trivum Touchpad Manual

Touchpad Manual

1. Basics

This documentation contains all available information about the TouchPad V9/V10 software. It does not cover many hardware details. The manual does not cover all the features available in the software, but tries to cover the most important areas.

1.1. Other resources

If you like to learn more about trivum and our products and solutions, you will find it here:

1. trivum website with online shop
2. trivum Supportsite
3. Each of our products is shipped with a quick installation guide
4. Send an eMail with your questions to service@trivum.com
5. Call us - +49 (0)711 6456071-0

2. Functions

2.1. Control of a trivum music system

trivum Touchpads can be used to control a connected music system, in Landscape or Portrait orientation.
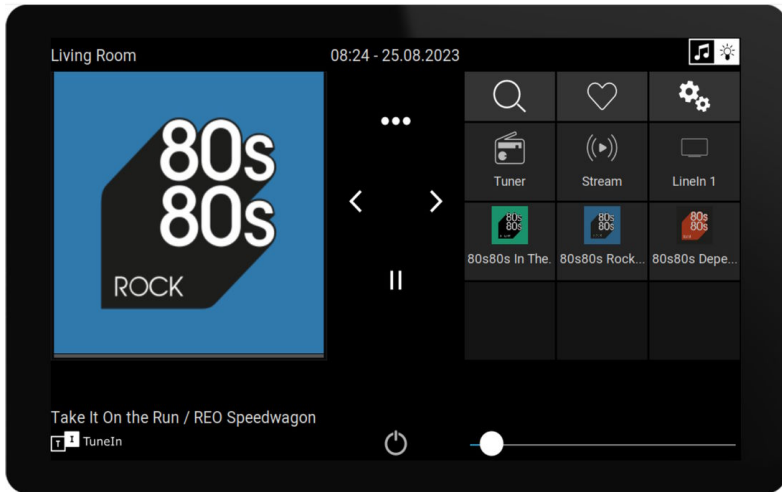
However, a music system is not required, the Touchpads can also be used standalone.

2.2. Control of KNX

trivum Touchpads can be used to control KNX on-screen
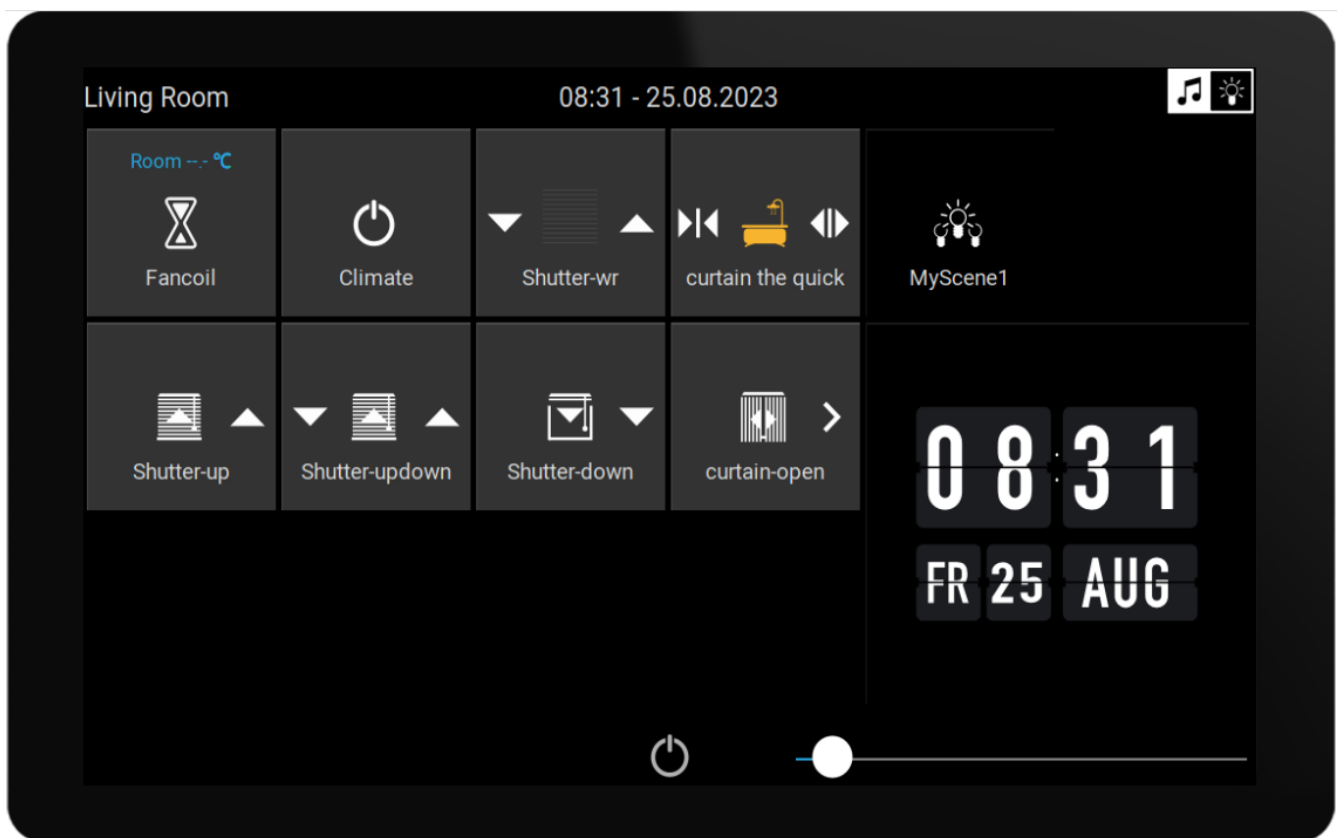
and they can be used as a server for mobile KNX control pages, which you can open on your Smartphone.
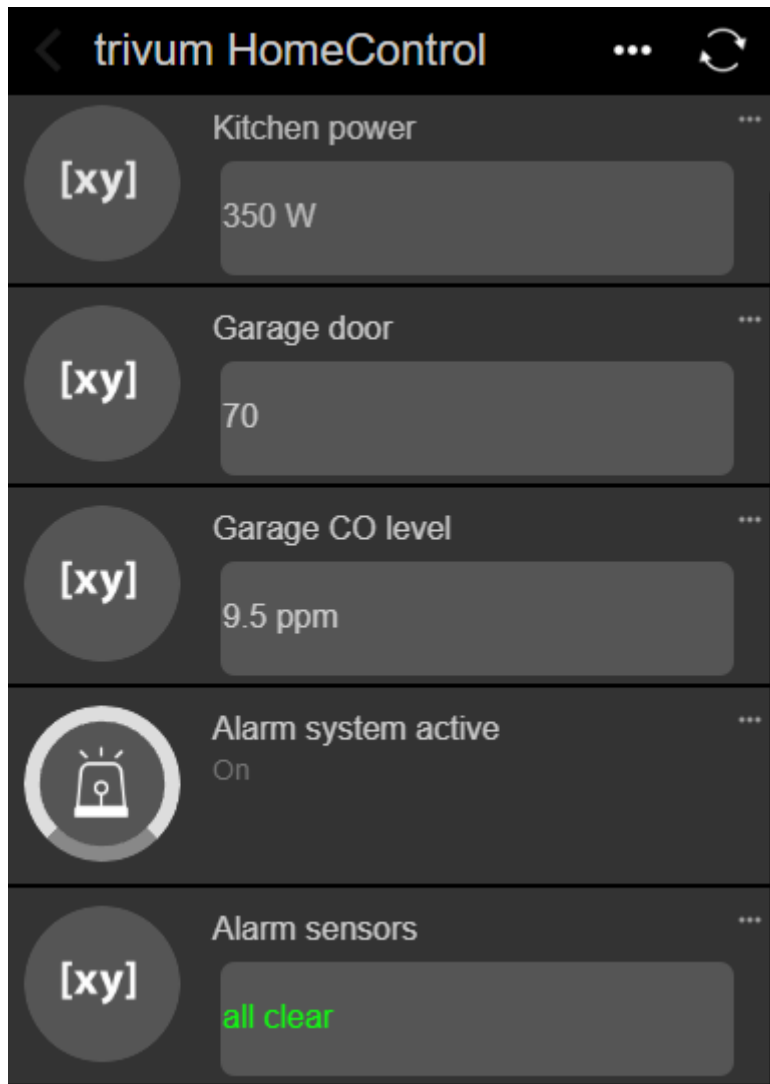
KNX objects defined on-screen can be reused by the mobile KNX pages, but you can also define mobile-only objects.

3. Configuring the Touchpad

3.1. On screen

The Touchpad can be configured directly at the screen, by a touch on the date the top. This will show the main menu
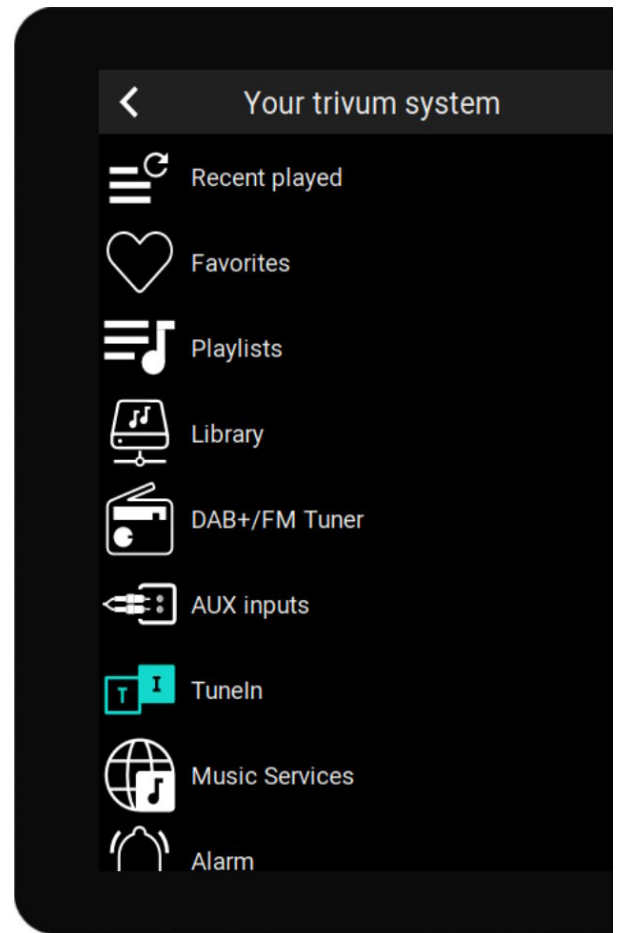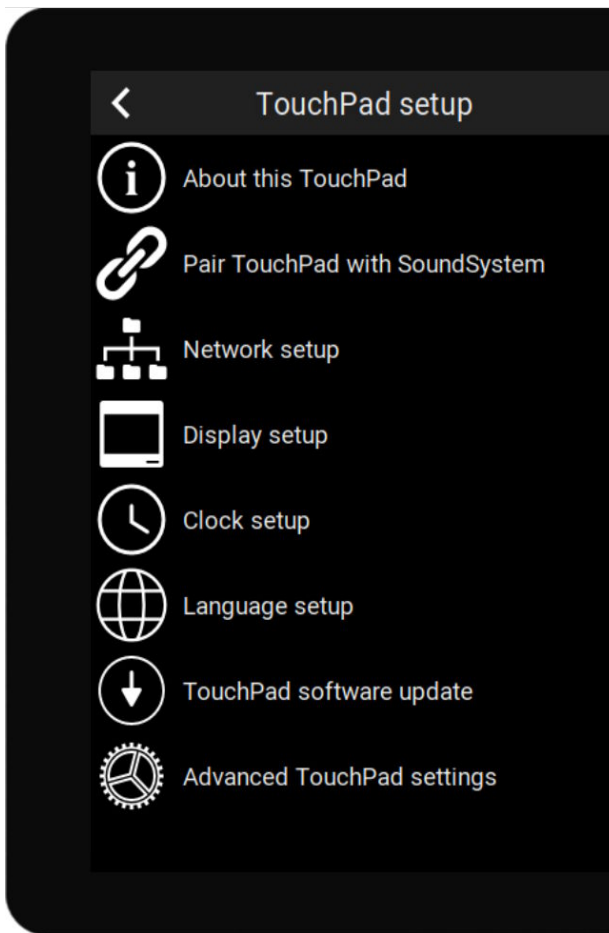
- left side: main menu of a **standalone Touchpad**
- right side: when it is **connected with a MusicCenter**

3.2. By web browser

Open a web browser, and type the Touchpad IP address, which can be found under "About this Touchpad".
This will open the web configuration.

TouchPad Setup

Information

About   Readme   Support / Help   Inspect

System

Setup   Backup and Restore   Software Update

TouchPad user interface

Page Editor   Current screen

HomeControl user interface

Definition   Show HomeControl

Automation

KNX setup   Objects   Timers   Value Mappings   Macros
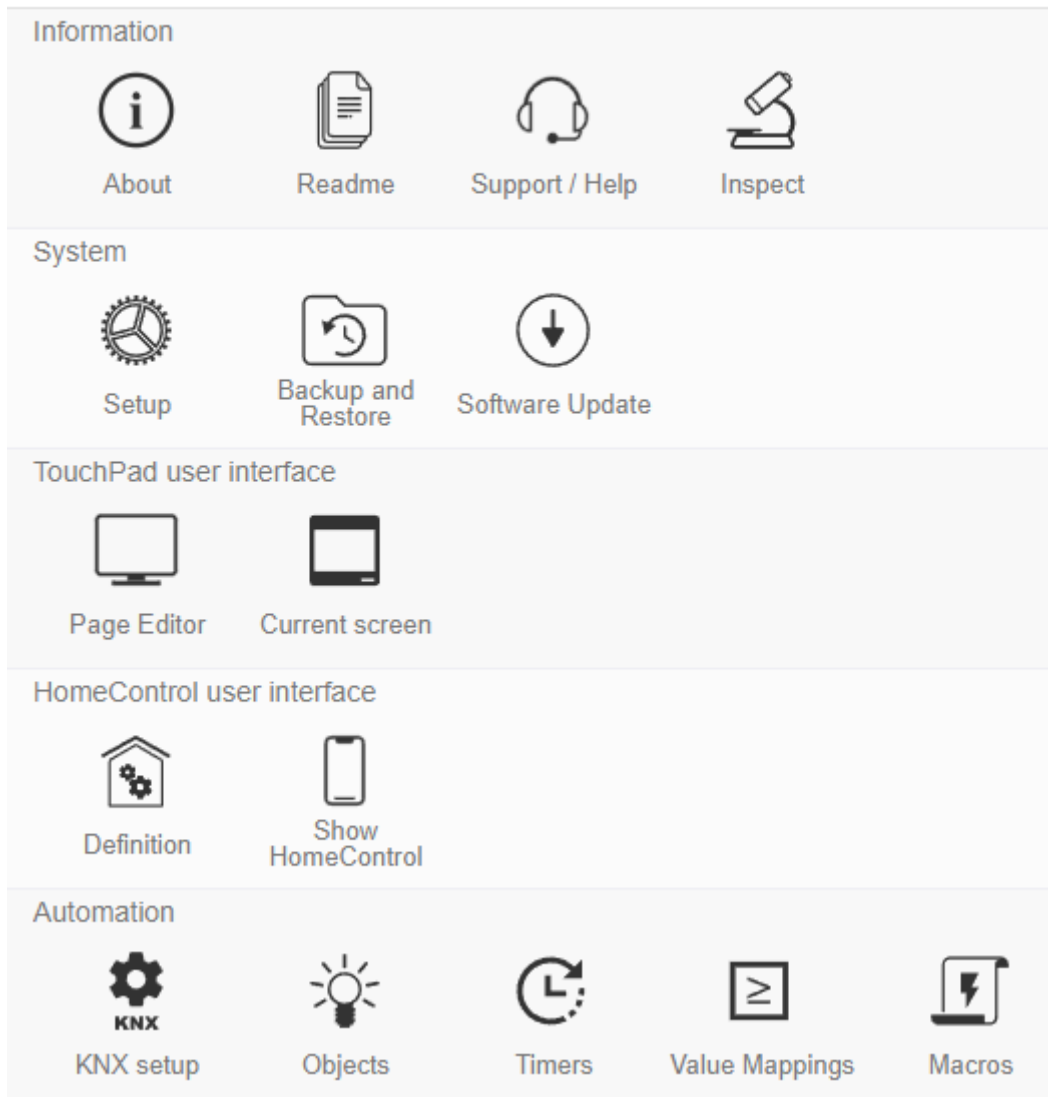
- Setup of basic things like network, time, display dimming, language, or software update can be done both on-screen or in the web configuration.

- For the main configuration, the web setup must be used. It comprises

  - KNX communication, under: Automation / KNX setup

  - KNX screen objects, under: user interface / Page Editor

  - web based automation objects, under: HomeControl / Definition

  - KNX timers, under: Automation / Timers

  - Macros, under: Automation / Macros

  Furthermore it is used to backup the whole configuration, or to analyze problems by viewing system logs (under Inspect).

If you have to configure a whole new Touchpad, start with the web configuration. **You do not have to read this manual** to do so. All relevant informations are provided directly in the setup, as a small help text, directly at the settings.

Use +/- buttons for volume control	⬭
Popup timeout period Popup menus will close after this time	*60 seconds* ❯
Homepage return period Time to switch page to page one in KNX control mode	*No auto return* ❯

Example: here we have three functions. The first is self-explaining by it's title, the others have a small help text just below their title.

3.3. What to configure, step by step

- Network: ideally your router provides stable DHCP informations, so the Touchpad gets a valid IP address, Gateway and Nameserver data. If you are unable to reach the Touchpad setup by web browser, you can go on-screen into "Network setup", and configure static IP settings.

- Time: depending where the Touchpad is installed you may have to adjust the time zone.

- Language: if you prefer a user interface in a non-English language, select so here.

- If you want to connect the Touchpad to a trivum MusicCenter, select "Pair TouchPad with SoundSystem".

- Setup on-screen automation pages. In the web configuration, go to "Page Editor".
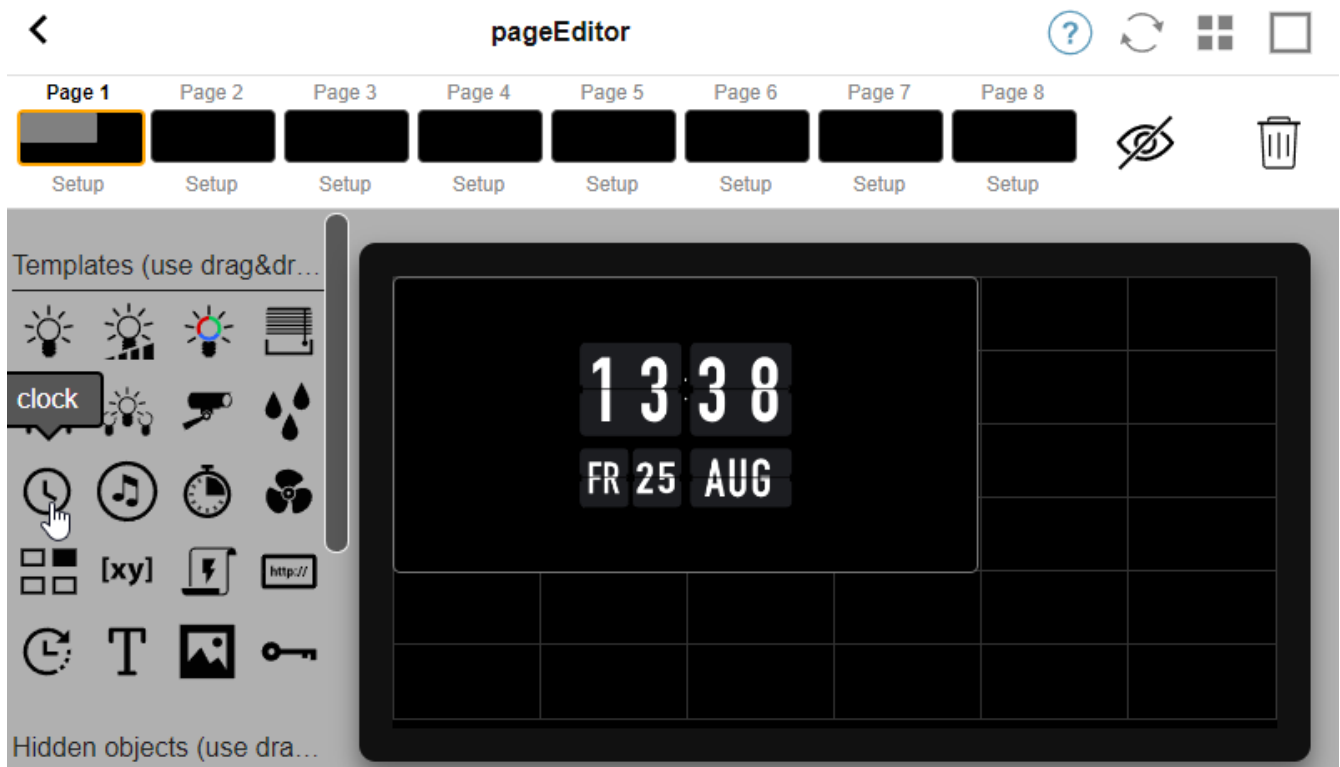
For a start, drag a clock from the palette at the left into the page area at the right, make it large, then click into it and change it to a Flip Clock design. The clock is an **app** which requires no KNX. Other apps are webcam, stopwatch, timer, page navigation, macro trigger, weather forecast, a static text or image display.

As soon as you created **at least one object** in the automation pages, your new Touchpad will no longer show the main menu by default, but the first automation page.

To enter the main menu now, touch the Gear Icon at the right top, or the Date/Time info at the top.

- KNX configuration: if you want to integrate KNX, go now into the web configuration under: Automation / KNX setup. For the communication setup, find detailed infos under https://www.trivum-shop.de/support/docs/en/mcenter-knx.html#_trivum_knx_setup
  As soon as you are able to send and receive KNX messages, you can create KNX objects in the page editor:

  ◦ on/off light switches. they send a 1-bit value "1" or "0".

  ◦ light dimmers. they send either 4-bit dimming control, or 8-bit absolute brightness.

  ◦ RGB(W) lights. they support multiple actuator types for RGB, RGBW, HSV, or Tunable White lights.

  ◦ shutters with the main subtypes: Shutter for vertical movements, or Curtain for horizontal movements.

  ◦ fancoils: control the speed of a ventilator

  ◦ air conditioning: control cooling and heating

  ◦ KNX value displays: receive over a dozen of different data types, like 1-bit, 8-bit signed or unsigned values, float values, text or time, and display them in different ways.

  ◦ KNX scenes: freeze the state of KNX objects for later recall.
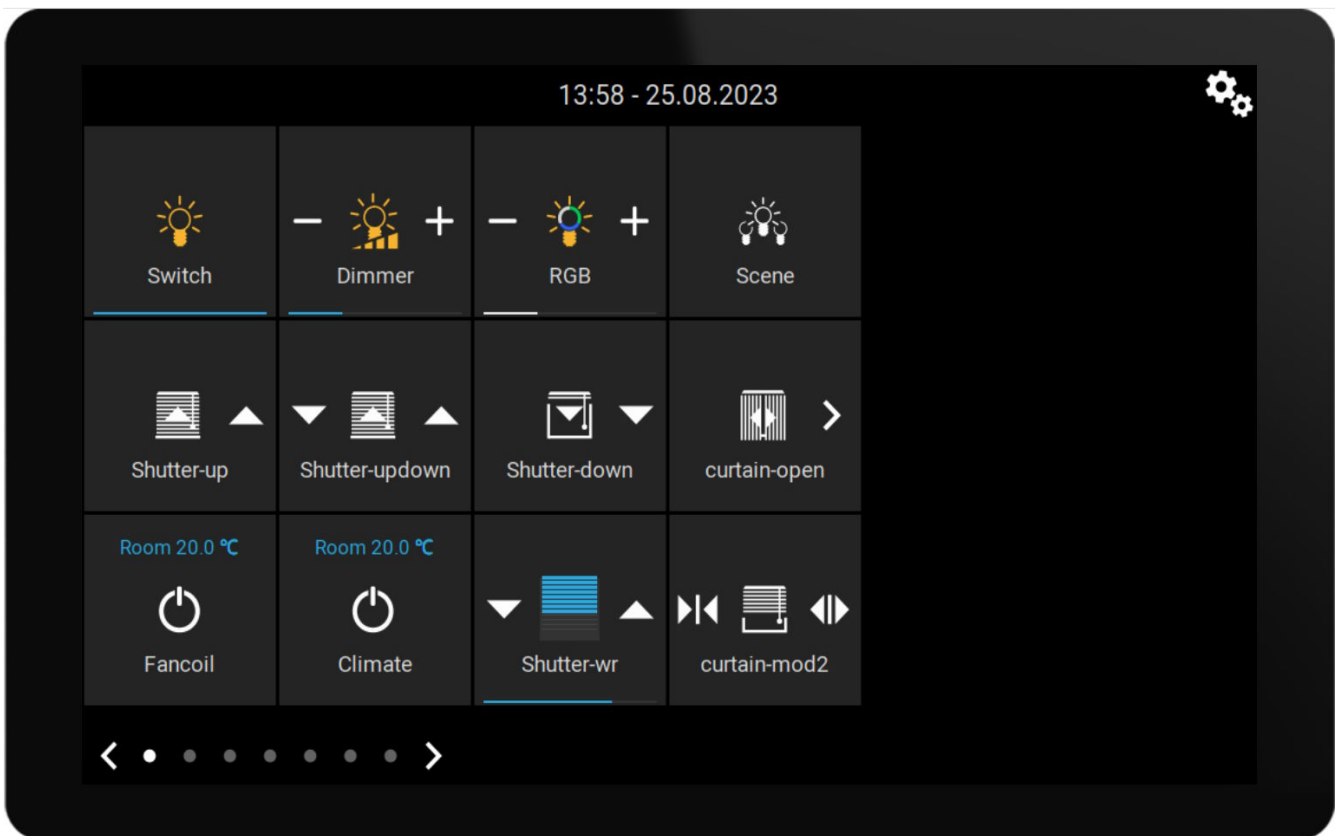
Example: on-screen page with many KNX objects. In the Page Editor, click into any of the objects to configure it's KNX group addresses.

- Web based HomeControl objects: if you want the control the light switches etc. shown above not just on screen, but also from your mobile phone, go into the web configuration under: HomeControl / Definition, and select: Add defined buttons.
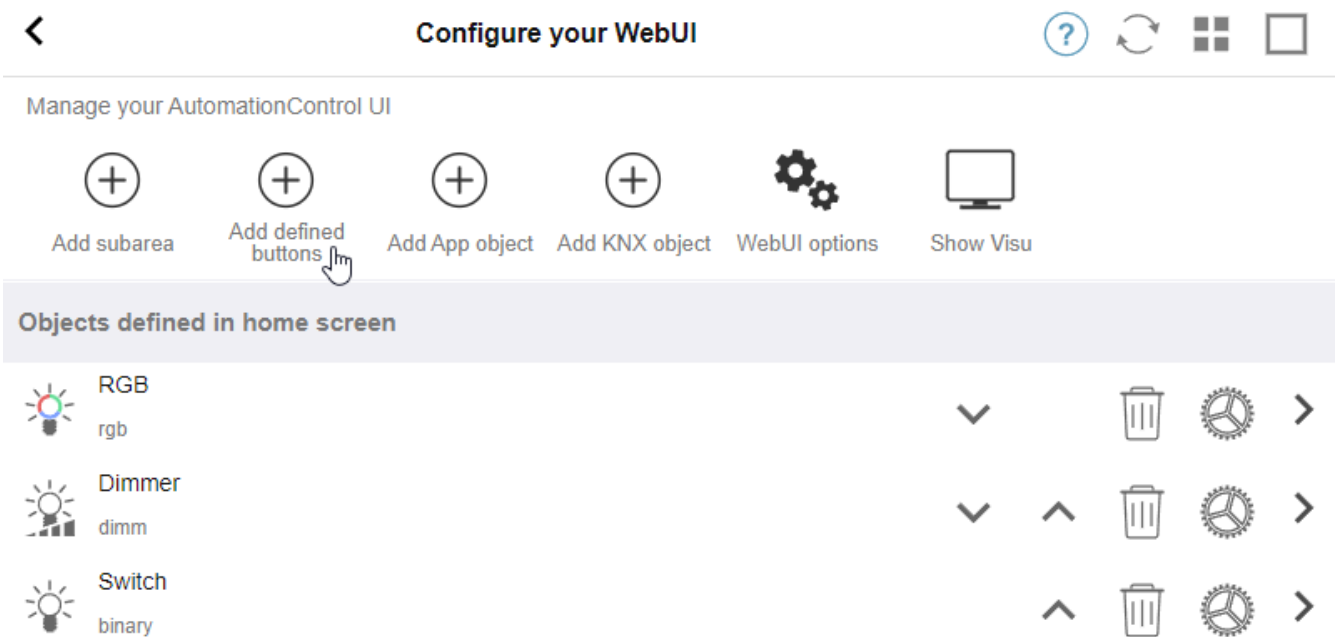
then, if you select "Show Visu", or enter touchpadip/hc on a mobile browser, you get
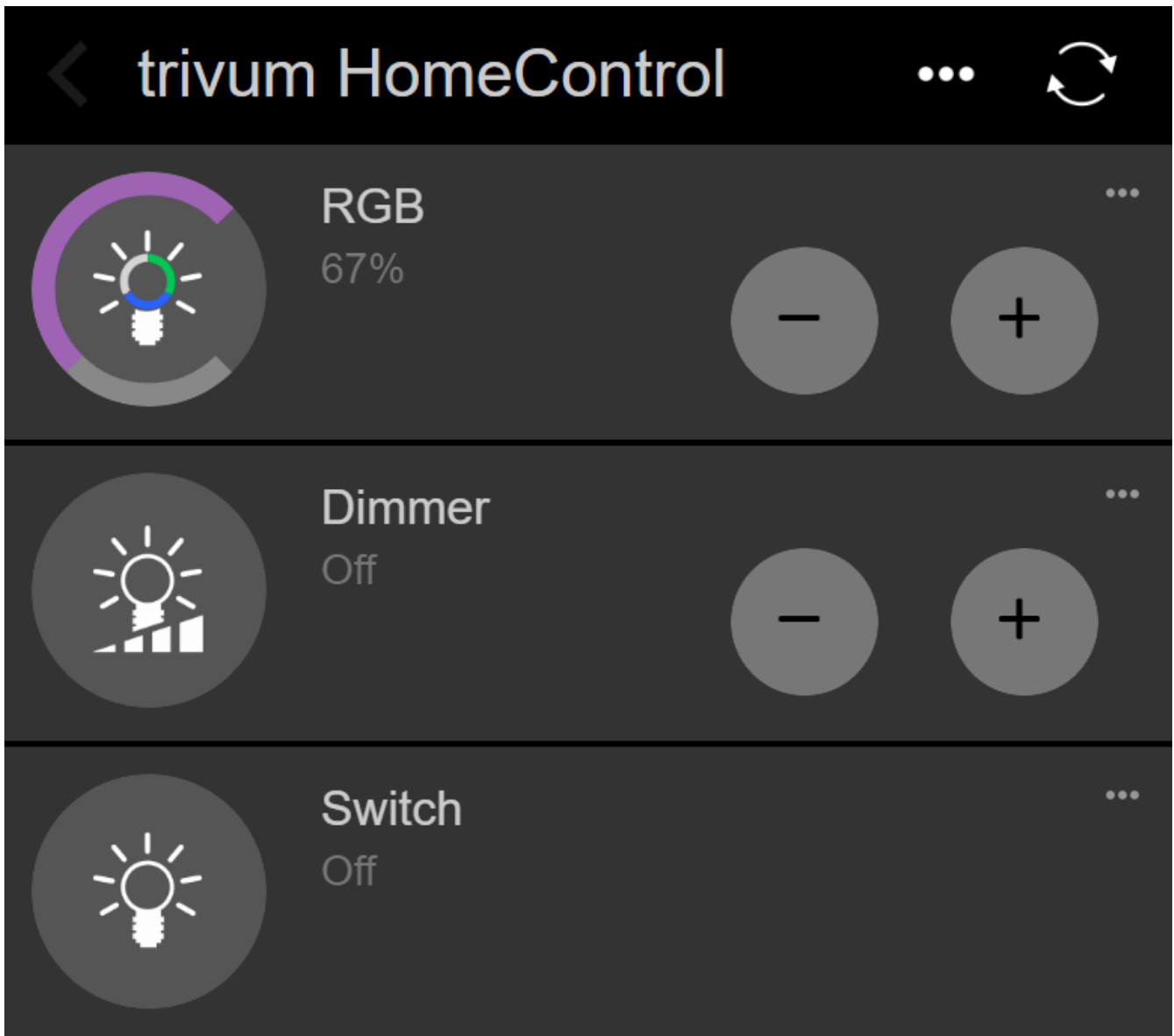
and you will be able to switch your lights also from your mobile.

3.4. Limiting the Touchpad screen access

Touchpads in commercial public areas, like a hotel lobby, need to be limited in access, e.g. that only the hotel staff can switch the lights or control the music.

This can be achieved:

- global for all on-screen touchpad functions.
  In the web configuration, go to: System / Setup / Display settings / Protect touchpad sceen by a PIN
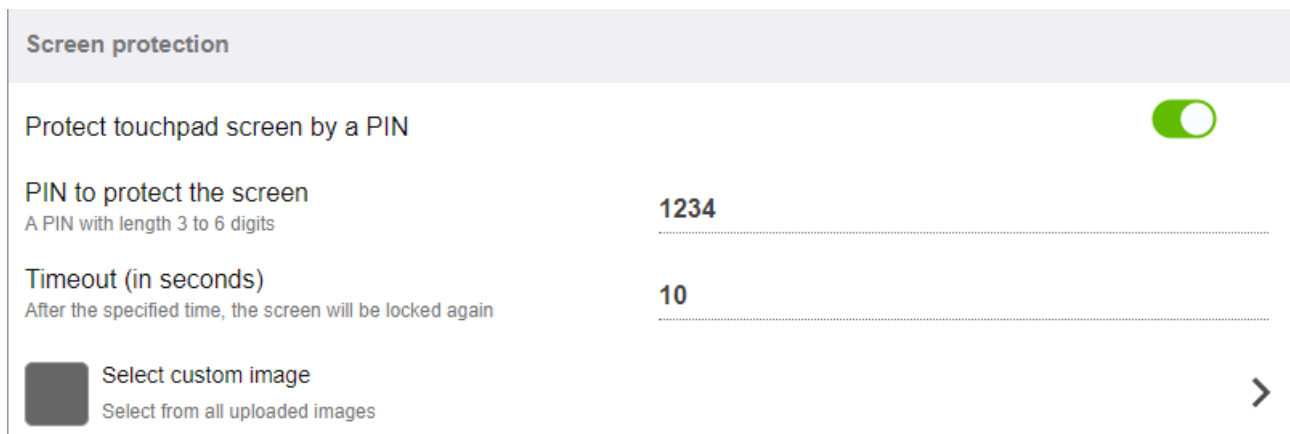
You can set a PIN, usually with 4 to 6 digits, specify a timeout for automatic locking, and even upload a custom PNG image file to display while locked, typically a company logo of your business. Best image file size is 1024x600, others are scaled automatically.

This way the touchpad can be used in whole only by authorized personell.

- just for specific automation pages. In the web configuration, go to: Touchpad user interface / Page Editor

look at the top overview over up to 8 pages.
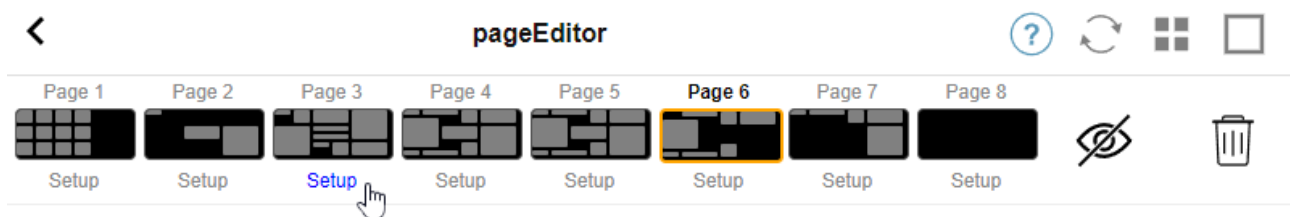
Click "Setup" under one of these pages. Select one of the protection modes:

◦ Lock screen after inactivity: screen is locked if there are no touches in this page for a given number of seconds. if you switch to another page, then back quickly, the PIN must not be reentered.

◦ Lock screen on each visit of the page: screen is locked immediately whenever entering the page, also when switching to the next page and back quickly.

◦ No automatic lock after successfull unlock: the page is locked manually only. this requires to add a lock field (key symbol) in the page, by drag+drop in the page editor. when this field is touched, the page is locked.

This way you can keep parts of the Touchpad usable for everyone, and lock just a sensitive automation page, e.g. for alarm system setup.

3.5. Limiting the Touchpad web configuration access

This can be done under: System / setup / Web configuration site protection

Protect access to this configuration site

○   Normal operation without password protection

◉   This configuration website is protected by a password

Your password is currently not set. Please specify a password

Admin password for website   ********

After setting a password, access to the web configuration is blocked until the password is typed.

This is normally used **in combination with a global Touchpad screen lock** by PIN, otherwise anyone with physical access to the Touchpad could change network settings etc. directly at the screen.

3.6. Advanced functionality

3.6.1. KNX Timers

can be configured under: Automation / Timers.

They can send a KNX message

- with data type 1 bit, 8 bit, 2 byte, 14 bytes text, time as text ("09:40 28.08.23")
- once per day at a specific time, at selectable weekdays
- or always, every n minutes

3.6.2. Macros

can be configured under: Automation / Macros.

A macro can contain many steps with these functions:

- wait for a given number of milliseconds
- send a KNX telegram, with type 1 bit, 8 bits, 16 bit, 14 chars text
- send a UDP message to a given IP and port, with a text supporting so-called slash patterns like \r\n or \xnn.
  for example, "test:\nmydir\\file\x7e.txt" would send a 2-line text

```
test:
mydir\file~.txt
```

- send a TCP command to a given IP and port. this will create a connection, send the command, then closes the connection. Reply data cannot be processed.

- send a HTTP call to a given IP and port. Slash patterns are not supported in this case.

4. Touchpad Software Update

Updates can be done both from the Touchpad screen or the web configuration.

4.1. Update channel selection

It is recommended to check both "Use release software", and "Use latest software", which will download the most recent version. Install an older version only if you have specific reason.

4.2. Main update line V9 vs. V10

In the Touchpad update menu, you will also find an option "use V10" or "use V9" software. Right now, these lines should be identical in functionality.

If your Touchpads runs standalone, using the V9 line is recommended.

If your Touchpad is connected to a trivum MusicCenter with V10 software, using the V10 line is recommended.

Errors and Solutions

Now follows a list of Touchpad relevant articles from the trivum Troubleshooting documentation

https://www.trivum-shop.de/support/docs/en/trivum-troubleshooting.html

1. Some Touchpads freeze after long runtime

Some 7 inch Touchpads may freeze after several days of runtime, requiring to take them from power supply temporarily.

If this occurs, update to software 3.10 build 16887 or higher.
Go into the web configuration under: System / Setup / Advanced.
Run the function "Update system kernel".
Wait until the Touchpad restarted by itself, which may take 5 to 10 minutes.

2. Touchpad has no network connection

Try these steps:

- change the network settings on the touchpad. if static IP is configured, use DHCP, and vice versa. when using DHCP, make sure that your router provides DHCP. on start, the touchpad displays the IP address it uses. check if it has an IP in the same sub network as other devices, e.g. 192.168.178.x or 192.168.1.x

- use a different LAN cable

- use a different port at the network switch

- if possible, try a different network switch model. It should always work with an up-to-date TP-Link 1008P. verify that other devices connected to the same network switch have a working network connection. check the list of incompatible network switches: https://www.trivum-shop.de/support/docs/en/trivum-faq.html#_recommended_network_switches
  + If you use a managed switch, check the POE power settings. A touchpad needs about 3,6 watts, which is POE class 2. Normally POE switch and TP find the correct POE class automatically. However we have seen a case where a POE switch was manually configured to use class 1 only. In that case the TP won't start.
  + Try a different power supply, for example a power injector versus POE switch.

Also download the trivum ServerAdmin Tool (IP Finder) from `service.trivum.com` and check on every step if the touchpad appears therein.

3. Touchpad network failure with static IP

ARM9 based touchpads with Software Version 2.42 or lower and static IP configuration may experience network failures, like for example:

- not visible in the music center, server admin tool etc.

- software update cannot be done.

To fix this, follow this procedure:

- check if it's an ARM9 touchpad under settings/touchpad settings/about

- check if it has a Version 2.42 or lower

- and if static IP is configured.

Then you may try to run a software update, but probably it will fail. therefore:

- change the touchpad to DHCP by:

```
-  settings/touchpad settings/network
-  enable dhcp
-  scroll down
-  restart touchpad, to activate dhcp settings.
```

- then run a software update, which should work.

- after the update is done, switch back to static IP.
  the new version 2.43 or higher will internally write correct network settings with the configured gateway. again select scroll down and restart.

4. How to update Touchpads via the MusicServer

- with V9, select System / Software Update. a list of Touchpads should be shown. go into each one and select: Start update of this Touchpad
- with V8, select Developer / Keypads at the right top, then Update per Touchpad.

5. A webcam image appears and freezes for several seconds on TouchPad

5.1. Problem

An image appears, then the TouchPad freezes for several seconds, then the next image appears.

5.2. Solution

This happens if the webcam image resolution is far too high, e. g. 1280x480.

Reconfigure your webcam to use a lower resolution.

6. Cannot use Touchpad or iPad during group play

6.1. Problem

You can't control your trivum system while playing audio in a group.

6.2. Solution

This is relevant with Installer Line products like FLEX, REG, DESIGN (AudioBox).

Please read the following article on software versions and network switch configuration: [groupplay]

6.3. TouchPad alarm icon shows no time

The time is shown only if there will be an alarm within the next 24 hours.

7. TouchPad time differs from trivum Server

If you want the Touchpad to receive its time from the trivum Server, make sure that NTP is disabled locally on the Touchpad:

On the TouchPad…

1. Press the trivum icon (upper right corner) to open the **System Menu**.

2. Press **Info**.

3. Scroll down the table **Informations**.

4. Press **Special settings**

   ◦ Enter manually `ntp off`

If you want the Touchpad to use NTP, but it always displays GMT time, then the time zone infos have not been installed yet. To solve this issue, run a software update:

On the TouchPad…

1. Press the trivum icon (upper right corner) to open the **System Menu**.

2. Press **Setup** → **Online software update**.

8. TouchPad cannot be opened by web browser

8.1. Problem

The trivum 4.3" TouchPad WebSetup cannot be opened by a web browser.

8.2. Solution

Check the TouchPad IP:

1. Press the trivum icon (upper right corner) to open the System Menu

2. Press Info
   → The TouchPad IP is displayed in the left Informations area

3. Compare this IP to the IP of your Computer from which you want to access the TouchPad. The first three parts of the IP should be identical.

```
Computer-IP: 192.168.1.30
TouchPad-IP: 192.168.5.50
```

Example: Bad. Connection is probably not possible, as TouchPad is in a different subnet (.5)

```
    than computer (.1)
```

```
    Computer-IP: 192.168.1.30
    TouchPad-IP: 192.168.1.50
```

Example: Good. Connection should be possible.

8.3. Special case

If the TouchPad has an IP 169.254.231.13, then it probably failed to get a DNS address from a DNS server.

- check if any DNS server at all exists in the LAN

- check if TouchPad has connection to that server

OR

- configure TouchPad to use a static IP address.

In such a case, high addresses like .190 are recommended to avoid later conflicts with future DNS servers that typically use low area IP's.

9. TouchPad does not accept touch presses in some areas

9.1. Problem

The trivum TouchPad does not react to touch press in some places of the screen.

9.2. Solution

Run a touch sensor test:

```
Settings / Touchpad settings / Advanced / Run touch sensor test
```

You get a blank screen. Wherever you touch, it should show a red dot. If there are areas where no red dot is shown, then there is a defect at the touch sensor, and the Touchpad needs to be sent to trivum for repair. To stop the test, touch it with two fingers for five seconds.

10. TouchPad does not accept touch presses anywhere

10.1. Problem

The trivum TouchPad does not react to any touch press, but everything else (music status display etc.) seems normal.

A a cold restart (by power disconnect) doesn't help as well.

10.2. Solution

Possibly a display connector inside the trivum TouchPad got loose.

1. Check the inside display connector

2. Remove the cover (8 screws)

3. Check display connector (foil conductor, foil connector)

    1. g. by opening the retainer, then remove the connector, plug it in again, close the retainer

4. Check if the TouchPad is working correct.

11. RGB dimmer color wheel is not shown on TouchPad

11.1. Problem

The RGB dimmer color wheel is not shown on KNX TouchPad.

11.2. Solution

- Touch the dimmer object in the KNX page, and keep it touched for 3-5 seconds.
  → The color wheel popup should be shown then.

12. No webcam image appears on TouchPad

12.1. Problem

If you open the webcam App in the TouchPad's KNX pages, there is no image.

12.2. Solution

- Make sure the TouchPad SW version is 1.69 or higher
  older versions send fixed authentication data (user="admin", password="1234") that can be misunderstood by webcams

- Check if the camera allows anonymous access
  If not, enter webcam username and password in the trivum webcam configuration (The password field appears as soon as the user name is set.)

- Check if the camera allows parallel access by multiple clients. Maybe it allows only single client access. This might block the access of the TouchPad, because the image is already shown in a web browser.
  Create an empty tab in your web browser and open the camera image URL therein, to make sure it actually delivers JPEG images.

- You might have to restart the TouchPad. However in most cases this shouldn't be necessary if the configuration data is correct.

13. cannot delete web radio favourite with touchpad

There is a problem with web radios which are no longer supported by TuneIn, marked as "Not supported". These may fail to delete with the Touchpad. Try it with the web visualization instead, this should always work.

13.1. 7 inch touchpad compatible POE switches

POE Switches for power supply:

do NOT use:

- TP-Link TL-SF 1008P Rev. 1.6 (Revision 3 works)

- D-Link DGS-1008P Rev. B1 (technically same as TL-SF above)

otherwise the power supply is too weak, and the touchpad may start only a few seconds, then switch off.

Power works normal with:

- TP-Link TL-SF 1008P Rev. 3

- HP 1920

- Intellinet 524155

13.2. 7 inch touchpad startup failure

Problem: when connecting power there is a short white flash, then (with a black screen) background light is active, but (for longer then a minute) no activitiy is visible. Ethernet network

LEDs also do not blink.

Solution: look at the LEDs at the network switch where the touchpad is connected. When connecting power at the touchpad, orange should be on permanently, and green should start to blink after a few seconds. If there is no blinking, then the SD card in the touchpad may have got loose during transport. Open the device (by 4 screws) then search for the sd card. Take it out, and push it in again. Then reconnect the device to power. == maximum number of webcams with trivum touchpad

The trivum A13 Touchpad supports up to 8 web cams, with resolution 320x240, and one image update every 5 seconds.

The trivum ARM9 Touchpad supports up to 4 web cams, with resolution 320x240, and one image update every 5 seconds.

If higher resolutions or more frequent updates are used then less web cams will work.

14. Touchpad: no rows/system/data found error

This error occurs when the TouchPad is connected to a wrong server. This might be caused if the TouchPad was correctly connected to a machine 192.168.1.119 but the next day the machine changed it's IP and now .119 is a different (non trivum) system.

Solution:

On the TouchPad...

1. Press the trivum icon (upper right corner) to open the **System Menu**.
2. Press **Setup / TouchPad Settings / MusicCenter link**.
3. Select the trivum server again.

15. Webcam authorization error

15.1. Access by user/password not possible

- Configure your webcam to use HTTP Basic Authorization, but not HTTP Digest authorization.
- the latest Touchpad software will show an error "Webcam digest authorization not supported", older software will only tell "Webcam authorization error".

Further reading

Further trivum documentation available on http://service.trivum.com may also contain some informations helpful for Touchpads.