



User Guide

Chromium on HMI Devices

Installation and Basic Settings

Translation of the original manual

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1 Introduction

1.1 Markings

1.1.1 Warnings

Certain operations can cause hazards during the installation, operation or there-after. There is safety information in the documentation in front of these operations. Warnings contain signal words for the severity of the hazard, the type and/or source of the hazard, the consequence of non-compliance and the measures to avoid or reduce the hazard.

⚠ DANGER



Type and/or source of the hazard.

Leads to death or serious bodily injury if not observed.

- a) Measures to avoid the hazard.
- b) Can be supplemented by an additional danger sign or pictogram.

⚠ WARNING



Type and/or source of the hazard.

May cause death or serious injury if not observed.

- a) Measures to avoid the hazard.
- b) Can be supplemented by an additional danger sign or pictogram.

⚠ CAUTION



Type and/or source of the hazard.

May cause bodily injury if not observed.

- a) Measures to avoid the hazard.
- b) Can be supplemented by an additional danger sign or pictogram.

NOTICE



Type and/or source of the hazard.

Can cause damage to property if not observed.

- a) Measures to avoid the hazard.
- b) Can be supplemented by an additional danger sign or pictogram.

1.1.2 Information notes



Indicates to the user a special condition, prerequisite, scope or simplification.



This is a reference to further documentation. The barcode is for smartphones, the following link is for online users or for typing.

(Globe icon) <https://www.keb-automation.com/search>



Notes on conformity for use in the North American or Canadian market.

1.1.3 Symbols and markers

✓	Condition
---	-----------

a)	Action step
⇒	Result or intermediate result
(≡▶ Reference [▶ 4])	Reference to a chapter, table or picture with page reference
ru21	Parameter name or parameter index
(🌐▶)	Hyperlink
<Strg>	Control code
COMBIVERT	Lexicon entry

1.2 Warranty and liability

The warranty and liability on design, material or workmanship for the acquired device is given in the general conditions of sale.



Here you will find our general sales conditions.

(🌐▶ <https://www.keb-automation.com/terms-conditions>)



Further agreements or specifications require a written confirmation.

1.3 Open Source Information

- ✓ Only applies to devices with Linux operating system.
- ✓ This product contains software components.

a) We are obliged to point out that the following disclaimer applies to the GPL and LGPL components with regard to the rights holders:

This program is published in the hope that it will be useful, but **without any guarantee**; even without the implied warranty of **marketability** or **usability for a specific purpose**. Further information can be found in the GNU General Public Licence and the GNU Lesser General Public Licence.

For other open source components, the disclaimers of the rights holders in the respective licence texts apply.

The software components contained in this product that are licensed by the rights holder as free software or open source software under a GNU General Public Licence version or a GNU Lesser General Public Licence version or under another open source licence gives you the right to obtain the source code for the binary file. The copyright and the corresponding licence information can be found in the /usr/share/common-licenses folder on the device. The folder is shared and can be accessed from any other PC via the network.

You can obtain the source code for these software components from us on a data carrier (CD, DVD or USB stick) at cost price by sending a request with the order number **00C6DD0-CS01** to the following address within three years of delivery of the product by us:

KEB Automation KG
 Legal Department
 Südstrasse 38
 32683 Barntrop
 Germany

Please provide the following information:

Device name, software version information, serial number of the device, delivery date.

Then we will send you an invoice. After receipt of payment you will receive the data carrier with the source code.

1.4 Validity of this manual

These instructions for use are valid for the software with the corresponding version specified in the product description. It contains:

- Safety instructions
- Intended use
- Installation
- Description

1.5 Target group

The instructions for use is intended exclusively for persons who have the following qualifications:

- Knowledge and understanding of the safety instructions.
- Knowledge of PCs and the used operating system.
- Installing software.
- Understanding about the function of connected/ simulated devices/ models.
- Detection of hazards and risks of the electrical drive technology.
- Knowledge of automation technology.

2 Product description

Chromium is an HTML 5 web browser based on the open source web browser project launched by Google. It can be installed on HMI devices based on the Linux platform. The application is installed as a stand-alone full-screen application.

3 Installation

The HMI devices are supplied ex works without runtime. When switching on for the first time, the HMI displays the "Runtime Loader" screen.

If you have already installed an application --- MISSING LINK --- to activate the following page).

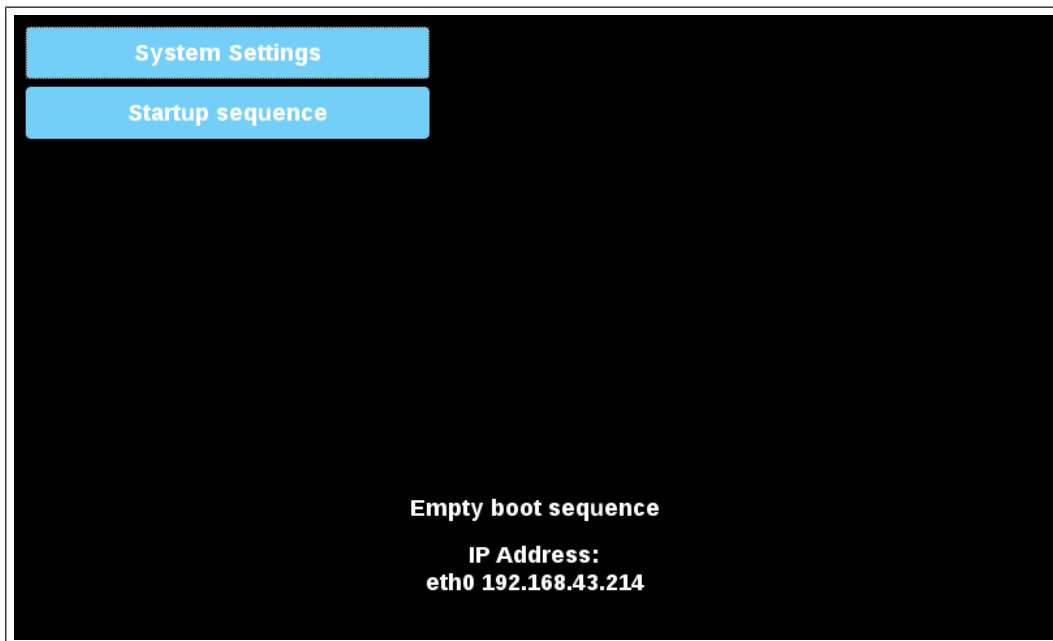


Fig. 1: System settings

3.1 USB

Install Chromium application from USB:

1. Copy the application file to an empty USB memory stick.
2. Under "Runtime loader", select "Startup sequence" and then "Install".

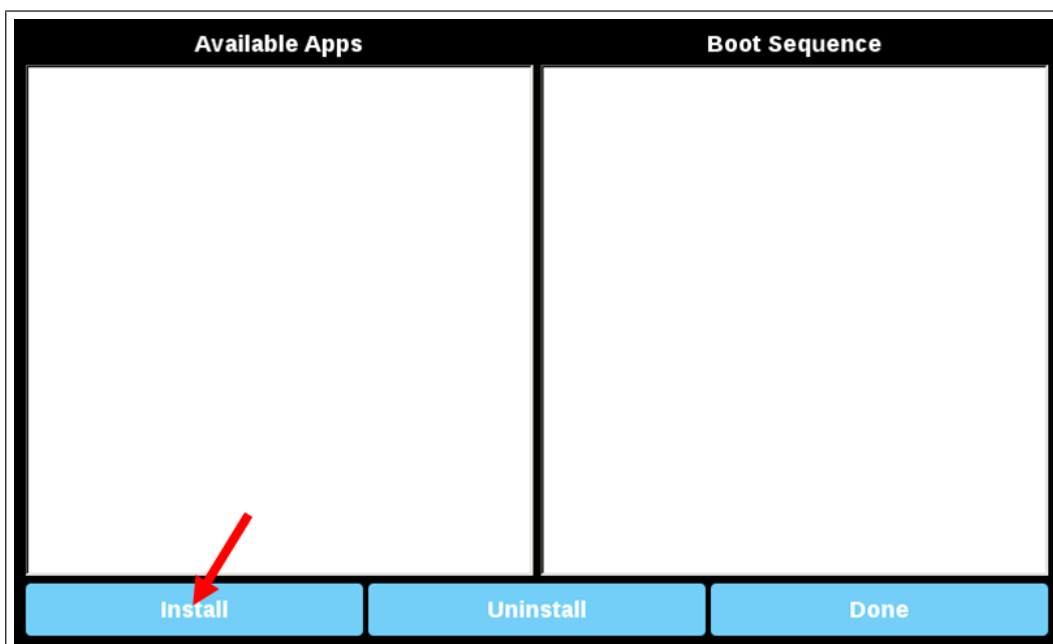


Fig. 2: Install apps

3. Open the "mnt" folder by double-clicking on it.

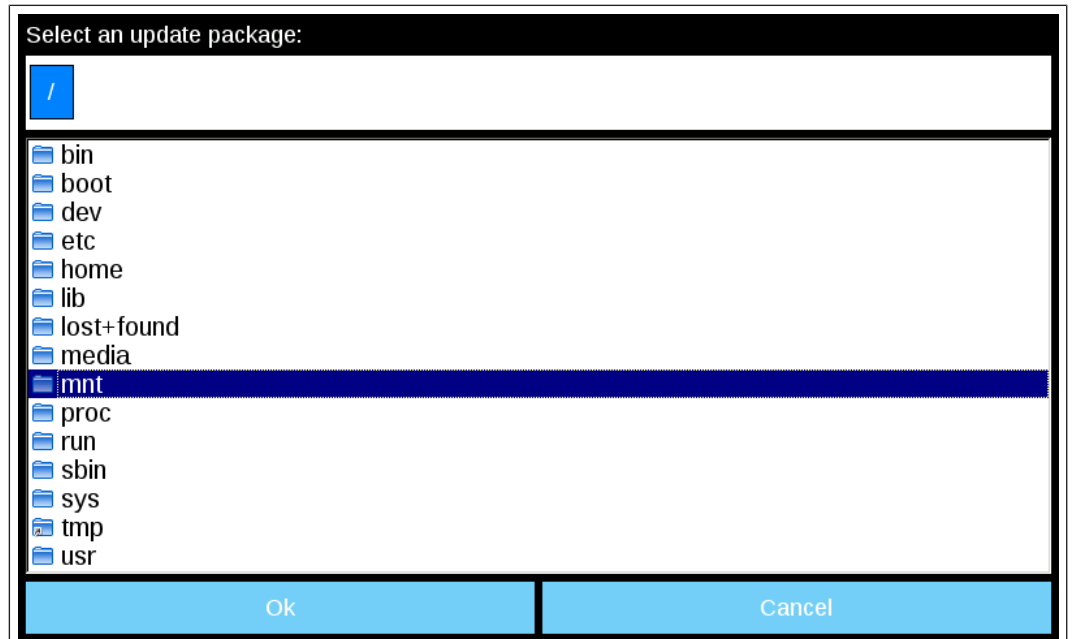


Fig. 3: Select mnt folder

4. Then open the "usbmemory" folder.

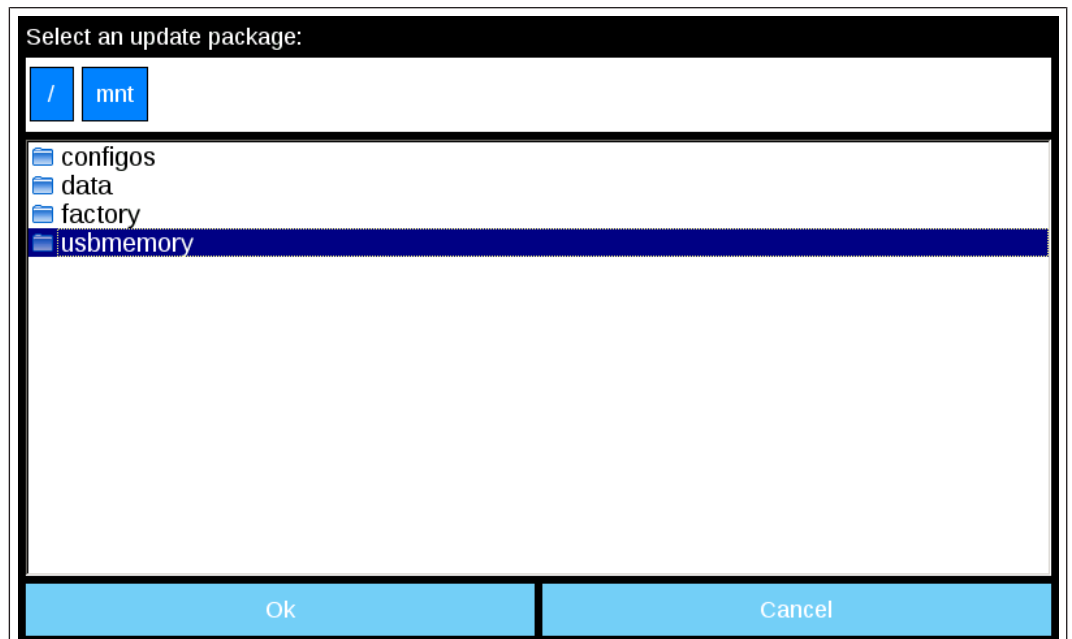


Fig. 4: Open the usbmemory folder

5. Select the Chromium package

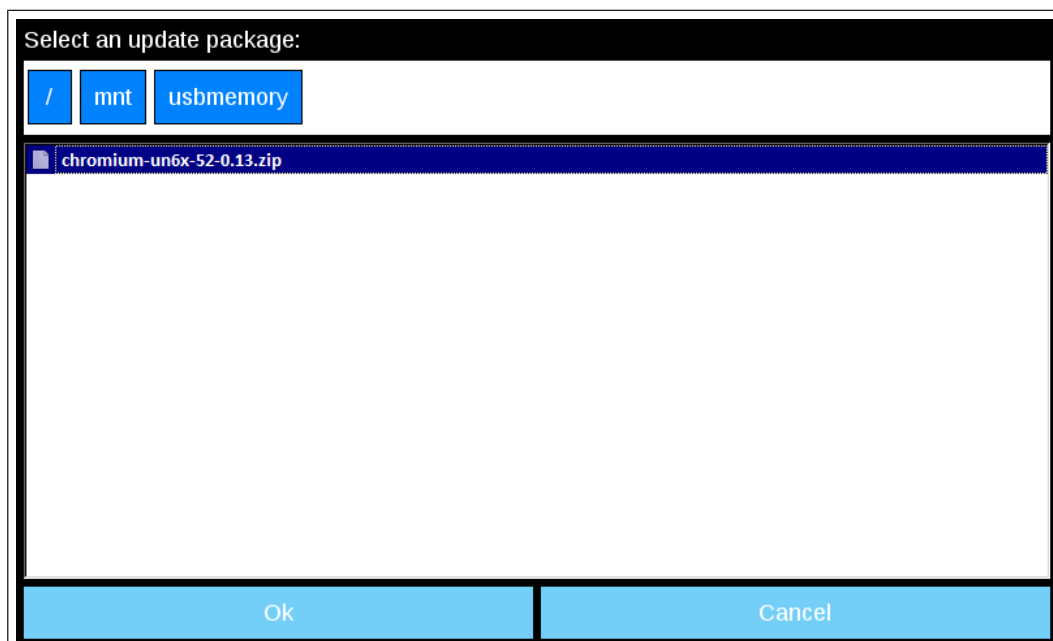


Fig. 5: Select Chromium package

6. The runtime installation begins.

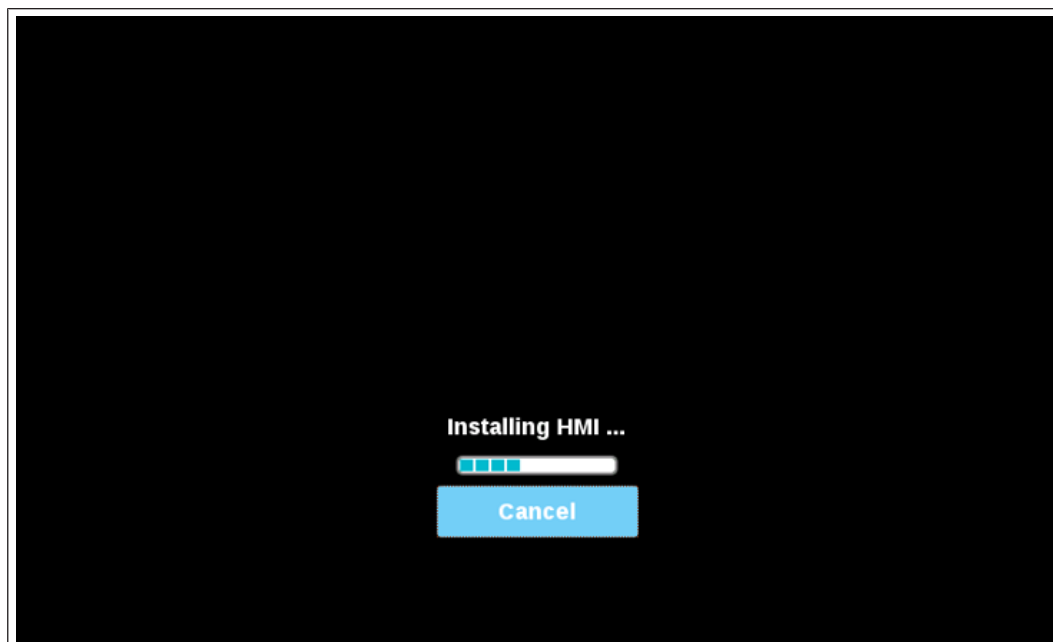


Fig. 6: Installation running

NOTICE! The file systems FAT16/32 and Linux Ext2, Ext3 and Ext4 are supported.

At the end of the installation process, the HMI device is restarted and the Chromium application is started in full screen mode.

see also

- 📄 Address bar [► 14]

3.2 Remo

1. Use a web browser to ensure that the "SSH Server" and "VNC Service" services are activated in the system settings of the HMI device.

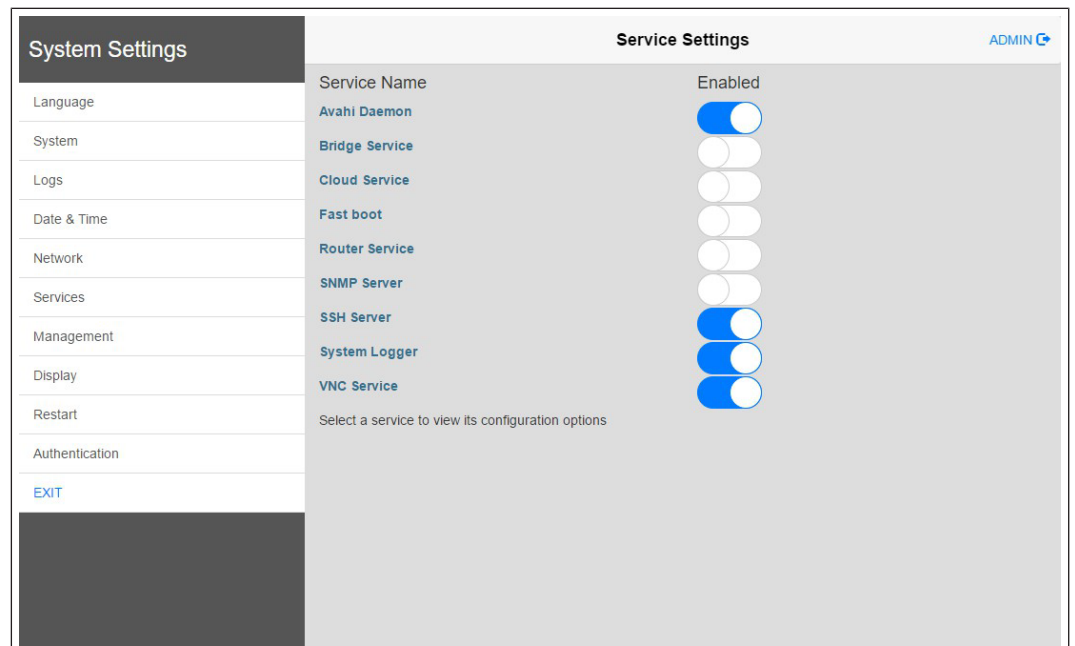


Fig. 7: System settings

2. If some applications are already installed on the HMI device, use the system settings to remove them all (Management->Data->Clear).
3. Use an SFTP application (e.g. FileZilla) to log in to the HMI device and upload the Chromium application package somewhere (e.g. to the /home/admin folder).

Filename	Filesize	Filetype	Last modified	Permissions	Owner/Group
..					
.bashrc	505	BASHRC File	15/03/2017 20:52:30	-rwxr-xr-x	admin admin
.profile	152	PROFILE File	15/03/2017 20:52:30	-rwxr-xr-x	admin admin
chromium-un6x-52-0.13.zip	55.217.049	zip Archive	13/06/2017 14:04:05	-rw-r--r--	admin admin

Fig. 8: FTP program

4. Access the display of the remote HMI device via a VNC client. Then click on the "Start Sequence" button and install the package that was previously uploaded via the SFTP client.

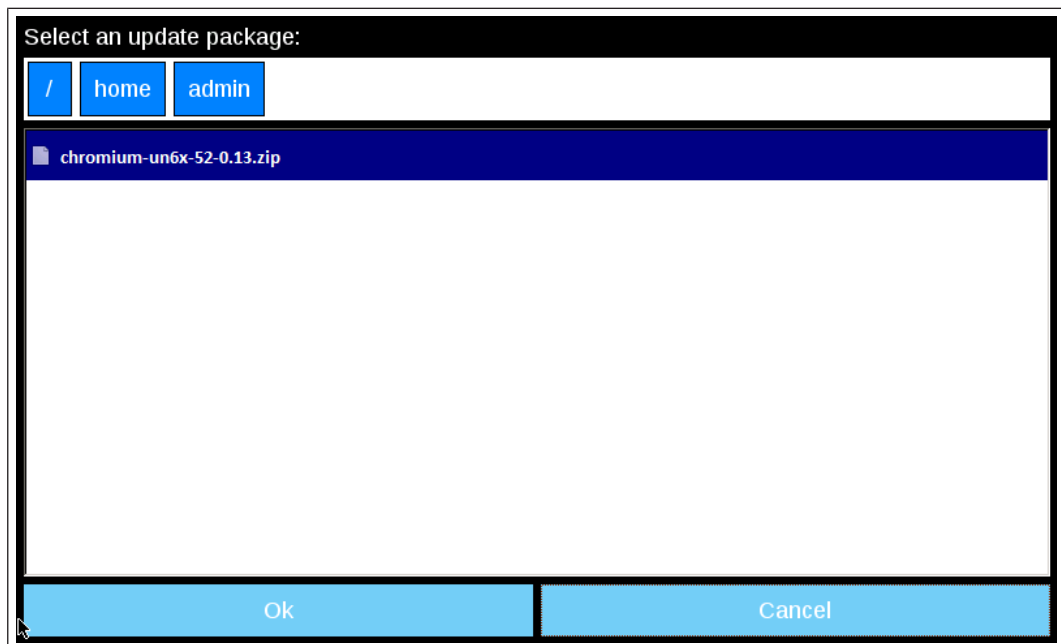



Fig. 9: Selection of the package

5. Use the SFTP connection to log in to the HMI device and remove the previously uploaded package.

4 Settings

The "Settings" page is called up the first time you start the program. You need to log in to open the "Settings" page. The user name and password are the same as for the HMI device (admin, admin by default) and can be changed in the HMI system settings.

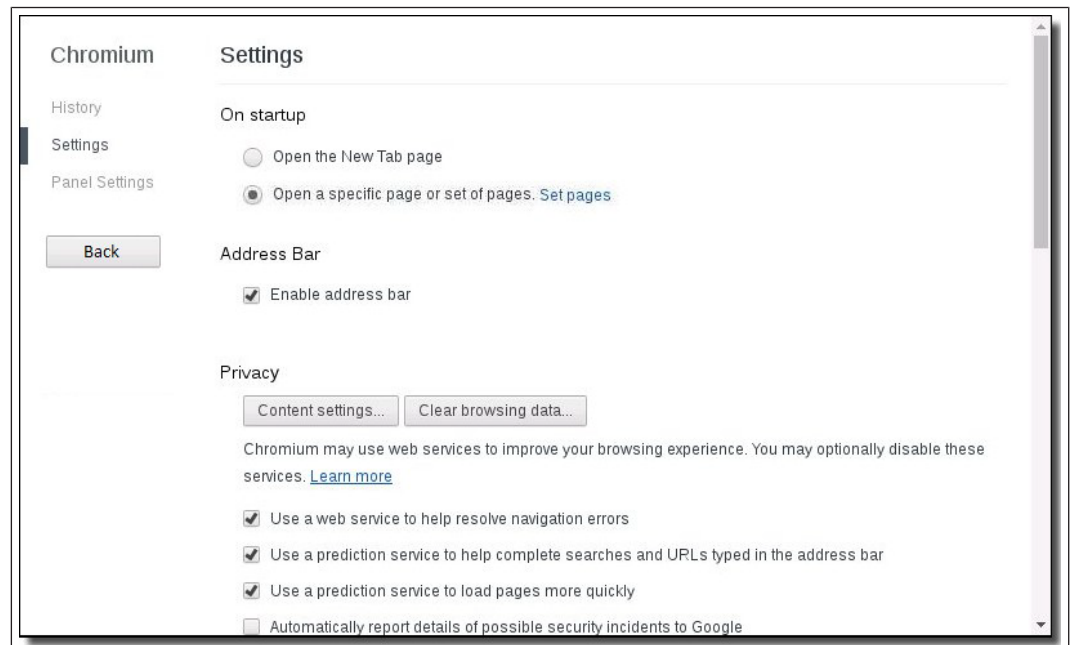


The registration form consists of two text input fields. The first field is labeled "Username" and the second is labeled "Password". Below the fields are two buttons: "Back" on the left and "Proceed" on the right.

Fig. 10: Registration

All Chromium parameters are available on the Settings page. In particular, it is possible to define the start page that is loaded when the HMI is started (HMI requires a restart to switch to the new page).

The command "*Panel Setting*", which is available in the menu on the left-hand side, opens the system setting of the HMI device.



The screenshot shows the Chromium browser settings page. On the left, there is a navigation menu with options: "Chromium", "Settings", "History", "Settings", and "Panel Settings". A "Back" button is located below the menu. The main content area is titled "Settings" and includes sections for "On startup" (with radio buttons for "Open the New Tab page" and "Open a specific page or set of pages. Set pages"), "Address Bar" (with a checked checkbox for "Enable address bar"), and "Privacy" (with buttons for "Content settings..." and "Clear browsing data..."). Below these are several checkboxes for privacy services, all of which are checked, and a checkbox for "Automatically report details of possible security incidents to Google" which is unchecked.

Fig. 11: Chromium browser settings

If the address bar is not available, the Settings page can be opened by holding down the top left edge of the display for a few seconds.

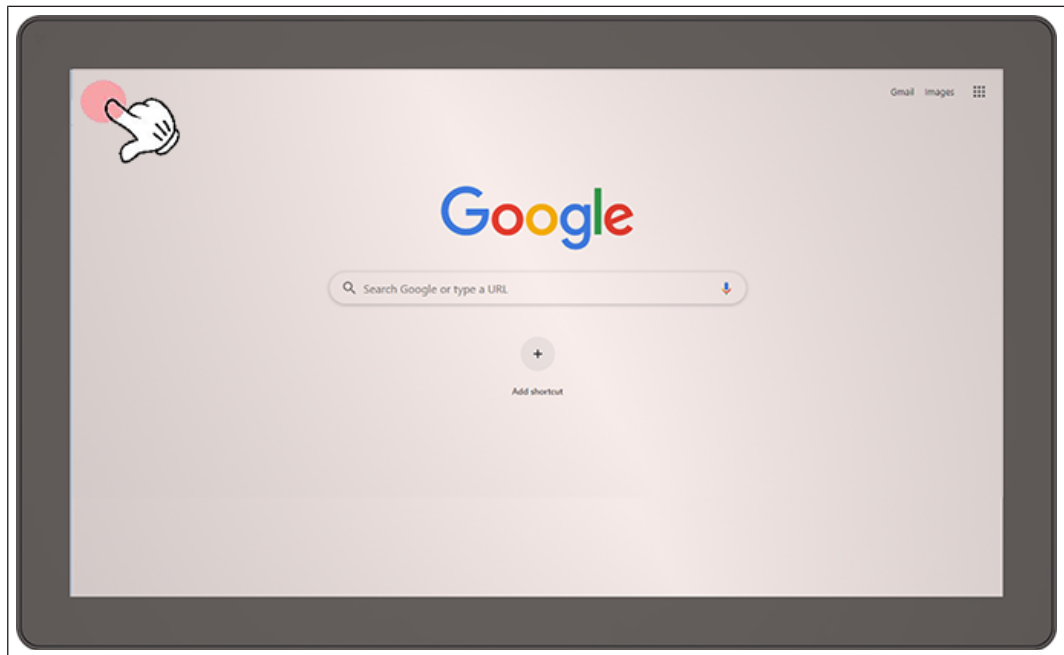


Fig. 12: Call up system settings

4.1 Address bar

If this function is activated, the address bar can be opened/closed via the tab in the centre of the upper area of the display.



Fig. 13: Address bar

The following commands are available:

- Reload page
- Bookmark list
- URL address
- Add bookmark
- Open settings page

4.2 Call up the system settings by tapping (TAP-TAP)

Immediately after switching on the HMI, the tap-tap function is called up by repeatedly tapping the touchscreen with your finger.

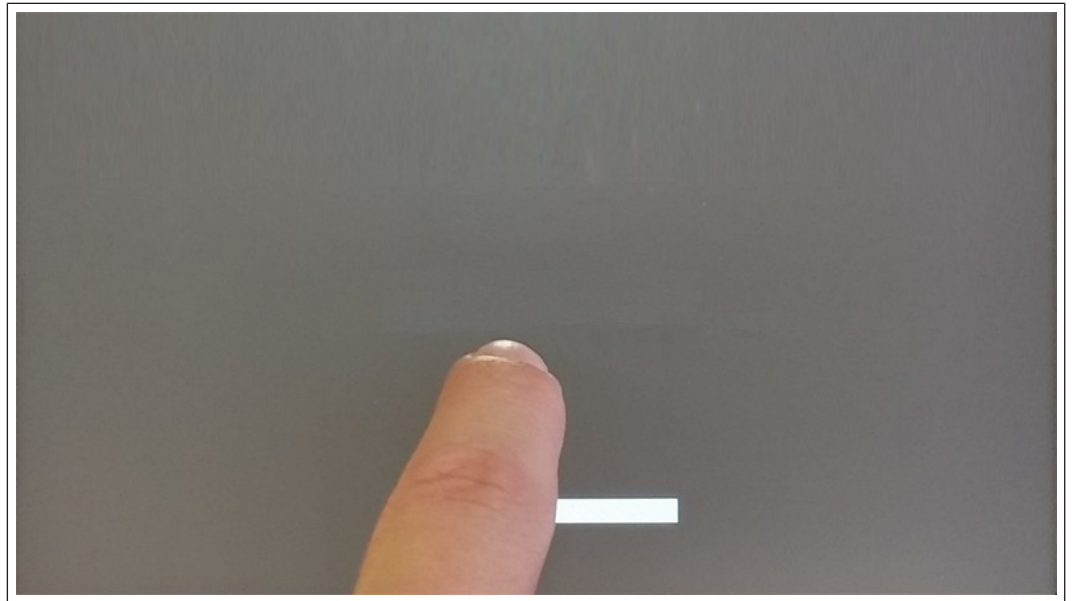


Fig. 14: Start TAP-TAP

When the message "TAP-TAP DETECTED" appears at the top of the screen. Wait 5 seconds (without touching the screen) to call up the System settings submenu.



Fig. 15: TAP-TAP recognised

Wait a further 5 seconds (without touching the screen) to switch to default mode.



Fig. 16: Default Mode

The "System settings" and "Start sequence" buttons are now available.



Fig. 17: Start screen



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