	ekey® TOCAnet 3.0 – Step by Step	Version:	1.0
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	Help for ekey® TOCAnet Admin	printed:	2007-10-12

Training Script

ekey® TOCAnet 3.0 – Step by Step
Help for ekey® TOCAnet Admin

VERSION:	1.0
CONFIDENTIALITY:	Public
STATUS:	Released
AUTHOR:	Günther Pichler
APPROVED:	Manfred Brunner
COPY:	
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ekey® TOCAnet

1. General

ekey® TOCAnet connects several biometric access systems („Terminals") together and builds a network which allows an easy handling and administration of users, terminals, time frames (access times), calendars and access rights.

2. ekey® TOCAnet system components

ekey® TOCAnet consists of several components:

Hardware:

- **ekey® TOCAnet scanner**

The finger will be scanned and the matching takes place here, in order to check if the finger has access permission or not.

- **ekey® TOCAnet controlpanel**

The ekey® TOCAnet controlpanel serves the defined events – eg.: "Open the door with a finger".

- **ekey® CONVERTER LAN**

Here data are converted from bus RS485 into LAN so that the system components can communicate with each other. Additional the ekey® CONVERTER LAN now is responsible for time critical tasks in the system

- **ekey® BIT**

It is connected to PCs and reads the fingerprints.

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Software:

- **ekey® Communicationserver**

This service is responsible for communication between all software components of ekey® TOCAnet. Within the first installation of a software component, the ekey® Communicationserver service will be installed automatically. If it is stopped, then automatically also the ekey® TOCAnet Masterserver service and the ekey® TOCAnet Terminalserver service terminates.

- **ekey® TOCAnet Masterserver**

Here system data are stored centrally (personal data, terminal data, access data, …). In each ekey® TOCAnet installation only <u>one</u> Masterserver can be active.

ekey® TOCAnet Masterserver runs as a system service in the background and does not need any user interactions!

- **ekey® TOCAnet Terminalserver,**

Distributes the access data from ekey® TOCAnet Masterserver to the terminals via RS485 buses, controls the units , etc. In any installation an unlimited amount of ekey® TOCAnet Terminalservers can be active. (Within the usage of ekey® CONVERTER LAN components, you are able to serve communication with a branch office without an ekey® TOCAnet Terminalserver).

The ekey® Communicationserver, ekey® TOCAnet Masterserver and the ekey® TOCAnet Terminalserver run as a system service in the background and does not need any user interactions!
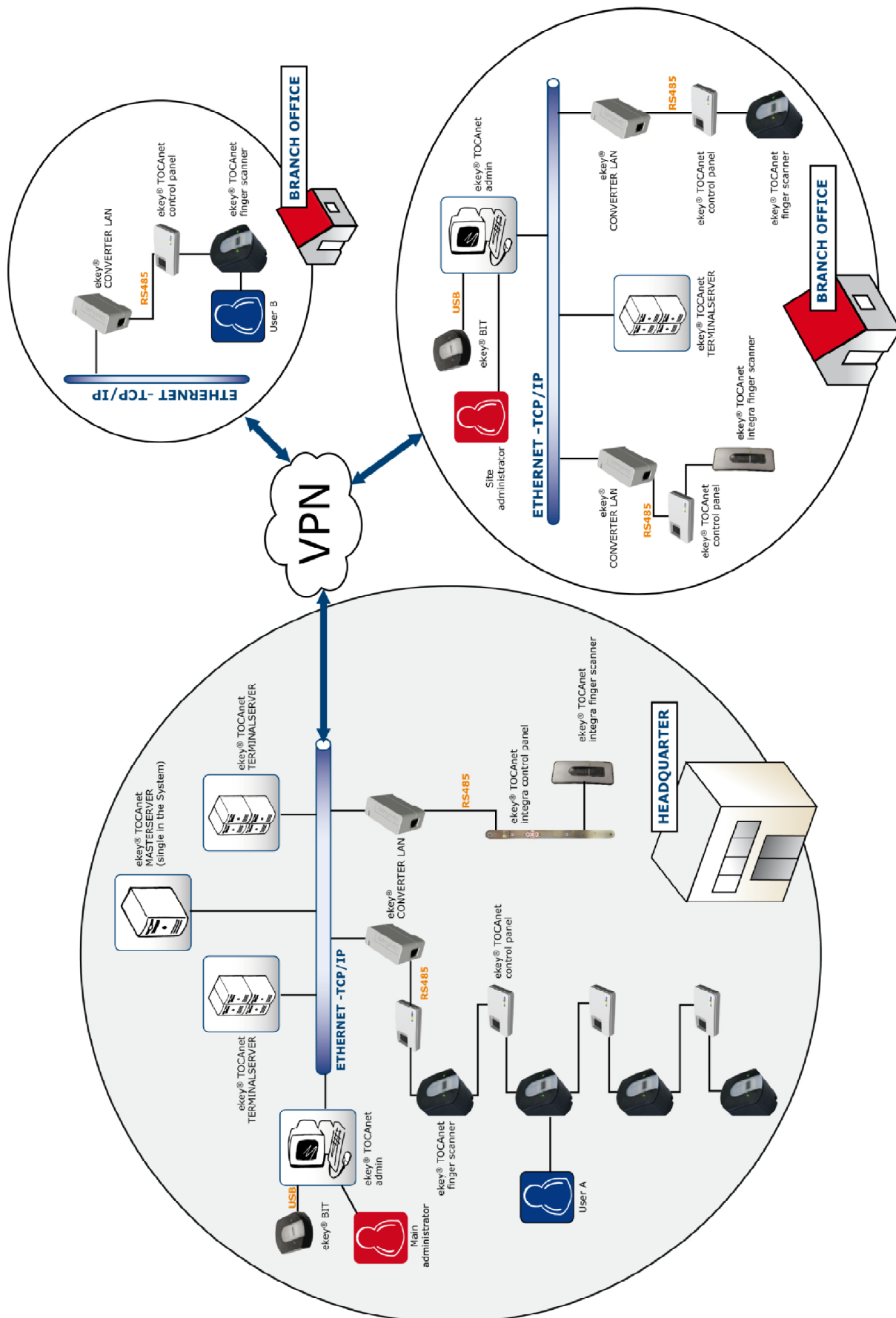
- **ekey® TOCAnet Admin**

This program can be installed on any amount of computers and is used by the ekey® TOCAnet administrators for administrating ekey® TOCAnet.

There is a large amount of possibilities:

- o **new users registration**
- o **time frames registration**
- o **permissions registration**
- o **and so on ………**

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3. Example of an ekey® TOCAnet system topology

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4. Manually Upgrading from Version 2.5.5 to 3.0.0

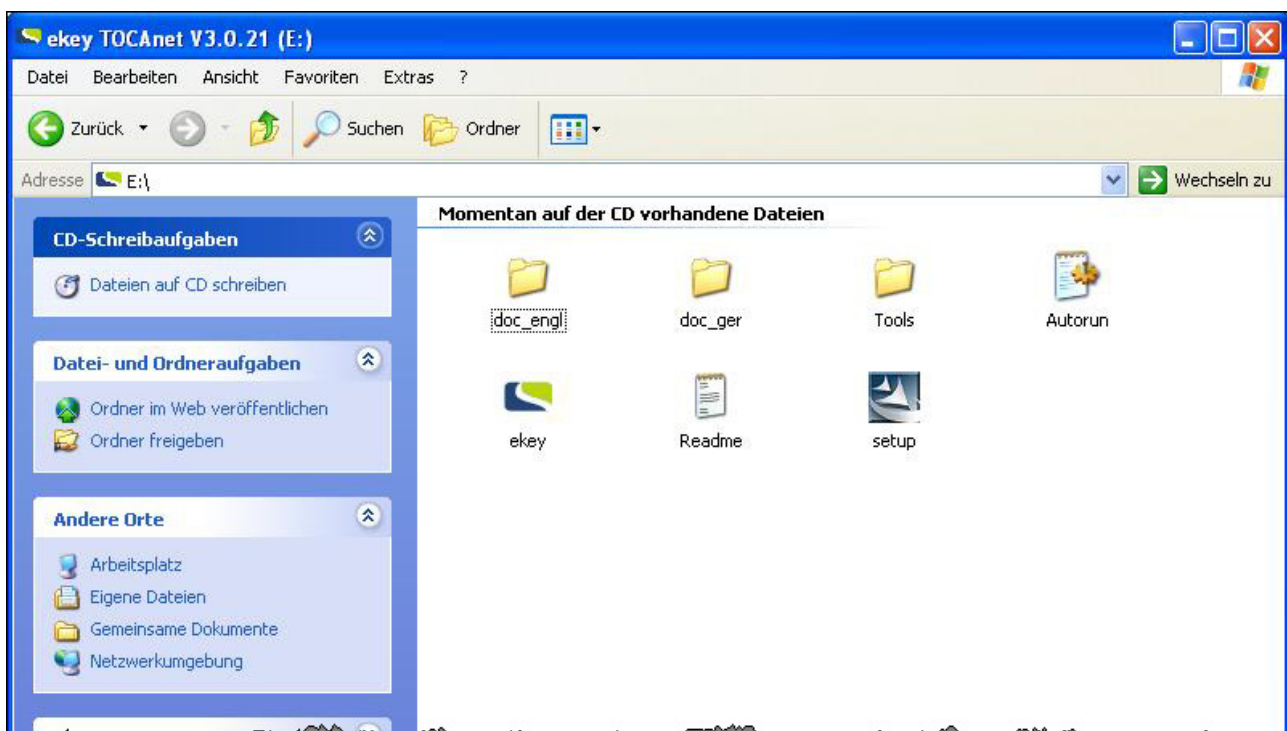The update is to be carried out step by step via each of the following system components:

- user applications
- ekey® CONVERTER LAN
- devices (ekey® TOCAnet scanner and ekey® TOCAnet control panels)
- ekey® TOCAnet Terminalserver service

Please proceed exactly as described!

CD content:

You will find the following files on the CD provided by ekey® with version 3.0.21:

- **Setup.exe**   TOCAnet 3.0 installation
- **Readme.txt**   Please read, important information about TOCAnet 3.0
- **Autorun.inf**   Automatic start when inserting the CD
- **ekey.ico**   ekey icon
- **doc_engl**   Documentations and
- **doc_ger**   tools in addition to
- **Tools**   TOCAnet 3.0

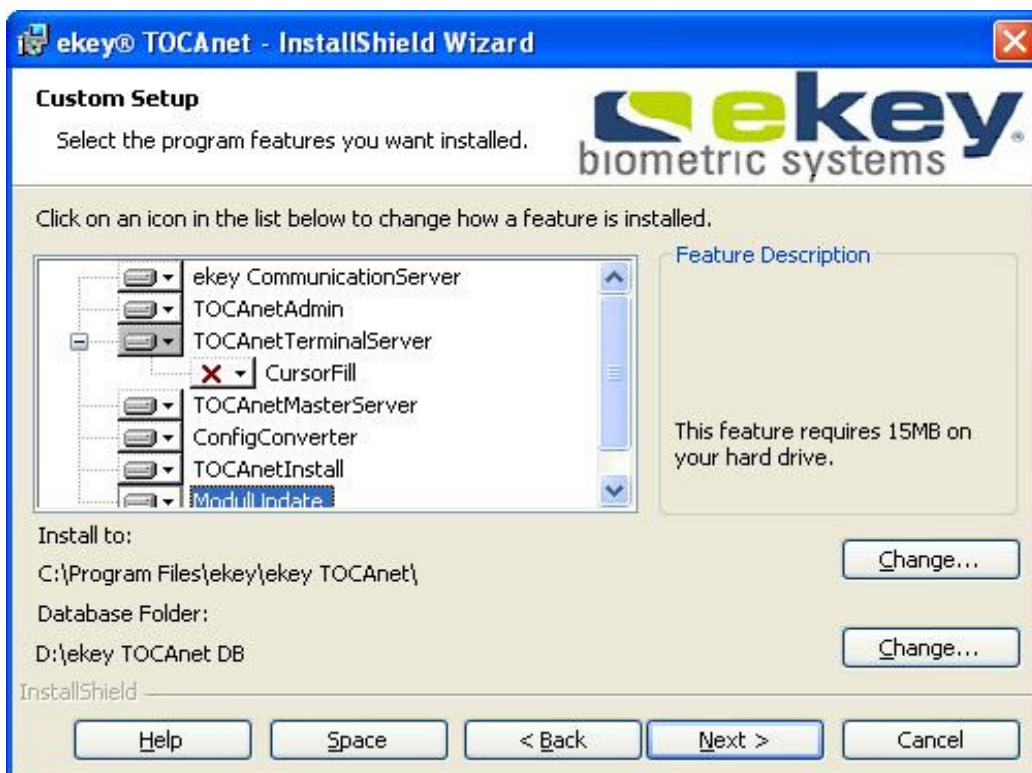|	ekey® TOCAnet 3.0 – Step by Step	Version:	1.0
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Step 1

On the provided CD you will find the program file

SETUP.exe

Please run this program.

Step 2

Check the selected components and if the installations paths are accurate.

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The installation may take a few minutes as windows components also need to be installed.
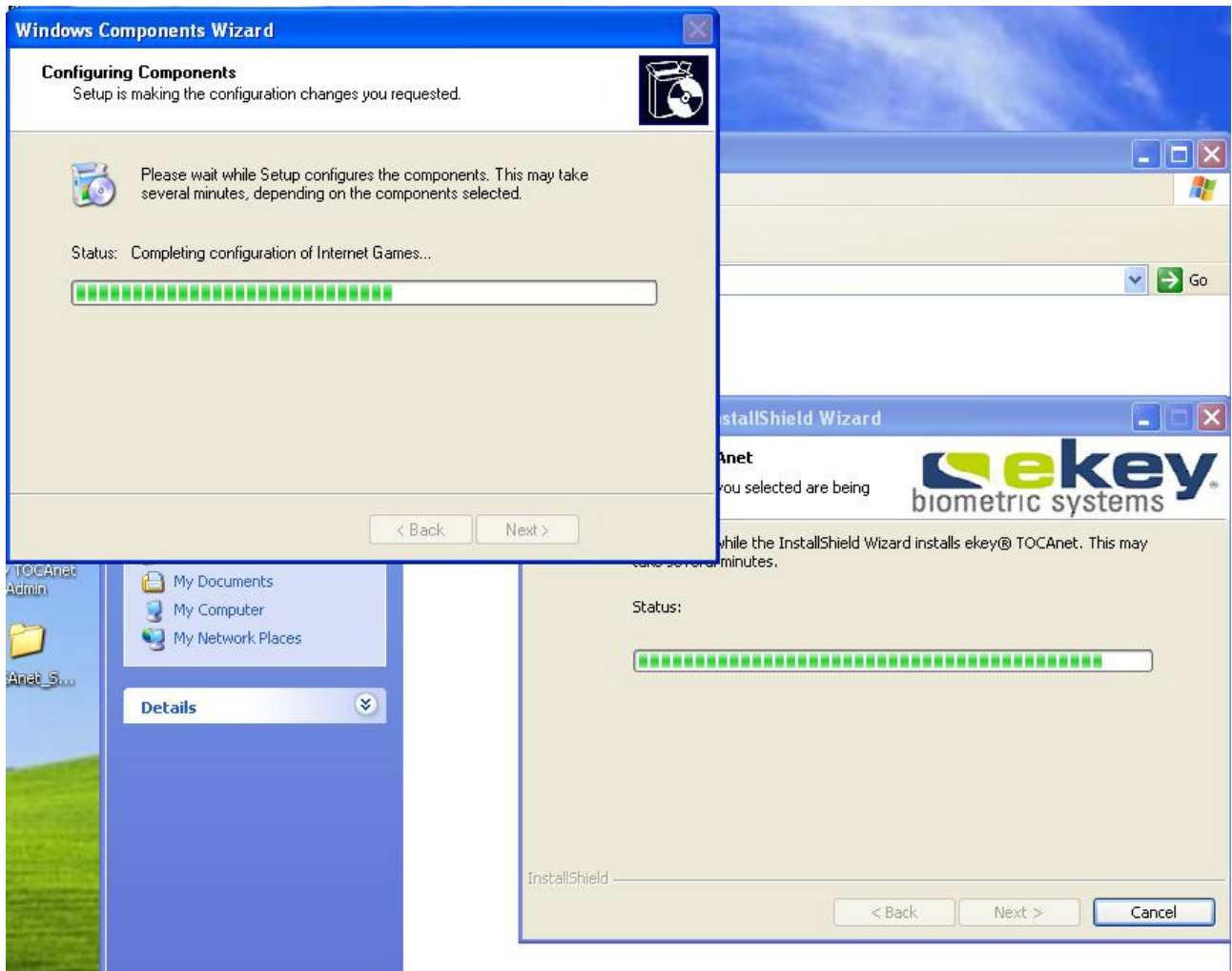
!! The „ekey® TOCAnet Terminalserver"service is stopped and uninstalled when running the Setup.exe. Please do not reinstall it at this moment - in no way! This will be done later!!

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Step 3 - Configuration of the ekey® CONVERTER LAN

The Converter are basically configured by the ekey® TOCAnet Terminalserver. But you have to assign the correct IP-adress according to your physical subnet. To do this please start the application„ekey® CONVERTER LAN config" from the softwaregroup ekey\ekey TOCAnet:
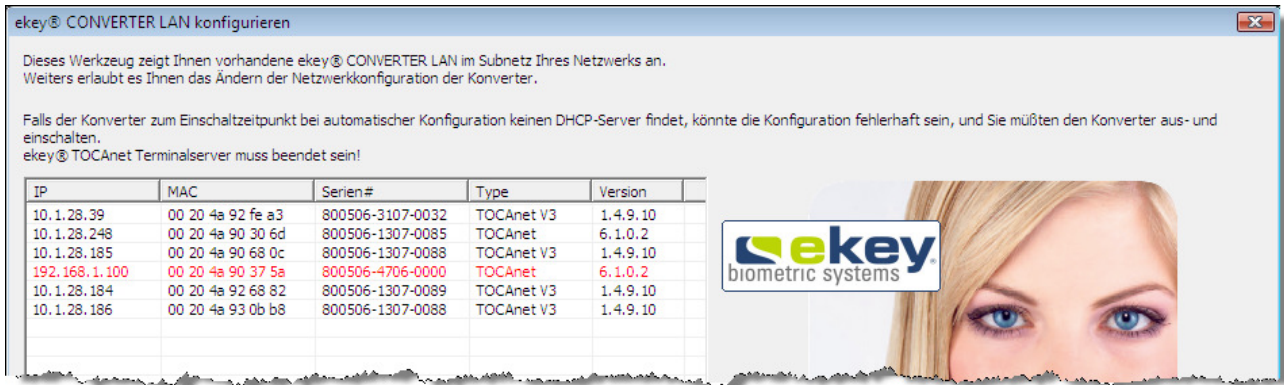
All reachable ekey® CONVERTER LAN in the physical network will be found automatically and shown in the left window area.
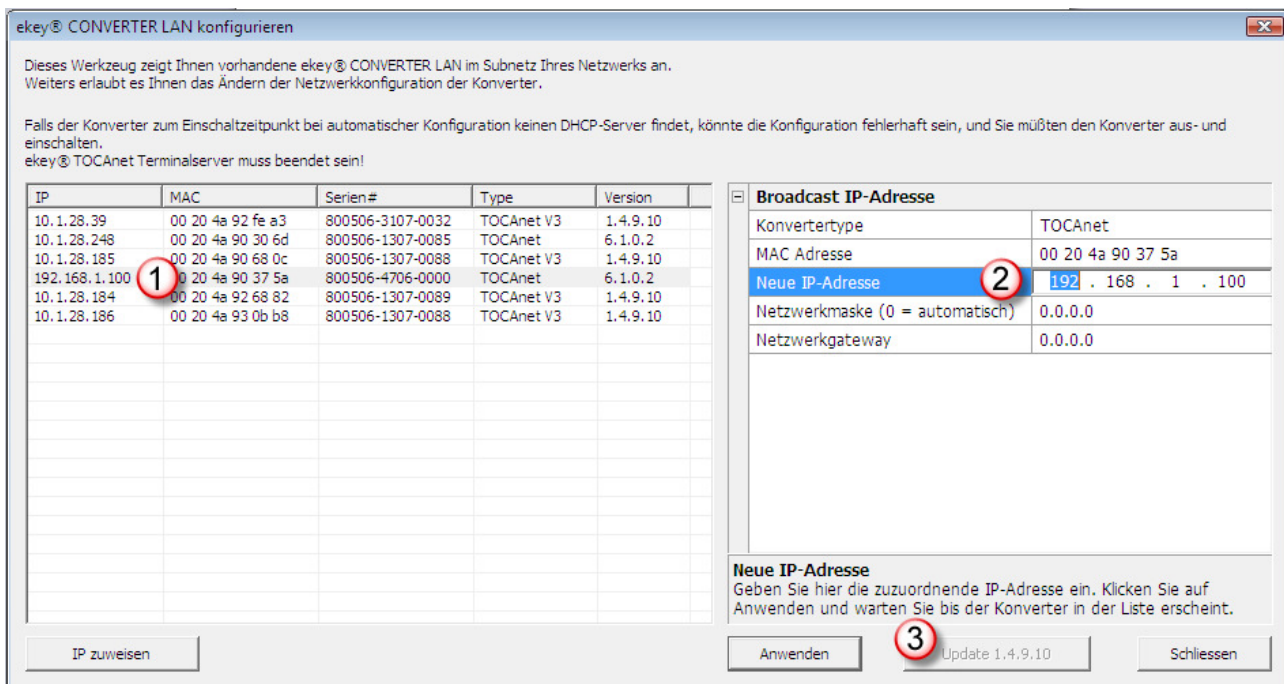
① Choose the ekey® CONVERTER LAN you´d like to administrate,

② set the correct IP-adress and

③ update the firmware.

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Step 4 - ModuleUpdate for scanners and control panels

Now after all converters are reachable, please start the application „ModuleUpdate" from the softwaregroup ekey\ekey TOCAnet:
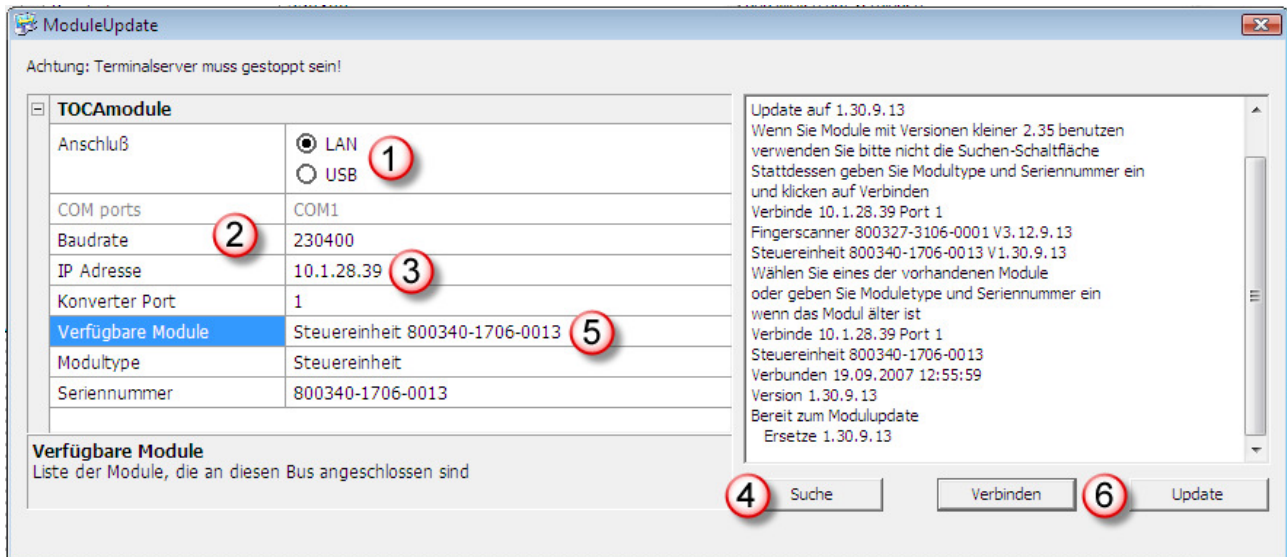

① Choose „LAN" for the local network connection

② Select the correct baudrate: ekey® TOCAnet: 230400

③ Enter the IP address of the desired converter

④ Click on Search and wait until the RS485 components are listed

⑤ Select the first component

⑥ Click Connect and then on Update

Repeat these steps until all components have been updated to the latest firmware.

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Step 5

Now install the ekey® TOCAnet terminalserverservice.

Start the **ekey TOCAnet terminalserver**in the start menu in „ekey\ekey TOCAnet.
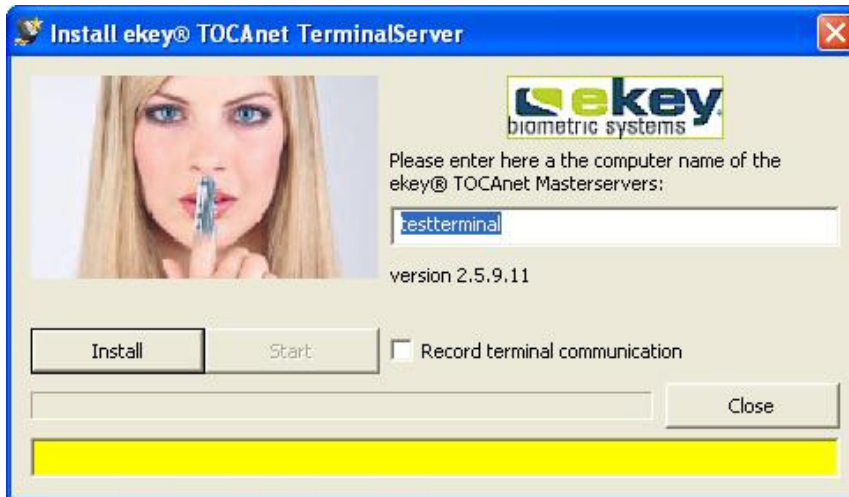
Step 6

Now start

TOCAnetAdmin.exe

and check all the settings and the hardware configuration.

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5. Help for ekey® TOCAnet Admin

ekey® TOCAnet incorporates several distributed biometric entrance systems ("terminals") into one powerful network and allows comfortable administration of companies, users, terminals, time frames and entrance authorisation direct on your PC.

If you want special support with projecting and installing an ekey® TOCAnet system, we recommend visiting an ekey® TOCAnet training event. You can find details about them at www.ekey.net.

Some general functions as well as the use of the multifunction toolbar application (it has the look and feel of Microsoft Office 2007) can be found here:

Import- and Exportfunction:
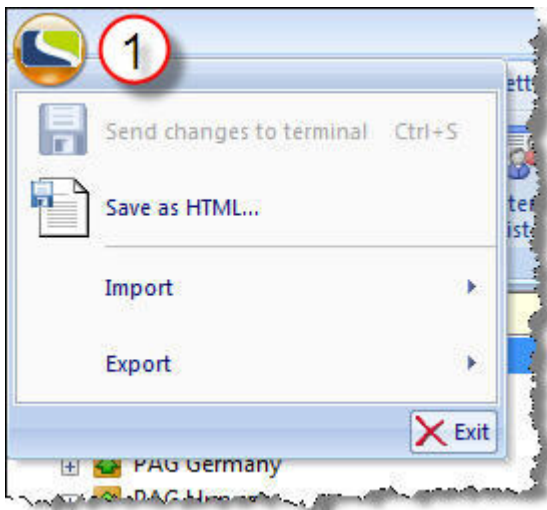
① By selecting the Icon you can:

- Save the whole configuration as a WEB page in HTML format.
- Start imports and exports for users and terminals
    - o **User groups: User groups with users and finger templates in TOCAnet format**
    - o **User lists:**
        - • .xml
        - • .csv
        - • .xls
    - o **Calendars in TOCAnet format**
    - o **Terminal groups in TOCAnet format**

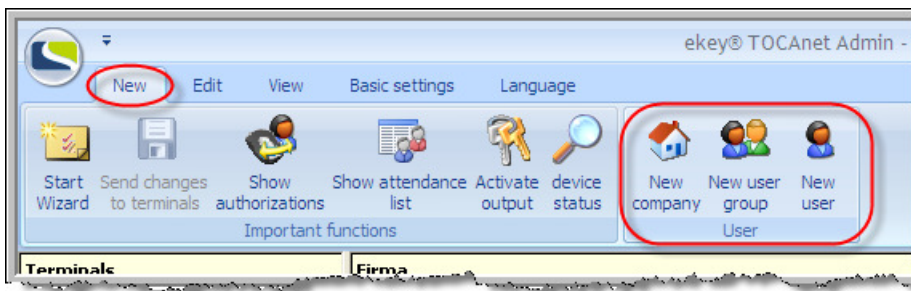|	ekey® TOCAnet 3.0 – Step by Step	Version:	1.0
		created:	2007-10-12
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Use of the multifunction toolbar(s):

① The multifunction toolbar is always made up of a static and a

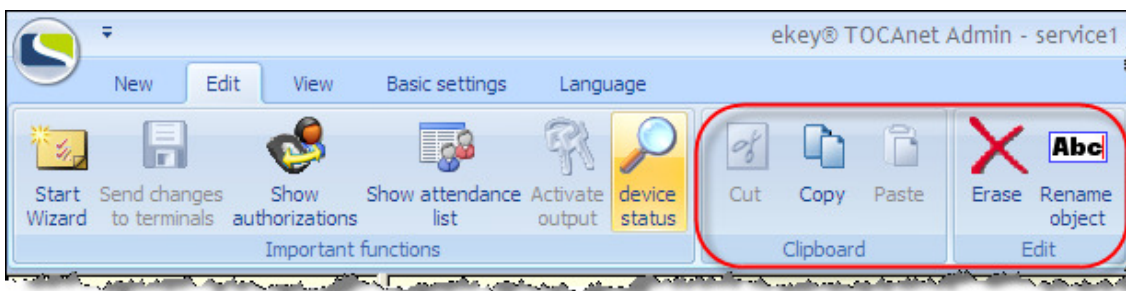② variable part, which adapts according to the selection of the menu.

New:

If you have activated the multifunction area Terminals – see chapter **"Terminals"**, then you have the options mentioned above.

If, however, you have activated the multifunction area User –see chapter **"User"**, you can select from the following toolbars.
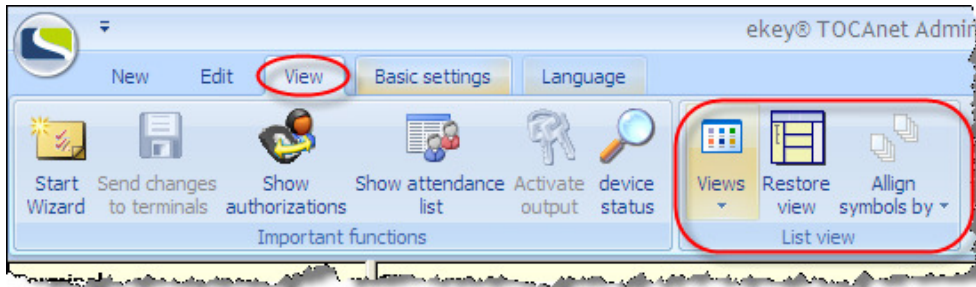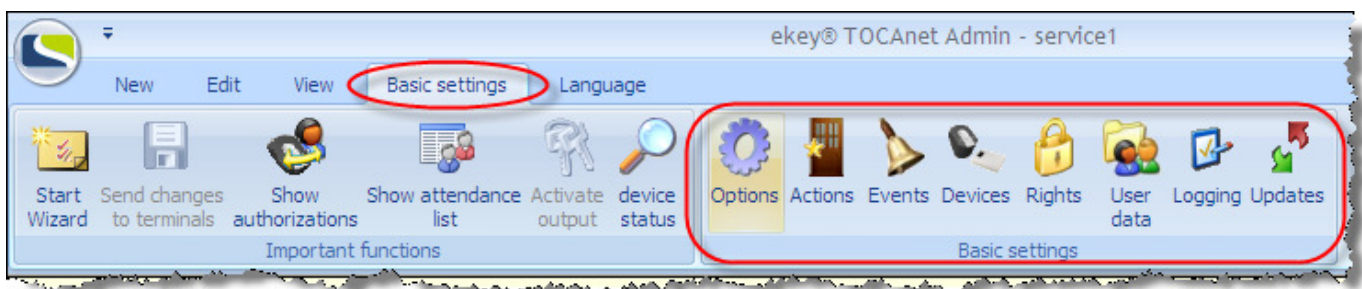

Edit:

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View:

With **"Restore view"** you can reset the altered parts of the window to the standard view.

Basic settings:

Jumps straight to the desired basic setting – details can be found in chapter **"Basic settings / Options"**

Language:

Where necessary, the available languages can be expanded.

To switch to another language click on the respective national flag – it is not necessary to restart the application.

6. Login window

When you start the ekey® TOCAnet Administration the login window appears.

In the text box "Server" enter the name of the computer on which the ekey® TOCAnet Masterserver is installed.
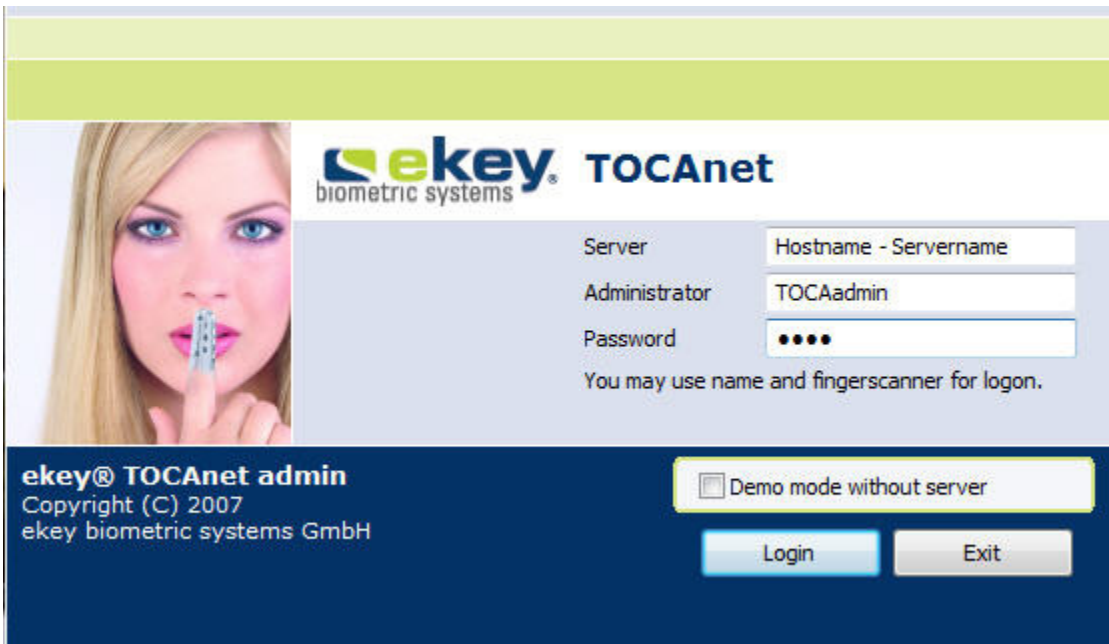
	ekey® TOCAnet 3.0 – Step by Step	Version:	1.0
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The log-in data for the standard administrative account are:

NOTE

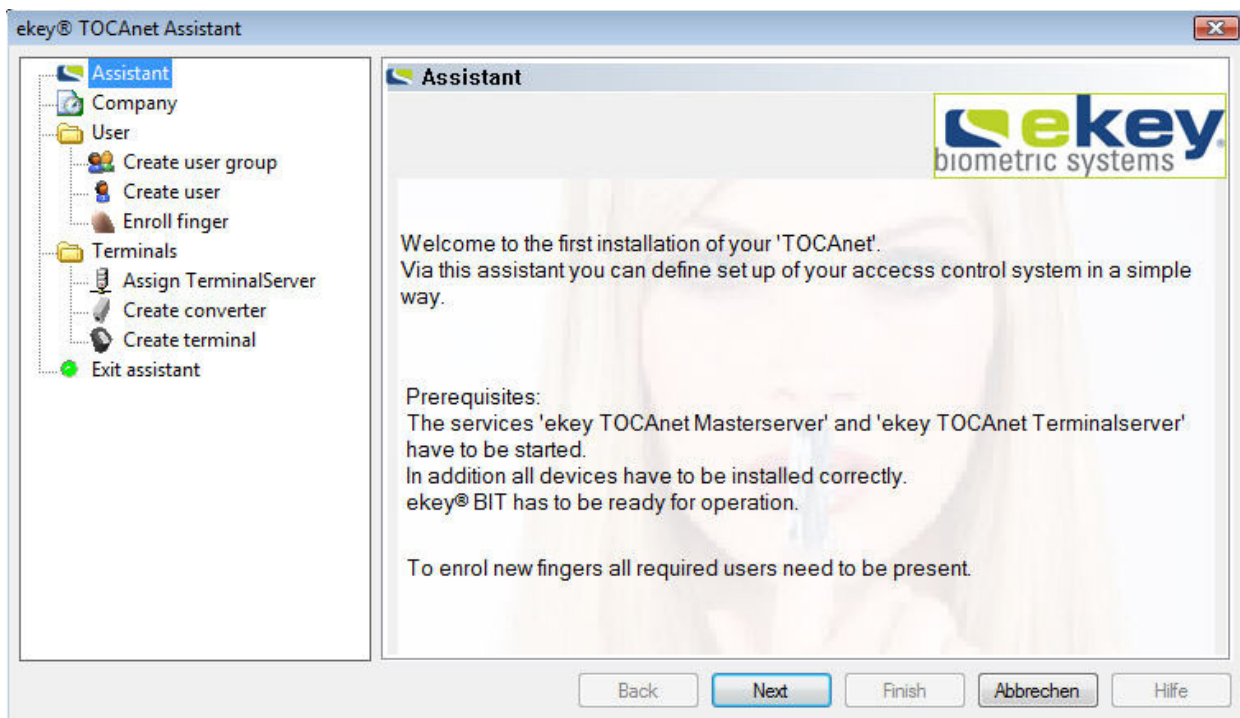**!!! PLEASE observe capitals and lower case !!!**

NOTE

- Administrator: **TOCAadmin**
- Password: **boss**

7. The Assistant Program

⬛ Multifunction toolbar "New" > Start Assistant

- Company
- User
    - o **Create a user group**
    - o **Create a user**
    - o **Record a finger**
- Terminals
    - o **Assign a Terminalserver**
    - o **Create a converter**
    - o **Create a terminal**
- Close the assistant

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Assistant: Company

With this function you are able to create the first administrative area. Different companies may, for example, be located in the same office building, and they all may wish to control the entry rights of employees independently. Each "company" is structured as an independent administrative area.

- Define a "meaningful" name
- Select the standard working hours of this company
- Activate the desired calendar, to have the national bank holidays of the respective country saved. If the calendar of your country is not yet listed, you can define it later.

Assistant: Create a user group

User groups are the best way of distributing entry authorisations.

- Click with the left mouse button on the **+ New user group** button
- Set a meaningful name – e.g.: Management or Sales
- In order to create further user groups, click on the **+ New user group** button again

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Assistant: Create a user

In this step it is recommended to at least create the first future ekey® TOCAnet administrator. Of course, you can also create several new users using the assistant.

- Enter the first name and surname of the person in the respective fields
- where necessary activate the field

   ☐ **This user should be the administrator of the entry system (the first name is used as password)**

- Select the user group of which this user should be a member – a user can be a member of several groups!
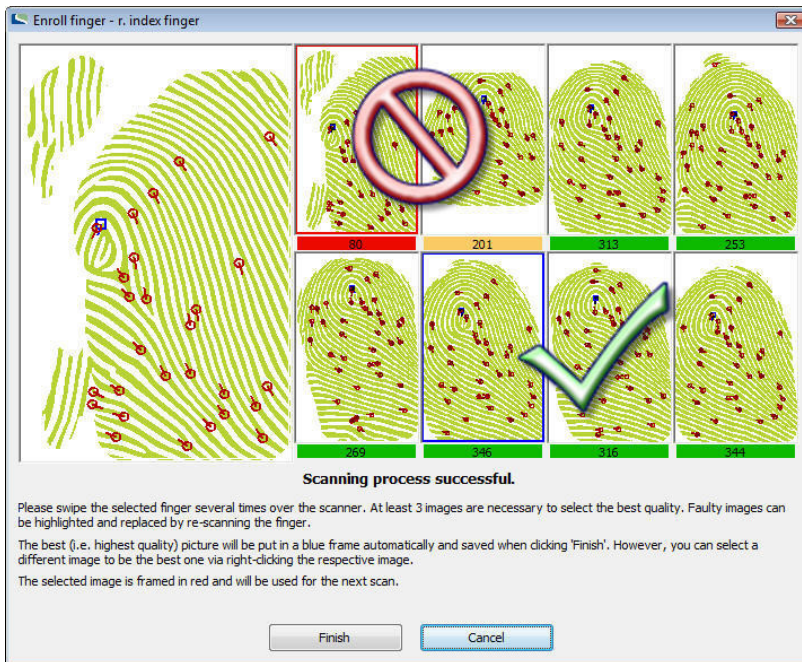
If you want to add further users, close the compiling of this user early, after the recording of the his/her finger, and then return to the this step of the assistant!

Assistant: Finger Enrollment

Here you can enroll the finger of a user and assign events.
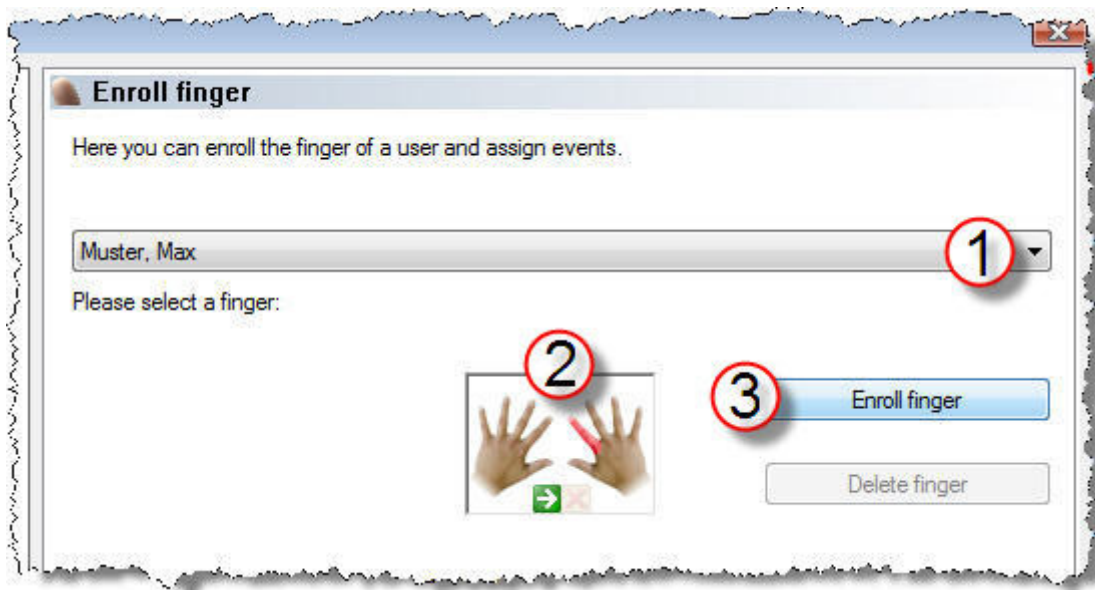
① Select the desired user

② Click on the finger that you wish to record

③ Active the following dialog box by clicking on the button **Enroll finger**

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- Place the finger:
  - **Lying flat**
  - **not "spread out"**
  - **with moderate pressure**
  - **at equal speed**
  - **at least three times**

  over the sensor of the ekey® BIT USB fingerprint reader.

- Accept the best "green" template by clicking on the **Finish** button
  (Detailed information can be found in the dialogue box)

④ Now assign the desired event to the finger
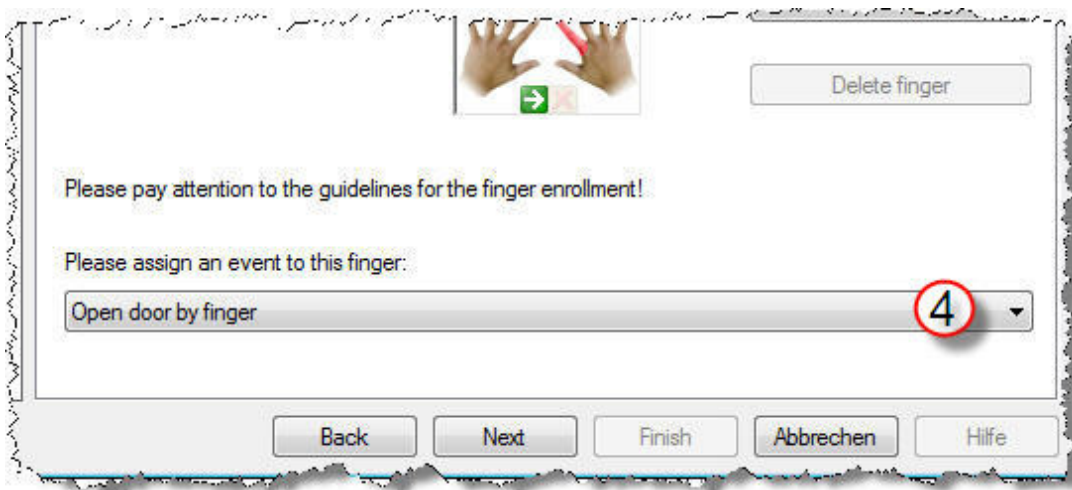
Further information about "**Events**" can be found in chapter **"Basic settings / Events"**

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Assistant: Allocate the Terminalserver

- Enter the host name of the computer, on which you installed the ekey® TOCAnet Terminalserver during installation, in the field and
- check the communication by clicking on the button **Check**
- Already configured ekey® TOCAnet Terminalservers are displayed in the overview window
- If you want to use further Terminalservers, then configure them manually once you have closed the assistant.

Assistant: Create a LAN/RS485 converter

- Click on the Search button to display all available converters
- Select the desired converter (compare the serial number)
- Activate the description field by double-clicking on it
- Enter a meaningful name for this converter in the field **Name of LAN converter**

Assistant: Create a terminal

- Click on the **"Search"** button to display all devices, scanners and control panels connected to the previously selected converter
- Firstly select the connected control panel
- Describe it with a meaningful name
- Define the correct type of device
- Repeat this step with the scanner shown in the search results
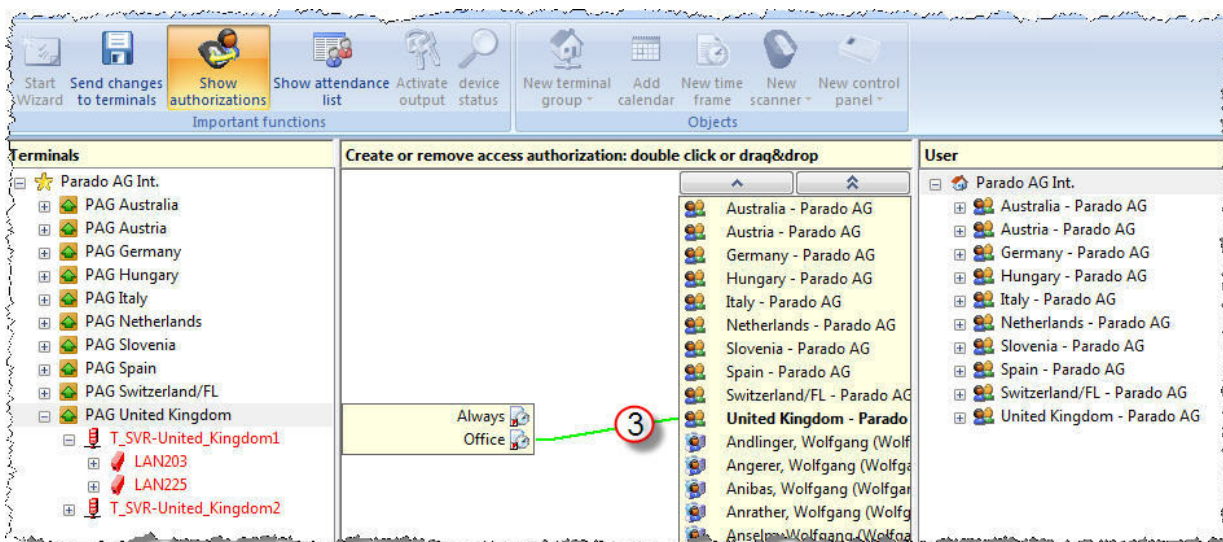- Assign the previously defined control panels

Close the assistant

- The assistant can be closed by clicking on the **Finish** button
- If you wish to configure further devices, click on **back** or use the tree structure in the left half of the window
- In the administration program - **ekey® TOCAnet Admin** – you have the option of performing the steps of the assistant and further settings manually, and at any time.

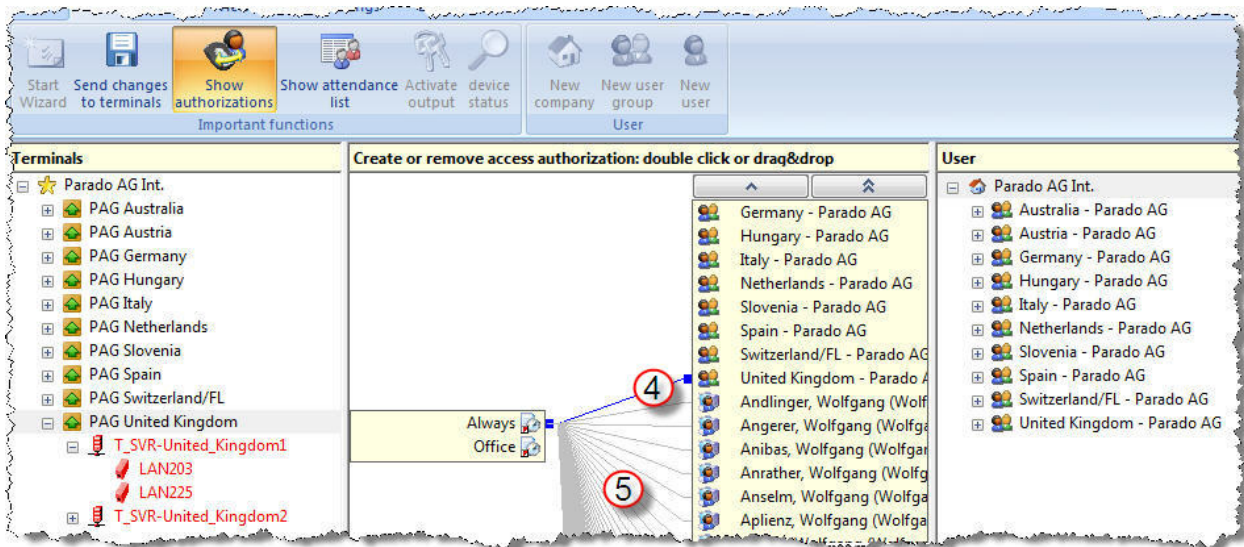|	ekey® TOCAnet 3.0 – Step by Step	Version:	1.0
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8. Allocation of access - Authorisations

Once you have selected a terminal group on the left side of the window, the corresponding terminal configuration for the available time frame appears on the left side of the middle window.
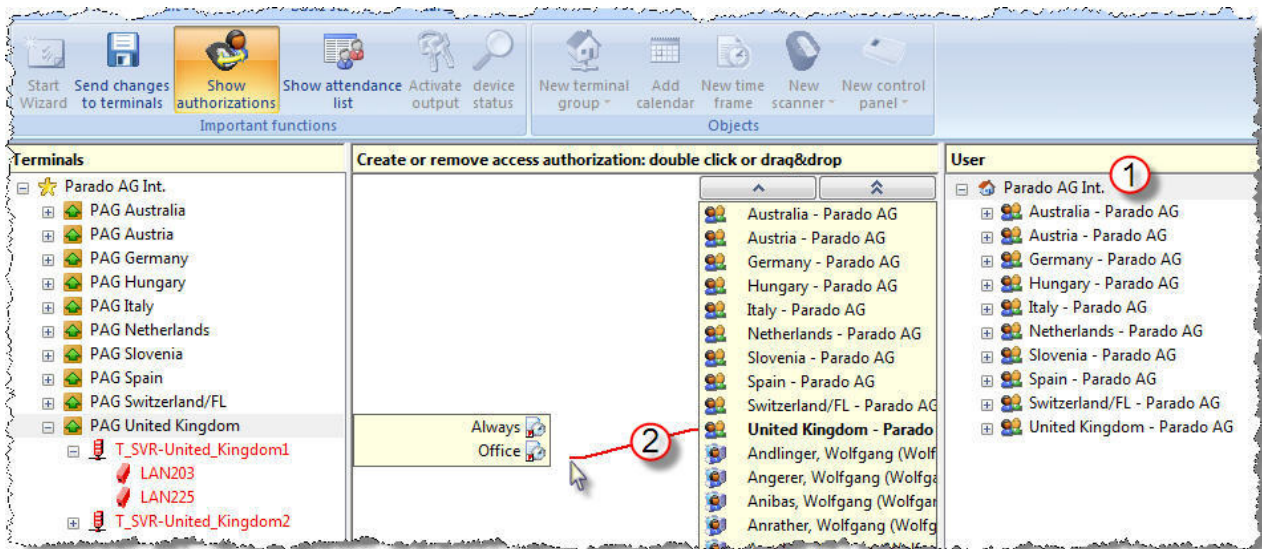
① If all users are selected than all users and user groups appear on the right side

② Of this window, otherwise it only shows the selected groups and their members. By holding down the mouse button you can drag the selected user group, or an individual user (until this process is completed the connecting line is down in **RED**) to the corresponding

③ time frame (once the mouse cursor has reached it the line turns **GREEN**).

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④ Once you release the mouse button the connecting line turns to the set color of the respective time frame.

⑤ Members of this user group receive this authorisation automatically. This is represented by a GREY line, which you cannot alter.

GREY lines always indicate that this authorisation has been transmitted by a higher level and can only be modified at the level with direct access. In the above mentioned example you would have to remove the user from the group, in order to be able to effect a change in the authorisation.

There happens to be an overlapping of user rights, e.g. due to the fact that a user belongs to different groups, the following motto applies:

NOTE

!!! The highest access rights are always applied !!!

NOTE

9. Basic Settings

Basic Settings: Options

▪ **Options**

The option settings are transferred to each newly created ekey® TOCAnet component as basic settings.

- o Create control panel automatically**: When a new scanner is created a control panel is also automatically created.**
- o Inherit time windows and calendars to all subrelated groups when creating
- o Inherit time windows and calendars to all subrelated groups when inserting
- o Remove time windows and calendars to all subrelated groups when deleting
- o Adopt authorisations when copying terminals or terminal groups

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- o Adopt authorisations when moving (inserting) terminals or terminal groups
- o Use groups only within windows for acces rights: **If a lot of users are administered, then the overview in the authorisation window is improved by activating this function.**
- o Use Wiegand-ID: **The Wiegand-ID window is made available in the user and terminal properties screen.**
- o Standard symbol used for terminal groups
- o Terminal photo: **Select the respective resolution for your terminal photo.**
- o Timeout for filter input (ms): **If you enter a search term into a filter box (e.g.: user name, status display ...) then the terminal waits for the time period set here (in milliseconds) before performing the search.**
- o Date for user update: **The system assigns the learnt finger template from the so-called "Learning finger" at the defined time to the scanners (once a day)**

- • **Messages**

In the following events automatic information E-mails can be sent. There are three options:

- • No E-mail
- • An E-mail to the administrators: All administrators will receive this information
- • An E-mail to the administrators of the terminal group
- o *Start Masterserver*
- o *TOCAnet Terminalserver Start*
- o *TOCAnetTerminalserver offline*
- o *COVERTER LAN offline*
- o *Terminal offline*
- o *Terminal communication errors*
- o *First relay switch of the day on the terminal*
- o *Every switch on terminal*
- o *Every access of the terminal*
  - o **E-mail after fixing the error: e.g.: YES – The terminal is back online – an additional E-mail is sent**
  - o **SMTP e-mail server: Host name or address of the outgoing server**
  - o **E-mail address of the sender**
  - o **SMTP log-in: Select the correct encryption process for your SMTP server**
  - o **SMTP login name: If necessary – for most SMTP servers this box can remain empty**

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- o **SMTP login password: If necessary – for most SMTP servers this box can remain empty**

- **Calendar**

Here enter any additional allocated names for the calendar properties (empty = not in use) - see " **Creation and configuration of a new calendar** " in chapter "**Terminals**"

- o **Examples:** **Site holidays, holidays, open day, employee event**

- **Special modes for time window**

Name the alarm levels and the user modes with meaningful names, in order to improve the allocation of the time frame properties - see " **Creation and configuration of a new time frame**" in chapter "**Terminals**"

Basic settings: Actions

When action is triggered up the configured commands are performed. Essentially, the pre-configured actions are selected when the relevant events occur > see "**Basic settings / Events**"
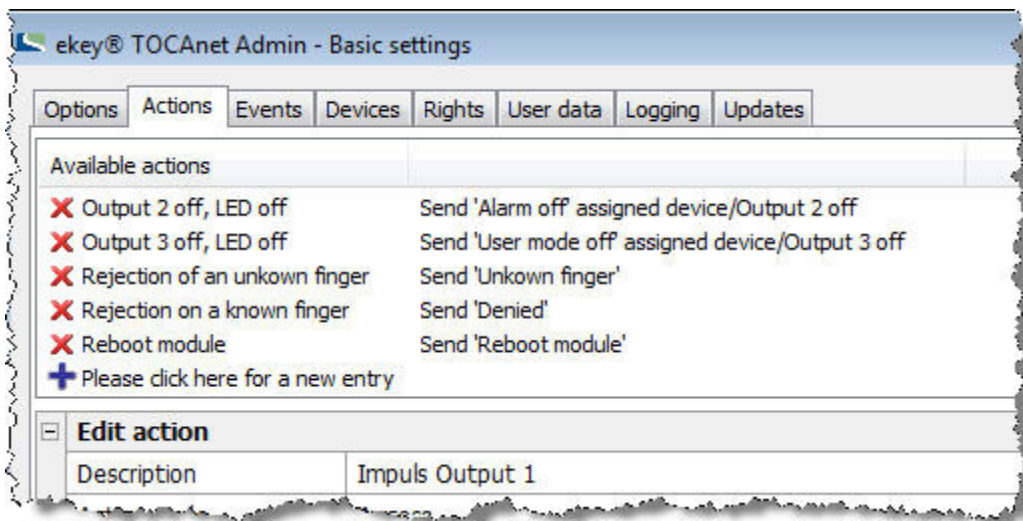
Of course, you have the option of defining the actions yourself, by selecting **"+ click here…**" and adjusting the following settings:

- **Edit action**
  - o **Description: name the action so that other administrator will also able to understand its use**
  - o **Action code: The selected entry is used for log-in functions and:**
    - Access
    - Exit
    - Denied: A finger template without authorisation activates the connection
    - Unknown finger: an unknown finger activates the connection

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- Alarm on: The defined relay of the control panel is continually raised – The device can be selected (locally, assigned or per range)
- Alarm off: The defined relay of the control panel is switched back off
- Alert phase off: The raised relay from the alarm level is switched back off
- Alert phase 1, 2 or 3: All devices switch the defined relay to the next boundary and alter the authorisations depending on the appropriate time frame for "Alarm level 1, 2 or 3" (pre-defined)
- User mode off: The raised relay from the alarm level is switched back off
- User mode 1, 2 or 3: All devices switch the defined relay to the next boundary and alters the authorisations depending on the appropriate time frame for "User mode 1, 2 or 3" (pre-defined)
- Reboot module: The scanner is re-started

- o **Device:**
  - Assigned device – Output 1, 2 or 3: This action only affects the assigned devices (control panels). These can even be on different bus connections (WARNING: full functioning can only be guaranteed if the system is online).
  - Local device – Output 1, 2 or 3: This is a relay or an I/O port on the scanner ekey® TOCAnet integra I/O
  - All devices in the area: Terminal groups, ekey® TOCAnetTerminalservers and LAN converters can be defined as boundaries. The action affects all devices within this boundary.
- o **Switching mode:** Impulse (for long-term see below), on, off or switch (on > off, off > on)
- o **Allow Lock:** If you allow this, you can active self-locking in the properties in the time frame and keep the port (relay) active/interrupted until a defined point in time.
  - Example: The business doors should remain open from 08:00 - 12:00 - after the first positive finger match the doors remain open until 12:00 (self-locking).
- o **Impuls length (ms):** The duration of the switch of the port in milliseconds, if impulse switch is selected see above
- o Change the display of the LEDs in terminal types ekey® TOCAnet integra and devices where the right LED (one-coloured) is configured for use in actions.
  - **LED (one-coloured):** Unchanged, off or green
 - **LED (three-coloured):** Unchanged, off, green, red or yellow

NOTE

!!! Test new actions in a separate test environment before applying them !!!

NOTE

---

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Basic settings: Events

Events are external entries in the ekey® TOCAnet system which lead to defined actions being carried out > see "Basic settings / Actions". For example this can be activation of a finger with positive recognition.
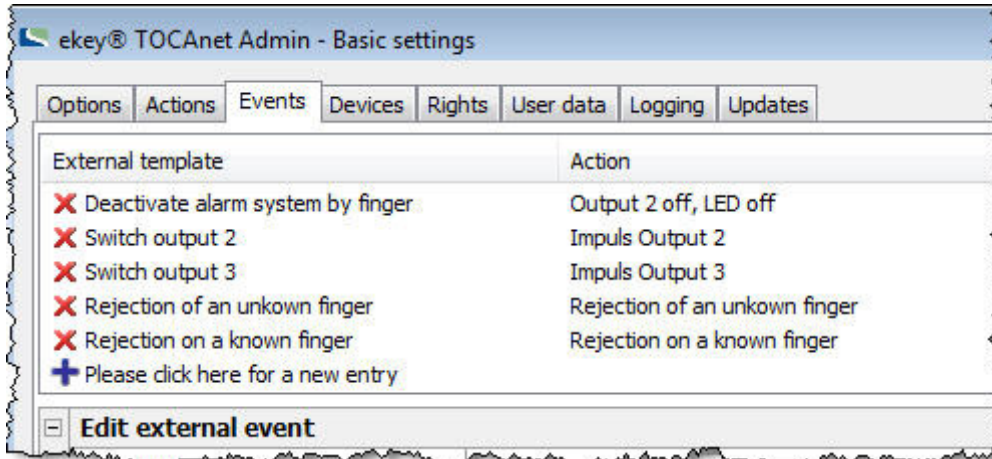
Of course, you have the option of defining the actions yourself, by selecting "+ **click here...**" and adjusting the following settings:

▪ **Edit external event**
  o **Description**: name the action so that other administrators will also able to understand its use
  o **Action**: Select the desired action from those pre-defined or created
  o **Counter**: The value to be reached for the "actions when counter ends"
  o **Reset**: How and what the counter is to be reset by - after a reset the is NOT performed "actions when counter ends"
  o **Timeout in seconds:**
    • Practical example: After three incorrect entry attempts within 2 minutes the alarm camera is activated, to film the attempted "break-in:"
      • Counters: 3
      • Reset: By another event (e.g.: positive finger recognition) or a timeout
      • Timeout in seconds: 120
  o **Actions when counter ends**: e.g. Switches port 3 on (the alarm camera is activated)
  o **Event code:** Freely definable text – max. 15 lines – for external programs. This information is sent via UDP data blocks from the Terminalserver.

NOTE

!!! Test new actions in a separate test environment before applying them !!!

NOTE

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Basic settings: Devices

Devices are scanners and control panels, which act according to defined actions and events.
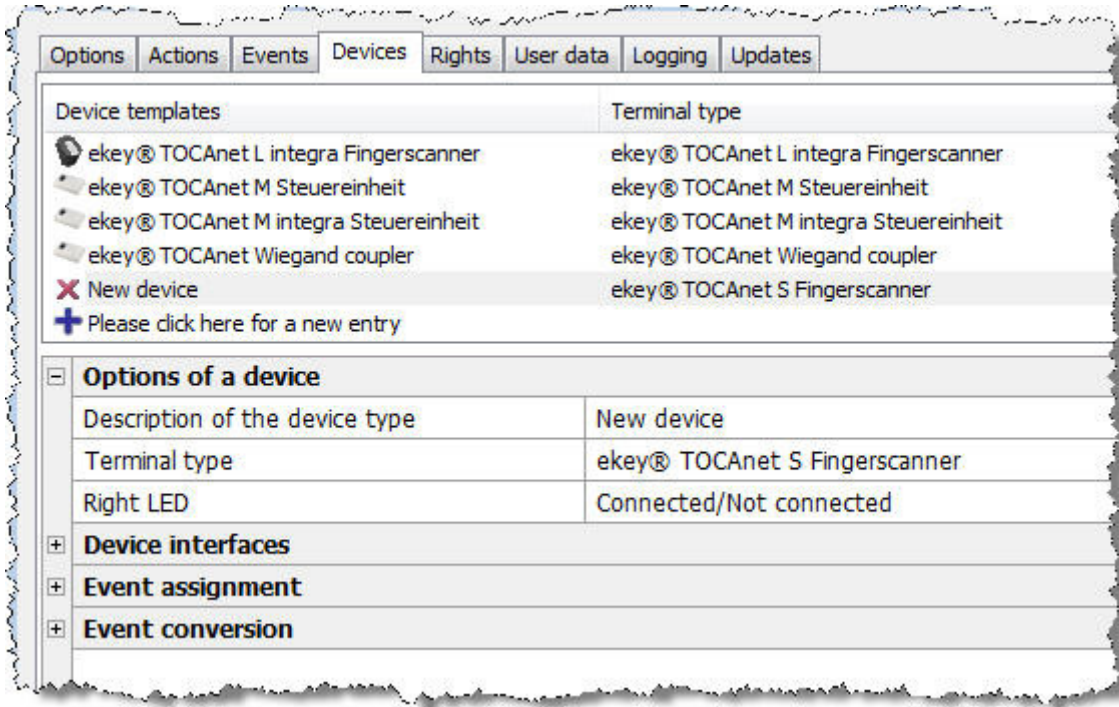
On the one hand you can use pre-defined devices, although you also have the option of adjusting devices to your own requirements. "**+ click here ...**"

- **Options of a device:** Select the respective terminal type and decide whether the red LED on the scanner should show the connection status with the Terminalserver (green - connected / flashing - not connected) or whether this LED should be made available for actions.
- **Device interfaces**: Define whether the ports 1 - 3, should be outputs (relays) or inputs (depending of the respective type of scanner). You can also mark the ports with meaningful names.
- **Event assignment:** If you have defined a device port then you can assign the events to be carried out here. In general you can define one event for the rejection of unknown and recognized fingers which can be applied to all types of scanners.
- **Event conversion:** The pre-defined standard events can be altered to any desired event.
  - o **Example:** *The index finger on the right has been assigned the event "Open doors with finger". This device has been changed into "Alarm system on" and therefore the alarm system is activated by the index finger on the right.*

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Recovery
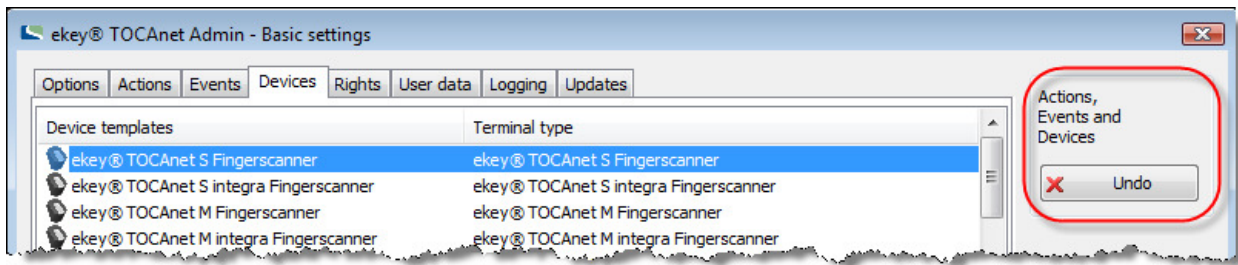
By clicking on the "**Undo**" button all actions, events and devices can be reset to factory settings.

WARNING

All actions, events and devices are deleted and reset to defaults settings

WARNING

Basic settings: Rights

Create new administrators for the configuration of ekey® TOCAnet or alter the authorisation of existing users. The special authorisation for "**Concierge mode**" can also be configured in this window.
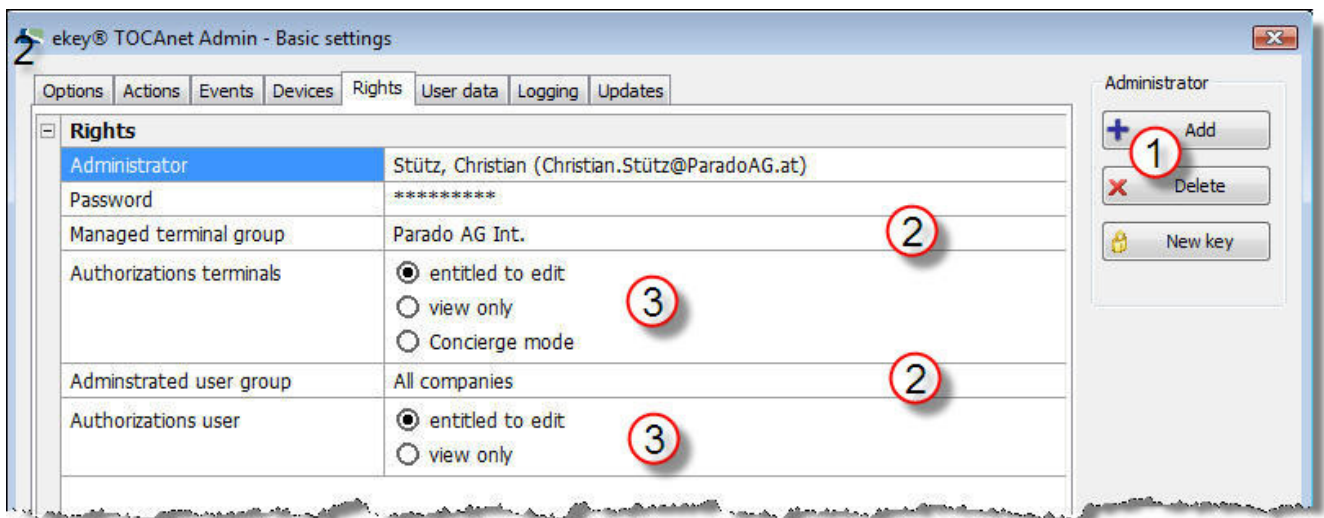
① By clicking on the button "**＋ create**" you can give existing users administrator authorisation. A password must be assigned.

② Select the terminal and user group that this person is to look after. You can limit this to the level **"Converter"**

③ There are 2 editing modes:
   - **entitled to edited**
   - **view only**

and the special authorisation " **Concierge mode** ":

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① Once you have registered a **"Concierge"**, you can click on the Icon in the system toolbar, to open the operating window.

② Select the terminal to be switched on as well as the desired event and

③ confirm this by clicking on the button **"execute"** .

▪ By clicking on the button **"New key"** you can create PINs for remote access to your ekey® TOCAnet system.
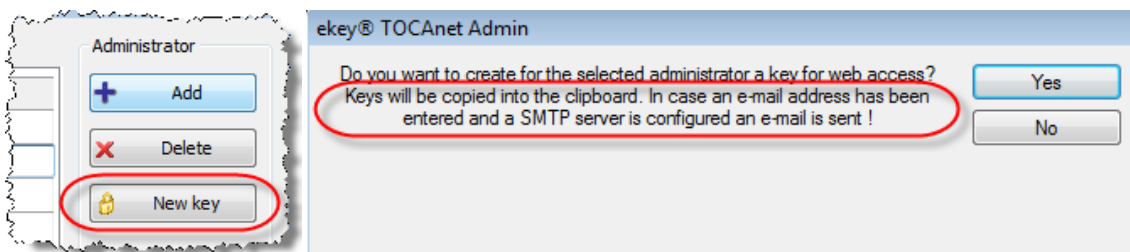
o The codes are copied onto the clipboard and send in case of a defined E-mail address and via the configured SMTP server by E-mail - see the chapter **"Basic settings / Options"**

o This means that you are able to perform actions in ekey® TOCAnet using a small web server, integrated into the ekey® TOCAnet Terminalserver service, via your mobile phone (or Smartphone or PDA) or your browser - see chapter **"Remote control via mobile phone or browser – remote access"**

Basic settings: User data

All additional fields activated here are displayed under user properties and can be used for recording (logging).

▪ **Additional field:**

Define the desired size of the user picture to be saved and activate the desired additional fields.

▪ **Free additional fields:**

If you require further user data, then you are able to define up to 10 further fields as you wish.

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⬛ Basic settings: Logging

All basic setting for the logging of processes in your ekey® TOCAnet system can be defined here.

- **Logging:**

The extended „**Logging control**" allows the logging settings to only be altered with an additional password. A suitable person for this could be the company manager or the works council.
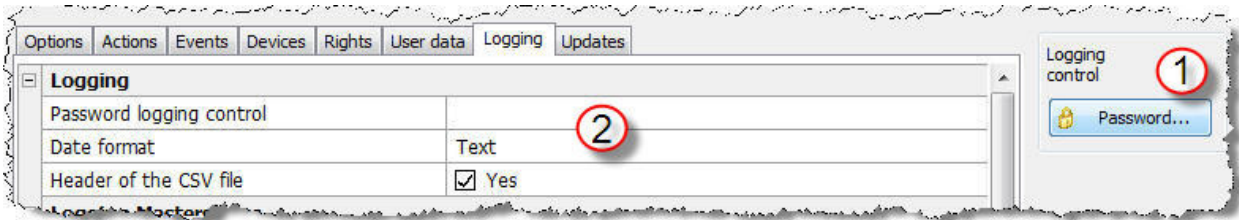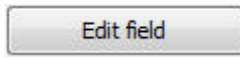
① Create or alter the password here

② Only once the correct password has been entered, the following settings can be changed

- **Logging Masterserver:**
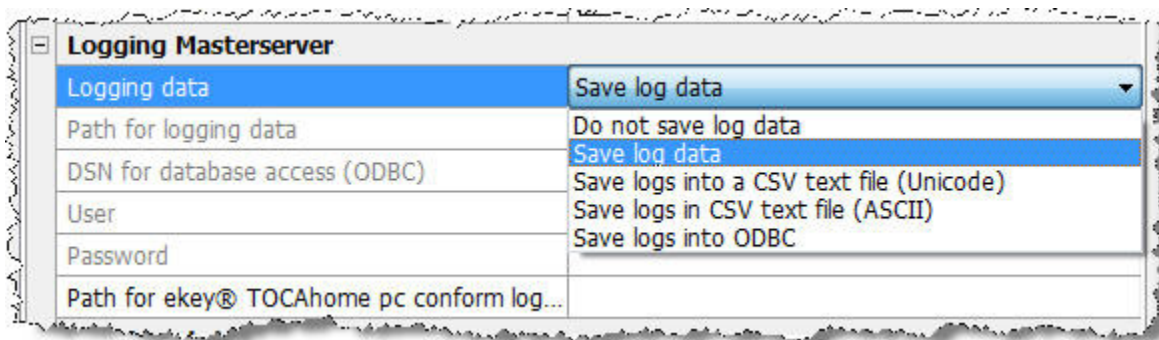
- o The parameters set here affect the whole ekey® TOCAnet system. That means that all system reports, positive and negative user identifications, as well as rejections of recognized users are saved. Alternatively you can only keep records of desired terminal service areas – select the **"Properties"** tab of the respective Terminalserver to do so.
- o Select **"Save log data"** if you now want to record logs at the Terminalserver level or define the desired method for logging on the Masterserver.
- o To create a CSV file, which only saves positive user identifications, enter the file path including the filename – file extension ".csv" into the field **"... TOCAhome pc conform log files"**.

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- o Then begin the allocation of the values to be saved by clicking on the
  [Edit field] button:

Available fields		Header	Used fields	
User ID		Time	Date/Time	
Finger		Name	User name	
Terminal ID				
Terminal name				
Connection				
Description output				
Code				
Error text				
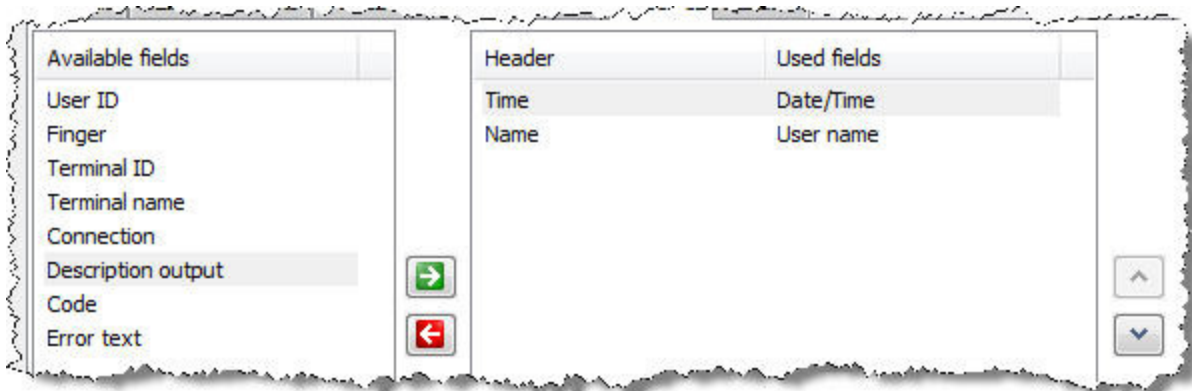
- ▪ **Logging status window:**
  - o The possible settings here only affect the log file of the system and control the display of the log file in the status fields:
  - o Under "User" enter the device status
  - o On the multifunction area – middle - below
  - o **Maximum number of lines for log files:** If the set value is exceeded 1/8th of the oldest entries are automatically deleted
  - o **Maximum number of sent lines:** Number of the maximum transmitted lines for the search in the status window – A very high value slows registration down!
  - o **Maximum number of shown lines:** This value influences the working speed of the display.

- ▪ **Web logging:**
  - o Send the URL (Unique Recourse Locater) based commands to a web server. This can then use the received values, depending on the programming for example to control external systems. This is often used for control systems in building automation.
    - • **<u>Example:</u>** *If the company owner opens the doors using the scanner, the lighting and switches are activated as per the wishes of this person via the external web server.*
  - o Activate web recording and re-name the description for the action codes if the commands for the external control system require special codes.

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- o Open the **Web Logging** and generate the required commands for the external system:
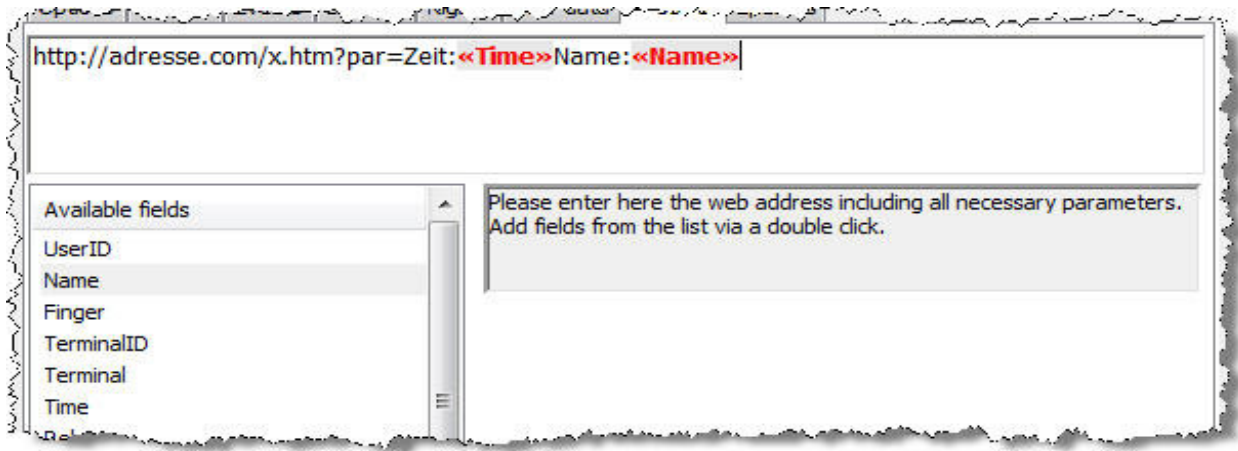
Basic settings: Update

You can carry out the update of the hardware and software components of ekey® TOCAnet automatically or manually. We recommend that you carry out updates regularly.

- **Download updates:**
  - o Select the desired interval for the download, or select **"No"** for manual updating.
  - o Set the time to an "Off-Peak-Time", i.e. a time when the server is not heavily burdened.
  - o If you want to have the updates installed automatically once they have been downloaded, then define the start time.

- **Available updates:**
  - o Compare the current state of the firmware and software of your system with the available software
  - o You have to start the updates manually if you have not defined an interval in "Perform updates"

10. Remotecontrol with mobile phone or browser – Remote access

By setting "**New Key**" – see chapter "**Basic settings / Rights**" - you are able to confirm administrators with remote access to ekey® TOCAnet

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- By clicking on the button **"New key"** you can create PINs for remote access to your ekey® TOCAnet system.
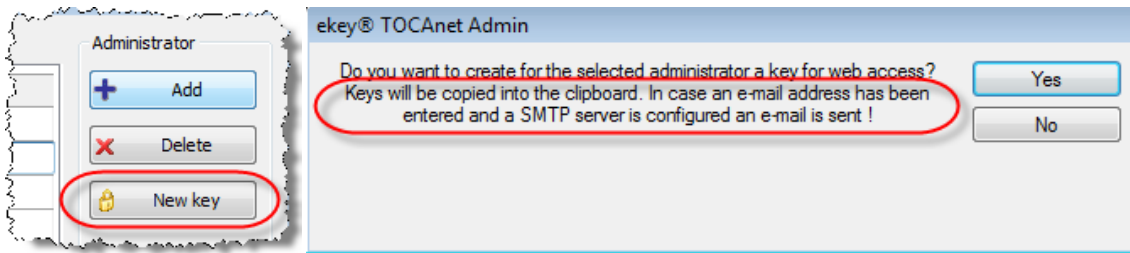
  - o The codes are copied onto the clipboard and send in case of a defined E-mail address and via the configured SMTP server by E-mail - see the chapter **"Basic settings / Options"**

- This means that you are able to perform actions in ekey® TOCAnet using a small web server, integrated into the ekey® TOCAnet Terminalserver service, via your mobile phone (or Smartphone or PDA) or your browser.

http://adresse:58007 – Request with PIN
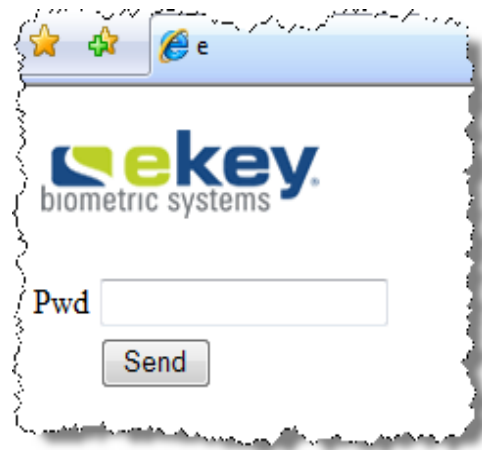
http://adresse:58007/UserID - Request with User ID and password.

- The "**Internal user ID**" can be read from the user properties. The password is the code allocated by the administrator from ekey® TOCAnet Admin.
- A session is closed after 60 seconds idle time.
- Password:
  - o **Advantage**: It is easier to enter a password on a mobile phone.
  - o **Disadvantage**: Although the password is MD5 encrypted, it is potentially less safe than a PIN code

- For this to work the computer which performs the ekey® TOCAnet Terminalserver service has to be externally contactable via port 58007.

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11. Terminals

The interfaces of the ekey® TOCAnet Admin Program are separated into three main windows.
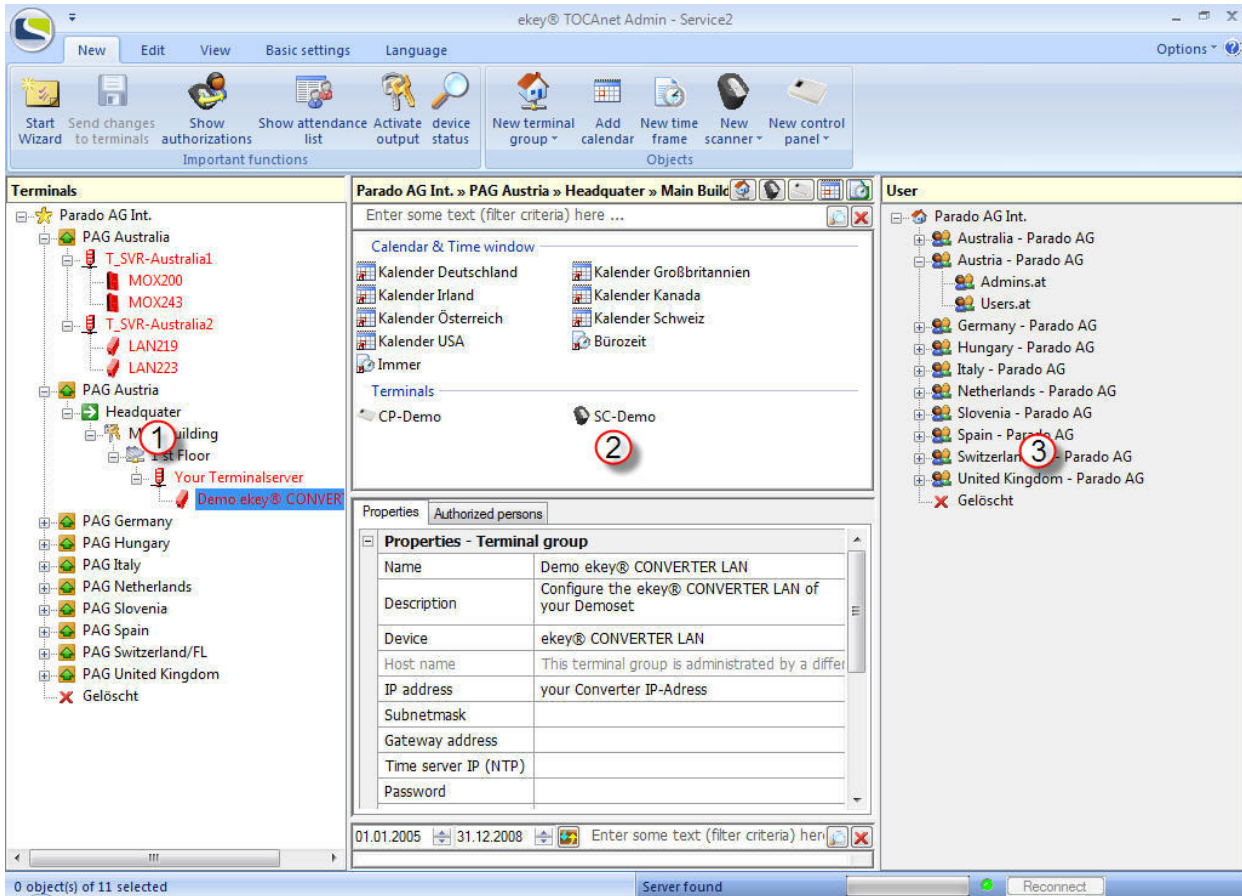
① **Terminal area:** Here you can display the physical structure of your ekey® TOCAnet access control system.

② **Multifunction area:** Here you can edit the details of the respective selected areas.

③ **User-area:** User groups and individual users can be easily administered here.

▪ If you select a "**Terminal group**" in the "**Terminal area** ", then you can perform the following configurations in the "**Multifunction area**":
  o Create a new terminal group by clicking with the mouse on the symbol "**New terminal group**"
  o Create a new scanner – "**New scanner**"
  o Create a new control panel - "**New control panel**"
  o Define a new time frame - "**New time frame**"
  o Create a new calendar - "**New calendar**"
  o Select an existing calendar or time frame in the upper third of the window:
    • If the respective component is displayed with an arrow, then it is a link
    • The corresponding element is in a superior level

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- • Alterations to the link affect all linked elements - even the original
  - • Deleting a link only deletes this particular link
  - o Select a "**RS485 bus – component**"
    - • ekey® TOCAnet scanner
    - • ekey® TOCAnet control panel
  - o Select a "**Terminal group (LAN - component)**" in the left of the terminal area
  - o Delete a component by selecting and clicking on the "**DEL**" button

- ▪ If you have selected or created a new corresponding **"Terminal group (LAN component)"**, then you can perform changes in the "**Properties – terminalgroup**" index chapter "**Creation and configuration of a terminal group**

- ▪ Here you will see the most important properties of the "**ekey® TOCAnet scanner**" - please find details about this in the chapter "**Creation and configuration of a scanner"**

- ▪ If you want to configure an "**ekey® TOCAnet control panel**" - please observe the details in chapter "**Creation and configuration of a control panel**"

- ▪ To configure a "**Time frame**" - adjust the properties described in the chapter "**Creation and configuration of a new time frame**"

- ▪ There are two ways of editing a "**Calendar**" - please find details in the chapter "**Creation and configuration of a new calendar**"

- ▪ In the bottom third of the window you can see current status information, sort the information and search for certain content.

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Creation and configuration of a terminal group

▪ Select the desired level for the new component and click on the "**New terminal group**" button to create a new terminal group.
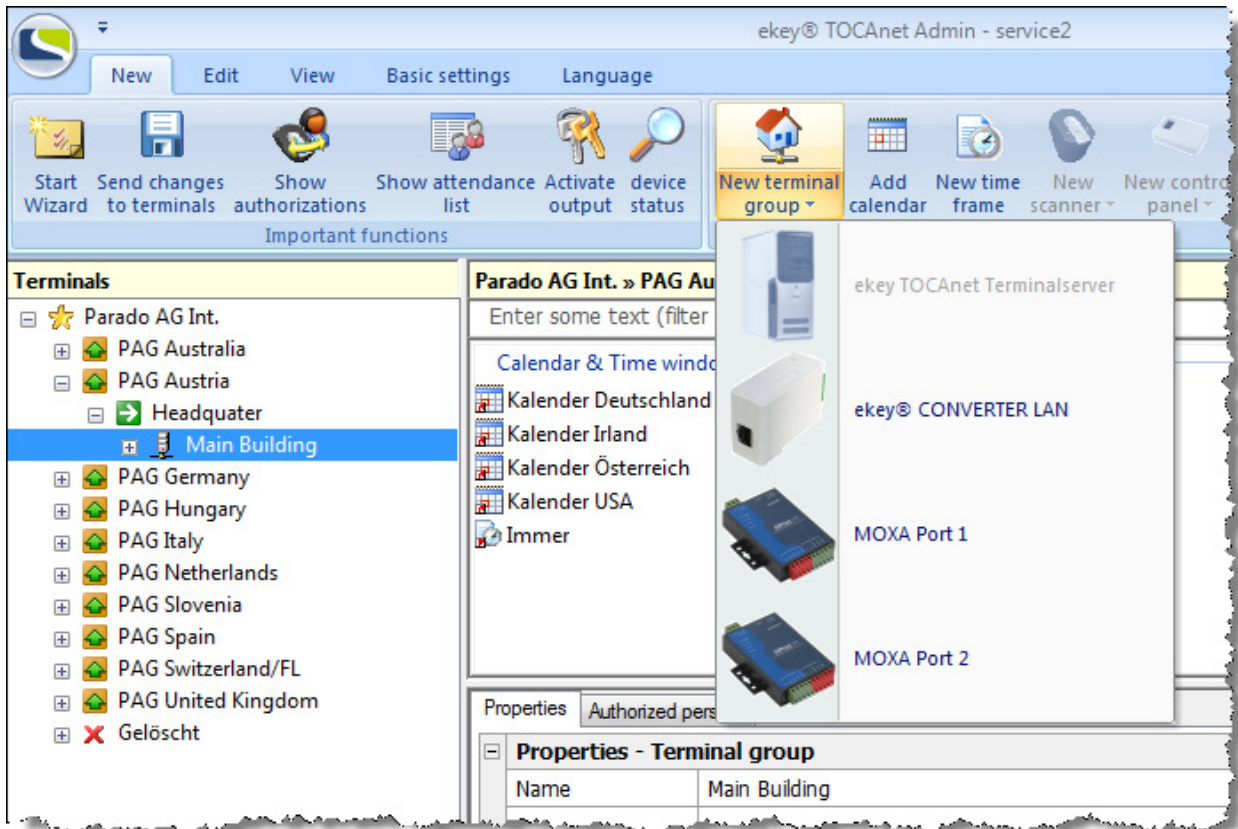
▪ The choice of available components varies depending of the level of installation:
   o Example: If your choice is below the existing ekey® TOCAnet Terminalserver, then it is already available and can therefore no longer be selected.

▪ If you have selected or created a new corresponding **"Terminal group (LAN component)"**, then you can perform changes in the **"Properties – terminalgroup"** index.
   Here are the most important properties:
   o **Description:** enter a "meaningful name" which describes the actual project environment (TerminalSVR_office_section_7)
   o **Device:**
      • TOCAnet Terminalserver
      • ekey® CONVERTER LAN
      • MOXA Port 1
      • MOXA Port 2
   o **Host name:** Computer name of the Terminalserver
   o **IP address, sub-net, ...:** The network settings of the LAN converter

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- o **Time server IP (NTP)**: The ekey® CONVERTER LAN is able to synchronise the system time with a NTP server (Network Time Protocol). Here, enter the IP address of the desired NTP server.
- o **Password**:
- o **Serial number**: The serial number of the ekey® CONVERTER LAN
- o **Action boundary**: This component sets a boundary for the effects of an action - details can be found in chapter "**Basic settings / actions**"
- o **Send CursorFill**: This Terminalserver sends user data to the position of the text entry point (the cursor), once the finger has been positively recognised.
- o **Recipient of UDP package**: The computer name or IP address of a recipient of the UDP packet.
- o **Port for UDP package**: The defined UDP port for communication with this ekey® TOCAnet Terminalserver
- o **Restore status of the output after a power failure**: Resets the status of the relays of all control panels, which are administered from this ekey® TOCAnet Terminalserver.
  - • **Example:** A relay is in the switch status "On – long-term" It is then turned off by a power cut. After the power cut the status is checked and set back to "**On**".
- o **Logging:** In addition to the basic logging options of the ekey® TOCAnet Masterserver – see chapter "**Basic settings / Logging**", you can configure the loggings here, restricted to the range of the particular ekey® TOCAnet Terminalserver.
- o **Messages:** here you can define the sending of information mails.

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Creation and configuration of a scanner

▪ Select a LAN converter for the new components and click on the button **"New scanner"**.
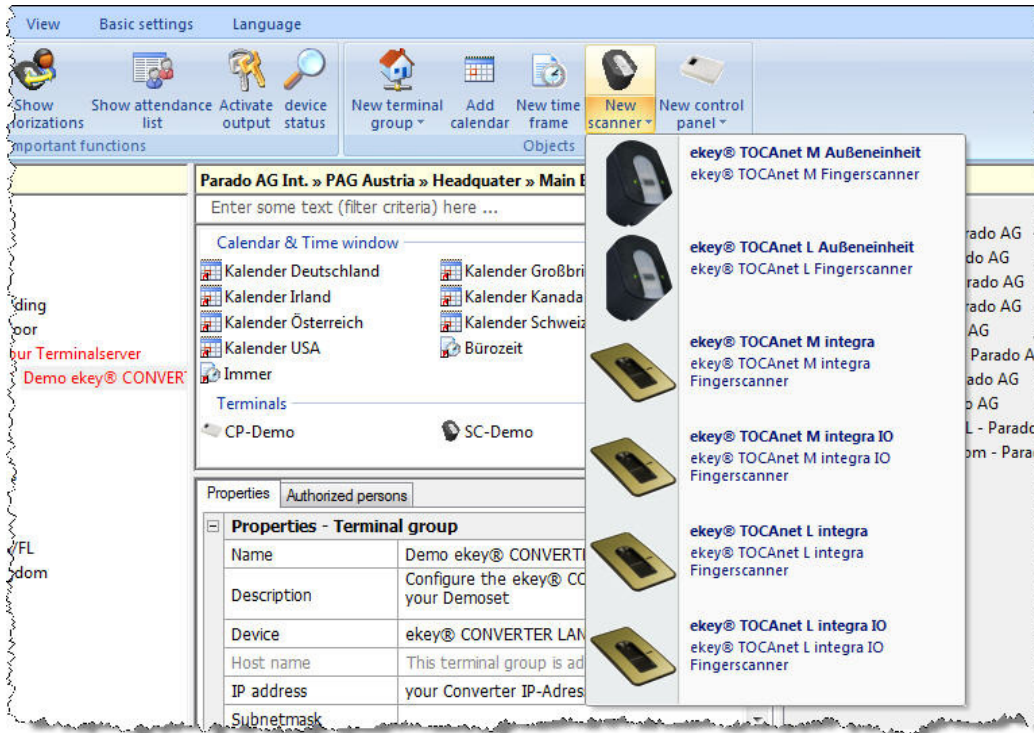
▪ Here are the most important Properties of the **"ekey® TOCAnet scanner"**:
  o **Device type:** Select the correct type for the installed scanner.
  o **Serial number of the scanner**: Assign the complete serial number.
    14 digits XXXXXX-XXXX-XXXX
  o **Assigned control panel:** Which control panel is supposed to perform the actions?
  o **Access type:**
    • 1 Finger
    • 2 different users: The first person selects the desired event with his/her authorised finger, the second person confirms it with one of his/her authorised fingers (dual control principle)
    • 2 different finger: The first finger activates the desired event, the second finger of the same person confirms it (potentiation of security = high 2)
  o **Maximum number of fingers:**
    • ekey® TOCAnet S max. 40 Fingers
    • ekey® TOCAnet M max. 200 Fingers
    • ekey® TOCAnet L max. 2000 Fingers - WARNING there is a theoretical possibility that security will be reduced

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- o **Check finger:**
  - Fingerscanner
  - Server
- o **Time delay after access (in min):** By entering a waiting time you prevent a finger being used several times by other people, for example in isolation systems
- o **Layout plan:** Activate a link to a plan of your building
- o **Web Logging Account:** In case you are using a software, such as ekey® TIMEweb (time attendance), which is able to interpret different clients, you can define the name of the client here.
  - Example: *An office building with two different companies, where both companies perform work time checks using an ekey® TOCAnet scanner. On the ground floor the terminal for company A – client A is installed, while the terminal for company B - client B - is installed on the first floor. The time management software can assign the correct "software" clients to both terminals via the web records*. See chapter **"Basic settings / Logging"**
- o **Messages:** here you can define the sending settings of information mails.

Creation and configuration of a new time frame

- ▪ Select the desired level for the new time frame and press the button **"New time frame"**.
- ▪ Please ensure that the availability of the time frame is transmitted to lower levels. I.e. if the time frame is created in the top level, then it is available in all levels!
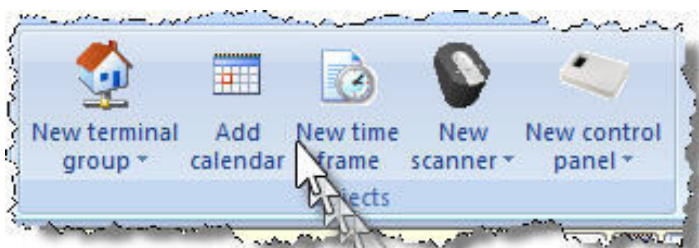
- ▪ To configure a **"Time frame"**, adjust the following properties:
  - o **Connection color**: Select the color in which this time frame is to be displayed in the authorisation configuration – see chapter "**Allocation of access – authorisation**"

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- o **In the "Times" tab you can define the following settings:**
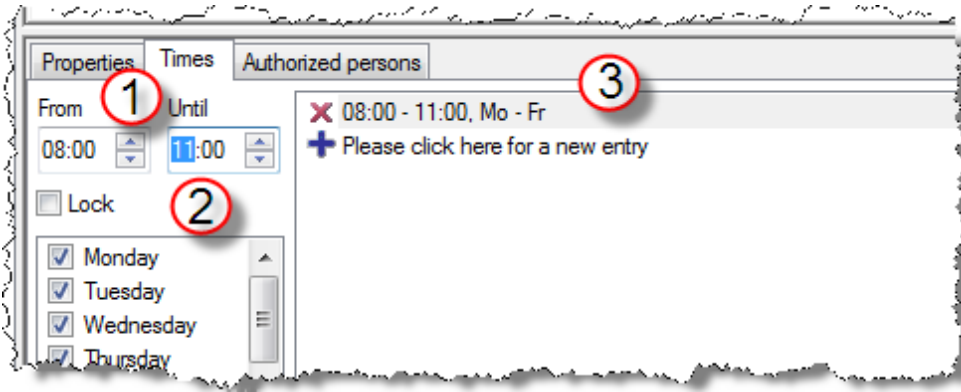
① Start and end of the access authorisation

② Activate the self-lock if you want the relay to remain switched on from the 1st positive finger matching until the end of the defined time period - e.g. long-term opening of business doors.
Activate the days or alarm plans, when this time frame is meant to come into effect.

③ By clicking on the **blue +**, you can set additional time periods. If you want to delete an existing one, click on the **red x.**

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Creation and configuration of a new calendar

- Select the desired level for the new calendar and click on the button **"Add calendar"**.
- Please ensure that the availability of the calendar is transmitted to lower levels. I.e. if the calendar is created at the top level then it is available to all levels!
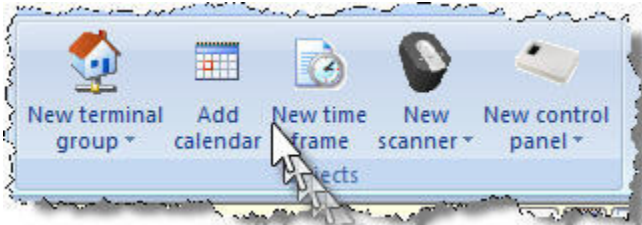
- There are two ways of editing a "**Calendar**":

  A. Import a pre-defined calendar: Menu – File > Import > Calendar ⇨ select a corresponding file ending in "**.calendar**"

  B. Create a new calendar – "**New Calendar**" 🗓 and defining its settings.
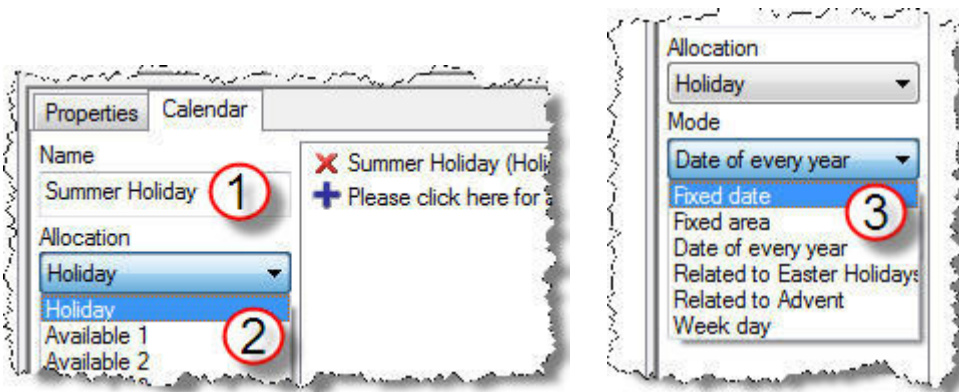
① Assign a meaningful name to this "Calendar"

② Select a suitable one from the pre-defined allocation – see chapter **"Basic settings / Options"**

③ Now define the correct mode:
  o **Easter related**: The defined date moves every year to the respective time of the Easter holidays.
  o **Advent-related:** The defined date moves every year to the respective time of the Advent Sundays**.**

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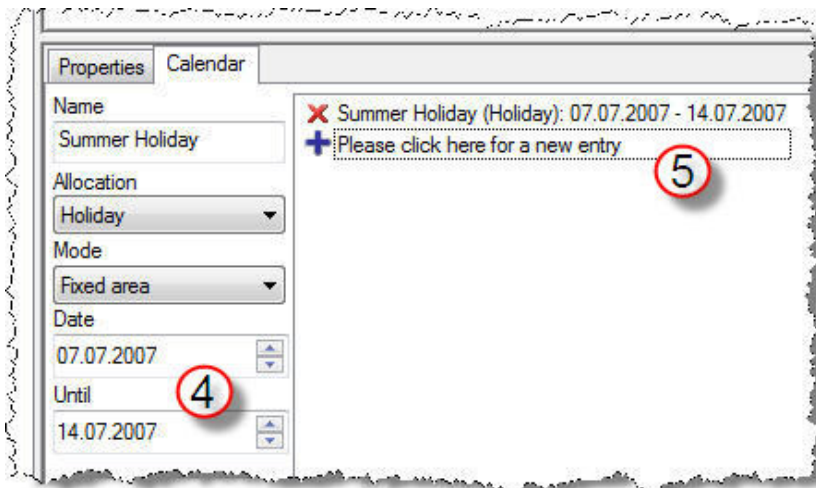
④ Now define value of the dates.

⑤ By clicking on the **blue +**, you can set additional time periods. If you want to delete an existing one, click on the **rote x** .

12. Device status

On this screen the respective devices and connection status of the relays are listed for the selected ekey® TOCAnet Terminalserver or the selected terminal group. Components which are not connected to the ekey® TOCAnet Masterserver are displayed red. In accordance with the selection of the terminal, the corresponding protocols for this terminal are listed in the right column under "User".

Offline

▪ **ekey® Terminalserver ⇒ RED:**
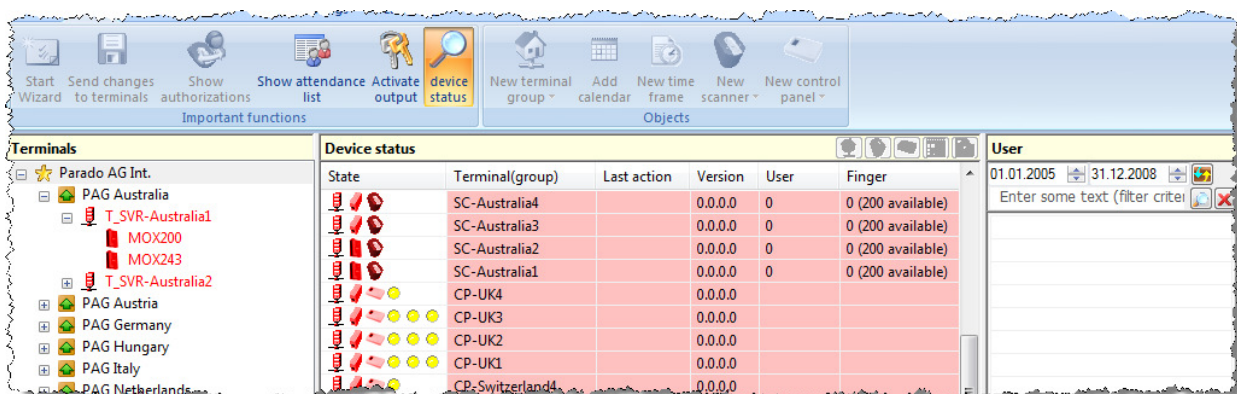
- o There is currently no communication with this component and therefore no device connected to this bus.
- o **LAN Converter ⇒** RED
- o **scanner ⇒** RED
- o **control panel ⇒** RED
- o **Relay ⇒ yellow ⇒ connection status of the relay cannot be defined**

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Online

- **All components are "online":**
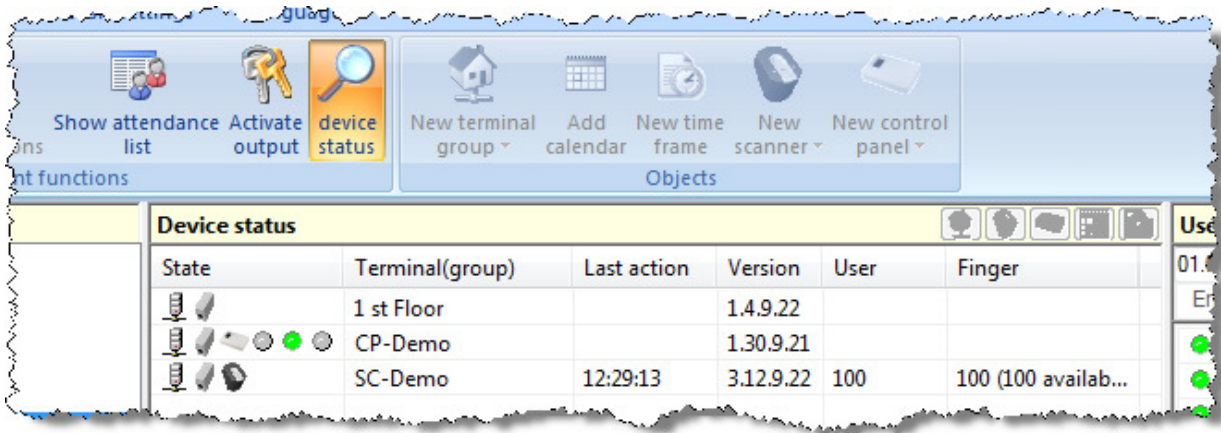
- Communication is possible with all components
  - **Relay 1** ⇒ OFF
  - **Relay 2** ⇒ **ON**
  - **Relay 3** ⇒ OFF

13. User

The interfaces of the ekey® TOCAnet Admin Program are separated into three main areas.

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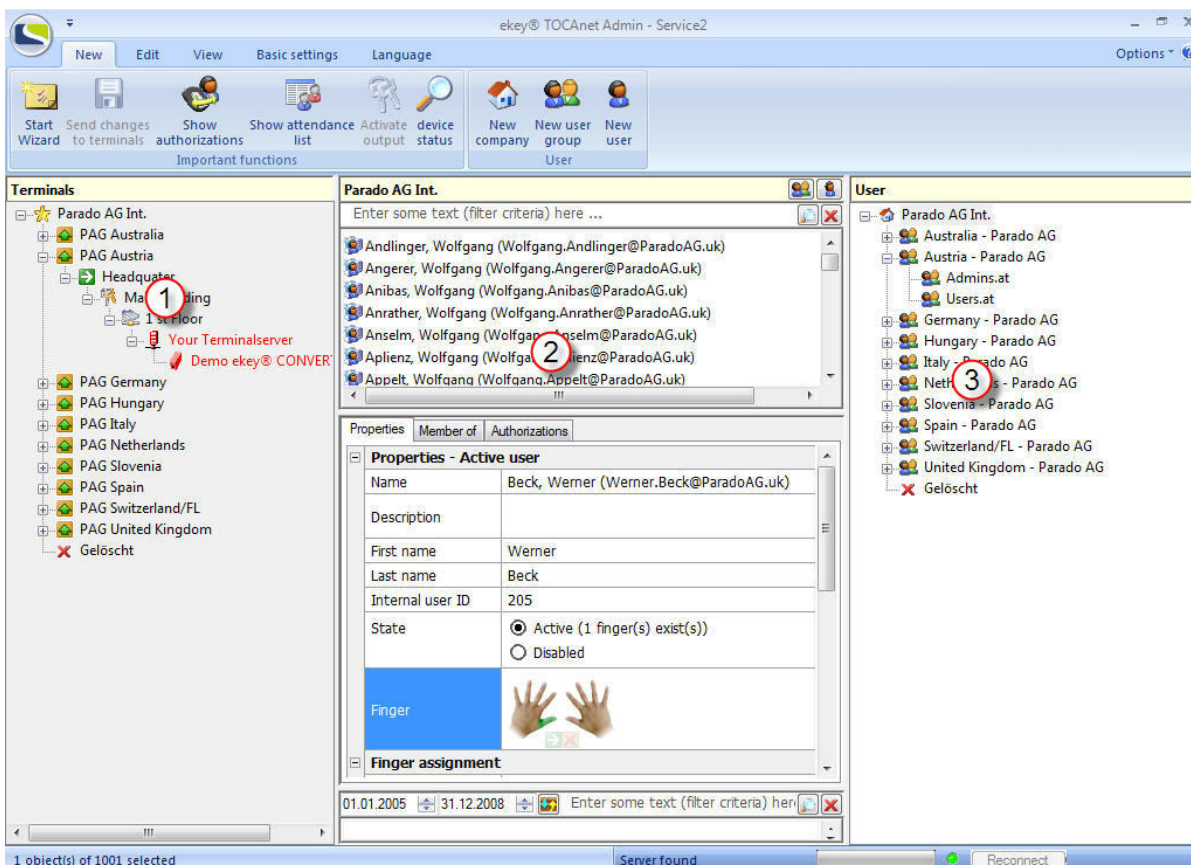
① **Terminal area:**

Here the physical structure of your ekey® TOCAnet entrance system can be displayed.

② **Multifunction area:**

Here you can edit the details of the respective selected areas.

③ **User area:**

User groups and individual users can be easily administered here.

▪ If you select a user group in the "**User area**" - you can then perform the following configurations in the "**Multifunction area**" :
  o Create a new administrative area by clicking with the mouse on the "**New company**"
  o Create a new user group "**New user group**"
  o Create a new user "**New user**"
  o **Select the desired user in the upper third of the window:**
    • **BLUE** ⇒ active User (at least 1 finger has been recorded)
    • **RED** ⇒ active ekey® TOCAnet administrator
    • **GREY** ⇒ deactivated user
  o Delete a user by selecting and clicking on the "**DEL**"button

▪ If you have selected a user or created a new one, then you can carry out changes in the "**Properties**" tab.
  Here are the most important properties:
  o **Description:** usually made up of the surname and Christian name of the person
  o **Finger assignment**: Details of this characteristic can be found in the chapter "Recording of the finger"
  o **Validity period**: e.g. to define a temporary employment contract - holiday placements, contracted staff, ..
  o **Additional user data:** All additional points created and activated in the "**Basic settings / User data**" area

▪ In the bottom third of the window you can see current status information, sort the information and search for particular content.

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14. Enroll finger

Here you can enroll the finger of the user and assign events to it.
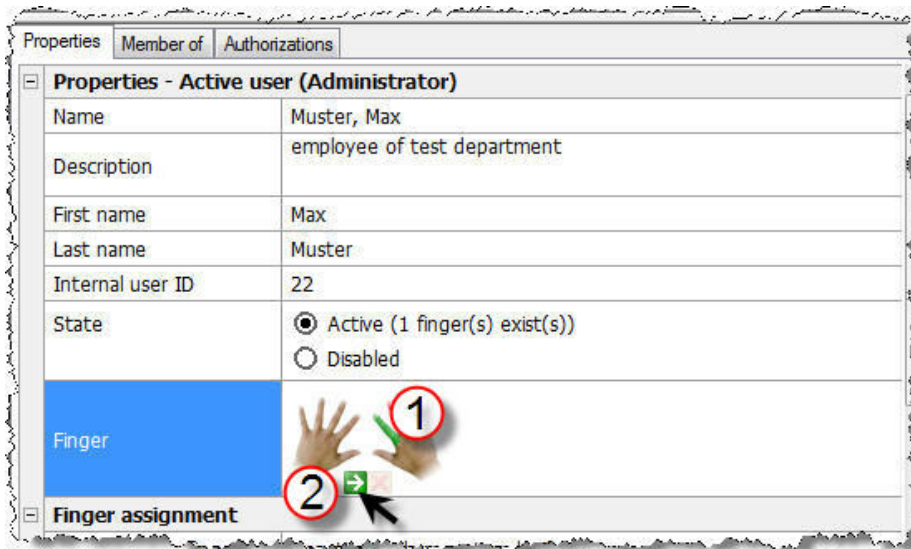
① Click on the finger that you wish to record

② Active the following dialog window by clicking on the button **"Record finger (green arrow)"**:
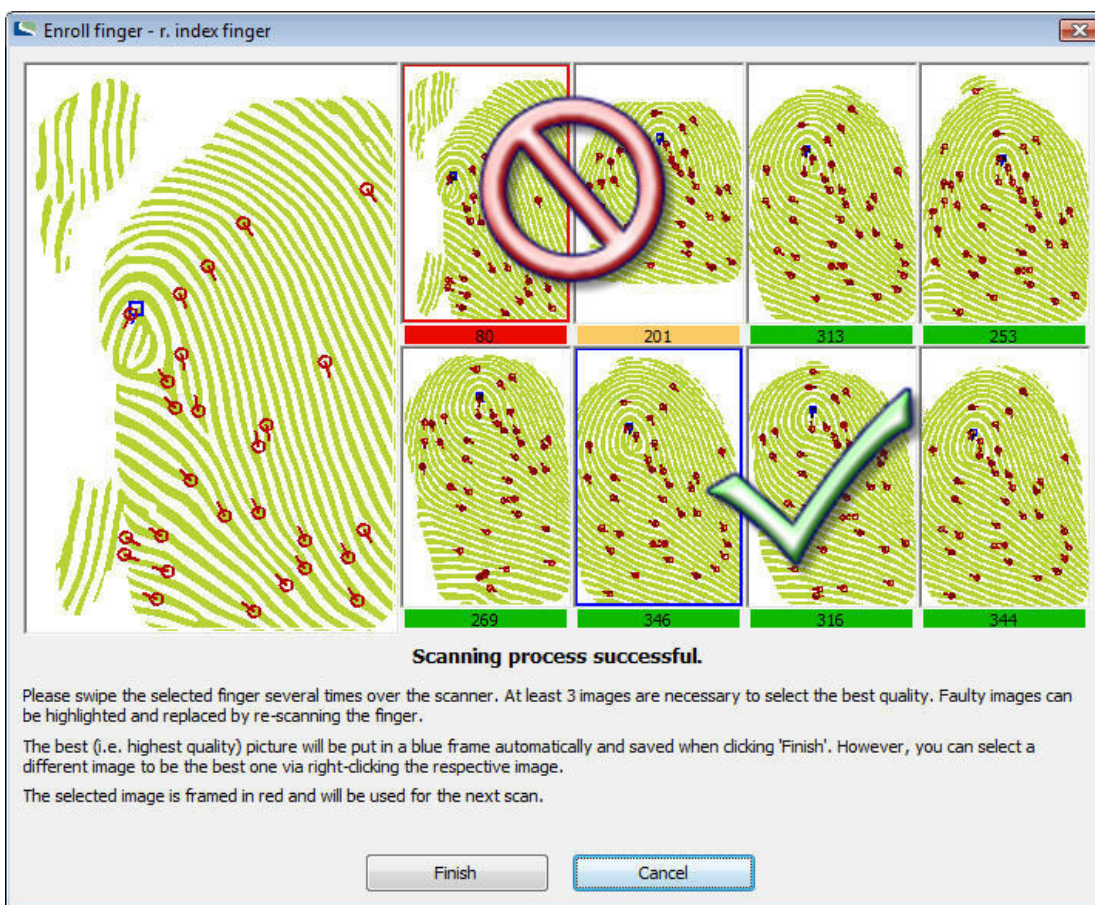
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- Place the finger:
    - Lying flat
    - not "spread out"
    - with moderate pressure
    - at equal speed
    - at least three times

over the sensor of the ekey® BIT USB fingerprint reader.

- Accept the best "green" template by clicking on the button **"Finish"**
  (You can read detailed instructions about this in the window)

③ Now assign the desired event to the finger

④ Then define the importance of the finger:
    - **three Stars** ⇒ Standard
    - **4/5 Stars** ⇒ high priority – these fingers are found quicker
    - **1/2 Stars** ⇒ lower priority

Further information about "**Events**" can be found in chapter "**Basic settings / Events**"

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15. FAQ – Frequently asked questions

Use this area to find answers to questions you may have.

▪ **Which ports have to be opened on Firewalls for ekey® TOCAnet?:**

The computer has to be able to have unrestricted communication: This has to be enabled on Firewalls, Layer 4 Switches etc., so that unrestricted communication is possible between the ekey TOCAnet 3 components.

Message Queuing	*MSMQ*	UDP1801
Message Queuing	*MSMQ-DCs*	TCP2101
Message Queuing	*MSMQ-Ping*	UDP3527
Message Queuing	*MSMQ-Mgmt*	TCP2107
Message Queuing	*MSMQ-RPC*	TCP2103
Message Queuing	*MSMQ-RPC*	TCP2105
Message Queuing	*RPC*	TCP135
Message Queuing	*MSMQ*	TCP1801

Warning: These ports are so-called RPC (Remote Procedure Call) ports – this means that if this port is occupied by another piece of software the next available one is used – in 10 point steps: e.g. UDP1801 becomes UDP1811

In case the following ports do not work, open one range of ports – e.g.: UDP1801 - UDP1851. Please find details about this in the Microsoft article below.

For a detailed description of the functions of MSMQ, see

http://support.microsoft.com/kb/178517/en-us

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- **What do the different colors of the LEDs on the scanners mean?:**

Surface	Integra	Status display	Function display	Description
		Flashing orange	**Off**	There is no connection with an ekey® CONVERTER LAN / MOXA converter and the ekey® TOCAnet Terminalserver is in "offline – state". Please check the connections.
		Off	**Left: Flashing green Right: Green**	The ekey® CONVERTER LAN is online, but the ekey® Terminalserver cannot be contacted. Check the network connections and the ekey® TOCAnet Terminalserver service.
		Off	**Left: Green Right: Green**	The system is online - all components are communicating correctly.
		Flashing orange	**Left: Green Right: Green**	Finger recognition: Check being carried out

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		Green	**Left: Green Right: Green**	Finger recognition: Positive
		Red	**Left: Green Right: Green**	Finger recognition: negative or recognised finger rejected
		Flashing red	**Left: Green Right: Green**	Data comparison with the server
		Off	**Alternating left, right flashing**	Firmware update being carried out
		Red, flashing green	**Left: Green Right: Green**	2 finger or 2 user mode: The device is waiting for the second finger
		Red, flashing orange	**Left: Green Right: Green**	Waiting time for the triggered rebooting of the scanner

Within the boot process::

		Yellow	**Off**	Module database is being initialised.
		Green - Yellow	**Off**	Flash error – automatic repair has been started
		Red – red - yellow	**Off**	Flash error – the scanner has to be replaced – please contact customer support.
		Red, flashing green	**Off**	Communication with the server was not possible during the boot-up - please contact customer support.

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- **How can I interpret the information from the 7-segment display of the control panel?:**

Display	Info	Description
	Both points are lit up	The terminal is new and has not yet been initialized. This state can be forced by pressing the left and right buttons.
	The "r" in the right segment and points are blinking alternately	This terminal has been initialized in another ekey® TOCAnet system. It has to be reset by pressing first the left and then the right button.
	There is an "o" in the right segment	There is no connection with an ekey® CONVERTER LAN / MOXA converter and the ekey® TOCAnet Terminalserver is in - "offline - state". Please check the connections.
	The left point is flashing	The ekey® CONVERTER LAN is online, but the ekey® Terminalserver cannot be contacted. Check the network connections and the ekey® TOCAnet Terminalserver service.
	The points are blinking alternately	The system is online - all components are communicating correctly.
	The lower line in the left segment and the points are flashing alternately	Port 1 (relay 1) is switched on.

	The middle line in the left segment and the points are flashing alternately	Port 2 (relay 2) is switched on.
	The upper line in the left segment and the points are flashing alternately.	Port 3 (relay 3) is switched on.
	"Nu" - Need Update	This terminal requires a firmware update. This display also appears during an update.