

# WirelessProfessional WLZent

## *Operating Instructions*



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# Wireless Professional WLZent

## Installation Guide

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### **1 General Information**

The Wireless Professional WLZent is an industrial PC with touch display, integrated power supply, Wireless Professional USB coordinator, and a USB and network socket accessible from the exterior. A Linux operating system, a VNC Server and the Wireless Professional software are installed.

The Wireless Professional WLZent is intended for use as a central testing device in the Wireless Professional system. The device can be operated using the touch display. The WLZent satisfies the requirements of an automatic test system in accordance with EN 62034.

**Note:** This documentation is stored on the device at `/home/WIZent/wldoku`.

### 2 Technical Data

Processor chip set	ARM Cortex-A53 64-bit
Processor clock speed	1.2 GHz
RAM	1GB LPDDR
Hard disk	8GB EMMC
LAN	10/100
Power consumption	max. 17W, PF 0.52
Protection	Protection class 1
Dimensions	H 225mm x W295mm x D60mm including wall bracket
Type of mounting	Wall mounting
Ambient temperature	15°C to 30°C

## 3 Format

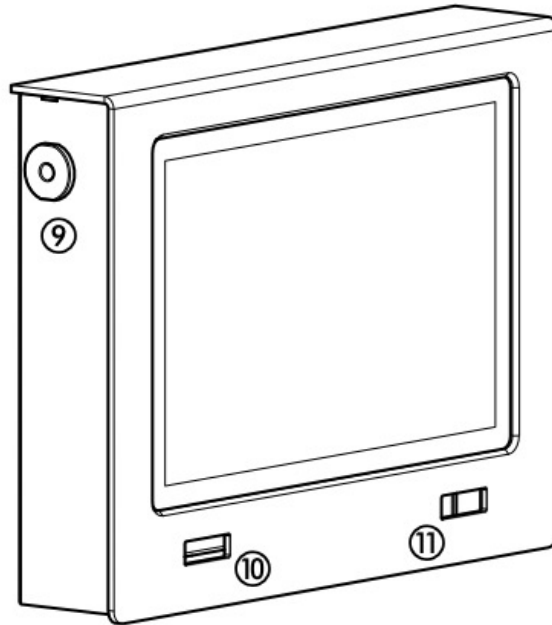


Figure 1 View of WLZent from left

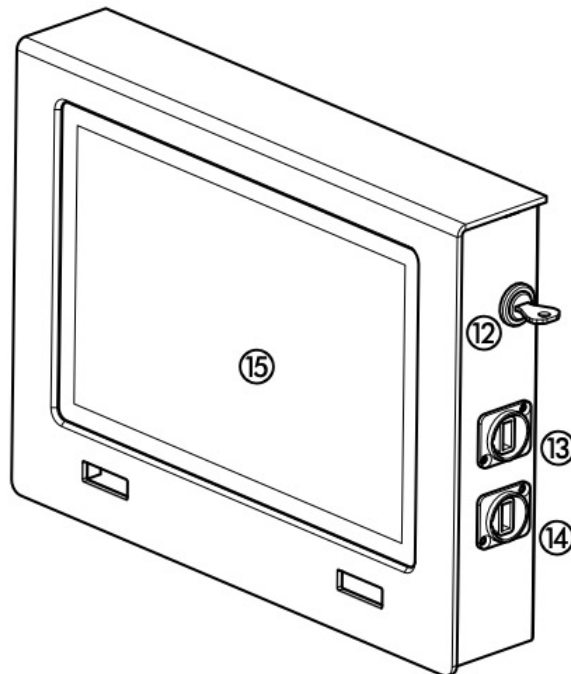


Figure 2 View of WLZent from right

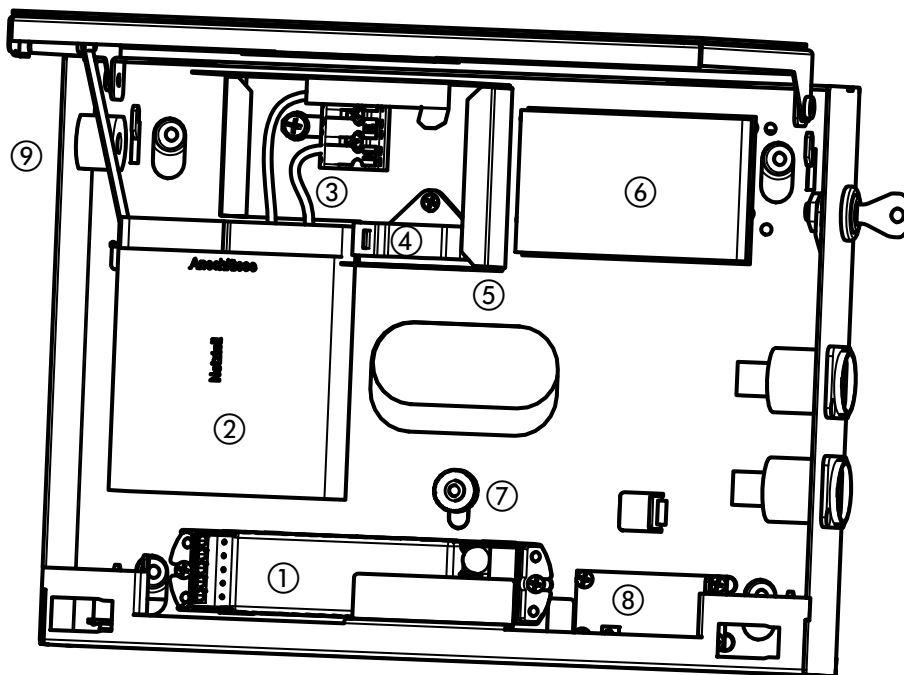
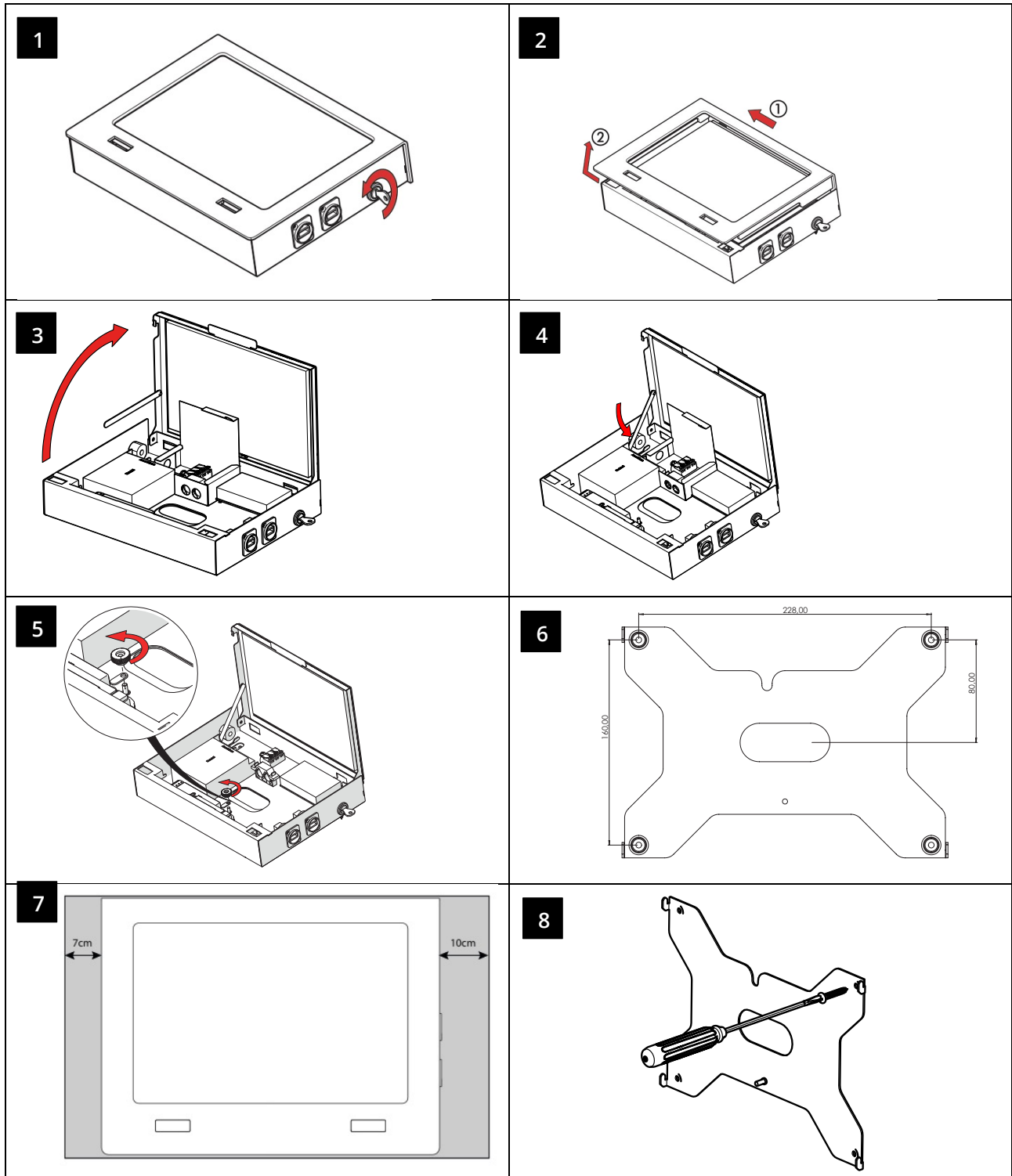


Figure 3 WLZent internal components

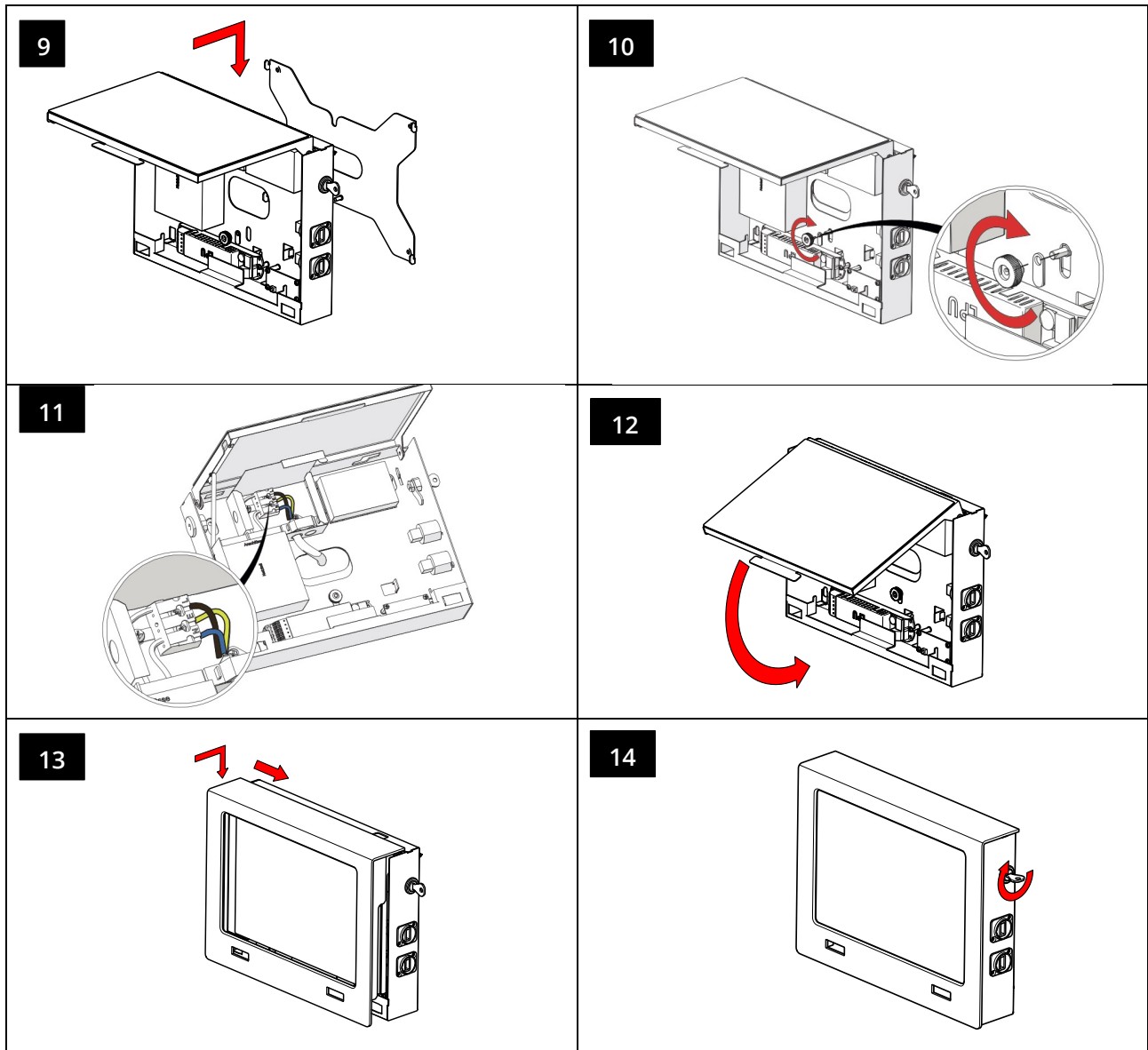
1	Wireless coordinator	9	Optional cable entry point on side with strain relief Or blanking plug
2	Power supply	10	Indicator window for coordinator
3	Mains supply terminal	11	Indicator window for WLZent processor board
4	Internal strain relief	12	Casing lock
5	Junction box	13	Network socket
6	WLZent processor board with SD card	14	USB socket
7	Knurled nut with oval washer	15	Touch display
8	RTC board		

### 4 Assembly Instructions for Wireless Professional WLZent

The Wireless Professional WLZent is a device intended to be mounted on the wall.  
For ergonomic reasons, we recommend a mounting height of 1.40m ( $\pm$  0.20m) (centre of screen).

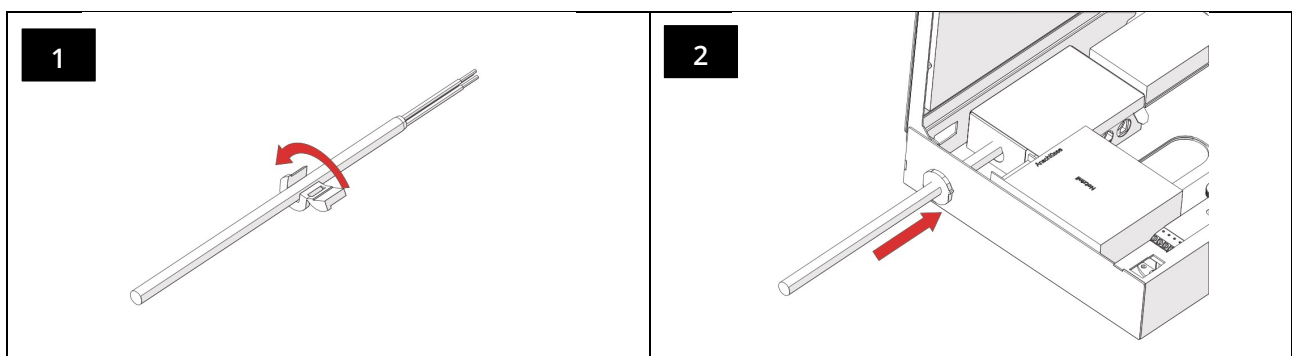






Once the device has been mounted, remove the protective film from the display.

To power the device from the optional socket on the side, remove the blanking plug and replace with the cable bushing provided (see page 8).



### 5 Operating the Wireless Professional WLZent

The Wireless Professional WLZent is operated using a touch display. The touch display can be operated directly using a finger or a pen suitable for capacitive touch displays.

An on-screen keypad can be used to enter text.

#### 5.1 Touch operation

A tap on the touch display is the same as a left-click with a conventional mouse. Programs can be launched by simply tapping their icons on the desktop.

Drawing your finger from one point to another highlights an area. This is the same as the highlight function offered by a conventional mouse.

If an icon is pressed for longer, this is the same as a right-click with a conventional mouse. If there is a context menu available for the icon, this longer press action will open it.



Figure 4 Wireless Professional WLZent context menu

### 5.2 The on-screen keypad

The on-screen keypad can be called up via the icon labelled “Onboard” or via the small icon in the task bar.

Tapping on one of these two icons launches the on-screen keypad.



Figure 5 Wireless Professional WLZent on-screen keypad


The keypad has a US English layout and does not have a numerical pad in the first view.

The view can be switched using the “123” button (red circle). The function keys are then displayed.



Figure 6 Wireless Professional WLZent on-screen keypad function keys

Tapping the “123” button again or tapping the “Esc” button takes you back to the previous view.

The directional button  located above the “Abc” button is used to move the keypad on the screen. This may be necessary if text input boxes are covered by the keypad.

The “x” button above the directional button closes the on-screen keypad.

### 5.3 Using a USB stick for storage on the Wireless Professional WLZent

Only USB sticks formatted in the Fat format can be used with the WLZent. Software updates for the Wireless Professional WLZent are imported using a USB stick. Building plans, backup data or data for the CPC can likewise be copied to or from the system using a USB stick.



**Warning:** Before being removed, USB sticks should always first be ejected (deactivated) by the software, otherwise data may be lost.

The USB stick is ejected by the software using the “PCManFM-Qt” file manager installed on the Wireless Professional WLZent. The file manager can be launched using the desktop icon labelled “WLZent”  or by going to Start menu ->Accessories -> PCManFM-Qt.

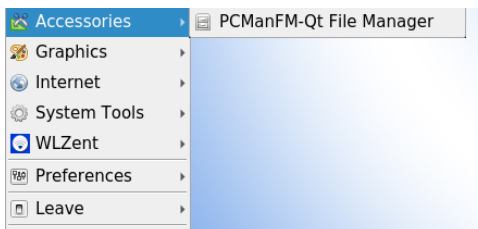



Figure 7 Wireless Professional WLZent Start menu Accessories

If there is a USB stick plugged into the Wireless Professional WLZent, this is indicated by its memory size in the file manager. The USB stick can be ejected using the “Eject”  symbol after the details of its memory size (red circle).

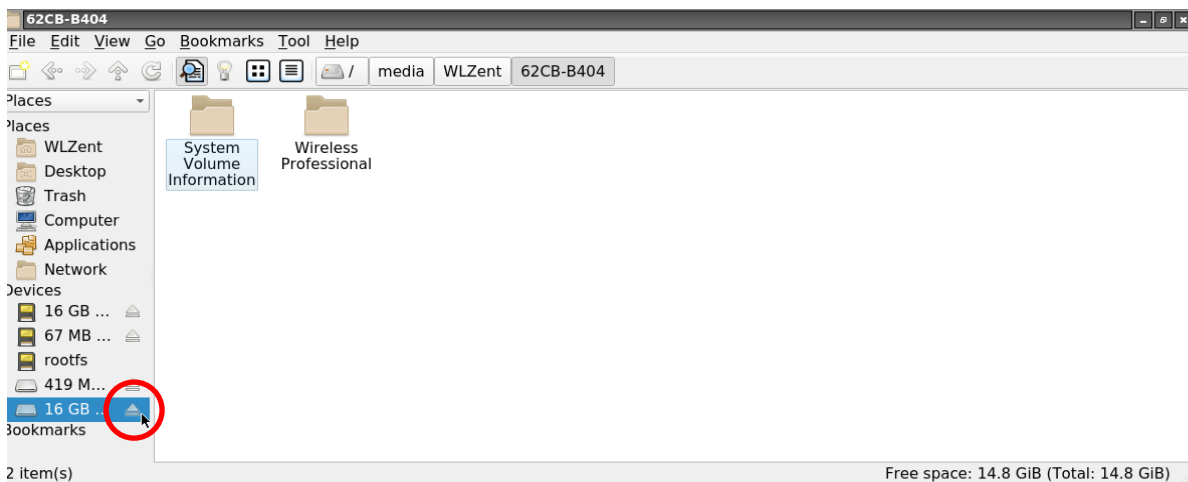


Figure 8 Ejecting USB stick

Once the USB stick has been ejected, it is no longer displayed by the file manager. You can now remove the USB stick from the device.

### 5.4 Meaning of signals in indicator windows

Status LEDs can be seen in the two indicator windows (10 & 11) on the left and right under the screen. These provide information about the current status of the Wireless Professional WLZent and Wireless Professional coordinator.

The coordinator's 3 signal LEDs are displayed in the coordinator indicator windows (10).

Colour	Status	Meaning
Green	Flashing	The Wireless Professional software is not running
Green	On	The Wireless Professional software has been launched and is communicating with the device
Blue	Flashing	Wireless traffic indicator
Red	On	There is an error in the Wireless Professional system

3 signal LEDs are displayed in the WLZent indicator window (11). These provide information about the operating status of the WLZent processor board (6).

Colour	Status	Meaning
Green	On	The WLZent processor board is being powered
Blue	On	The EMMC hard disk is being accessed (read/write access)
Orange	On	The SD card is being accessed (read/write access)

## 6 Commissioning the Wireless Professional WLZent

### 6.1 Switching on for the first time

The Wireless Professional WLZent can be connected directly to the sub-distribution using a fixed installed 3-wire connection cable or to a socket using the mains connection cable supplied. Assembly Instructions for Wireless Professional WLZent



**Warning:** The cable should be guided through one of the strain reliefs present (4, 9).

As soon as the Wireless Professional WLZent has been supplied with power, the Wireless Professional WLZent boots up and automatically launches the Wireless Professional software.

You can see that the Wireless Professional WLZent is active from the fact that the green LED in the right-hand indicator window (11) is lit. As soon as the Wireless Professional software has been booted, the green LED in the left-hand indicator window (10) also lights up.

The device is now operational and the Wireless Professional software interface appears in full-screen mode on the touch display.

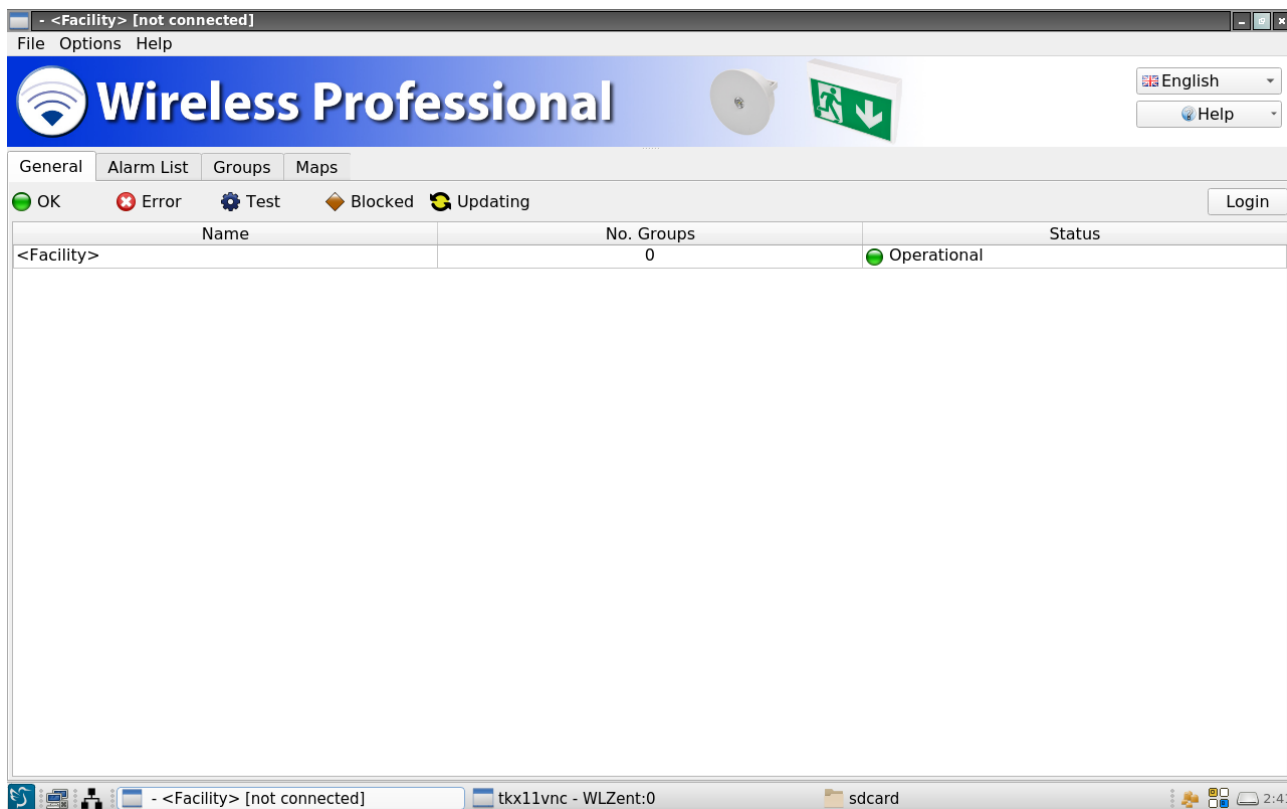


Figure 9 Wireless Professional software in full-screen mode

The software manual explains how to operate the Wireless Professional PC software.

### 6.2 Behavior of the WLZENT in the event of a power failure

The Wireless Professional WLZent does not have a battery to maintain operation in case of power loss. The Wireless Professional WLZent is therefore switched off. The monitoring functions, control options and automatic checks are also not active in such cases. The function of the emergency lights in the event of a power failure is still maintained.

### 6.3 How the WLZent responds to power being restored

When power is restored, the Wireless Professional WLZent is rebooted and the Wireless Professional software launches automatically. There is no need to boot the Wireless Professional WLZent manually.

### 6.4 Rebooting the Wireless Professional WLZent

Should you need to reboot the Wireless Professional WLZent, you can do this via both the software and hardware.

#### 6.4.1 Software reboot

The operating system of the Wireless Professional WLZent can be rebooted via the graphic interface. To reboot, go to Start menu->Leave->Reboot.



**Warning:** The Wireless Professional software should be closed before rebooting to avoid data being lost.

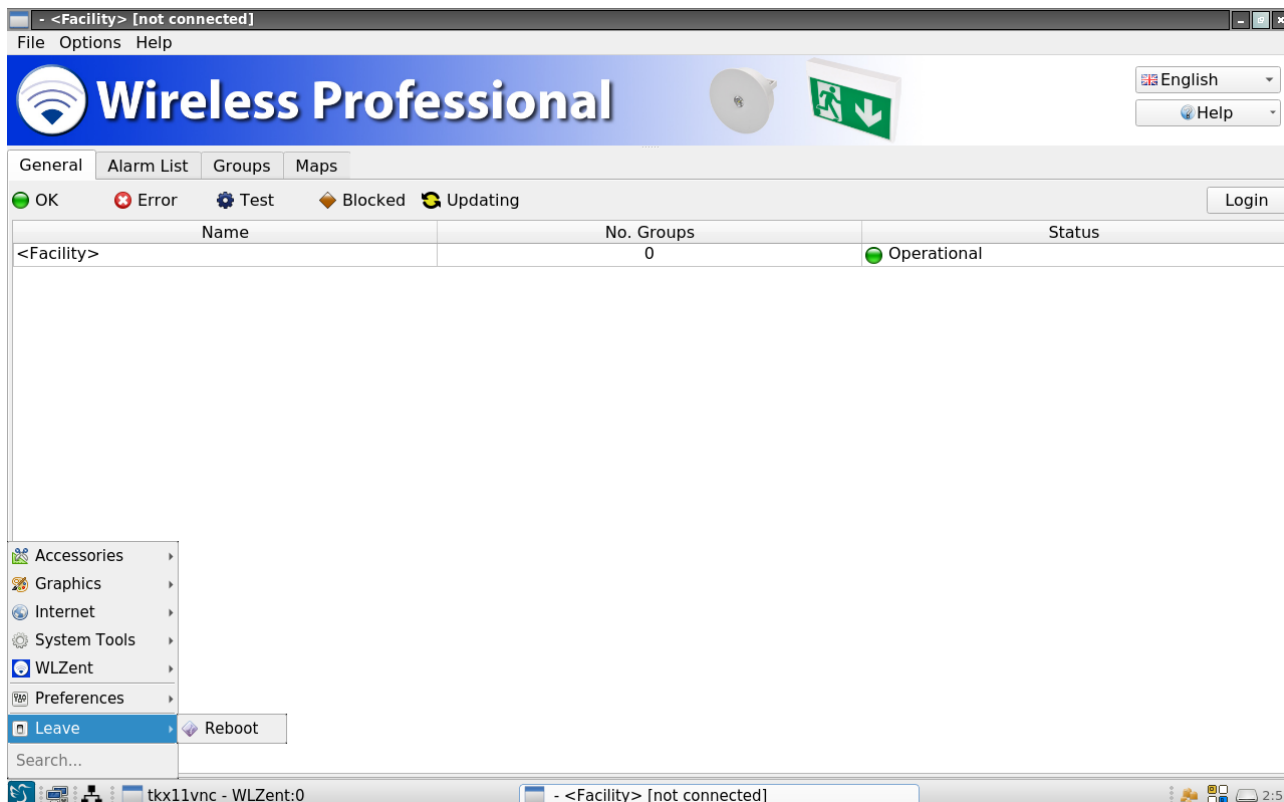


Figure 10 Wireless Professional WLZent Start menu

If the Start menu is not displayed, the Wireless Professional software runs in full-screen mode. You can use the Alt + Enter key combination or the Help menu in the top right to switch between full-screen mode and the normal viewing mode.

### 6.4.2 Hardware reboot

Should you not be able to reboot the operating system, you can also perform a hard reset. This is done by pressing the Reset button. The casing must be opened in order to press the Reset button.

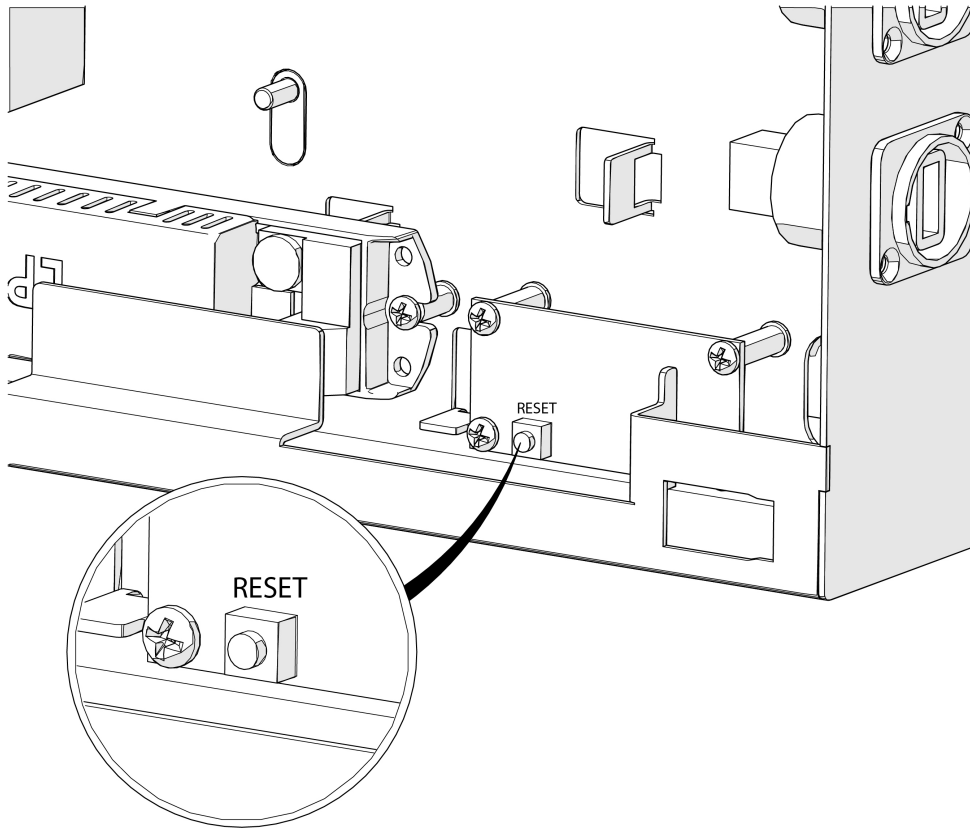


Figure 11 Position of the Reset button

### 6.5 Switching off the Wireless Professional WLZent

The Wireless Professional WLZent does not have a switch for switching it off and there is no option in the operating system for powering down the Wireless Professional WLZent system. To switch off the Wireless Professional WLZent, it has to be disconnected from the power supply.



### 7 Setting Date and Time

The Wireless Professional WLZent has a real-time clock (RTC) with a storage battery (8). The Wireless Professional WLZent uses this to retain the setting for the date and time even after the power supply has failed.

To set the date and time, go to Start menu->Preferences->Date and Time and open the "Time and date configuration" window.

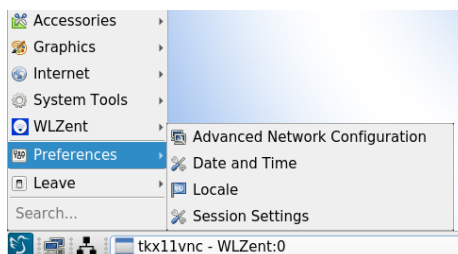
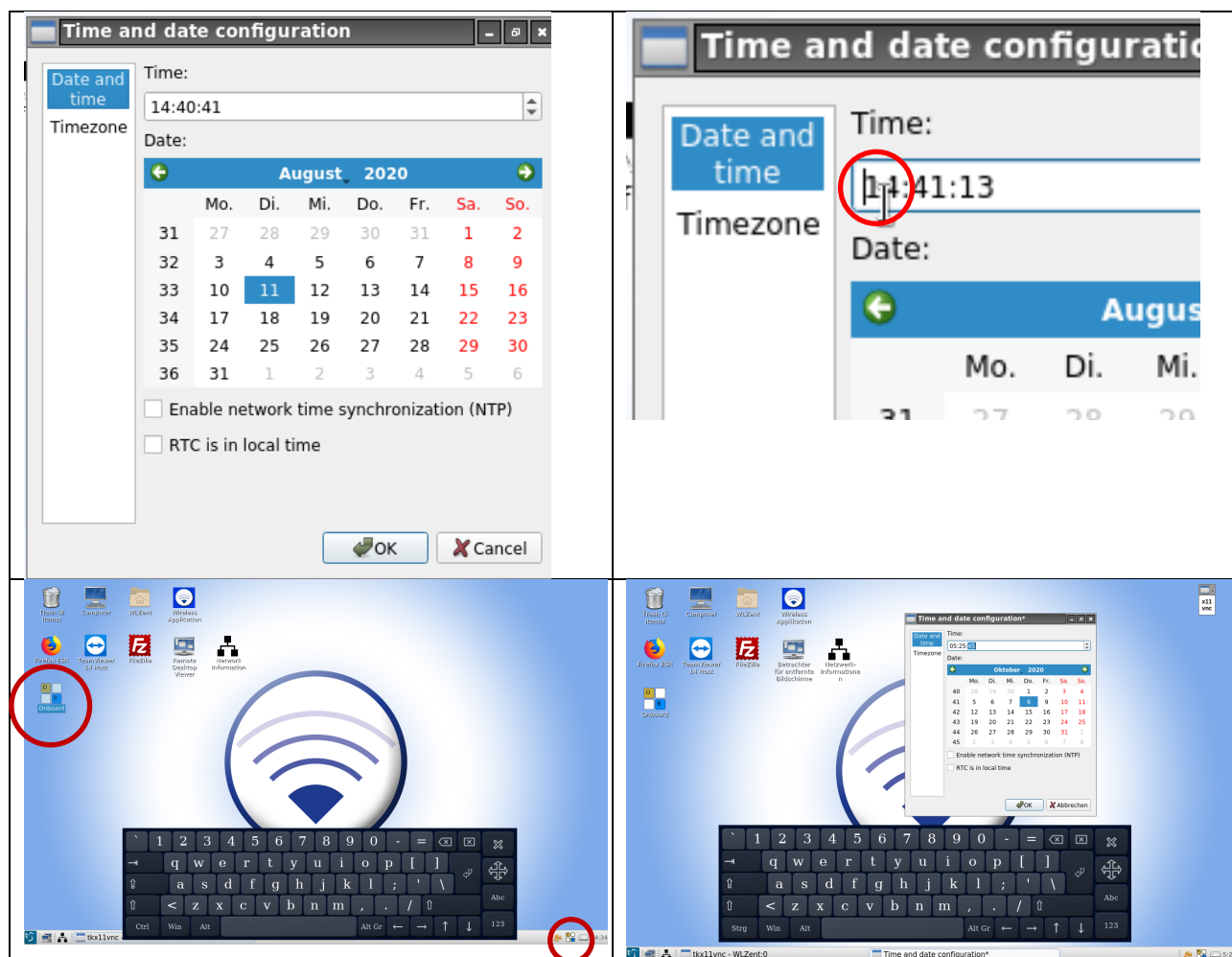


Figure 12 Professional WLZent Start menu Preferences



The values for hours, minutes and seconds can be entered using the touch keypad. To enter the seconds, first double-click on the relevant value to highlight it. Then you can enter the new value.

Figure 13 Time and date configuration window



**Warning:** Once the input has been confirmed, the screen may darken if the screensaver is activated.

### 7.1 Automatically setting date and time using a time server

The system time for the Wireless Professional WLZent can be obtained automatically via a time server. Automatically setting the date and time using a time server requires the Wireless Professional WLZent to be connected to the Internet so it can be synchronised.



**Warning:** If the Wireless Professional WLZent is not connected to the Internet after failure of the power supply, the time details for entries added after this may be incorrect.

To activate this function, tick the box in front of “Enable network time synchronization (NTP)” in the “Time and date configuration” window.

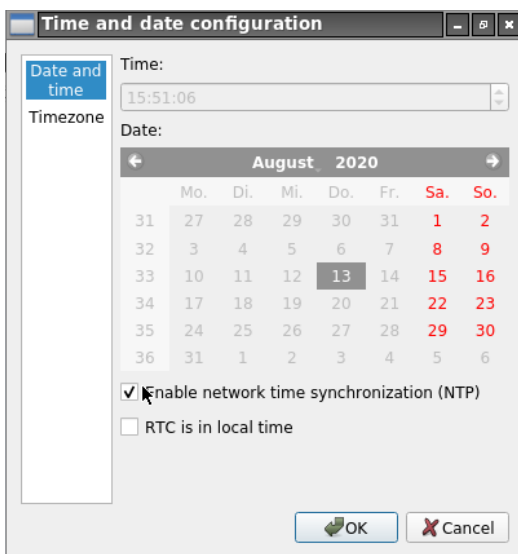


Figure 14 Time and date configuration window, NTP activated

For the displayed time to also match the time of the time zone at the installation site, the time zone in which the Wireless Professional WLZent is being operated will have to be selected. The time zone is also selected in the “Time and date configuration” window.

To select the time zone, tap on “Timezone” in the view on the left to change it.

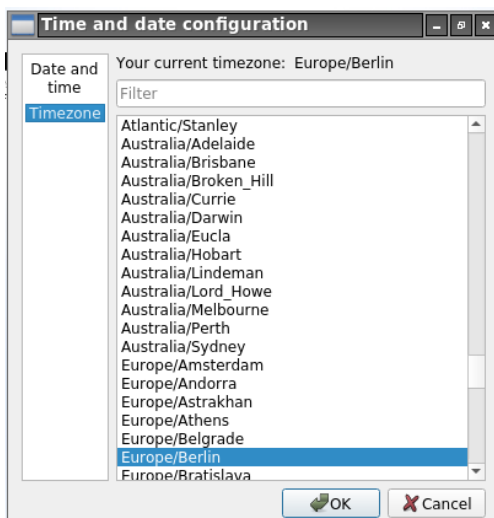


Figure 15 Time and date configuration window, time zone selection

### 8 Screensaver

There is a screensaver program installed on the Wireless Professional WLZent. The screensaver is configured so that the background lighting of the touch display (15) is deactivated if the user hasn't entered anything on the device for 5 minutes.

If the user enters something via the touch display (15) or on an input device connected to the USB-Port, the screensaver is deactivated.

There are no options for the end user to change the screensaver settings.

The signal LEDs displayed in the Case remain active even if the screen saver is active.



**Warning:** If the screensaver is deactivated in the automatic start menu, the device's warranty is void.

### 9 Network Configuration

The Wireless Professional WLZent has an RJ-45 socket (LAN connector) (13), which can be accessed externally and can be used to integrate the Wireless Professional WLZent into a network (Ethernet). The Wireless Professional WLZent hardware also features a WLAN interface, but this is disabled.

#### 9.1 Display showing network connections available

The Wireless Professional WLZent can display the available networks.

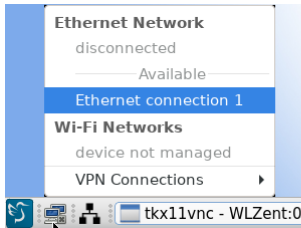


Figure 16 Wireless Professional WLZent, available network connections

If a connection is to be established with a network, as in this example using “Ethernet connection 1”, tap on the connections available in the list. The connection to the network is then established.



Figure 17 Establishing connection with network

Use this context menu to terminate the network connection too.

### 9.2 Display showing connection information

To display the current connection, tap on the icon labelled “Network Information” on the desktop twice. A context menu opens in the task bar.

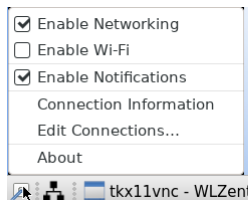


Figure 18 Wireless Professional WLZent network information context menu

**Note:** The “Enable Wi-Fi” menu item is disabled.

The “Connection Information” window is opened using the “Connection Information” menu item. The current configuration and MAC address of the network adapter can be found here.

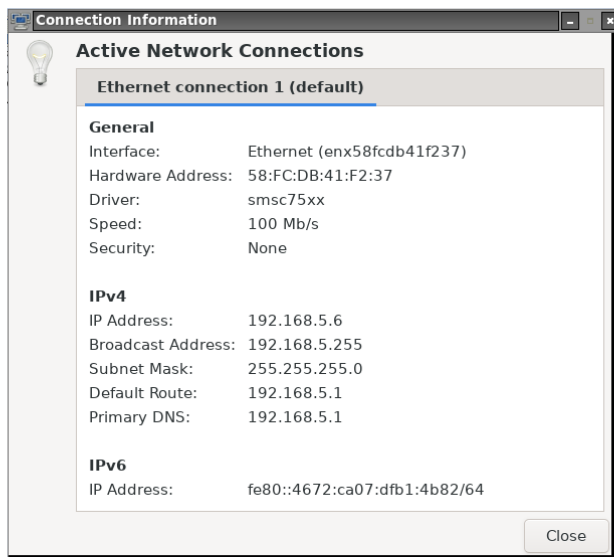


Figure 19 Wireless Professional WLZent connection information

### 9.3 Advanced Network Configuration

To edit the network settings, go to Start menu->Preferences->Advanced Network Configuration and open the relevant configuration program.

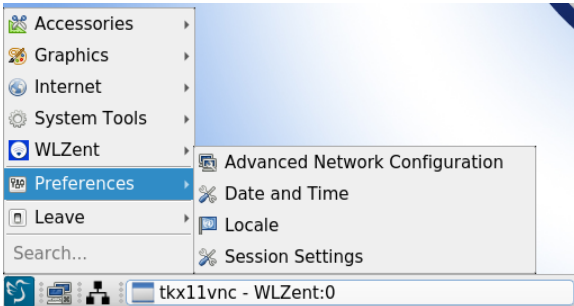


Figure 20 Wireless Professional WLZent Start menu Preferences

Once “Advanced Network Configuration” has been selected, a window called “Network Connections” appears.

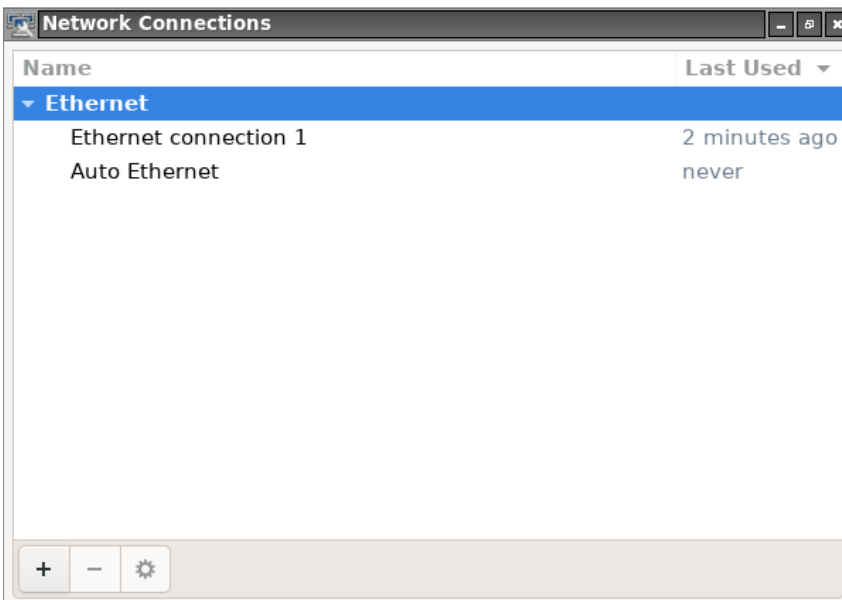


Figure 21 Network Connections window

All the network connections known to the operating system are displayed and can be edited here. New connections can also be added.

### 9.3.1 Adding a network connection

To add a new network connection, tap on the “+” symbol in the “Network Connections” window.

A window opens where the type of connection should be selected.

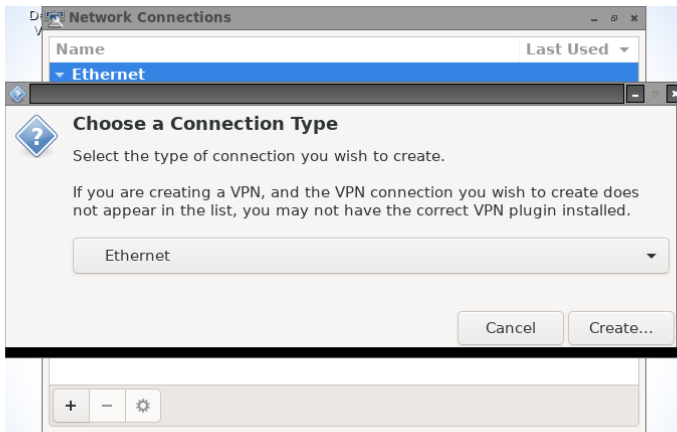


Figure 22 Connection Type window

Various types can be selected from the drop-down menu:

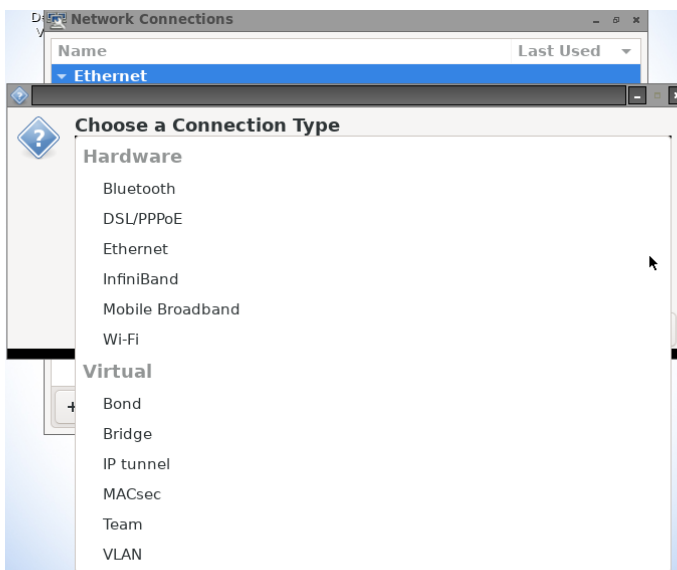


Figure 23 Connection Type window, drop down menu

Because only the Ethernet connection is typically available in the Wireless Professional WLZent, we will use this for our example.

Once the type of connection has been selected, the “Editing” window opens.

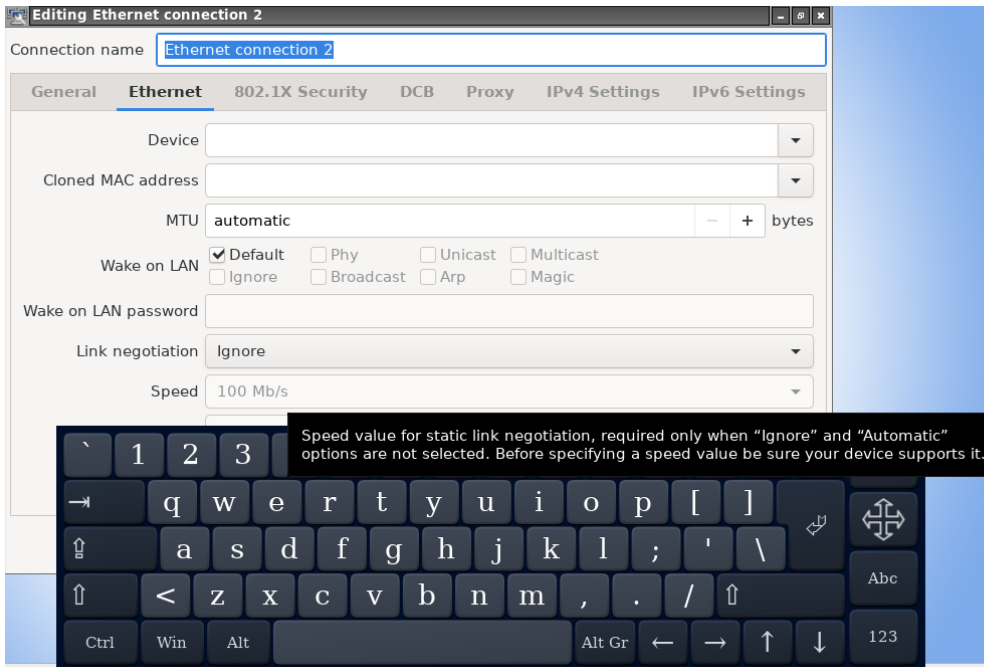


Figure 24 Editing network connection

You can give the connection an individual name in the “Connection name” text box. It is important for a “Device” (network adapter) to be selected in this view.

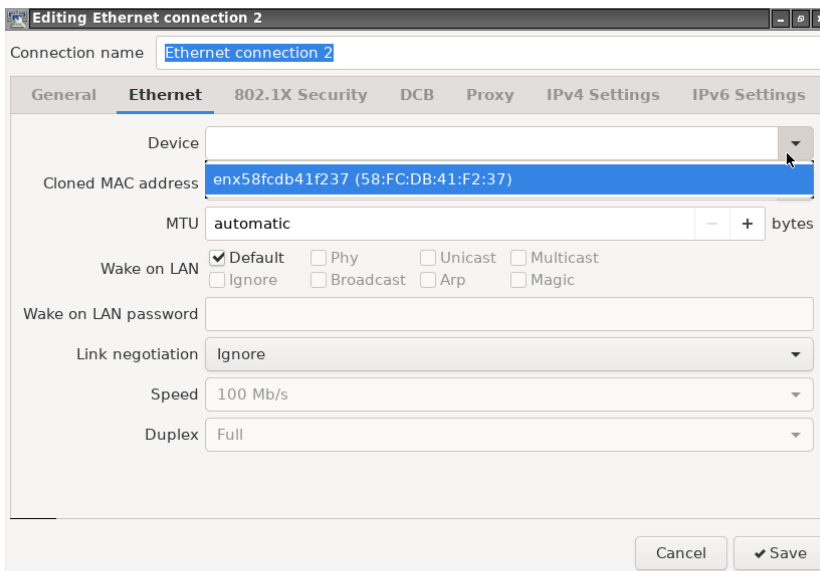


Figure 25 Editing network connection, selecting device

Once a device has been selected, the configuration is complete because the IP configuration is preset to DHCP.



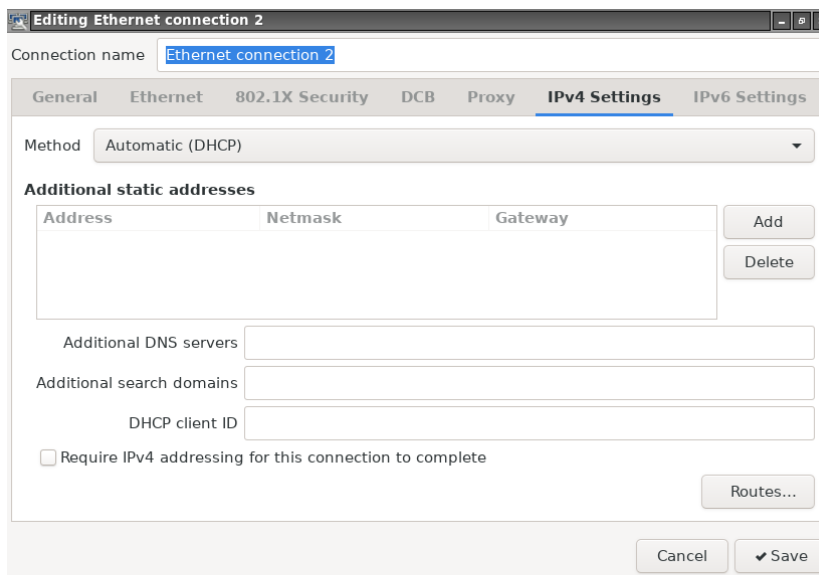


Figure 26 Editing network connection, IP settings

The current configuration for the new network connection is saved by pressing the “Save” button in the bottom right.

### 9.3.2 Changing available network connection

To change an available network connection, select the desired network connection in the “Network Connections” window by tapping on it.

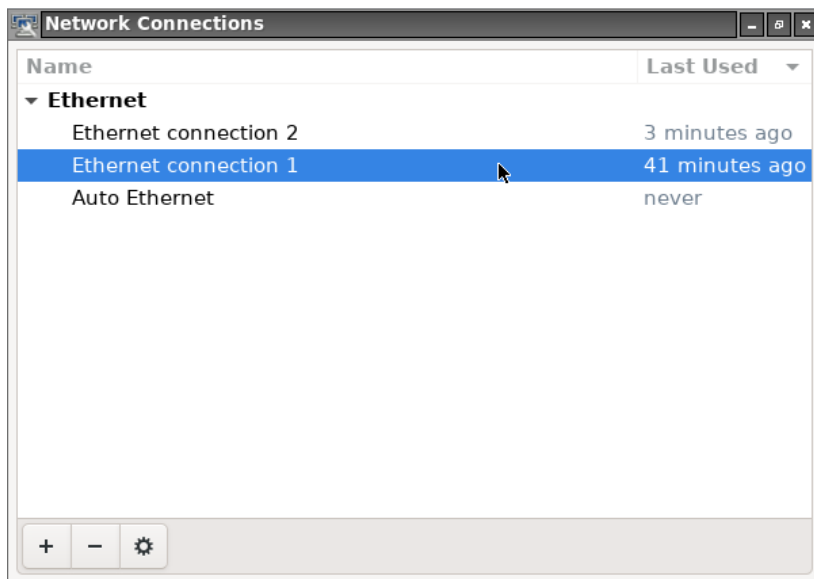


Figure 27 Network Connections window

Then use the cog symbol to open the “Editing” window. Alternatively, you can also tap on the network connection twice to open the “Editing” window.

### 9.4 Automatic network configuration

The Wireless Professional WLZent has an enabled DHCP client, which handles automatic configuration of the network adapter. If the Wireless Professional WLZent is connected to an Ethernet with an enabled DHCP server, after a few seconds the connection information can be displayed.

If the DHCP client is not enabled for a network connection, you can enable the DHCP client via the “Editing” window (9.3.2) of the network connection in the “IPv4 Settings” tab.

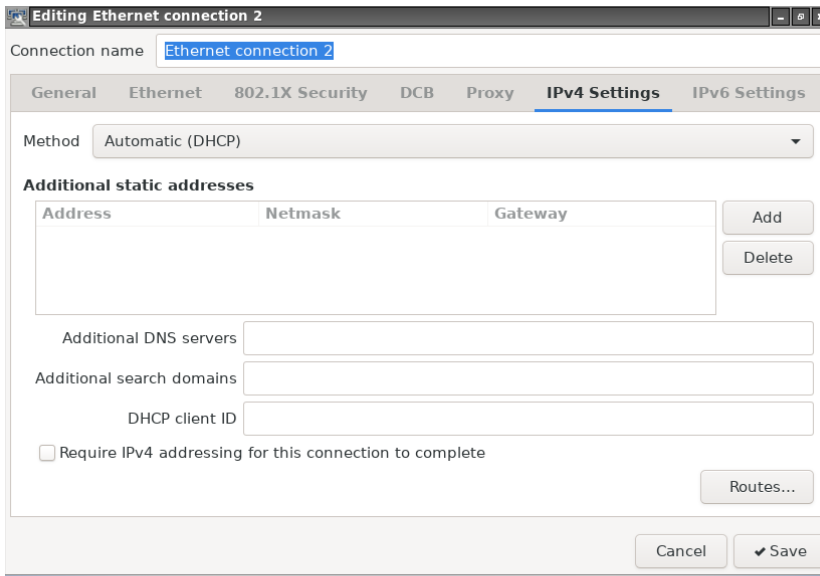


Figure 28 Editing network connection, IP settings, DHCP enabled

To do this, select “Automatic (DHCP)” in the drop-down list under “Method”.

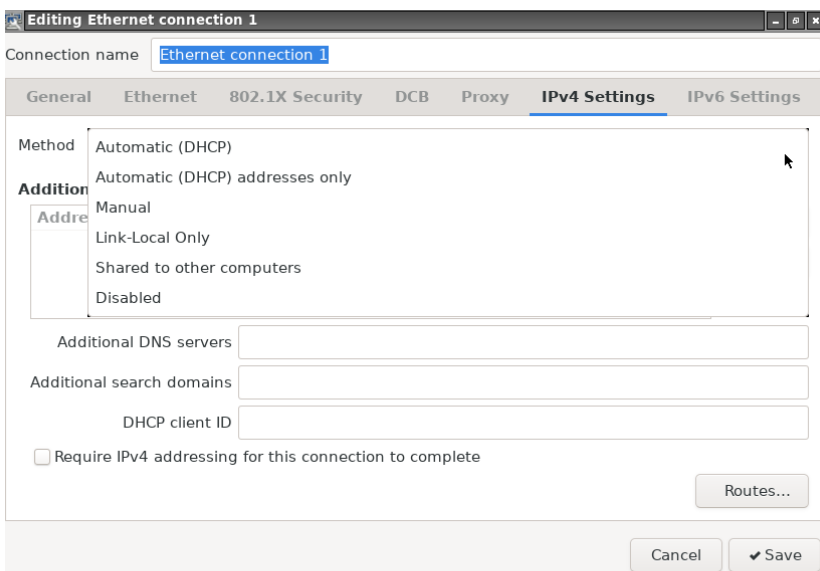


Figure 29 Editing network connection, IP settings, drop-down selection for method

**Note:** We would recommend configuring the DHCP server so that the Wireless Professional WLZent is always assigned the same IP address because where required a superordinate monitoring system will typically address the Wireless Professional WLZent using the IP address.

**Note:** The network device name of the Wireless Professional WLZent is “WLZent”. If there are several Wireless Professional WLZent type devices in the same network, the MAC address can be used to distinguish between them.

### 9.5 Manual configuration

The Wireless Professional WLZent can also be assigned a static IP address and/or the network parameters can be set manually.

To do this, go to the “Editing” window (9.3.2) for the network connection and select “Manual” in the drop-down list under “Method” in the “IPv4 Settings” tab.

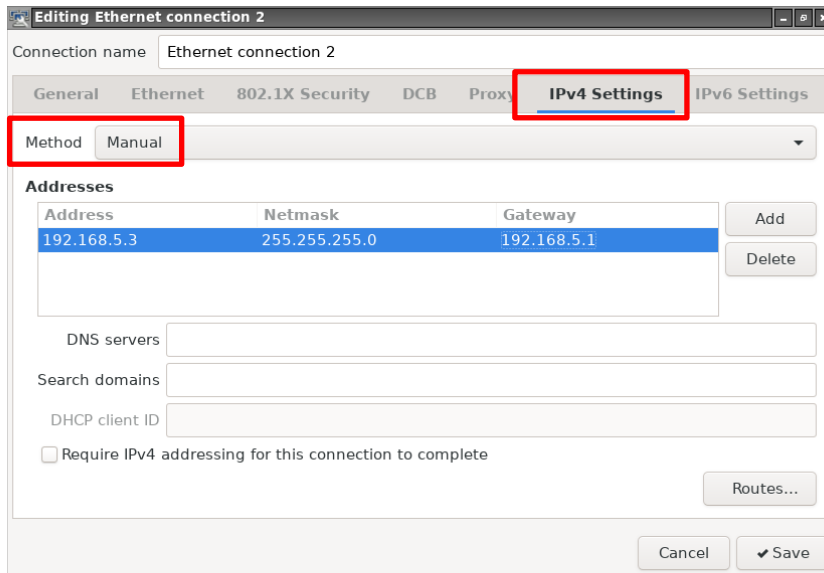


Figure 30 Editing network connection, IP settings, manual configuration

Now manually enter the IP address, net mask, gateway and DNS.

### 10 Remote Access via TeamViewer

There is a TeamViewer client installed on the Wireless Professional WLZent.

#### 10.1 Launching TeamViewer

The TeamViewer client can be launched using the desktop icon labelled “TeamViewer Host” or by going to Start menu->Internet->TeamViewer Host.

**Note:** The TeamViewer client does not launch automatically and should only be enabled if needed. It will require an Internet connection.

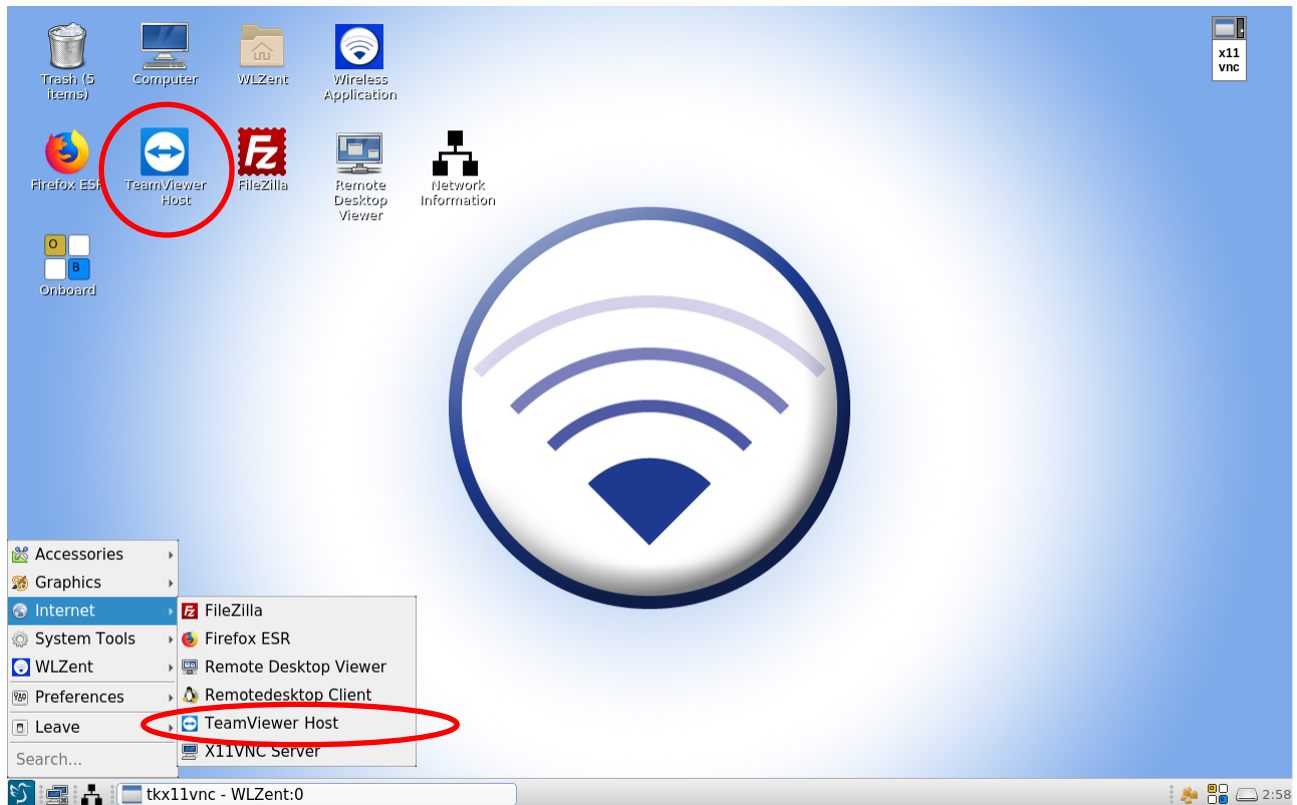


Figure 31 Wireless Professional WLZent Start menu Internet

Once the TeamViewer has been launched, the “TeamViewer” window and an icon in the task bar are displayed.

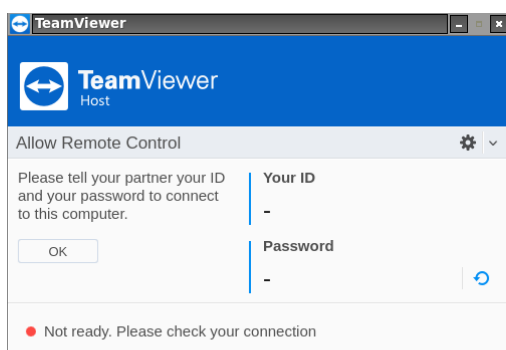


Figure 32 TeamViewer window

If you have an Internet connection, the system's TeamViewer ID and the current access password are displayed. This data is referred to as TeamViewer connection data below.



**Warning:** The TeamViewer ID for the Wireless Professional WLZent is not constant and may change. The ID changes when the Wireless Professional WLZent updates, for example.

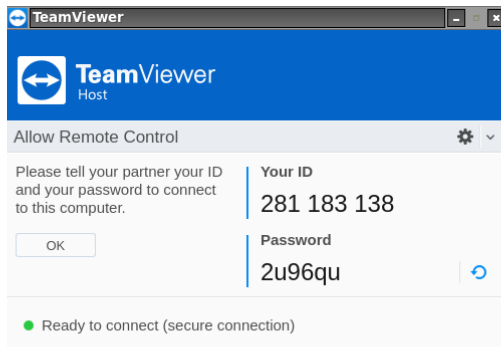


Figure 33 TeamViewer window with connection data

### 10.2 Establishing remote access to the Wireless Professional WLZent via TeamViewer

For remote access to be possible, the remote device needs TeamViewer version 15 or higher.

**Note:** For commercial applications, you will need a licence for the TeamViewer software. Please contact the TeamViewer support for further information.

If the remote device has entered the TeamViewer ID but not the password, the “Awaiting authentication” status will be displayed in the “TeamViewer” window.

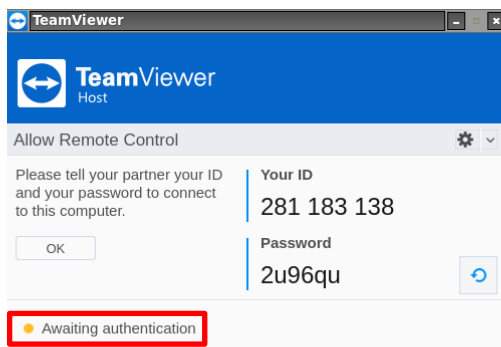


Figure 34 TeamViewer window, remote device is awaiting password input

Once the password has been entered and the connection has been established, the “TeamViewer Session” window is visible. This shows the computer name of the remote device and its TeamViewer ID.

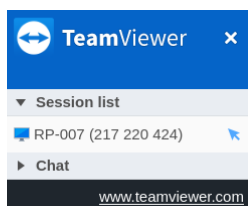


Figure 35 TeamViewer Session window

The remote device can now remotely control the Wireless Professional WLZent.

### 10.3 Terminating TeamViewer connection

If an existing TeamViewer connection is now to be terminated by the Wireless Professional WLZent (client side), this can be done by tapping on the “x” symbol in the top right of the “TeamViewer Session” window.

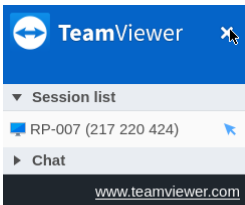


Figure 36 TeamViewer Session window, terminating connection

Once the connection is terminated, the “Change random password?” window opens.

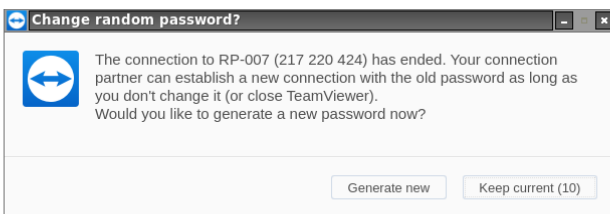


Figure 37 Change random password? window

A new connection password can be generated by pressing the “Generate new” button. Pressing the “Keep current” button retains the current password. If no buttons are pressed, the window is automatically closed after 20 seconds and the password remains unchanged.

### 10.4 Closing TeamViewer

If remote access to the Wireless Professional WLZent is no longer required, the TeamViewer client can be closed. The TeamViewer client is closed by selecting “Exit TeamViewer” in the context menu. The context menu opens when the TeamViewer task bar symbol is pressed and held down. (see 5.1 Touch operation)

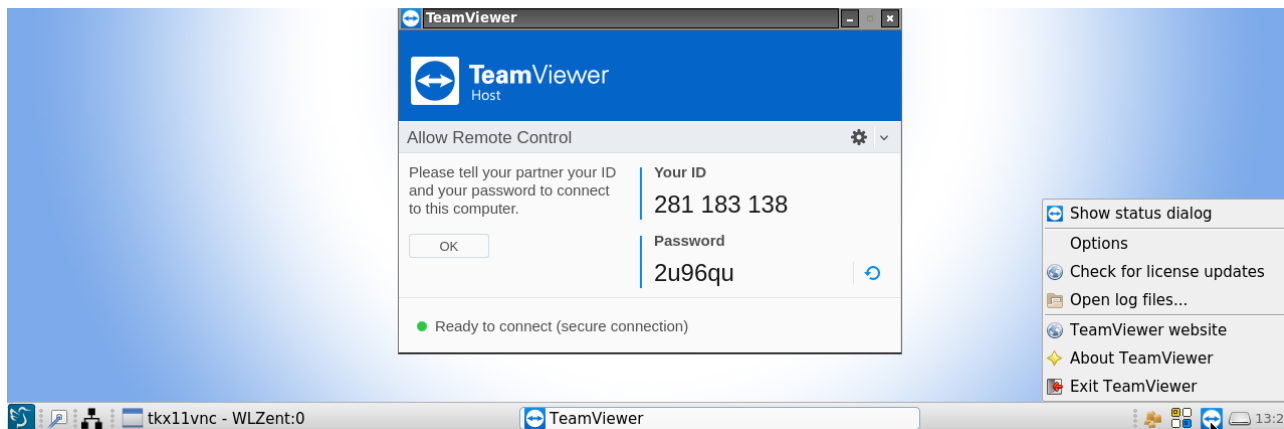


Figure 38 TeamViewer task bar context menu

To close the client, tap on “Exit TeamViewer”. The “Close TeamViewer” window then opens and here you need to confirm that the client is to be closed by tapping on the “Exit” button.

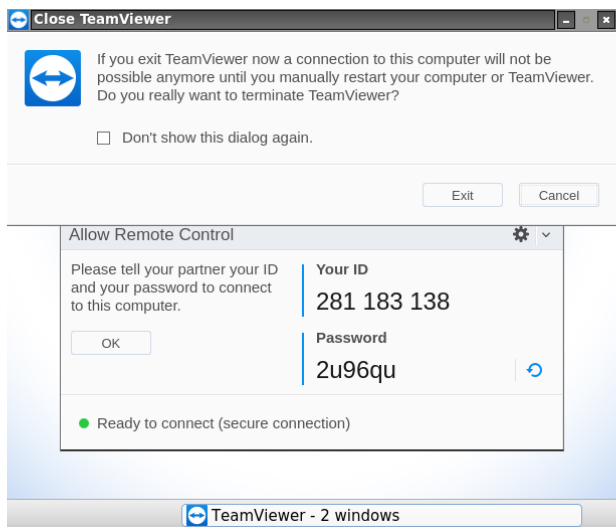


Figure 39 Close TeamViewer

### 11 VNC Remote Connection

Just like WLTouch, the Wireless Professional WLZent is able to monitor one or more Wireless Professional systems (WLTouch, WLCPC or WLZent) located in the local network and to control them using remote access.

#### 11.1 VNC Viewer

There is a VNC Viewer installed on the WLZent. This can be launched using the desktop icon labelled "Remote Desktop Viewer" or by going to Start menu->Internet->Remote Desktop Viewer. The Wireless Professional software can also launch the VNC Viewer.

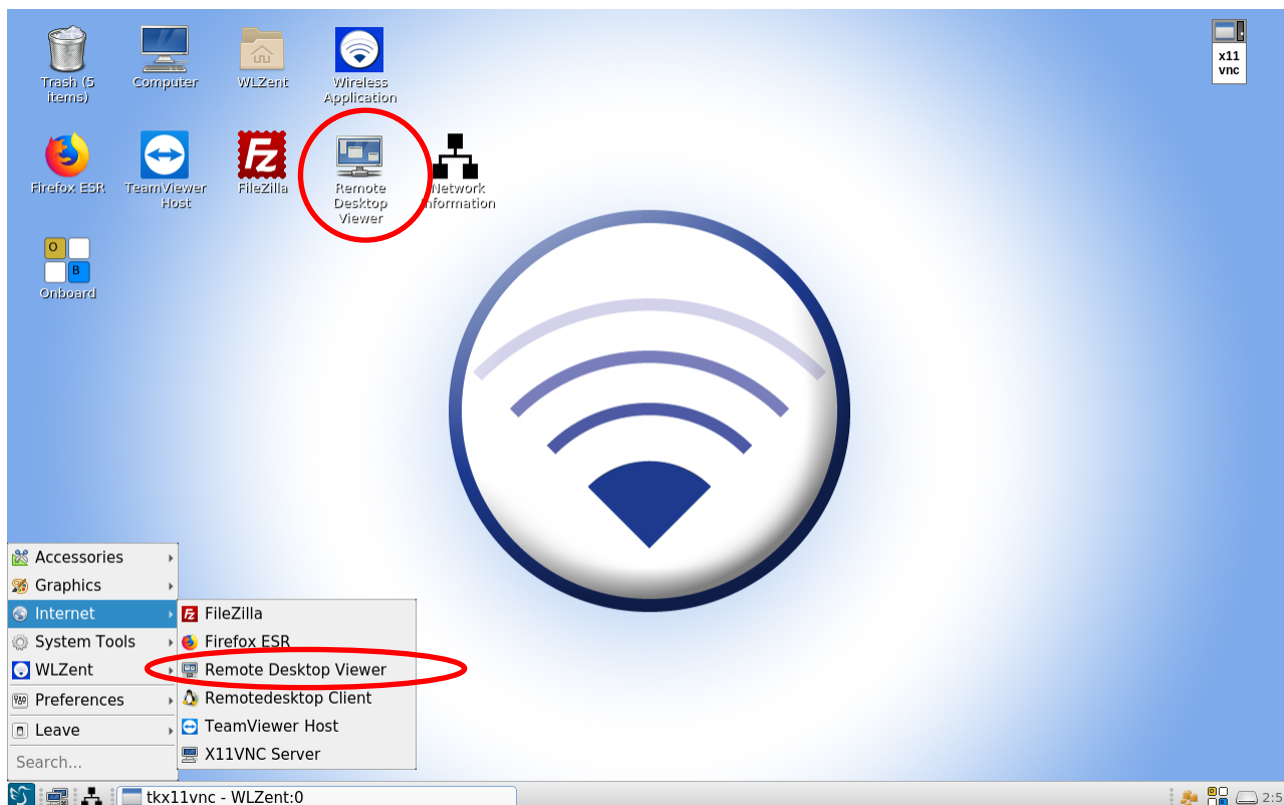


Figure 40 Wireless Professional WLZent Start menu Internet



The “Remote Desktop Viewer” window opens.

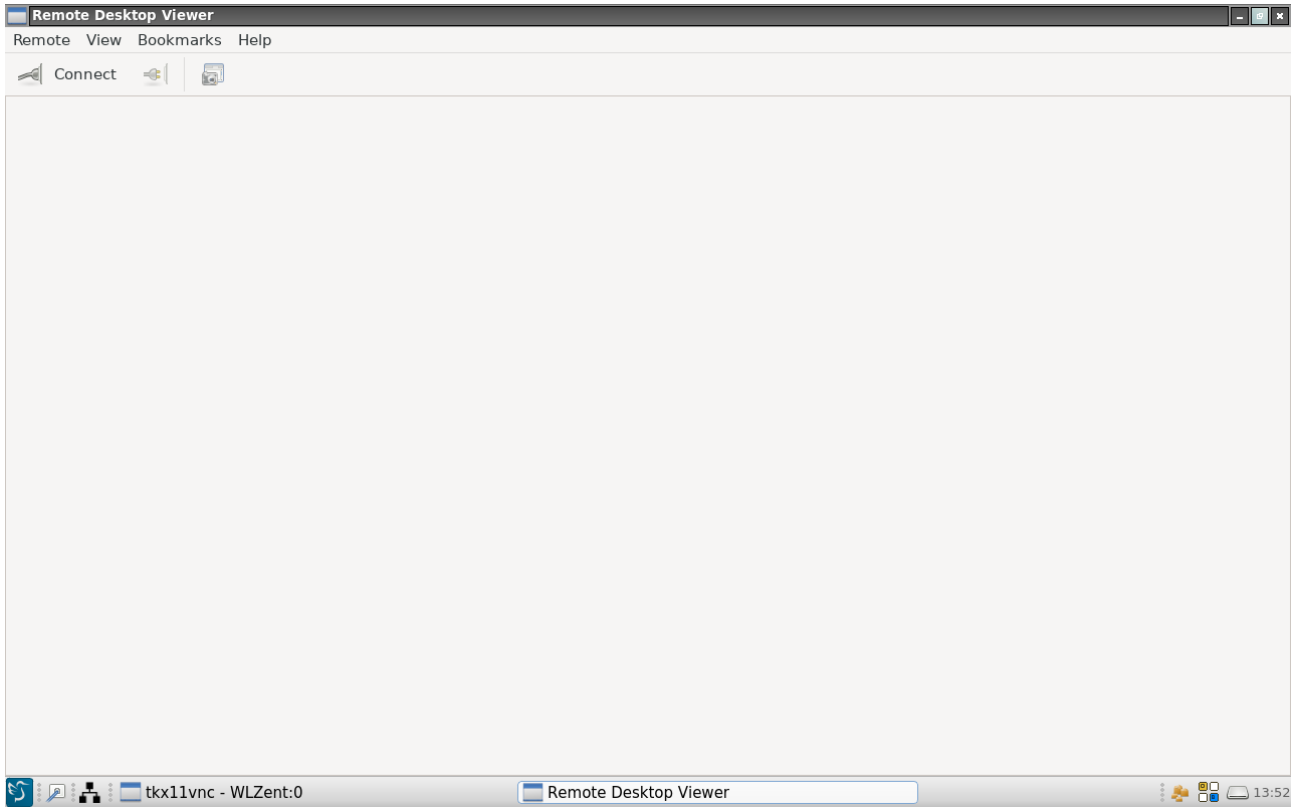


Figure 41 Remote Desktop Viewer

### 11.1.1 Establishing VNC connection to a device

Tapping the “Connect” button opens the “Connect” window where the connection is configured.

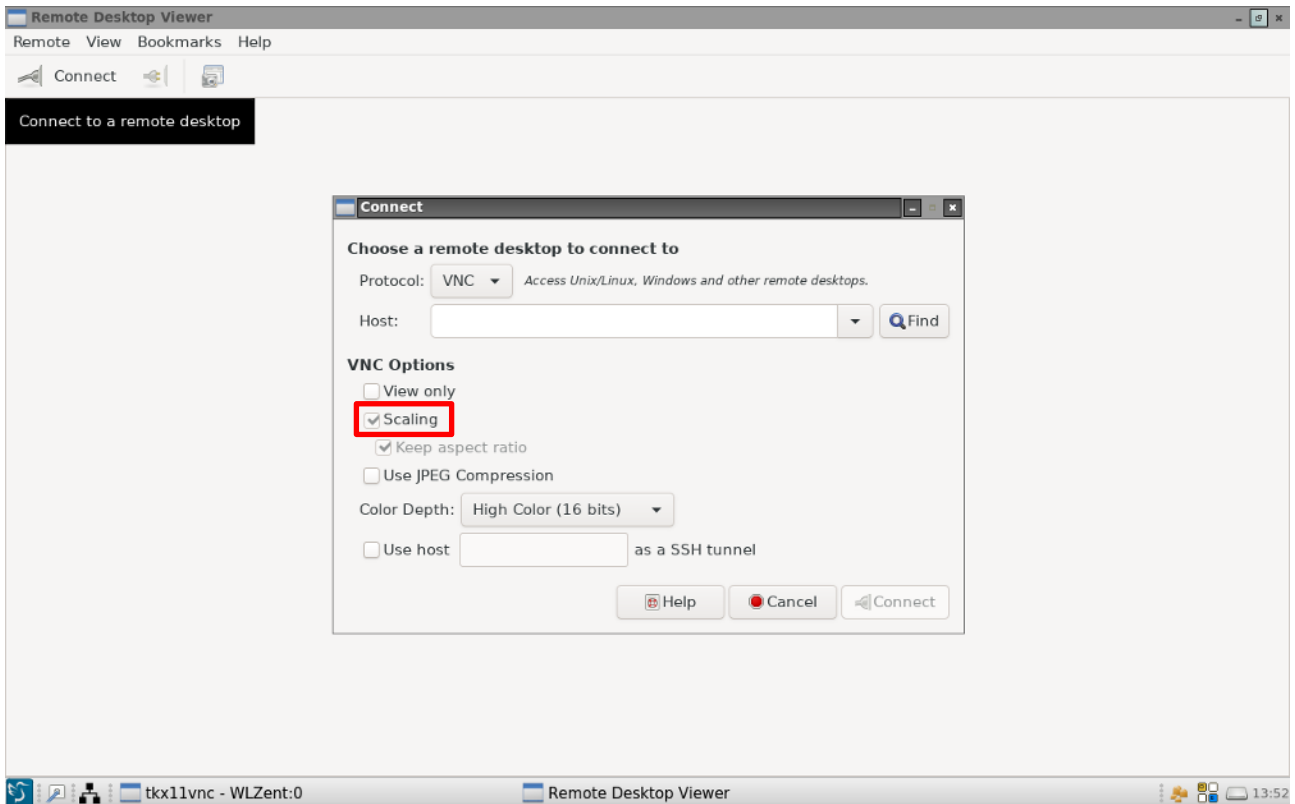


Figure 42 Remote Desktop Viewer window, Connect window

The IP address of the destination device and the VNC port are entered in the “Host” box. The “Scaling” checkbox must be ticked for the details to be displayed correctly.

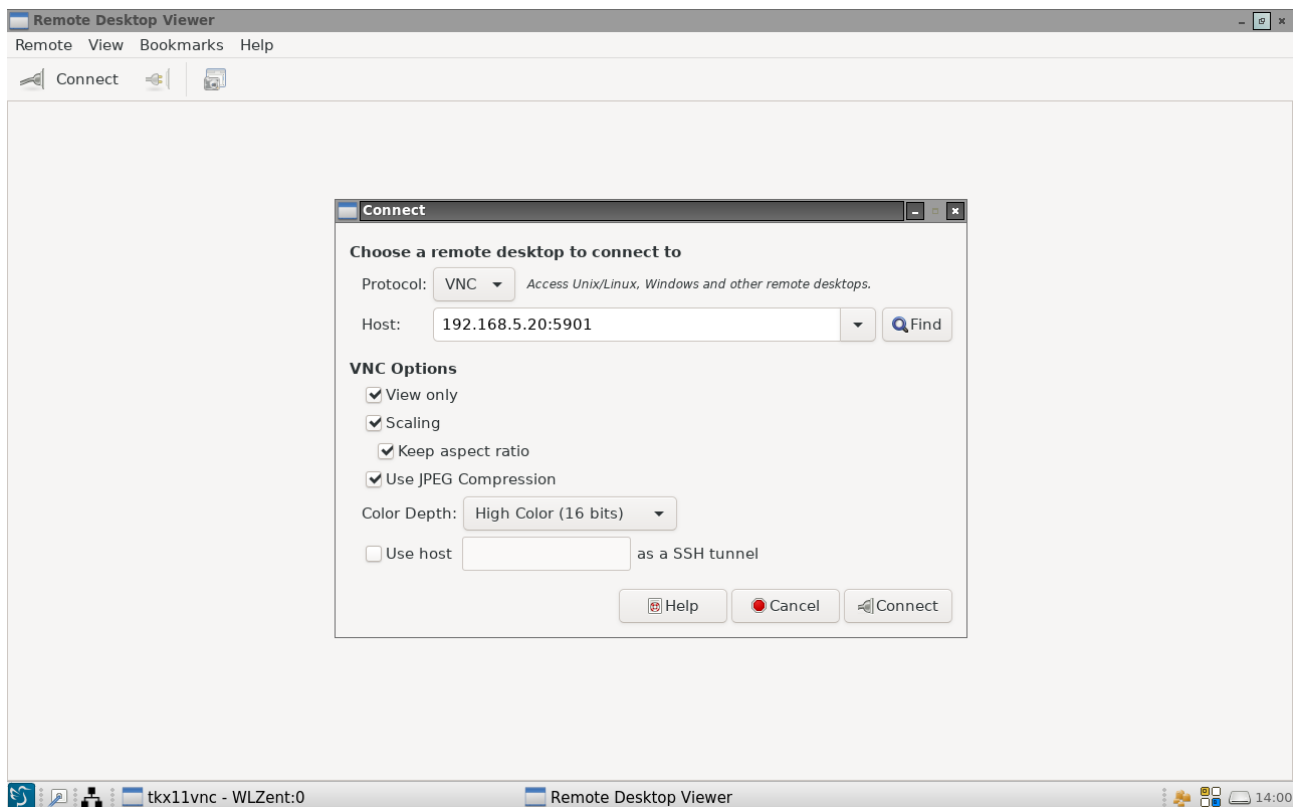


Figure 43 Remote Desktop Viewer window, Connect window with connection data

The connection to the destination device is established by tapping on the “Connect” button.

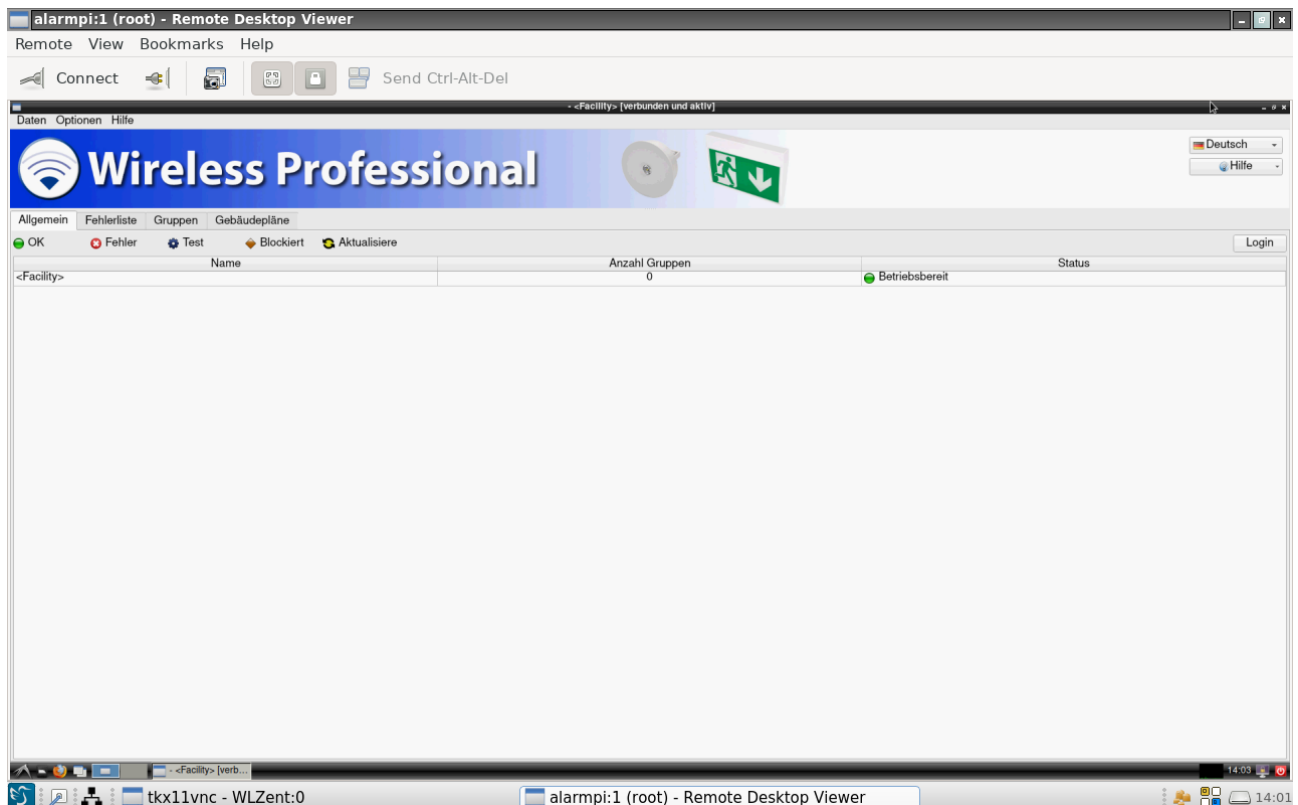


Figure 44 Remote Desktop Viewer window with enabled connection

### 11.1.2 Terminating VNC connection to a device

The VNC connection can be terminated by tapping on the “Disconnect” button. This does not close the VNC Viewer.

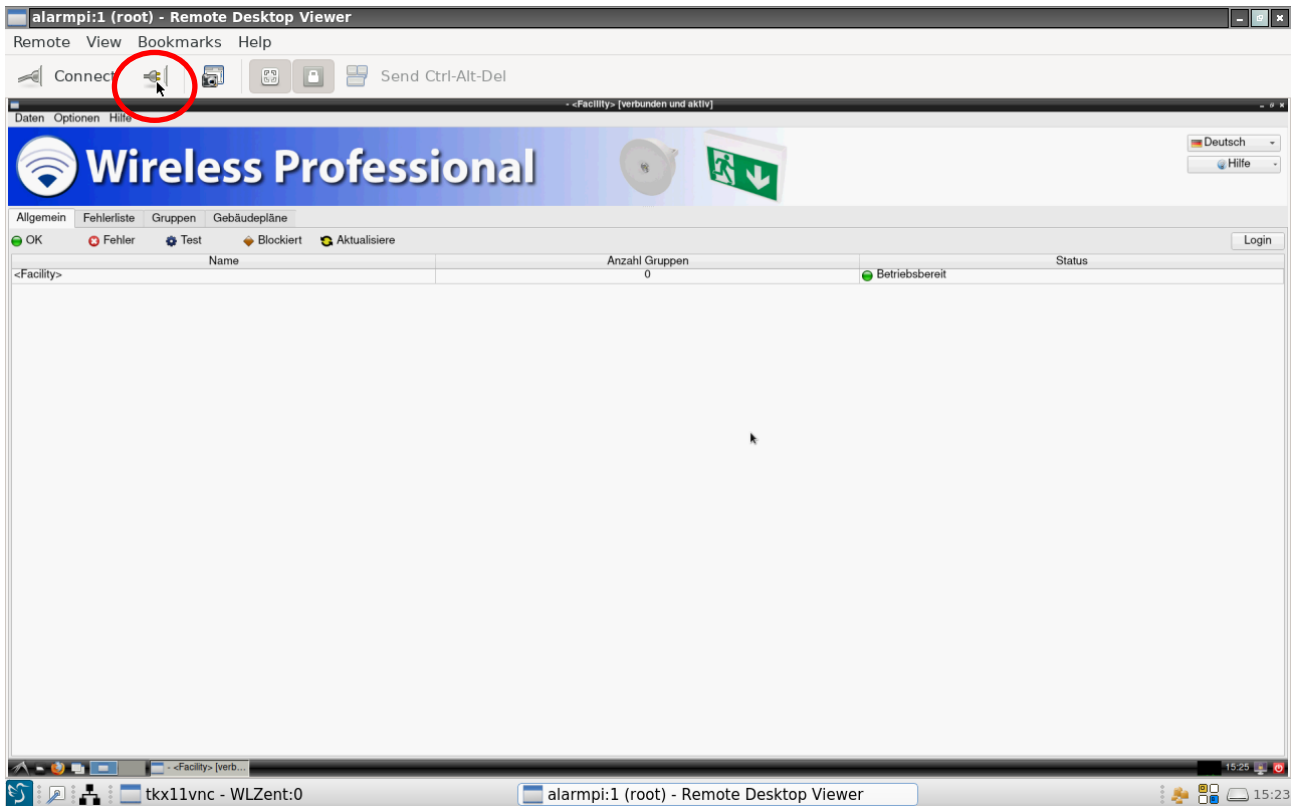


Figure 45 Remote Desktop Viewer window, Disconnect button (red circle)

### 11.1.3 Closing VNC Viewer

To close the VNC Viewer, use the “x” in the top right-hand corner to close the “Remote Desktop Viewer” window or close the program via the main menu by selecting “Remote->Quit”.

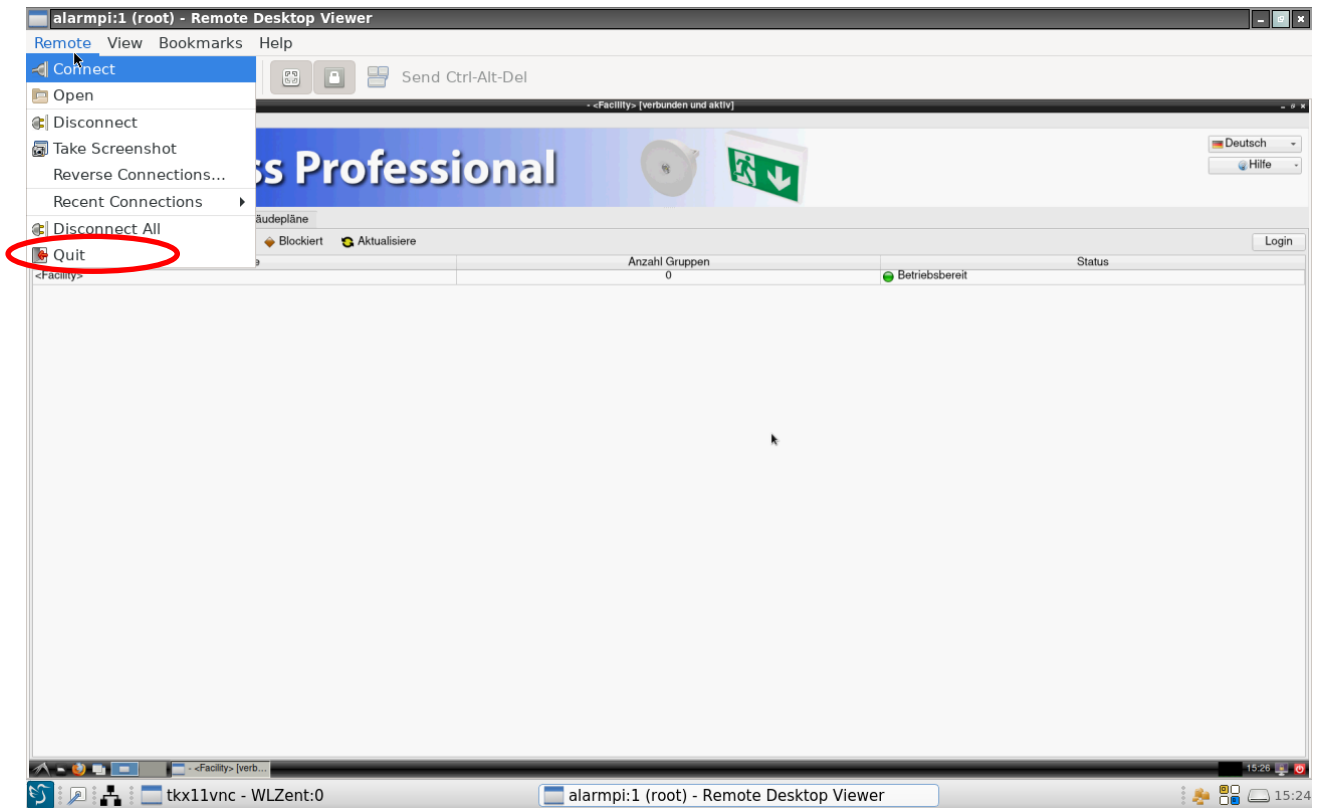


Figure 46 Remote Desktop Viewer window, Remote menu

If connections are still enabled at this point, they are terminated automatically.

### 11.1.4 Remotely controlling device via VNC connection

To remotely control a device via the VNC remote connection, control access must be enabled in the VNC Viewer.

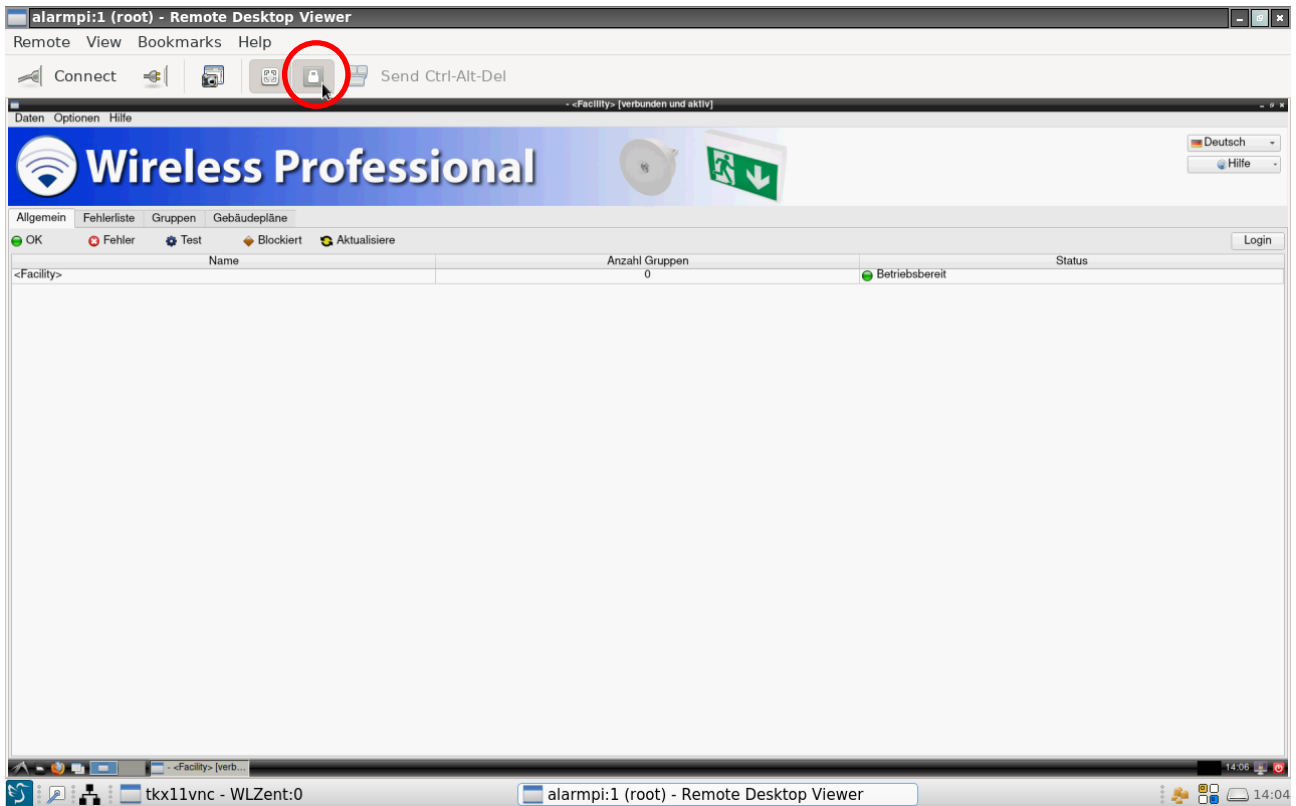


Figure 47 Remote Desktop Viewer window, enabling remote control

To enable remote control, tap on the “View Only” symbol. If the symbol has a grey background as in Figure 33, remote control is disabled.

### 11.1.5 Scaling view

If the resolution of the destination device is higher than the touch display resolution of the Wireless Professional WLZent, the VNC Viewer is displayed with scroll bars. Because the scroll bars are not optimised for operating by touch, we would recommend activating scaling in such instances. This can be done when establishing the connection Establishing VNC connection to a device or later on using the scaling button.

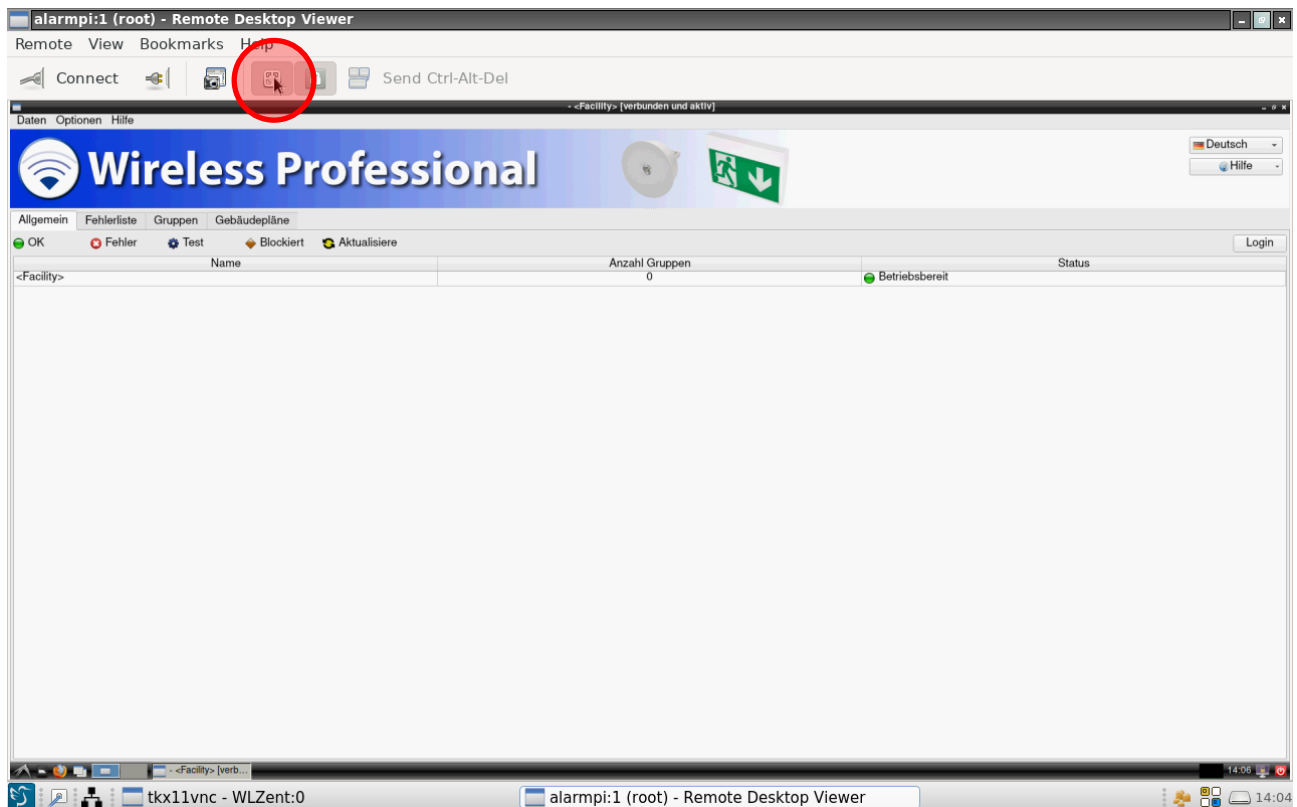


Figure 48 Remote Desktop Viewer window, scaling

Once screen scaling has been activated, the scaling button has a grey background as shown in Figure 34.

## 11.2 VNC Server

There is a VNC Server installed on the Wireless Professional WLZent. This is always launched automatically. VNC access, that you will be familiar with from the Wireless Professional CPC, is therefore also possible on the Wireless Professional WLZent.

### 11.2.1 Establishing VNC connection

To establish a VNC connection to a Wireless Professional WLZent, you will need the IP address and VNC port of the destination. You can find the IP address as described in Display showing connection information 9.2.

The port for the VNC connection is: "5901"

The connection password is: "123456"

### 12 FileZilla File Transfer Program

Wireless Professional CPCs connected in a network can use the WLZent as a source of data for updates and for backing up data, for example. FileZilla is installed as a file transfer program for this purpose.

#### 12.1 Launching FileZilla

FileZilla can be launched using the desktop icon labelled "FileZilla" or by going to Start menu->Internet->FileZilla.



Figure 49 Wireless Professional WLZent Start menu Internet



### 12.2 Establishing connection with Wireless Professional CPC

To establish a connection with a Wireless Professional CPC, enter host, username, password and port number in the input fields for these entries. This data can be found in the Wireless Professional CPC instructions.

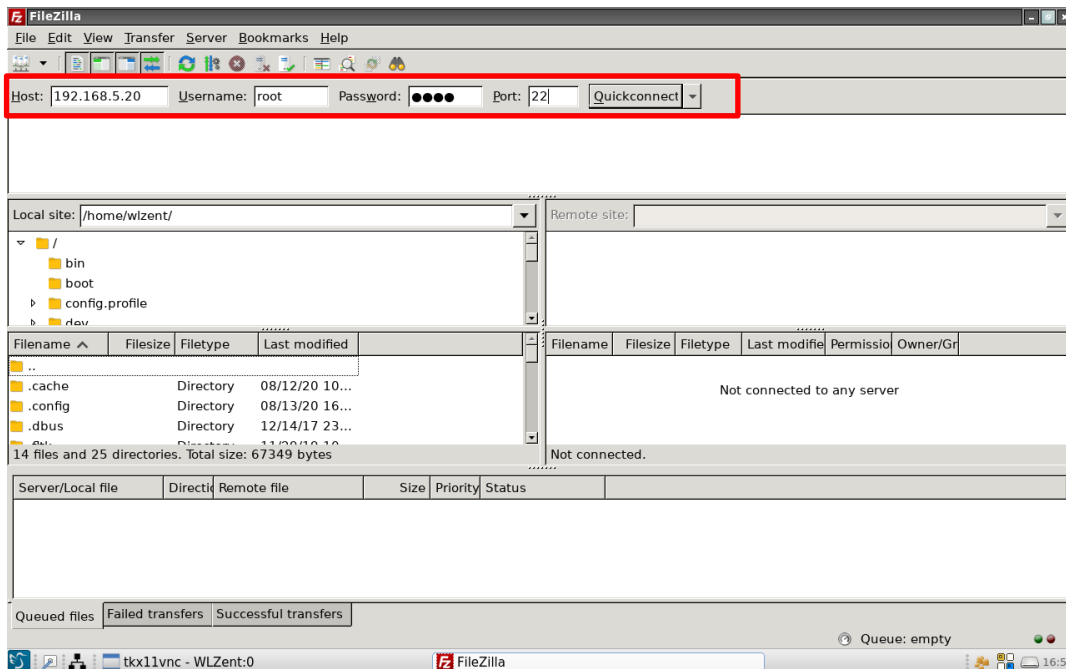


Figure 50 FileZilla with connection data

Once the fields have been completed, establish the connection by clicking on “Quickconnect”. If a Wireless Professional CPC can be accessed at the destination address, the “Unknown host key” window appears.

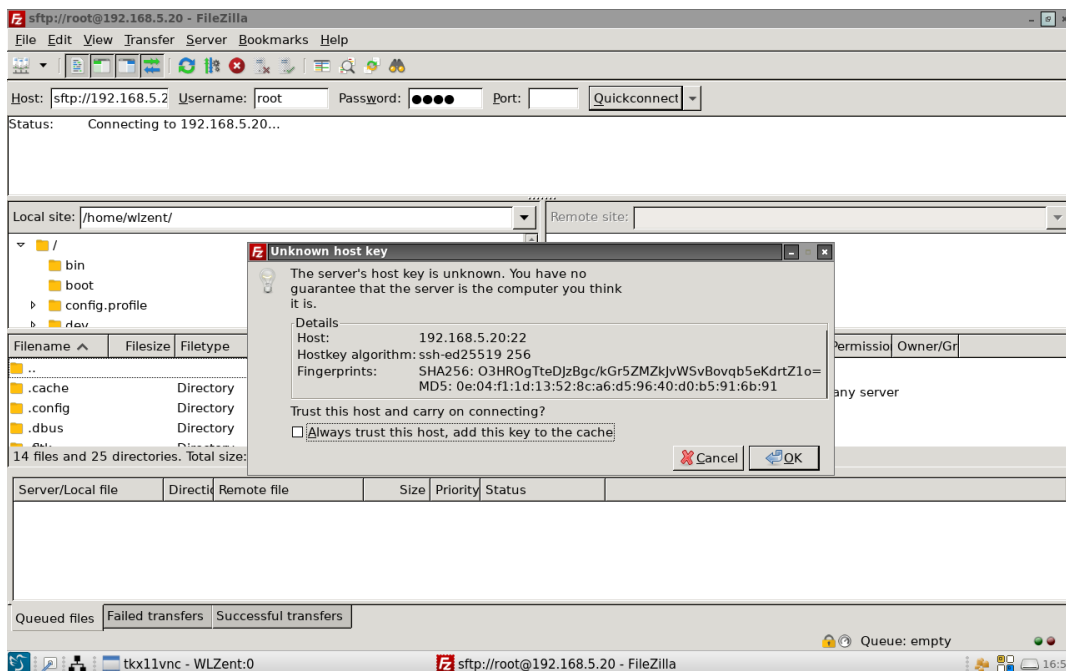


Figure 51 FileZilla, Unknown host key window

To access the file system of the Wireless Professional CPC, close the “Unknown host key” window by clicking on the “OK” button.

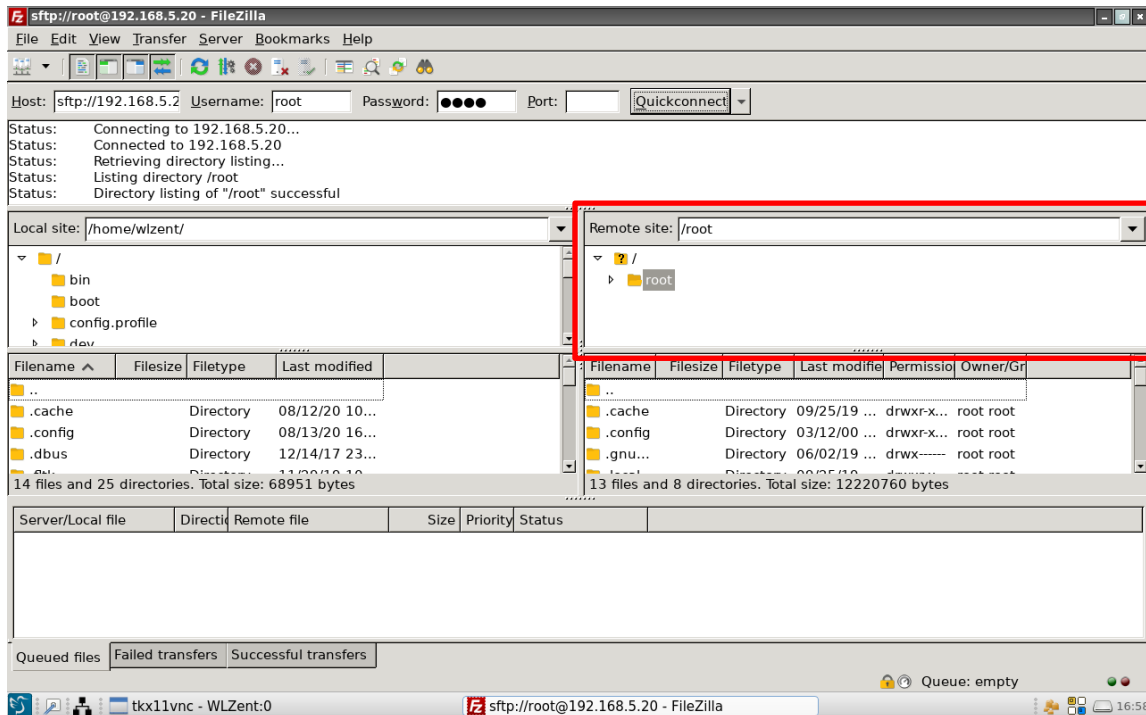


Figure 52 FileZilla with active connection to CPC

The connection has been correctly established if the file system structure of the Wireless Professional CPC is displayed in the “Remote site” part of the FileZilla window.

### 12.3 Downloading data from Wireless Professional CPC

First you need to determine a destination for the data which is to be downloaded from the Wireless Professional CPC. This is done in the “Local site” box. The downloaded data is stored in the folder selected at the destination.

**Warning:** We recommend saving the Wireless Professional CPC data to a USB stick. To select a USB stick, proceed as follows: in the “Local site” box use the tree view to navigate to the “media/WLZent/” folder where a connected USB stick will be shown as a folder with its device ID as name and tap on it.

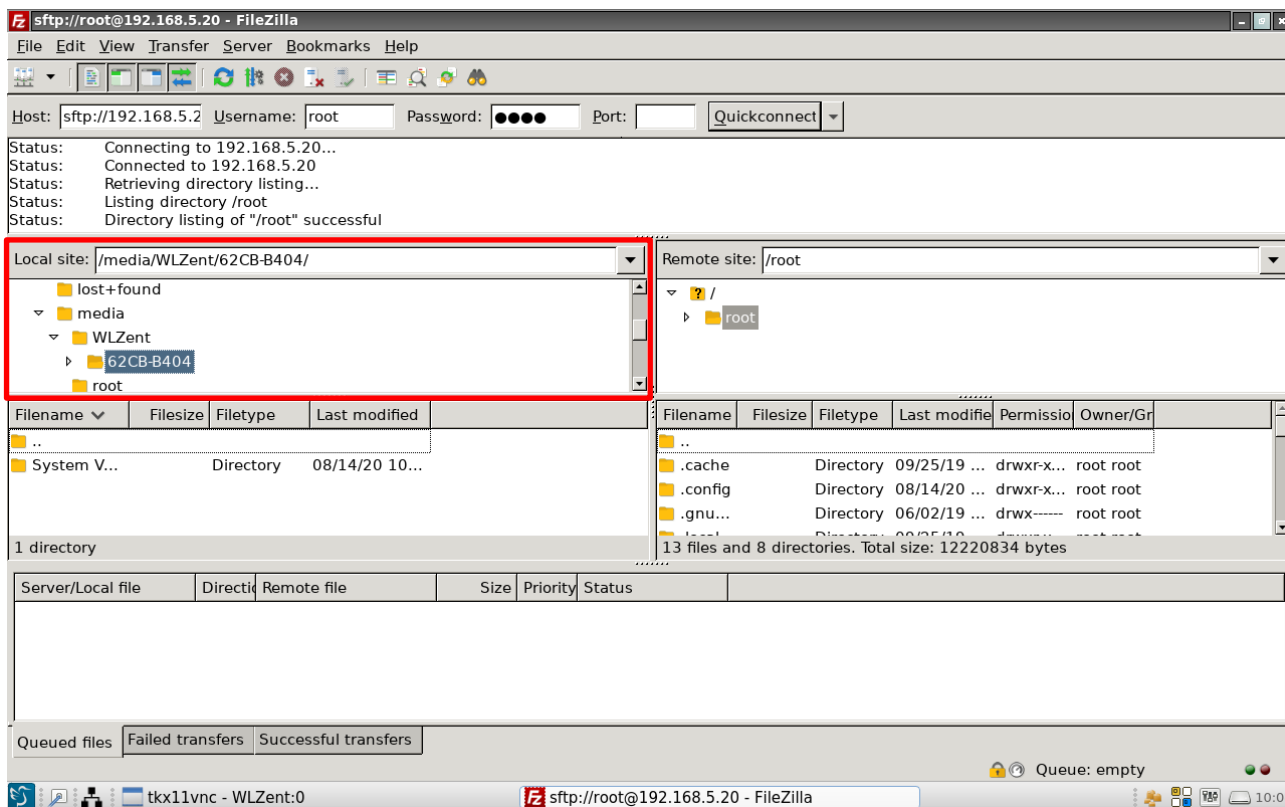


Figure 53 FileZilla USB stick "62CB-B404" selected

**Warning:** The Wireless Professional WLZent only supports FAT-formatted USB sticks.

In the window under the "Remote site" box, select the folder containing the files which are to be downloaded. Press and hold to open the context menu.

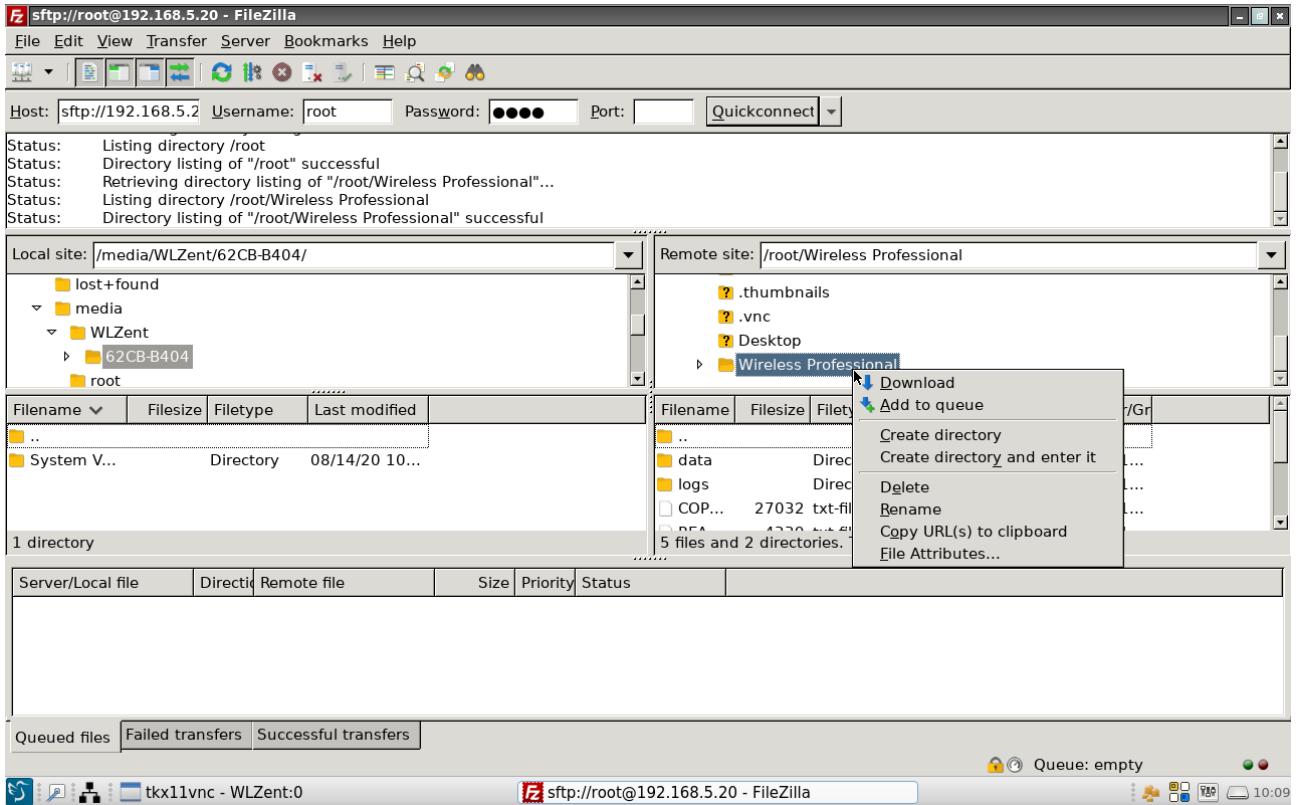


Figure 54 FileZilla Remote site folder context menu

In the context menu, select the “Download” entry to copy the folder or file to the USB stick. During the download, the program indicates progress of the file download.

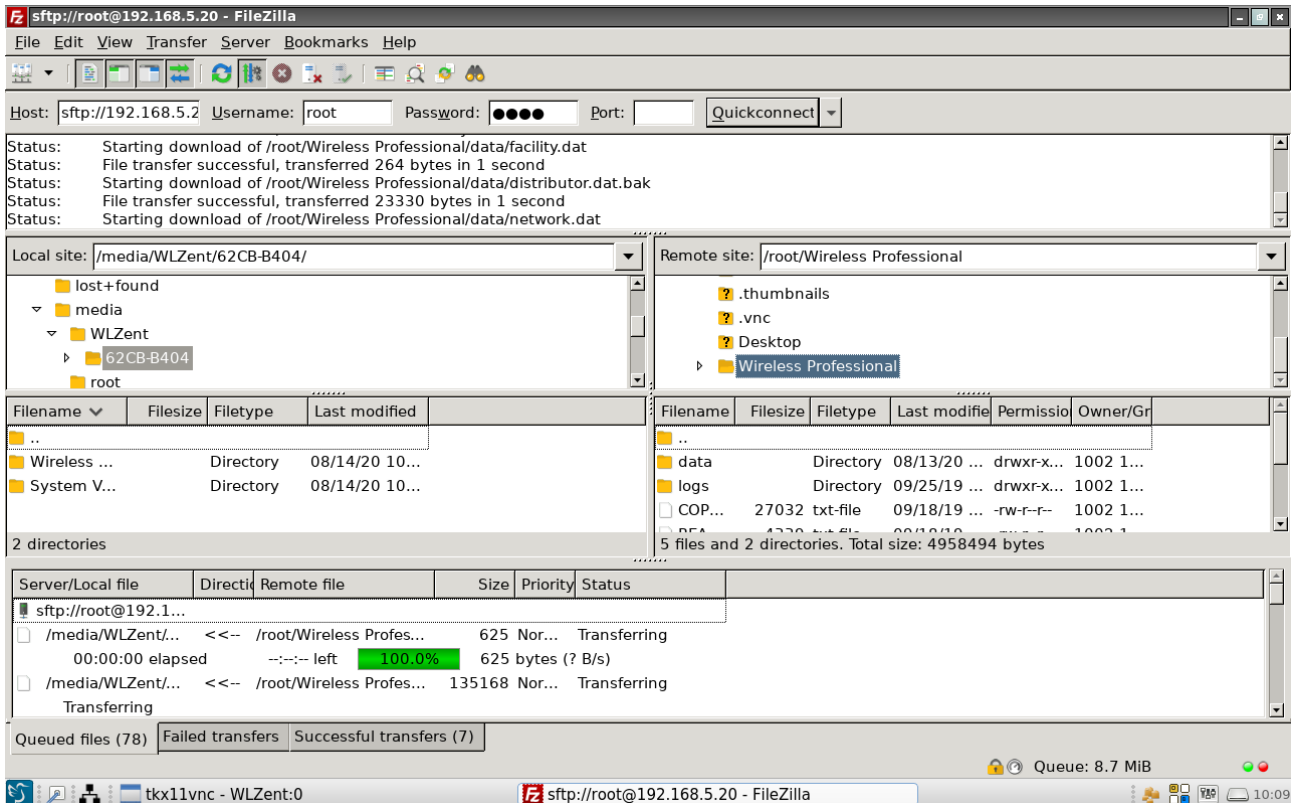


Figure 55 FileZilla download process

Once the download is complete, FileZilla reports that the download was a success (window in bottom right).

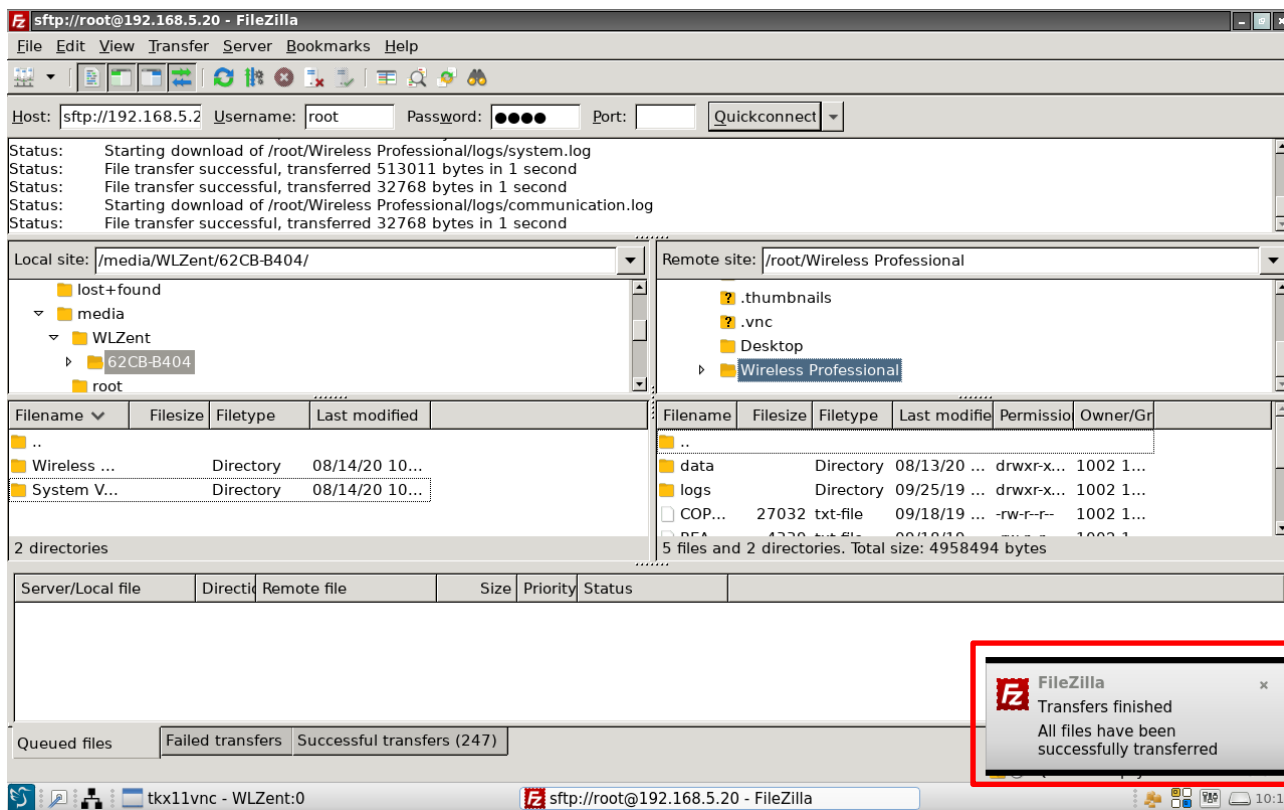


Figure 56 FileZilla download complete



**Warning:** Risk of data loss: Before removing the USB stick from the device, first eject it in the software otherwise there is a risk of data loss on the USB stick. See Section 5.3.

### 12.4 Uploading data to the Wireless Professional CPC

The process for uploading a folder or file to a Wireless Professional CPC from the Wireless Professional WLZent is virtually identical to the download process.

When uploading, you need simply open the folder's context menu on the "Local site" and start the transfer by going to "Upload".

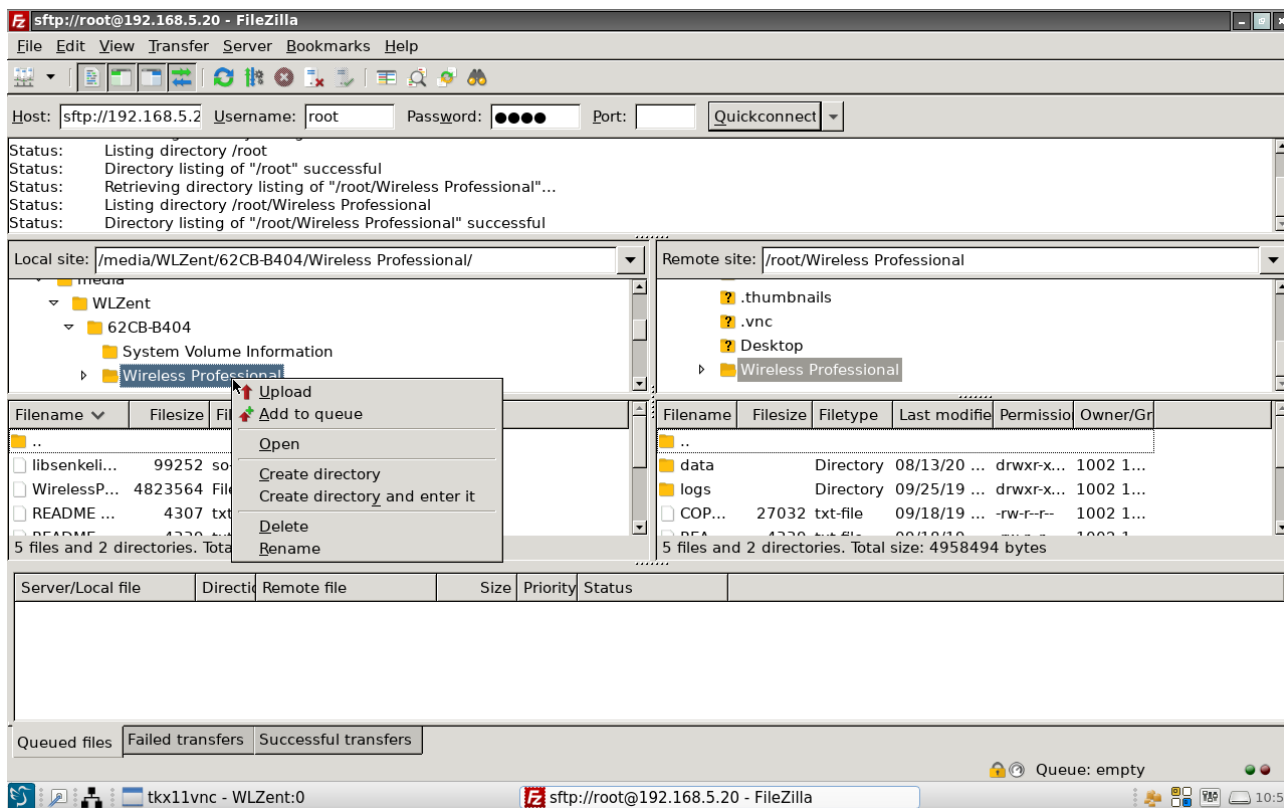


Figure 57 FileZilla Local site folder context menu

Should there already be folders or files on the destination device, you will be asked how you wish to proceed. The files already present are usually replaced. The "Target file already exists" message can therefore be confirmed using the "OK" button.

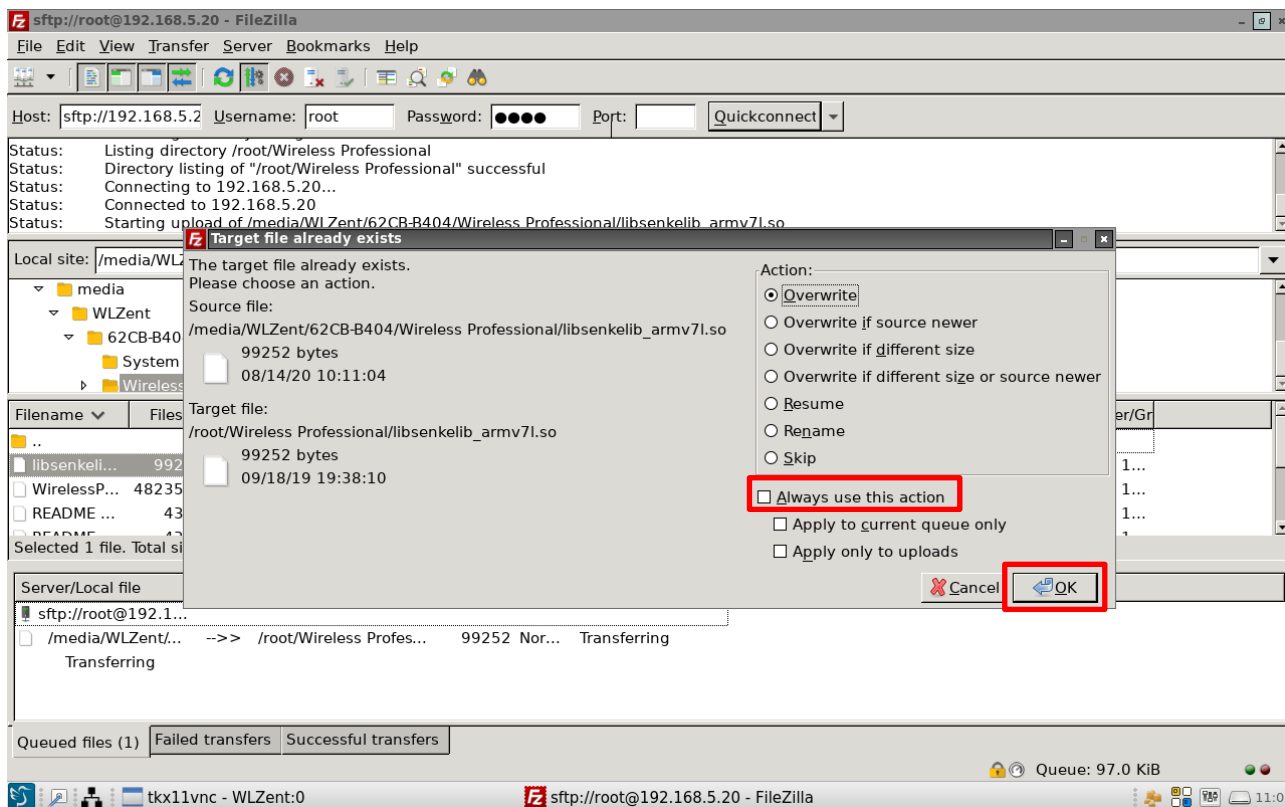


Figure 58 FileZilla Target file already exists window

**Note:** If an upload involves several files that already exist on the destination device, the “Always use this action” option can be selected for replacing all files in the destination folder. If you prefer otherwise, you can decide individually for each file.

### 13 Web Browser

The Firefox web browser is installed on the Wireless Professional WLZent. The web browser is present to allow you to access central battery systems with a web server, such as multiControl plus.

#### 13.1 Launching Firefox

The Firefox browser can be launched using the desktop icon labelled “Firefox ESR” or by going to “Start menu->Internet->Firefox ESR”.

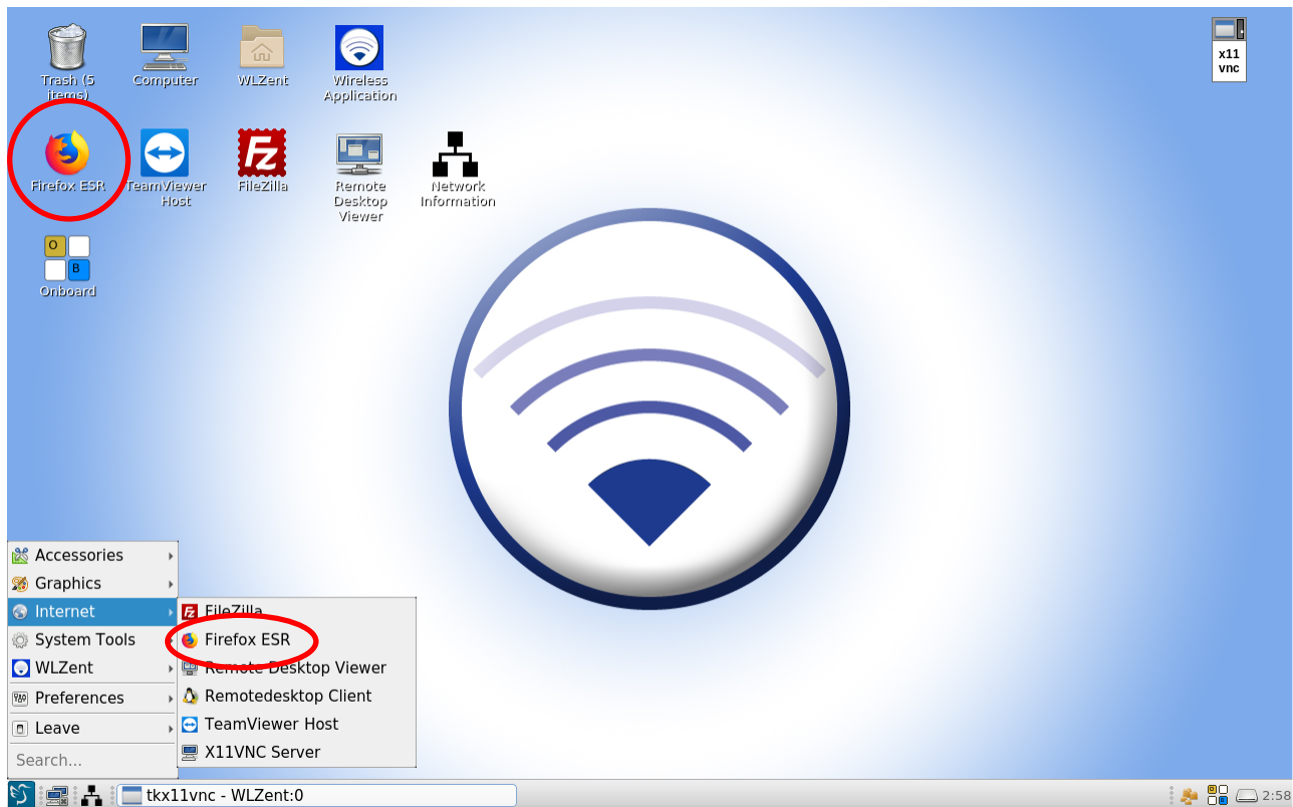


Figure 59 Wireless Professional WLZent Start menu Internet

**Note:** The Firefox web browser takes around 20 seconds to launch.

#### 13.2 Firefox operation

Information about how to operate the Firefox web browser can be found online by going to <https://support.mozilla.org/de/kb/erste-schritte-mit-firefox#firefox:linux:fx68>.



### 14 Software Updates

There is an updater installed on the Wireless Professional WLZent, which allows the operating system and Wireless Professional software to be updated. There is not an automatic software update function on the Wireless Professional WLZent.

The update consists of an update file with the suffix \*.raucb. The update file needs to be copied into the root directory of a FAT-formatted USB stick.

The most recent version of the Wireless Professional software is available to download from:

<https://www.schrack.com/tools/wirelesscontrol-software-update>

#### 14.1 Installing updates

Before the Wireless Professional WLZent update can be run, the operating system has to be rebooted again. Once the Wireless Professional WLZent has been powered up again, plug the USB stick into the USB-Port on the Wireless Professional WLZent. The update program will detect automatically whether there is an update file on the USB stick which is of a more recent version than the one currently running on the Wireless Professional WLZent.

If the software version on the USB stick is more recent than that currently installed, the “wupdate” window opens. Press the “OK” button to start the installation.

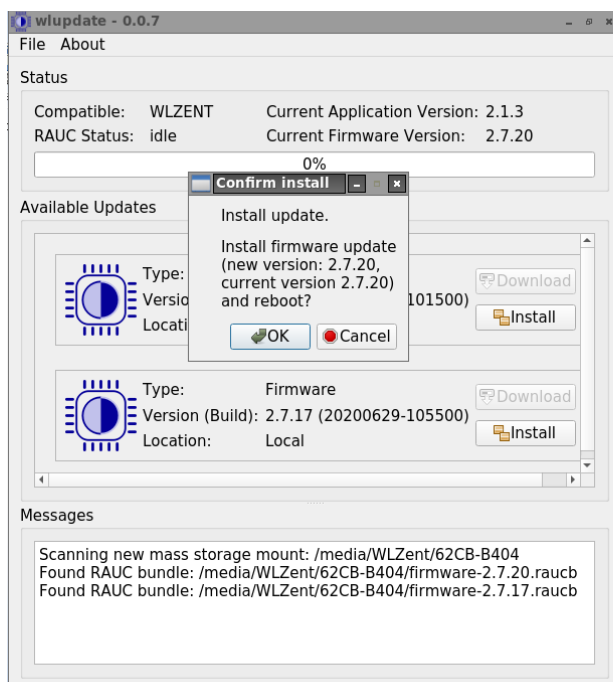


Figure 60 wupdate window

**Important:** If the Wireless Professional software is still running, you will be asked to close it because an update cannot be performed with the Wireless Professional software running.

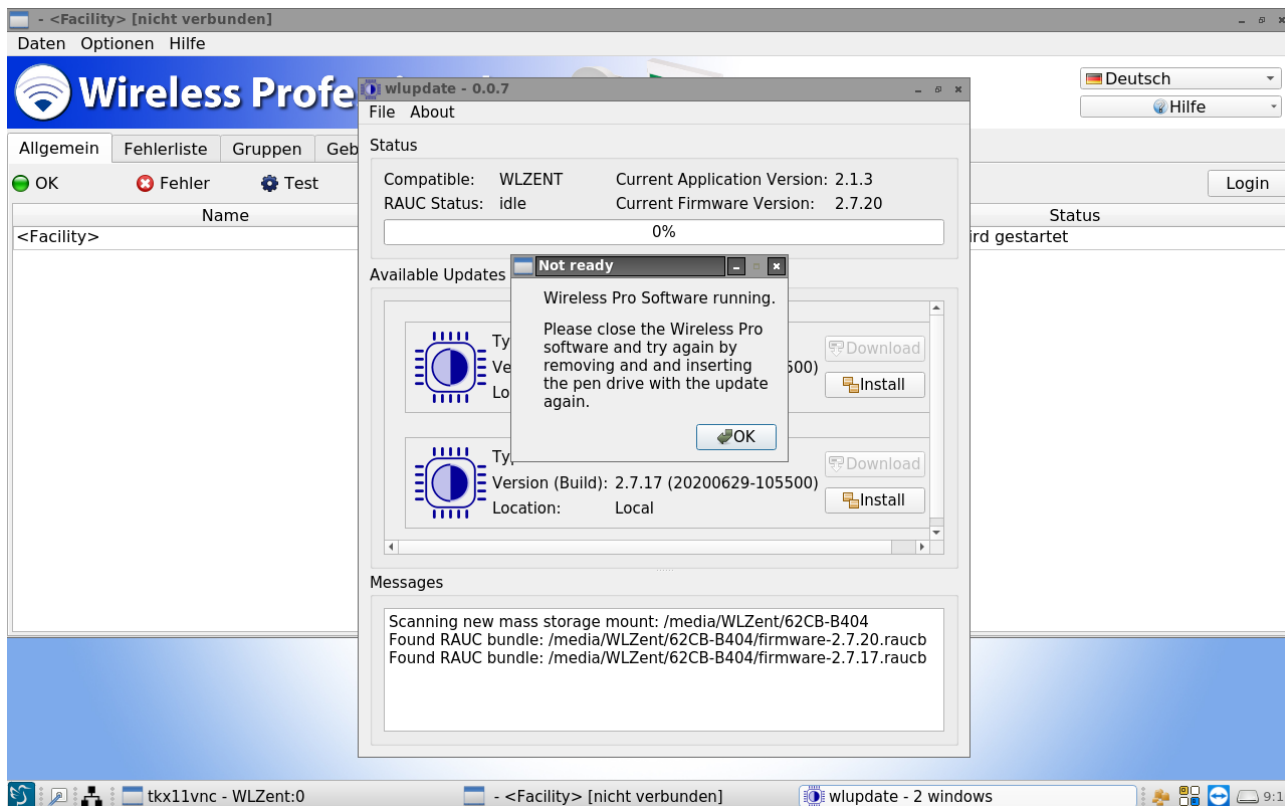


Figure 61 wlupdate window with Wireless Professional software running

If the installed SD card is not available, the update cannot be performed.

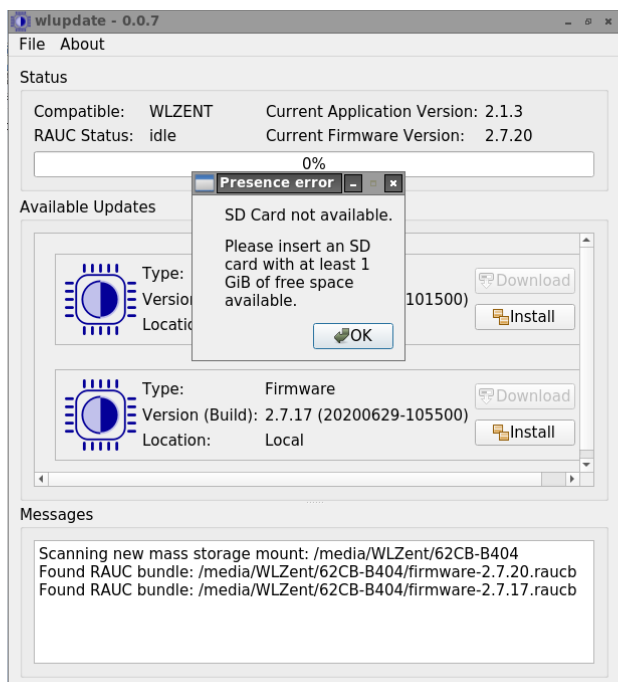


Figure 62 wlupdate SD card not available

Once the “wupdate” window has been confirmed by pressing the “OK” button, the Wireless Professional software can be closed. The “wupdate – 0.0.4” window remains on screen. The update installation can be started by pressing the “Install” button.

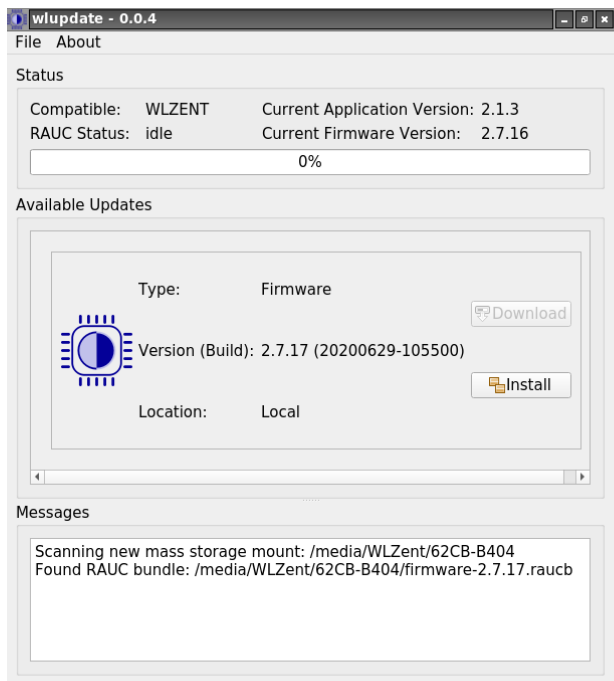


Figure 63 wupdate – 0.0.4 window

The update process is displayed in the update window.

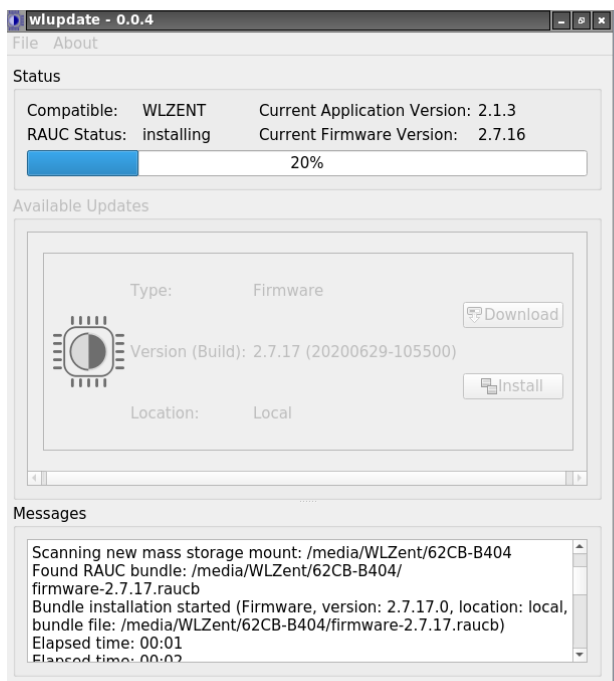


Figure 44 wupdate - 0.0.4 window, update is being performed

Once the update has been completed, the WLZent is rebooted automatically.

### 14.2 Overriding system

If the “wupdate” window is not opened once the USB stick has been plugged in, this may be due to the fact that the version on the USB stick is the same as or older than the version installed on the Wireless Professional WLZent. If this is the case, the updater can be manually launched using the updater symbol on the task bar (🔌).



**Warning:** If an older version is imported, the Wireless Professional software user data may no longer be compatible after the import. Therefore, downgrading is generally not recommended.

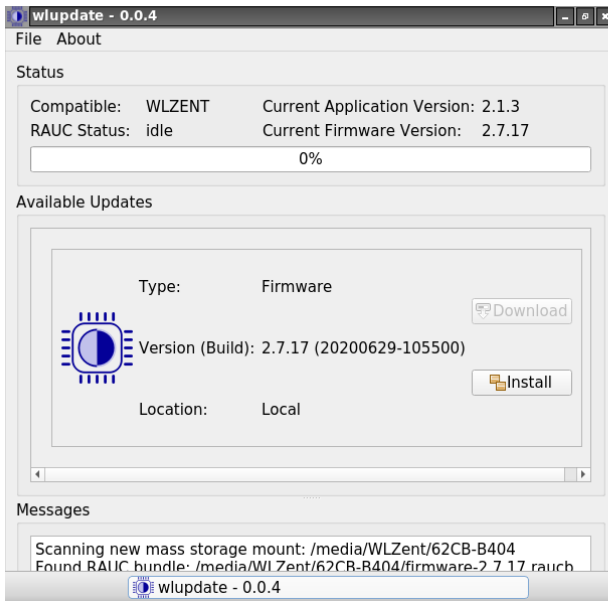


Figure 65 Updater symbol on task bar

The “wupdate – 0.0.4” window is displayed. The update file saved on the USB stick can be copied to the Wireless Professional WLZent by pressing the “Install” button.

If there are several update files saved on the USB stick, a list of the files available is displayed in the “Available Updates” part of the update window.

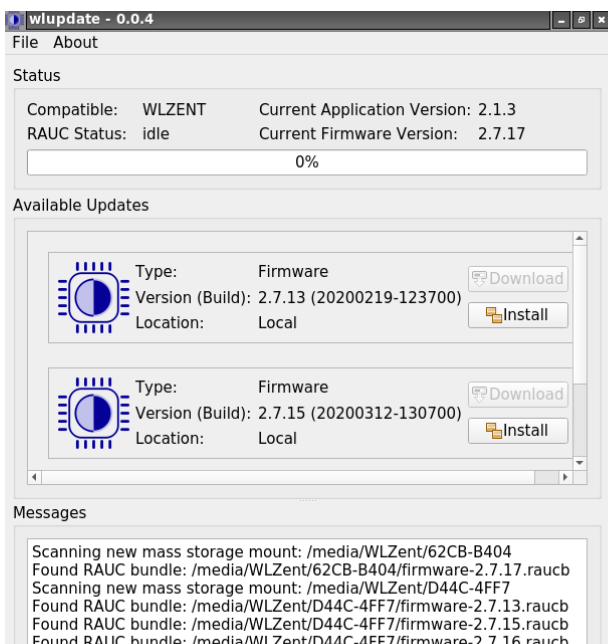


Figure 66 USB stick containing several different update files

### 15 Backing up Wireless Professional WLZent Data

#### 15.1 Automatic backup

A program runs in the background on the Wireless Professional WLZent, which performs a cyclic backup of the Wireless Professional software everyday at 12 midday. The end user cannot influence the program in any way. The backup file is stored on the built-in SD card. The SD card is part of the integrated industrial PC (6).



**Warning:** The SD card should be replaced regularly during maintenance. See maintenance schedule.

#### 15.2 Manual backup

To produce a manual backup copy of the Wireless Professional software, copy the program folder containing the Wireless Professional software onto a USB stick. As described in 10, the file manager can be used to do this. The file manager opens in the “/home/wlzent” folder. The Wireless Professional software is stored in the “wireless” folder. Press and hold this folder to open the context menu.

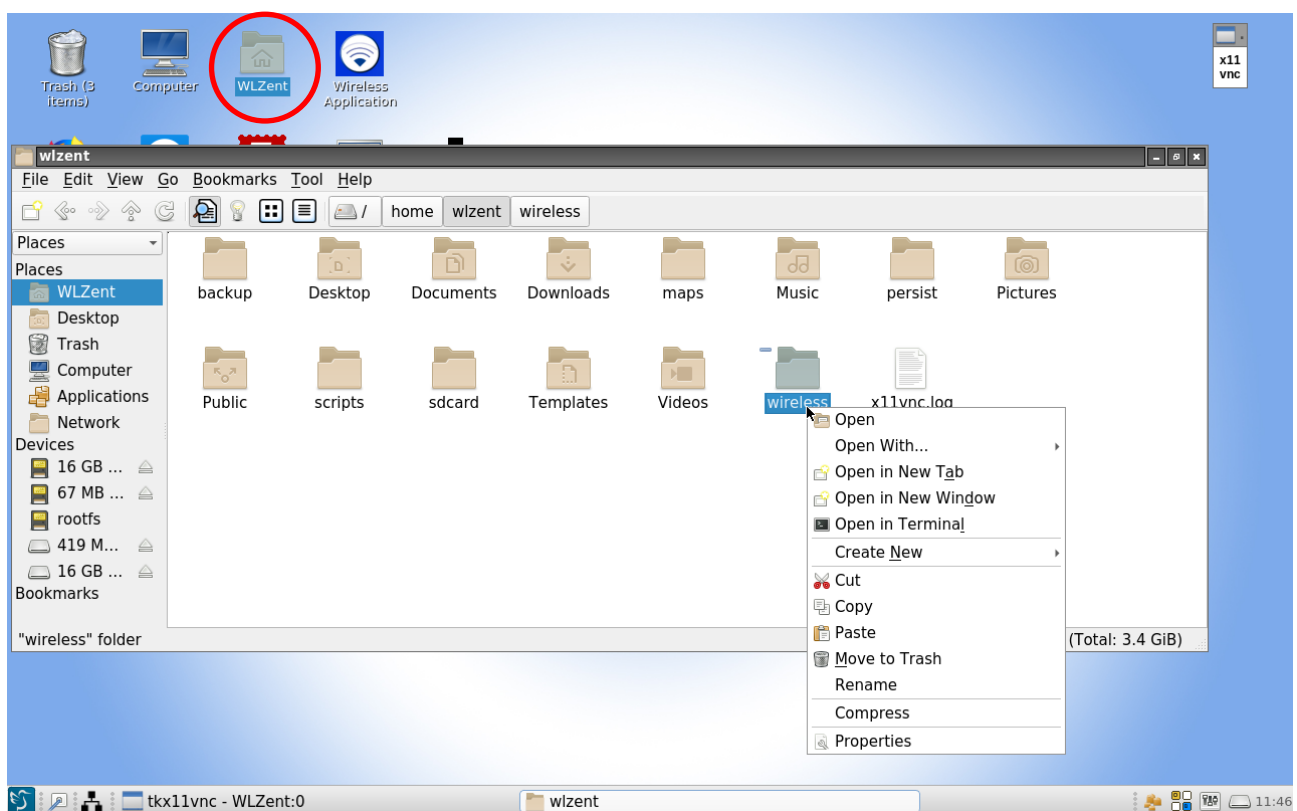


Figure 67 File manager with open context menu for wireless folder

In the context menu, go to “copy” to produce a copy of the folder.



**Warning:** To avoid data loss, first use the “Save System Data” button to manually save the system data in Wireless Professional software.

Once the folder has been copied, select the USB stick as the storage medium. Once the USB stick has been selected, as shown in Figure 10, press and hold the empty area to open the context menu.

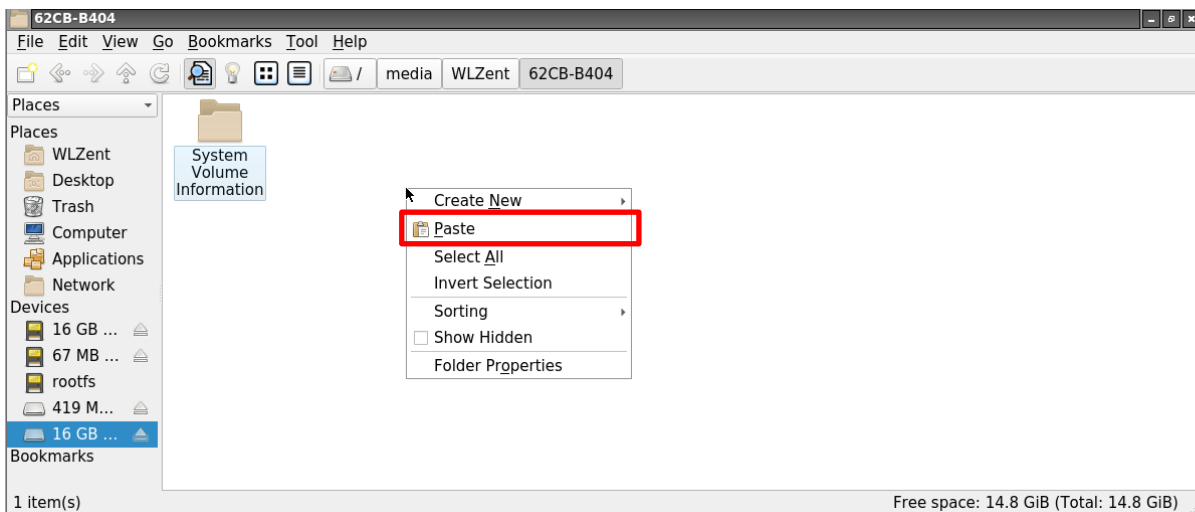


Figure 68 USB stick with open context menu

Tap on "Paste" in the context menu to copy the folder previously copied to here.

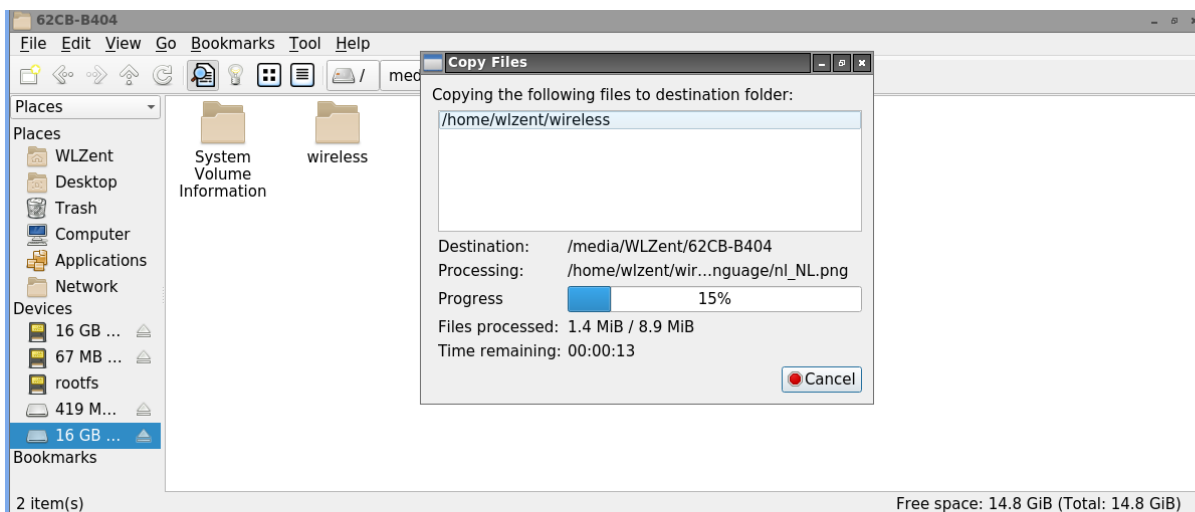


Figure 69 File manager copy process

While the folder's files are being copied, the "Copy Files" window is displayed. This closes automatically once the copy process is complete.

### 15.3 Restoring backup data

Before data can be restored, the Wireless Professional software must be closed.



**Warning:** If data is restored while the Wireless Professional software is still running, the data is not accepted and is overwritten when the system data is saved, or the Wireless Professional software is closed!

#### 15.3.1 Restoring automatic backup data

**Important:** Disconnect the power supply before undertaking the following steps! Open the casing as described in Section 4.2, use a pair of pliers to take the standard SD card out of the card slot on the right above the screen (see Figure below) and replace it with the SD card containing the backup data to be restored.

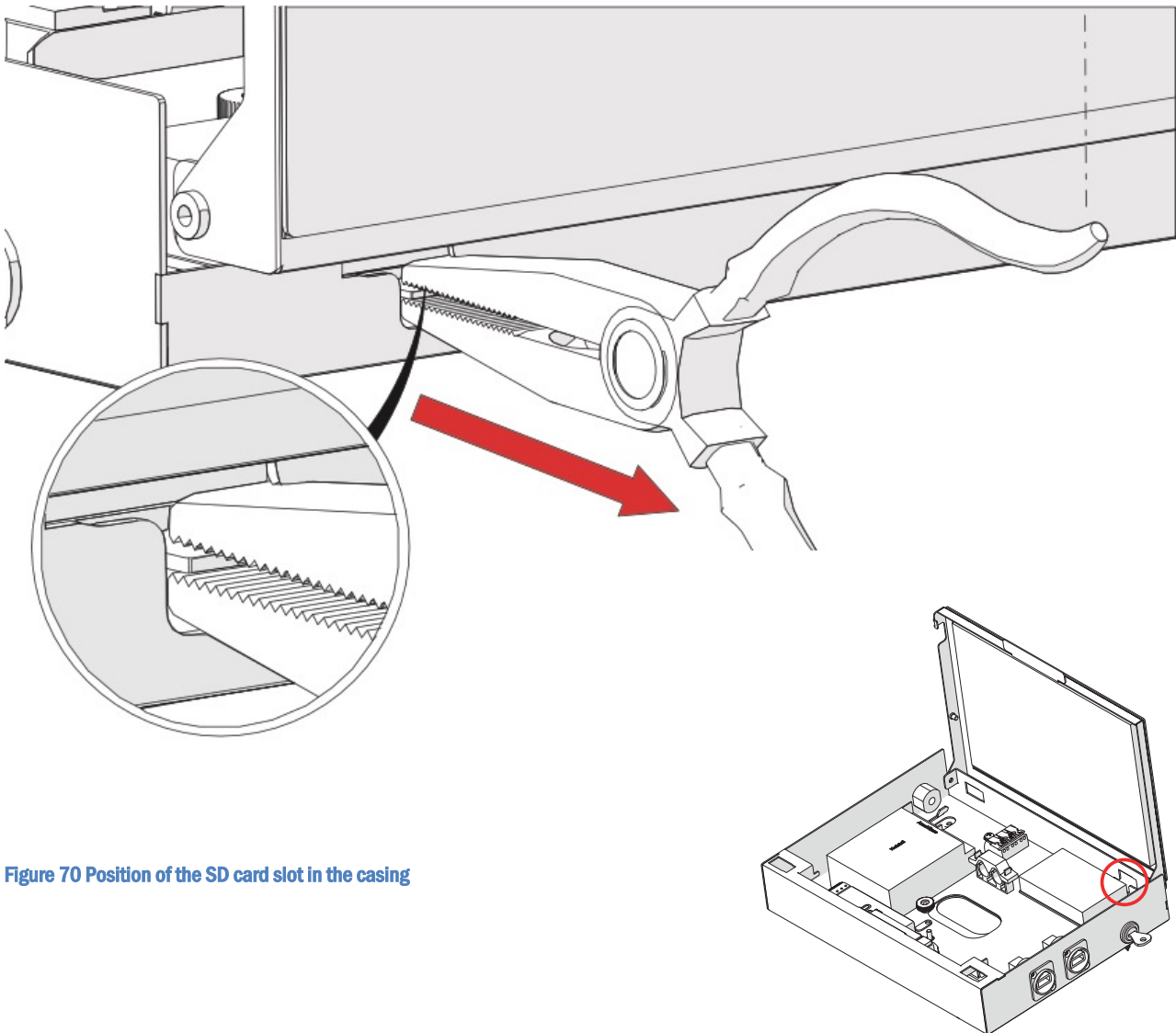


Figure 70 Position of the SD card slot in the casing

The WLZent is rebooted when the power supply is restored. Open the Start menu and go to WLZent -> Restore Wireless Backup.

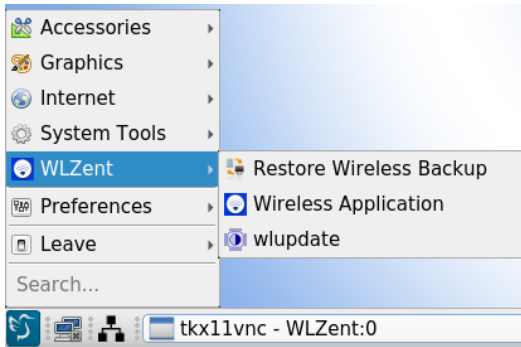


Figure 71 File manager, highlighting all files

The Wireless Professional software is closed automatically, and the backup data is imported from the SD card. Once the data has been restored, the Wireless Professional software launches again.

After restoring the data, the WL Pro software must be closed manually before the WLZent is rebooted. When rebooting the WLZent, the WL Pro software is forced to close and does not save the data.

Then reboot the entire WLZent by going to Start menu -> Leave -> Reboot to save the changes to the database.

### 15.3.2 Restoring manual backup data

To ensure that the Wireless Professional WLZent and Wireless Professional software run perfectly, only user data and log files from a backup of the Wireless Professional software may be copied manually into the Wireless Professional WLZent, as described in the following sections.



**Warning:** A backup folder produced manually must not be copied back onto the Wireless Professional WLZent!

#### 15.3.2.1 Copying back log files

Log files are stored by the Wireless Professional software in the “logs” folder. The content of the “logs” folder should be copied into the “wireless” backup folder on the USB stick.

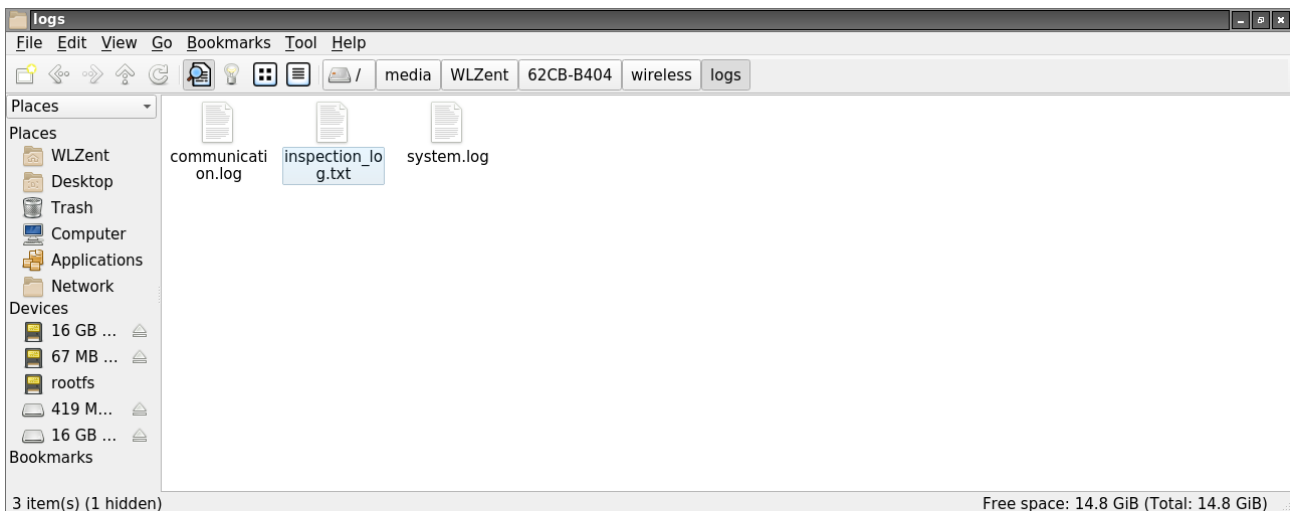


Figure 72 Content of logs folder in wireless backup folder on USB stick

To copy the entire content of the folder, select “Edit->Select All” in the title bar. All files in the folder are then copied.



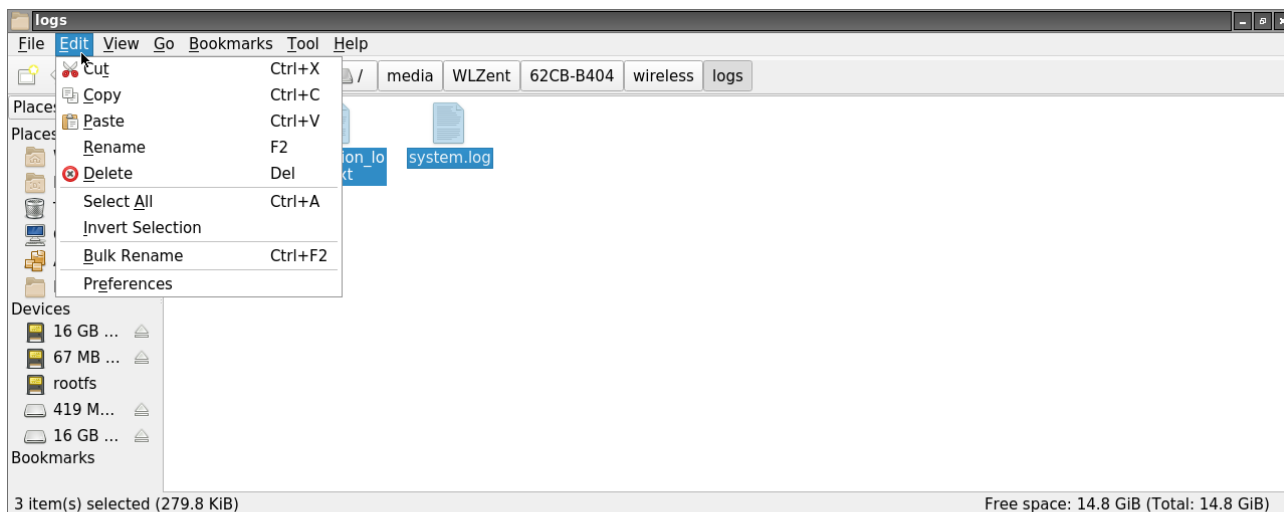


Figure 73 File manager, highlighting all files

If all files are highlighted, select “Edit” again in the title bar. Go to “Edit->Copy” to produce a copy of the files.

The copied files should replace the content of the “logs” folder in the “wireless” folder on the Wireless Professional WLZent.

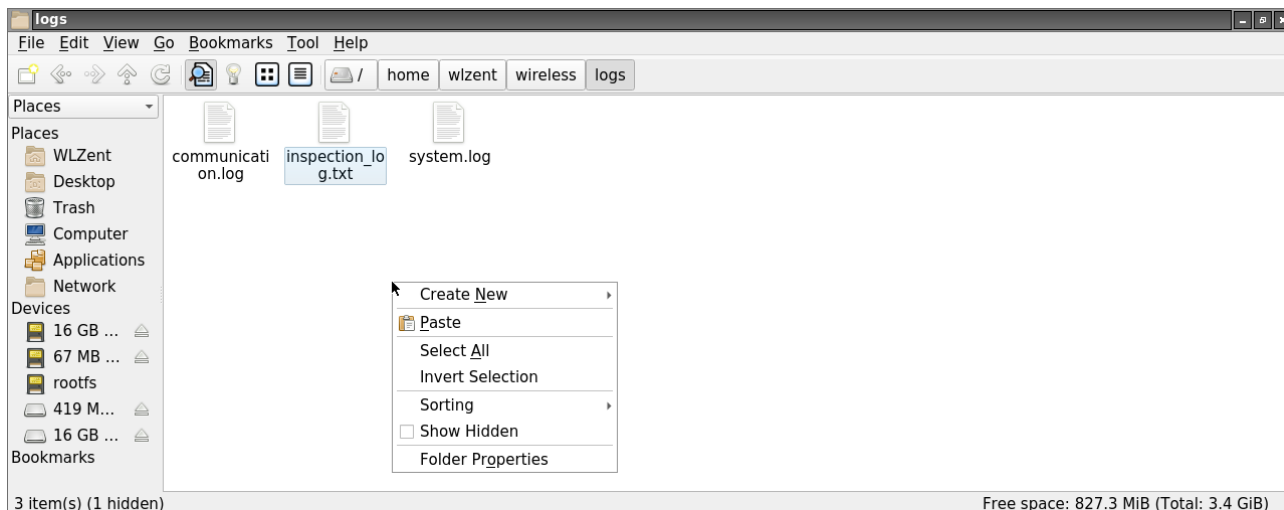


Figure 74 logs folder in wireless directory on Wireless Professional WLZent

To start the copy process, open the context menu in the “logs” destination folder and select “Paste”. Because the folder already contains files, when the copy process is started, the “Confirm to replace files” window appears.

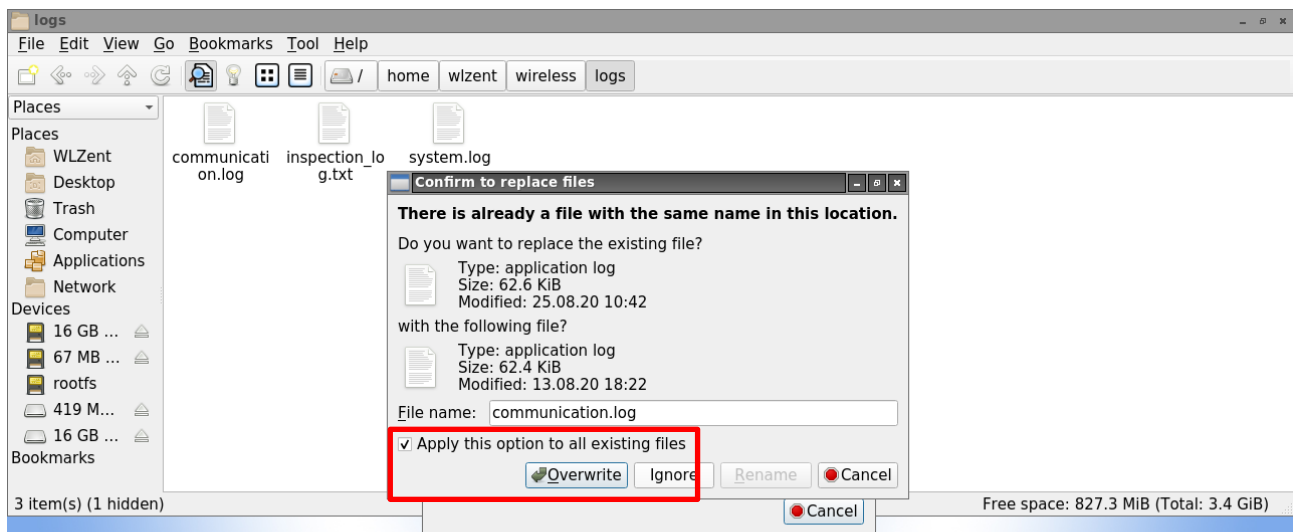


Figure 75 Confirm to replace files window

Tick the box in front of “Apply this option to all existing files” in the “Confirm to replace files” window and confirm by tapping on “Overwrite”. The log files from the backup now replace the log files present on the Wireless Professional WLZent.

### 15.3.2.2 Copying back database

The Wireless Professional software uses a database to manage system data. The database files are located on the USB stick in the “wireless/data/” backup folder.

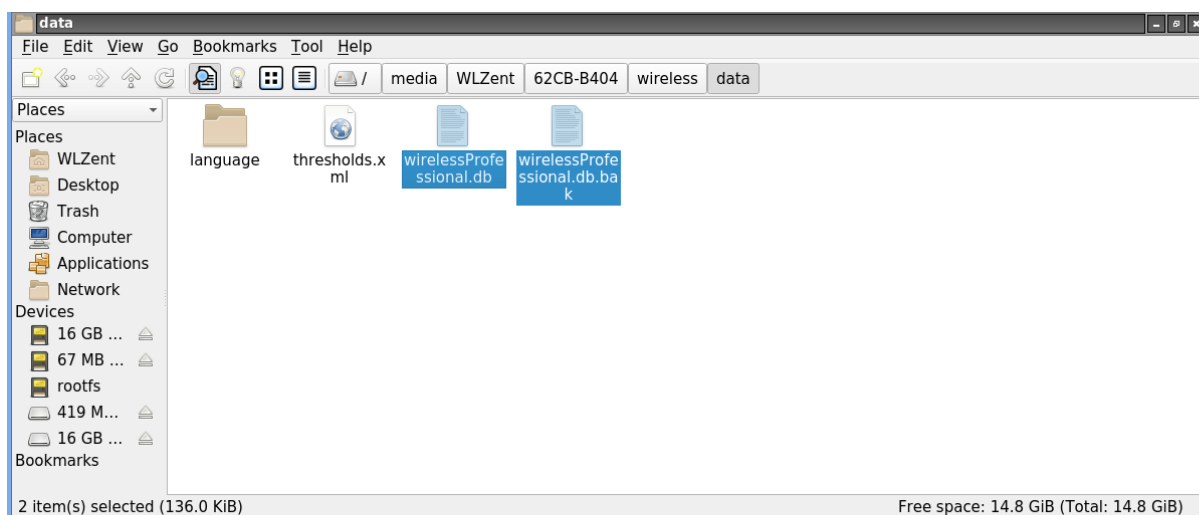


Figure 76 data folder in wireless backup folder on USB stick

The “wirelessProfessional.db” and “wirelessProfessional.db.bak” files must be copied back into the “data” folder in the “wireless” folder on the Wireless Professional WLZent.

Perform the copy process as described in 56.

### 16 Adding and Updating Language Files

The Wireless Professional software is supplied with various languages pre-installed.

Additional or more recent language files for the Wireless Professional software can be installed. To install the language file on your WLZent, save the package for the relevant language on a USB stick.

Before the installation, close the Wireless Professional software. Then plug the USB stick into the WLZent. Using the file manager, now call up the installation file for the language package (\*-Installer.bat) and confirm that you want to run the file in the terminal.

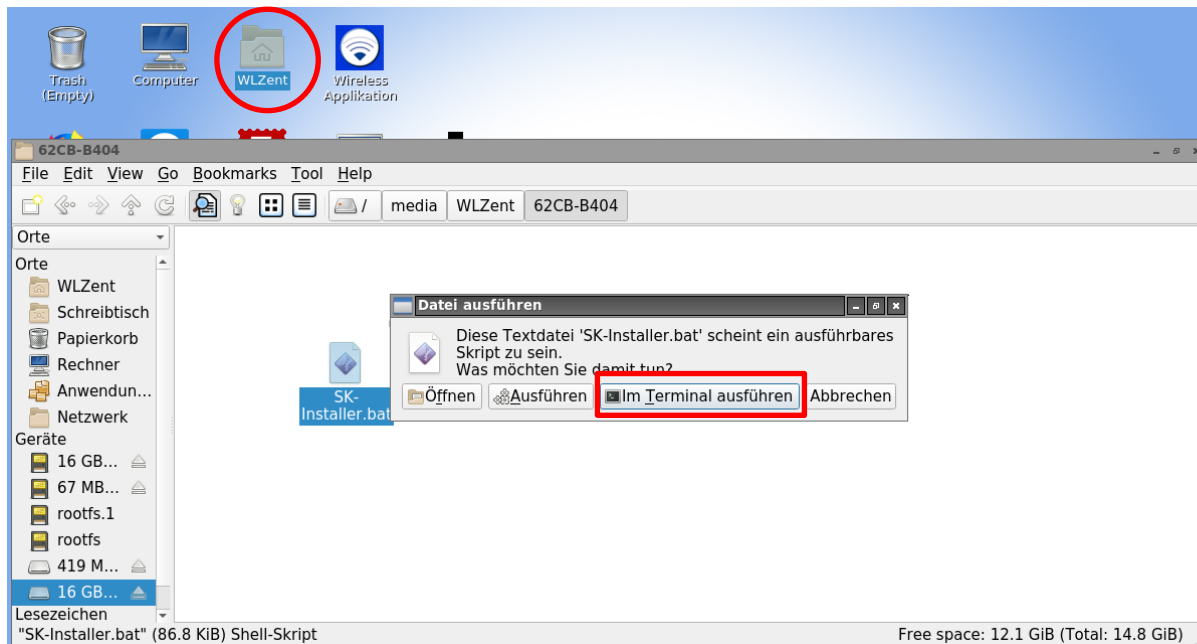


Figure 77 Running the installation script for additional languages

The installation runs automatically. Once the installation is complete, a message to this effect appears in the terminal window.

Now relaunch the Wireless Professional software. The newly installed language now appears in the language menu and can be selected.

### 17 FAQ

#### 17.1 What devices can be connected to the USB socket?

Hubs, USB storage media and external input devices, such as a keyboard or mouse.

#### 17.2 Can additional software be installed on the device?

Further software can be installed but requires detailed knowledge of Linux. As a rule, only software approved for this purpose by the manufacturer may be installed on the device.



**Warning:** If third-party software or software not approved by the manufacturer is operated on the WLZent, it will not be covered by the warranty. The manufacturer does not assume liability for data loss or damages resulting from malfunction if third-party software or software not approved by the manufacturer is operated on the system. What's more, the manufacturer does not provide support of any kind for installing and running third-party software.

#### 17.3 Are software updates automatically downloaded from the Internet?

No.

#### 17.4 Is a backup to a network drive possible?

Yes. A manual backup can also be saved to network drives.

### 18 Revision History

WirelessControl - Installation and Software Operation		
Date	Software version/Revision	Comments/Important changes compared to the previous version
25.08.2020	1.0	Creation

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Identification number: 011220

Date of issue 01.12.2020

This user manual describes software version 2.3

Publisher: Schrack Technik GmbH

Seybelgasse 13, A-1230 Wien

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