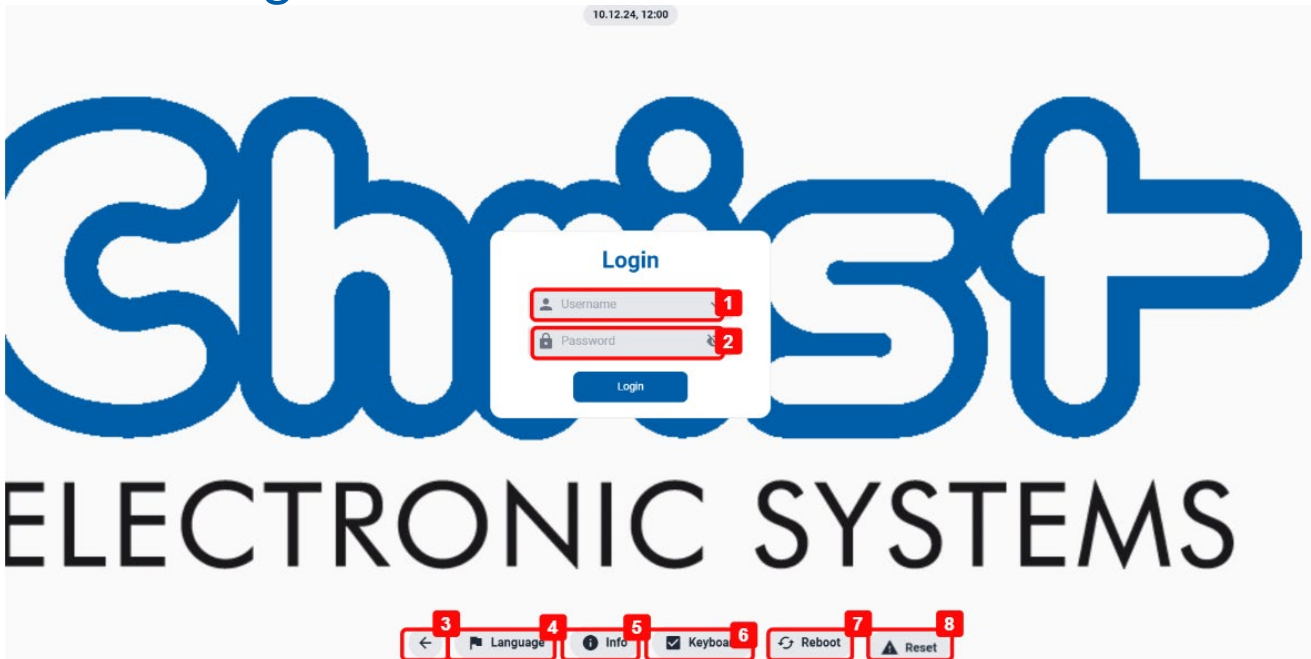


Tab the two buttons in an interval of 1.5 seconds one after another.

# WebConfig

## Basic Information

### WebConfig



1. Username: Account username
2. Password: The standard password is: christ
  - 2.1. Assign a new password: after factory reset, the standard password is "christ".The password must be changed to a new one. The password must be at least 8 characters long and contain at least one number. Spaces are not permitted.
    1. New password
    2. Confirm new password
    3. Change password: the password will change
3. Return – Arrow back.
4. Language: Change language. (Available: German, English)
5. Info: Information of the version
6. Keyboard: The standard on screen keyboard will be enabled by this option
7. Reboot – the panel restarts.
8. Factory reset: only available on panel
  - 8.1. Pin: Default PIN number "1996" or the serial number from the panel`s back
  - 8.2. Close
  - 8.3. Ok: the panel restarts and the configurations resets to default

### Change Password

Admin

christ

New Password (1)

Confirm new Password (2)

8-16 Characters / At least one number

Change Password (3)

### ▲ Factory reset

Everything will be reset to default!  
Attention: The password will also be reset!  
System will reboot afterwards.

Are you sure?

PIN (1)

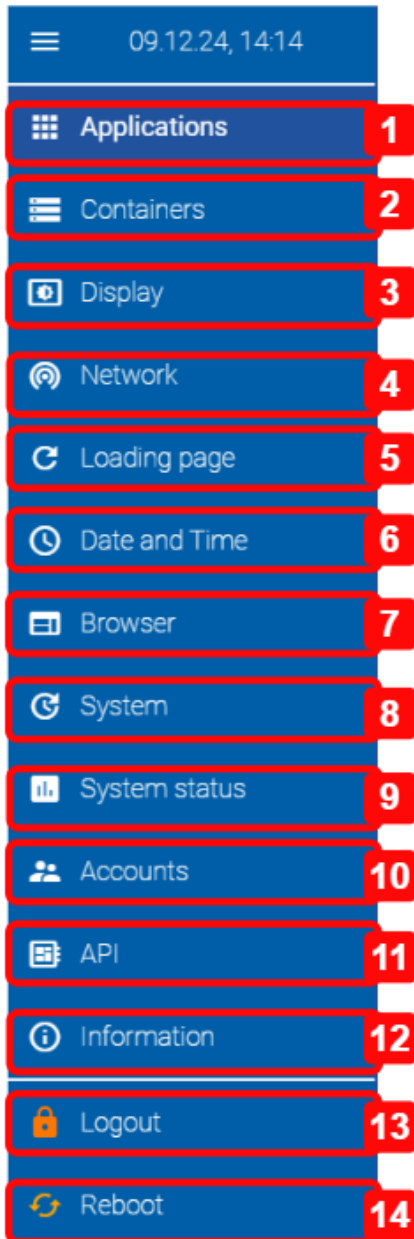
Close (2)

Ok (3)

# WebConfig

## Basic Information

### Menus



1. Applications configuration
2. Containers configuration
3. Display configuration
4. Network configuration
5. Loading Page configuration
6. Date and Time configuration
7. Browser configuration
8. System
9. System status
10. Accounts
11. API
12. Information
13. Logout from the WebConfig
14. Reboot the system

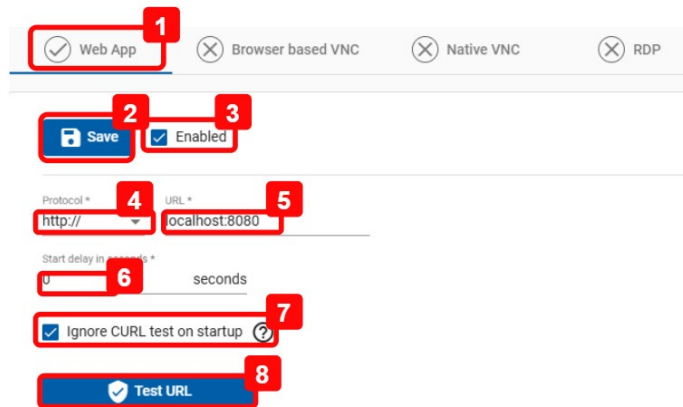
# WebConfig

## Basic Information

### Applications configuration

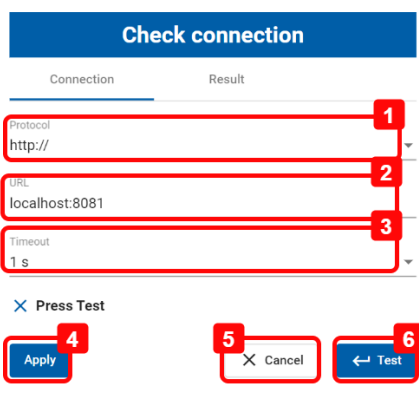
**Applications** Applications  
 In the "Applications" menu item  
 Only one application can be activated at a time. If the options "Autostart" and "Including UI" is set in the container menu, this application will be given priority.

**Web App** Applications  
 In the "Applications" menu item



1. Web App menu
2. Save
3. Enabled: enable the Web App
4. Protocol: Select the protocol used:
  - http://
  - https://
  - local (for a locally hosted website. Files must be stored in folder /usr/share/webconfig/local)
5. URL: Add the URL where to start
6. Start delay: Setting a start delay - This is the waiting time until the browser redirects to the URL
7. 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.
8. Test URL – Note the entry Test Connection

**Check connection** Applications  
 In the "Web App" menu item under "Test URL"



1. Protocol: Select the protocol for the connection check
2. URL: Enter the URL for the connection check

# WebConfig

## Basic Information

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.

### Show Result

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

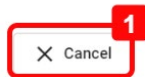
Applications

#### Check connection

Connection

Result

Extended connection results



1. Cancel: This will close the result window.



# WebConfig

## Basic Information

Browser based VNC  
In the "Applications" menu item

Applications

1. Browser based VNC
2. Save
3. Enabled: Enable the browser based VNC
4. Host: Enter the IP address of the host
5. Port: Enter the port of the VNC server
6. Username: Enter the username to connect to the VNC server
7. Password: Enter the password for the connection to the VNC server
8. Scale viewport: If enabled the remote session will be scaled to Viewport
9. 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.
10. Static page: This option can be set if a static page is to be displayed and the connection to the static page is repeatedly interrupted.
11. Disable send encodings: Disable the sending of supported encodings from the client to the server. Some servers have problems handling the encodings from the client. Can be used if there are compatibility issues.
12. Switch red and blue: This option can be set if the colours red and blue are displayed reversed in the VNC display.
13. Use legacy mode: Use the predecessor version of the vnc client. Can be used if there are compatibility issues.
14. Disable right click for press and hold: Changes the behavior for press-and-hold events from right-click to long-press.
15. Quality level: This slider changes the quality of the displayed JPEG images. Setting 1 means low quality and setting 9 means high quality.
16. Compression level: This slider changes the compression of the VNC display transmission. The setting 1 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.
17. Background color: Change the background color for VNC viewer

# WebConfig

## Basic Information

### Native VNC

In the "Applications" menu item

Applications

The screenshot shows the 'Native VNC' configuration page in the 'Applications' menu. The page has a top navigation bar with 'Web App', 'Browser based VNC', 'Native VNC' (selected), and 'RDP'. Below the navigation bar, there are several configuration options:

- 1:** 'Native VNC' tab is selected.
- 2:** 'Save' button.
- 3:** 'Enabled' checkbox is checked.
- 4:** 'Host' field contains '192.168.1.100'.
- 5:** 'Port' field contains '5900'.
- 6:** 'Username' field is empty.
- 7:** 'Password' field contains '\*\*\*\*\*'.
- 8:** 'View Only' checkbox is checked.
- 9:** 'View-Only Password' field contains '\*\*\*\*\*'.
- 10:** 'Preferred Encoding' dropdown menu.
- 11:** 'Quality level' slider is set to 5.
- 12:** 'Compression level' slider is set to 5.
- 13:** 'Option 'No JPEG' enable' checkbox is unchecked.

1. Native VNC
2. Save
3. Enabled: Enable the native VNC
4. Host: Enter the IP address of the host
5. Port: Enter the port of the VNC server
6. Username: Enter the username to connect to the VNC server
7. Password: Enter the password for the connection to the VNC server
8. View only: When checked, you can not perform any touch-action and you have to set a different password
9. View-only password: set the password
10. Preferred Encoding: default character set for interpreting text data
11. Quality level: This slider changes the quality of the displayed JPEG images. Setting 1 means low quality and setting 9 means high quality.
12. Compression level: This slider changes the compression of the VNC display transmission. The setting 1 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.
13. Option 'No JPEG enable': Check the option to disable JPEG functionality

# WebConfig

## Basic Information

### RDP

In the "Applications" menu item

Applications

The screenshot shows the RDP configuration interface. At the top, there are four tabs: 'Web App', 'Browser based VNC', 'Native VNC', and 'RDP'. The 'RDP' tab is selected and highlighted with a red box and the number 1. Below the tabs, there are several configuration options:

- A 'Save' button (2) and an 'Enabled' checkbox (3) which is checked.
- A 'Host' input field (4) containing '192.168.1.182'.
- A 'Port' input field (5) containing '3389'.
- A 'Username' input field (6) containing 'jmeter'.
- A 'Password' input field (7) containing 'parola'. Below it, a note says 'Password is saved in plaintext'.
- A 'Certificate' dropdown menu (8) set to 'Ignore certificate'.
- A 'Multitouch' checkbox (9) which is checked.

1. RDP: Protocol for remote access to desktops and applications.
2. Save
3. Enabled: Enable the RDP
4. Host: Enter the IP address of the host
5. Port: Enter the port of the RDP
6. Username: Enter the username to connect to the RDP. You can add the domain like **domain\\username** or **username@domain**
7. Password: Enter the password for the connection to the RDP.
8. Certificate: **Deny certificate:** Rejects untrusted certificate, blocking the connection.  
**Ignore certificate:** Accepts untrusted certificate, allowing the connection.
9. Multitouch: Enables touch gestures in remote desktop sessions.

# WebConfig

## Basic Information

### Containers

#### Containers

In the "Containers" menu item

Containers

The Containers menu is not available on iMX6 devices. If the options "Autostart" and "Including UI" are enabled, the containers will automatically start during the boot process. In this case, the application configured in the Application menu will not be launched.

The containers should ideally be started using the compose file. If you wish to start a container without using a compose file, you need to connect to the panel via SSH. To enable SSH access, activate the corresponding option in the network menu. Once connected to the console, you can manually start the containers using the Podman command-line tool.

#### Containers

In the "Containers" menu item

Containers

Name	State	Quick actions	Stack	Image	Created	Port
<input type="checkbox"/> ubuntu_container_1	running			docker.io/library/ubuntu:latest	09.09.24, 13:31	
<input type="checkbox"/> ubuntu_container_2	running			docker.io/library/ubuntu:latest	09.09.24, 13:31	
<input checked="" type="checkbox"/> ubuntu_container_3	exited			docker.io/library/ubuntu:latest	09.09.24, 13:31	

1. Start: Launch or initialize the selected container.
2. Stop: Terminate the selected container.
3. Kill: Forcefully stop the selected container immediately.
4. Restart: Stop and start the selected container again.
5. Delete: Remove the selected container permanently.
6. Search: Find a specific container.
7. Quick action – start: Launch or initialize the selected container.
8. Quick action – stop: Terminate the selected container.
9. Show logs: Display the logs generated by the selected container.

#### Images

In the "Containers" menu item

Containers

Name	Version	Size
<input checked="" type="checkbox"/> docker.io/library/ubuntu	latest	80.56 MB
<input type="checkbox"/> docker.io/library/nginx	latest	195.92 MB
<input type="checkbox"/> docker.io/library/alpine	latest	8.14 MB

1. Import from USB: Transfer images from a connected USB device to the system.
2. Delete: Remove the selected image from the system
3. The imported image
4. Search: Find a specific image

# WebConfig

## Basic Information

Compose file  
In the "Containers" menu item

Containers Images Compose file Environment file Volumes Networks System

Import from USB Export to USB alpine.yml Up Down Save Autostart Including UI

```

1 version: '3.8'
2
3 services:
4   alpine1:
5     image: alpine:latest
6     container_name: alpine_container_1
7   ports:
8     - "8081:80"

```

1. Import from USB: Transfer compose files from a connected USB device to the system.
2. Export to USB: Transfer the compose file from the system to a connected USB device.
3. Rename the compose file
4. Up: Start or restart services.
5. Down: Stop and remove services and resources.
6. Save: Save changes.
7. Autostart: Configure services to start automatically on boot.
8. Including UI: The browser is stopped after starting the webconfig and the container with UI is shown.

Environment file  
In the "Containers" menu item

Containers Images Compose file Environment file Volumes Networks System

Import from USB Export to USB env2.env Save

```

1 # New environment file
2

```

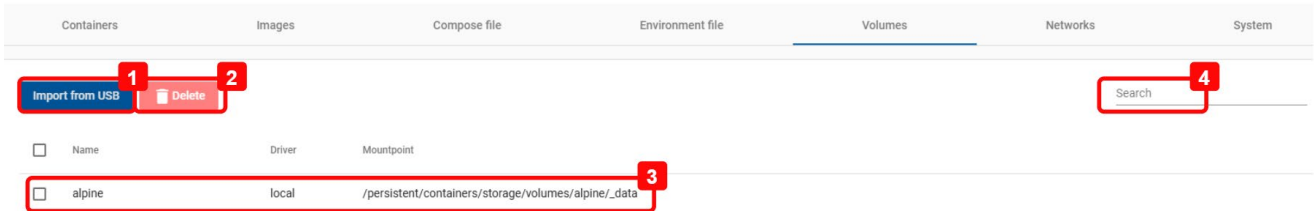
1. Import from USB: Loads .env files from USB
2. Export to USB: Save .env files to USB
3. Rename the environment file
4. Save: Save changes

# WebConfig

## Basic Information

### Volumes

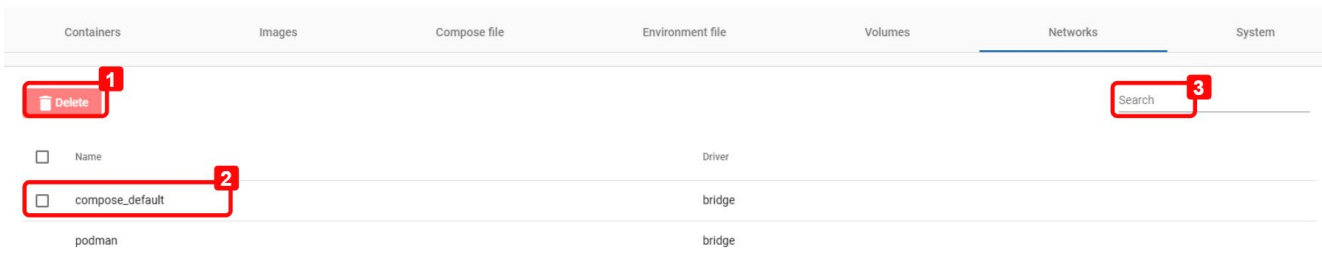
In the "Containers" menu item



1. Import from USB: Loads .tar files from USB
2. Delete: Remove the selected volume from the system
3. The imported volume
5. Search: Search: Find a specific volume

### Network

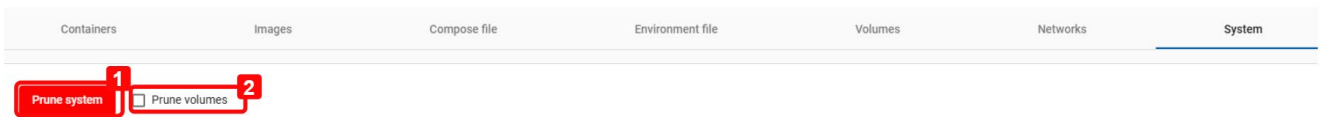
In the "Containers" menu item



1. Delete: Remove the selected network from the system
2. The imported network
3. Search: Search: Find a specific network

### System

In the "Containers" menu item



1. Prune system: Remove unused podman objects to free up system space.
2. Prune volumes: Remove all unused podman volumes to free up system space.

# WebConfig

## Basic Information

### Display configuration

#### Display

In the "Display" menu item

Display

#### Display

Save

#### Backlight

Brightness level

6

Time until dimming

Off

Time until complete dimming

Off

#### Rotation

Rotationangle

0°

#### Keyboard

Turned on

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. The rotation is done after reboot.
5. Turned on: The standard on screen keyboard will be enabled by this option
6. Save

# WebConfig

## Basic Information

### Network configuration

#### Network settings

In the "Network" menu item

Network

#### Network settings

The screenshot shows the Network settings page with the following elements highlighted by numbered callouts:

- 1:** Hostname text field containing "ces-x86".
- 2:** Ping button with a double-headed arrow icon.
- 3:** External webconfig access allowed toggle switch (currently off).
- 4:** SSH toggle switch (currently off).
- 5:** Ethernet adapter selection area showing "enp1s0" as unplugged and "enp2s0" as plugged in.
- 6:** DHCP checkbox (checked).
- 7:** IPv4 Address table with columns for IPv4 and values: 192, 168, 1, 101.
- 8:** Netmask/CIDR dropdown menu showing "255.255.255.0/24".
- 9:** Gateway table with columns for Gateway and values: 192, 168, 1, 1.
- 10:** DNS table with columns for DNS and values: DNS, DNS, DNS, DNS.
- 11:** Refresh button with a circular arrow icon.
- 12:** Save button with a floppy disk icon.

1. Hostname: Change the hostname by clicking in the textfield
2. 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.
3. External webconfig access allowed: **Attention!** Activating this option makes the Webconfig accessible in the network - requests can be sent from any client in the network. **It is recommended to deactivate this option!**
4. SSH: Enable or disable the SSH connection. **Attention!** Activating this option makes the panel accessible in the network - requests can be sent from any client in the network. **It is recommended to deactivate this option!**
5. Tab - Ethernet adapter: To change the ethernet adapter switch here.
6. DHCP for All-In-One devices only available as service mode, it is not recommended for productive use
  - 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.
7. IP4 Address
8. Netmask
9. Gateway
10. DNS
11. Refresh: This will refresh the network information.
12. Save



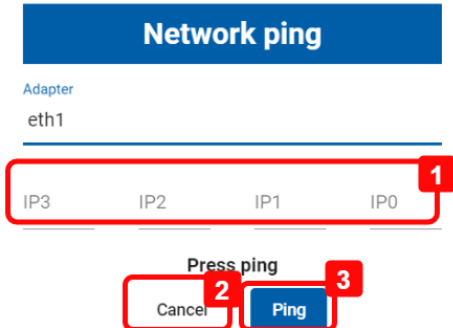
# WebConfig

## Basic Information

### Ping

In the "Network" menu item under "Ping"

Network



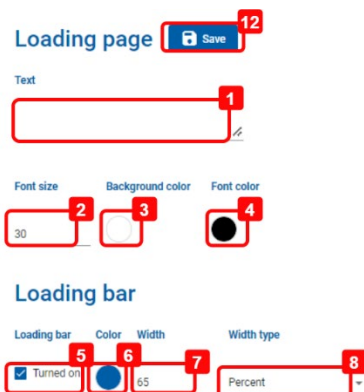
1. IP3-IP0: IP address to be pinged
2. Cancel
3. Ping

### Loading Page configuration

#### Loading page

In the "Loading Page" menu item

Loading page



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

# WebConfig

## Basic Information

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

### Change Logo

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

 Loading page

This option is only available when entering the WebConfig from an external device. (See chapter -> Remote access)

#### 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.

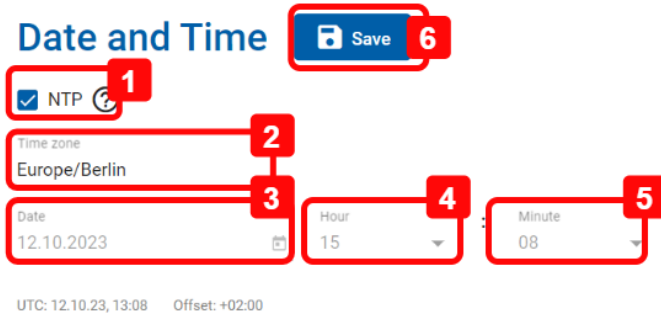
# WebConfig

## Basic Information

### Date and Time

#### Date and Time

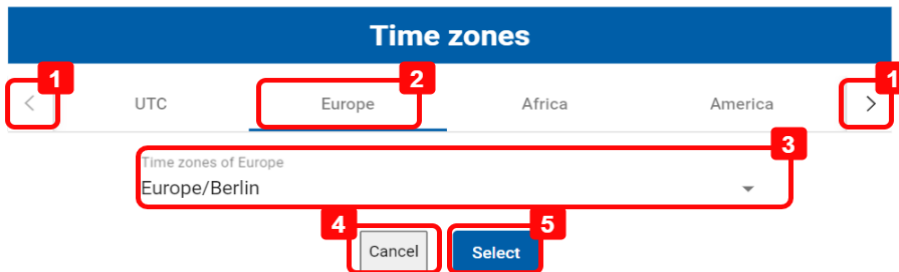
In the "Date and Time" menu item



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. Canel
5. Ok: To save the selected time zone – Click the save button in the screen before

# WebConfig

## Basic Information

### Browser configuration

#### Browser

In the "Browser" menu item

Browser

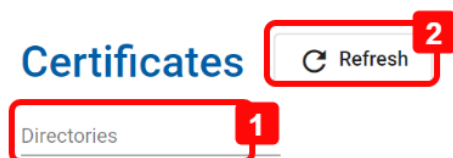


1. Save
2. Initial scale: If the startpage is scaled incorrectly check this box
3. Scrollbars: Enables the scrollbars in the browser
4. Maximum scale: If the startpage is scaled incorrectly check this box
5. Touch events: Enables the touch events
6. Disable hardware acceleration: Should always be activated.
7. Disable 2d Canvas: Disable hardware acceleration for HTML element "canvas" (2D)
8. 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. To use this option the URL has to request certificates. If no certificates are necessary, the option is without functionality. **Warning! By activating this option, you run the risk that a website can cause damage to your system!**
9. Automatic browser restart: The browser is restarted automatically. Option cannot be deactivated for All-In-One devices.
10. Enable Remote Debugging: Allow external connections to debug the application remotely. **Warning! Enabling remote debugging allows changes to the system and should only be used in development environments.**

#### 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

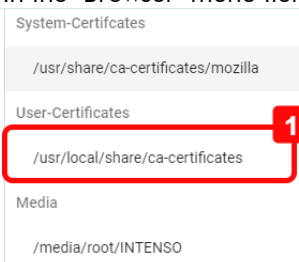
# WebConfig

## Basic Information

### 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).

### Import certificates

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

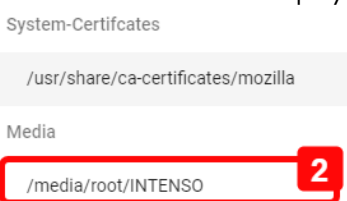
 Browser

#### Certificates

 Refresh


Directories


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.

#### Certificates

 Refresh

 Import

Directories

/media/root/INTENSO

Certificate

christ.root.ca.crt

christ.sub.ca.crt


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:

# WebConfig

## Basic Information

**Certificates**



Certificate update in progress! Update can take up to a minute

Items per page: 5    0 of 0    < >

**Certificates Import**

/media/root/INTENSO

Certificate	Message
christ.root.ca.crt	✓

Items per page: 5    1 - 1 of 1    < >

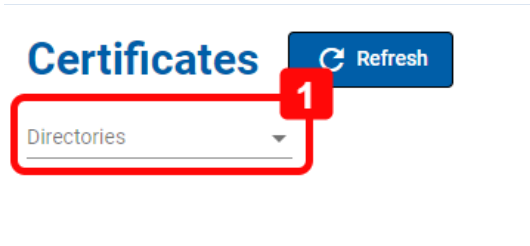
**Cancel**

It's not necessary to click on it.

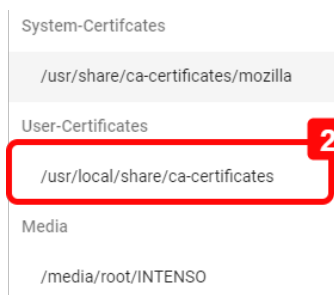
### Delete certificates

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

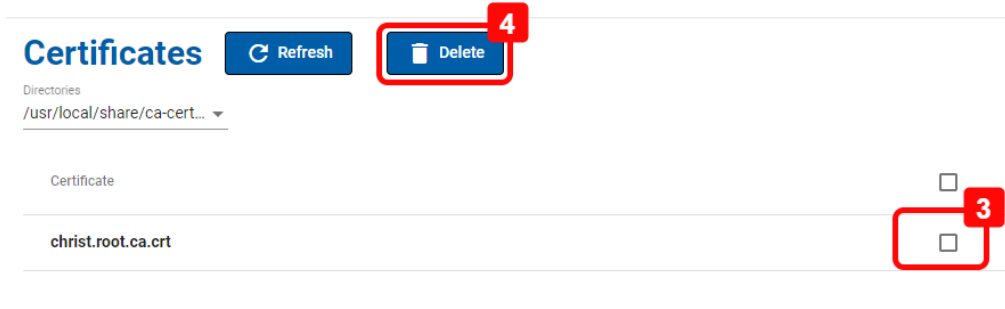
**Browser**



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:

# WebConfig

## Basic Information

Certificates



Certificate update in progress! Update can take up to a minute

Items per page: 5 0 of 0 < >

Certificates Delete

/usr/local/share/ca-certificates

---

Certificate	Message
christ.root.ca.crt	✔

Items per page: 5 1 - 1 of 1 < >

✕ Cancel

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

### System

#### System Update - RAUC

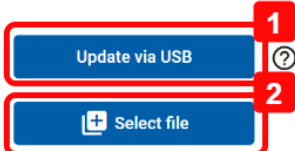
In the "System" menu item in the "System Update - RAUC" subsection

System

#### System 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.

#### System Update - CURT

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

System

#### 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 "System" menu item in the "Factory Reset" subsection

System

#### Factory reset

Reset your device to factory settings



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




# WebConfig

## Basic Information

### Backup (only available for Imx8 based panels)

In the "System" menu item in the "Backup" subsection

 System

#### Backup

Export and Import Configuration



Only remote accessible (See chapter -> Remote access)

#### Backup

Export and Import Configuration

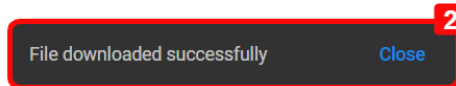


Only available on device – USB device is necessary

### Export to file – remote access

In the "System" menu item in the "Backup" subsection

 System

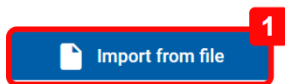


1. Export to file: the image will be download in the browser
2. A success message will appear on the screen

### Import from file – remote access

In the "System" menu item in the "Backup" subsection

 System

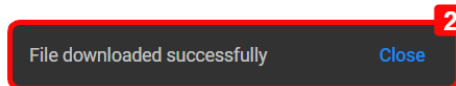


1. Import from file: an "import from file" dialog will open
  - 1.1. Choose File: A tar.gz file must be imported. The file must be an export that was previously created with a panel with the same software version
  - 1.2. Cancel
  - 1.3. Import: the file will be imported

### Export to USB

In the "System" menu item in the "Backup" subsection

 System



1. Export to USB: when the export is finished, a success message will be displayed
2. A success message will appear on the screen

# WebConfig

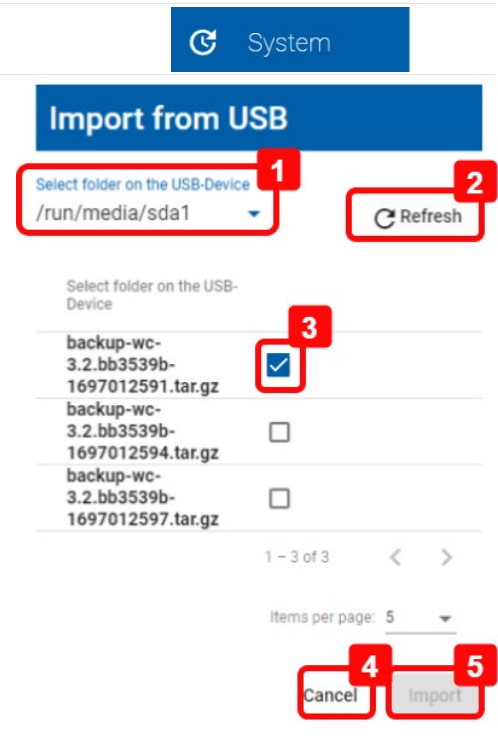
## Basic Information

### Import from USB

In the "System" menu item in the "Backup" subsection



1. Import from USB: an "import from file" dialog will open
  - 1.1. Select folder: a tar.gz type file must be imported. The file must be an export that was previously created with a panel with the same software version
  - 1.2. Refresh
  - 1.3. You can select only one file
  - 1.4. Cancel
  - 1.5. Import: the file will be imported from the USB stick

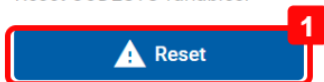


### Cold-Start

In the "System" menu item in the "Cold-Start" subsection

## Cold-Start

Reset CODESYS variables.



1. Cold-Start: the CODESYS variables are reset. **This option is only valid for All-In-One panels.**

### Language

In the "System" menu item in the "Language" subsection

## Language



1. Language: Changing the system language (EN or DE)

# WebConfig

## Basic Information

### System status information

#### Systemperformance

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

 System status

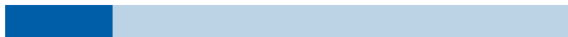
#### Systemperformance

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

### Accounts

#### Accounts

In the "Accounts" menu item



#### Accounts

##### Global Settings

Disable API authentication **1**

Default language **2**

##### Users

Admin	<b>5</b>
user	<b>4</b>

**3**

1. Disable API authentication: Enable/disable authentication for API requests. **Warning! Disabling API Authentication will allow unrestricted access to all endpoints, which may pose a security risk. Ensure this option is only used in controlled environments or for testing purposes.**
2. Default language: Change the language
3. Add user: Add new user to the system
4. Delete: Permanently remove the selected user from the system.
5. Edit: Modify the settings of the selected user.

#### Accounts

In the "Add new user" menu item



**New User** ×

**1**

**2**

**3**

Options:  Temporary Password **4**

**5**

English  
 German

**Permissions** **6**

Accounts	<input type="checkbox"/>	all	<input type="checkbox"/>	read	<input type="checkbox"/>	update
Applications	<input type="checkbox"/>	all	<input type="checkbox"/>	read	<input type="checkbox"/>	update
Browser	<input type="checkbox"/>	all	<input type="checkbox"/>	read	<input type="checkbox"/>	update
VNC-Classico	<input type="checkbox"/>	all	<input type="checkbox"/>	read	<input type="checkbox"/>	update
VNC	<input type="checkbox"/>	all	<input type="checkbox"/>	read	<input type="checkbox"/>	update
RDP	<input type="checkbox"/>	all	<input type="checkbox"/>	read	<input type="checkbox"/>	update
Container Engine	<input type="checkbox"/>	all	<input type="checkbox"/>	read	<input type="checkbox"/>	update
Containers	<input type="checkbox"/>	all	<input type="checkbox"/>	read	<input type="checkbox"/>	update
Images	<input type="checkbox"/>	all	<input type="checkbox"/>	read	<input type="checkbox"/>	update
Compose	<input type="checkbox"/>	all	<input type="checkbox"/>	read	<input type="checkbox"/>	update
Env	<input type="checkbox"/>	all	<input type="checkbox"/>	read	<input type="checkbox"/>	update
Volumes	<input type="checkbox"/>	all	<input type="checkbox"/>	read	<input type="checkbox"/>	update
Network	<input type="checkbox"/>	all	<input type="checkbox"/>	read	<input type="checkbox"/>	update
System	<input type="checkbox"/>	all	<input type="checkbox"/>	read	<input type="checkbox"/>	update
Network	<input type="checkbox"/>	all	<input type="checkbox"/>	read	<input type="checkbox"/>	update
Startscreen	<input type="checkbox"/>	all	<input type="checkbox"/>	read	<input type="checkbox"/>	update
API	<input type="checkbox"/>	all	<input type="checkbox"/>	read	<input type="checkbox"/>	update
System	<input type="checkbox"/>	all	<input type="checkbox"/>	read	<input type="checkbox"/>	update

**7**

1. Username: Set the unique identifier for the user account.
2. Password: Set the authentication password for the user account.
3. Confirm password: Re-enter the password.
4. Temporary password: When this option is selected, the user is created with the specified password but will be required to change it upon their first login.

# WebConfig

## Basic Information

5. Language: Set a default language
6. Permissions: Set the access rights and privileges for the user account.
7. Save

## API

### API

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

API

The screenshot shows the 'Backlight' API endpoint configuration page. At the top, the endpoint name 'Backlight' is highlighted with a red box and a '1'. Below it, the selected method 'GET /backlight' is highlighted with a red box and a '2'. In the 'Parameters' section, the 'Try it out' button is highlighted with a red box and a '3'. The 'Responses' section shows a table with one entry: '200 successfull response'. Below the table, the media type is set to 'application/json' and an example response is shown: `{ "backlight": 0 }`.

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 "API" menu item in the "Backlight" subsection

API

The screenshot shows the 'Backlight' API endpoint configuration page. The 'Execute' button is highlighted with a red box and a '2'. The 'Cancel' button is also highlighted with a red box and a '1'. The rest of the page content is the same as in the previous screenshot.

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

# WebConfig

## Basic Information

### Response

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

API

GET /backlight

Returns the value of backlight

Parameters Cancel

No parameters

**1** Execute **2** Clear

Responses **3**

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-S9cIhvmry6JLxtr+65BrgFPJc" 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

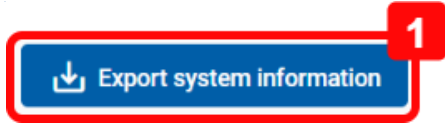
## Basic Information

### Information

#### Export system information

In the "Information" menu item

 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
Processor Type	Intel Celeron N3350
RAM	3771 MB
Resolution	800w x 480h

# WebConfig

## Basic Information

### License information

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

 Information

#### License

Webconfig license information

Christ Electronic Systems Embedded Software License Agreement

This Software License Agreement (the "Agreement") is made effective as of the date of the acceptance of the purchase order for the product (the "Effective Date"), by and between Christ Electronic Systems GmbH, with its principal offices at Alpenstraße 34, 87700 Memmingen Germany ("CES"), and the company ordering a product with the Software ("Licensee") (each a "Party" and collectively, the "Parties").

Preamble

CES is a provider for hardware and software in the area of Touch Panels, Industrial PCs, monitors and customer specific solutions. Therefore, CES offers libraries, tools, maintenance solutions and applications.

This Agreement specifies the scope of the license and the rights and obligations of both parties.

Now, THEREFORE, the parties hereby agree as follows:

TERMS AND CONDITIONS

0. Definitions

"Software" shall mean the "WebConfig" as described in Annex A. Software includes all Updates delivered to Licensee by CES hereunder.



# WebConfig

## Basic Information

### Remote access

There are following ways to access the device through the network:

#### Option one

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-Address).

For All-In-One devices the port is changed to 8081.

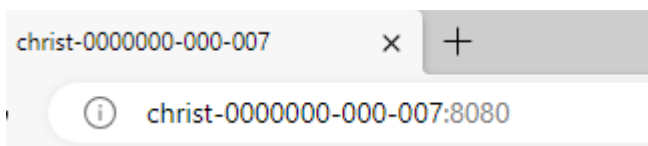
#### Option two

To access the WebConfig remotely from another device in the network, it is possible to enter the device host name (by default it is defined with the prefix "christ-" and the serial number of the device) must be entered in the browser's address bar of the desktop PC. The host name needs to be followed by the port 8080. Host name and Port are divided by ":".

→ For example christ-0000000-000-007:8080

### Network settings

Hostname  
christ-0000000-000-007



You can find the device host name in the Network menu (see Chapter "Network" → host name).

# WebConfig

## Basic Information

### API Authentication

#### Purpose

The following describes how authentication for automated requests to the Webconfig server works. In the example, the Postman software was used.

#### Step 1 - Login - Authentication request

The request must first be sent to the login endpoint:

```
<ip-adresse>:8080/api/v2/accounts/login
```

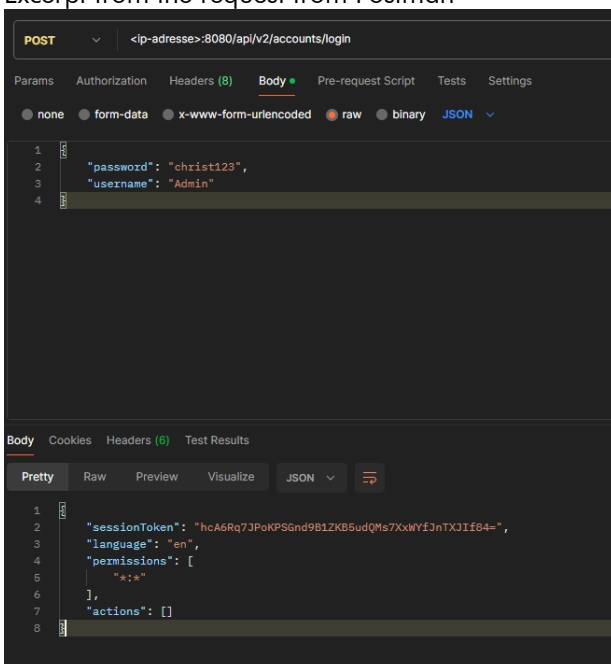
The body that is sent must look like this:

```
{
  "password": "christ123",
  "username": "Admin"
}
```

There you will receive in return:

```
{
  "sessionToken": "hcA6Rq7JPoKPSGnd9B1ZKB5udQMs7XxWYfJnTXJIIf84=",
  "language": "en",
  "permissions": [
    "*:*"
  ],
  "actions": []
}
```

Excerpt from the request from Postman

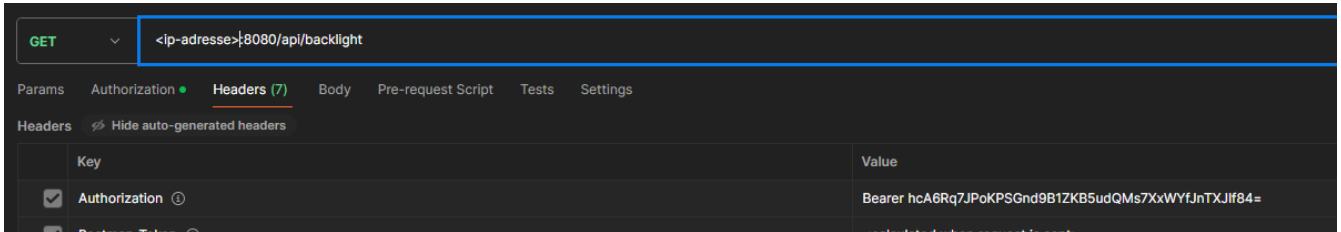


# WebConfig

## Basic Information

### Step 2 - Sending the session token

The sessionToken must now be extracted and included in the header of all further requests:



It is important that the key value pair in the key is called "Authorization" and the value is composed of the word "Bearer" and the sessionToken.

# WebConfig

## Basic Information

### Basics for Podman

#### Prerequisite

A Docker engine must be installed on the PC. We recommend using [Rancher Desktop](#) for this. To use the Docker commands, Rancher Desktop must be started.

To use the commands **on the device**, **podman** must be used instead of docker.

#### Pull Image

Docker images are available, for example, in [Docker Hub](#).

Images can be downloaded using the [pull](#) command ([podman image pull](#)).

```
docker image pull nginx:latest
podman image pull nginx:latest
```

To download the image directly for the correct architecture, this can be specified in the pull command.

Example:

```
docker image pull --platform linux/arm64 nginx:latest
podman image pull --platform linux/arm64 nginx:latest
```

#### Processor - OS/Arch assignment

Processor	OS/Arch
imx6	linux/arm/v7
imx8	linux/arm64
x86	linux/amd64

#### Save Image as tar

To play a Docker image on a device, it can be pulled directly on the device. This also uses the correct architecture.

Otherwise, the image can be pulled on a PC using the pull command and then saved.

To do this, the [save](#) command ([podman image save](#)) is used.

```
docker image save -o mytestimage.tar nginx:latest
podman image save -o mytestimage.tar nginx:latest
```

#### Build Image on the device

To do this, the device must be connected to the Internet. Copy the Dockerfile and the corresponding files to the device. For example, you can use [scp](#) via ssh. Or the program WinSCP. It is best to save the file in the /tmp folder.

```
scp mytestdockerfile root@192.168.1.100:/tmp
```

If the Dockerfile is now located, you must change to the tmp folder.

```
cd /tmp
```

# WebConfig

## Basic Information

The build command can then be executed here.

```
podman image build --tag imagename:tag .
```

### Build on the PC

An extension is necessary here. We used buildkit for this. Then the architecture for the corresponding device can be specified for building.

# WebConfig

## Basic Information

### Relevant Commands

#### Show Images

```
docker image ls  
podman image ls
```

Show all images including those in the background

```
docker image ls -a  
podman image ls -a
```

#### Show Container

```
docker container ls  
podman container ls
```

Show all containers including stopped or terminated ones

```
docker container ls -a  
podman container ls -a
```

#### Stop Container

```
docker container stop <container-id>  
podman container stop <container-id>
```

#### Delete Container

```
docker container rm <container-id>  
podman container rm <container-id>
```

#### Delete Image

```
docker image rm <image-id>  
podman image rm <image-id>
```

## Disclaimer

Technical data are subject to modification and delivery subject to availability. Any liability that the data and illustrations are complete, actual or correct is excluded. Designations may be trademarks and/or copyrights of the respective manufacturer, the use of which by third parties for their own purposes may infringe the rights of such owner.

## Contact

Christ Electronic Systems GmbH  
Alpenstraße 34  
87700 Memmingen

Phone:  
+49 8331 8371-0 (Main Office)  
+49 8331 8371-500 (Service)

Mail:  
[info@christ-es.de](mailto:info@christ-es.de)

Homepage:  
<https://www.christ-es.com>

© Christ Electronic Systems GmbH