ROTH + WEBER GmbH

A MATTER OF EXCELLENCE

ROWE Scan 450i

OPERATING MANUAL

REVISION 1.0

ROWE Scan 450i Series

The present Operating Manual includes a description of all devices of the ROWE Scan 450i series and their fields of use. Safety instructions are given in Annex B. It is imperative to read them before using the device. Moreover, technical safety notes are given in Annex B.

Please also observe the safety notes and warnings in this Operating Manual to which your attention is drawn at the respective passages.

Proper use of the scanners – according to this Operating Manual – is a condition for the warranty granted by the ROTH + WEBER GmbH Company. In case of non-observance, ROTH+WEBER cannot accept any liability.

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Typographical Conventions

In the individual chapters of this Operating Manual some typographical conventions are used. These conventions allow for quick familiarization with the manual. They simplify handling of this manual and help you to familiarize quickly with the ROWE Scan 450i scanner.

Comments

In the present manual, the following types of comments are given:

Note: You obtain information and useful tips which are helpful for smooth operation of the devices.

Attention: These notes intend to prevent damage to or failure of the device.

Caution: Possible hazards for the operator resulting from operation of the ROWE Scan 450i devices.

Contents

1 ROWE Scan 450i Series

The present chapter provides detailed information on the structure of this Operating Manual. Moreover, you find general descriptions

- of the devices of the ROWE Scan 450i series.

- of the main functions of the ROWE Scan 450i series.

- of the scope of supply and the options of the ROWE Scan 450i series.

- of the software applications of the ROWE Scan 450i series.

This chapter shall provide a first overview. You find detailed information in the corresponding chapters which are also included in this Operating Manual.

STOP   Before using the device, please read the Safety Notes in Annex B (see 127) first.

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1.1 Basic Models of ROWE Scan 450i Series

Three basic ROWE Scan 450i scanner models (KIT 40) are available:

ROWE Scan 450i 24" KIT 40	Large-size scanner black/white and color Scan width: 24.48" (622 mm) Original width: 27.4" (696 mm) Original thickness: up to 2 mm (0.08") for flexible materials
ROWE Scan 450i 36" KIT 40	Large-size scanner black/white and color Scan width: 36.49" (927 mm) Original width: 39.4" (1,001 mm) Original thickness: up to 2 mm (0.08") for flexible materials
ROWE Scan 450i 44" KIT 40	Large-size scanner black/white and color Scan width: 44.5" (1,130 mm) Original width: 47.4" (1,204 mm) Original thickness: up to 2 mm (0.08") for flexible materials

The ROWE Scan 450i basic models (KIT 40) can be upgraded to KIT 60 by installing a software license upgrade on the spot.

For software upgrades or other additional equipment, please contact our sales department:

Phone: +49 (0) 2743 9217-24

Fax: +49 (0) 2743 2018

E-mail: vertrieb@rowe.de

1.2 Scanner Upgrades

As an option, the ROWE Scan 450i -40 basic model can be upgraded to KIT 60 by installing a software upgrade.

An overview is given in Table 1.1.

	B/W and/or gray scale 400 dpi TURBO		Color (24 bit RGB or index) 400 dpi TURBO	
	Meter/minute	Inch/sec.	Meter/minute	Inch/sec.
ROWE Scan 450i **KIT 40** B/W+COLOR ScanModule	17	11.15	2.75	1.8
ROWE Scan 450i **KIT 60** B/W+COLOR ScanModule	17	11.15	5.5	3.6

Table 1.1: Maximum scan speed of ROWE Scan 450i series

Note: The scan speed is dependant upon the width of the original and the configuration of the computer.

By default, the ROWE Scan 450i is delivered including ROWE ScanManager TWAIN as well as a 30-day trial version of ROWE ScanManager PRO. Optionally, models with extended features can be activated on the spot by means of a software upgrade. An overview of the available models is given in Table 1.2.

ROWE ScanManager Version	Description
ROWE ScanManager TWAIN	**TWAIN + EDIT** Functions: Direct scanning in all applications by support of TWAIN, basic kit image editing, 2 viewers (General Viewer and Main Viewer), ICC color management, etc.
ROWE ScanManager LT	**TWAIN + EDIT + SCAN** Functions: Includes ROWE ScanManager TWAIN plus Scan-to-Net, Scan-to-USB, Scan-to-Email, etc.
ROWE ScanManager SE	**TWAIN + EDIT + SCAN + COPY** Functions: Includes ROWE ScanManager TWAIN, LT plus Scan-to-Copy, Multiprint, Multitasking, Recopy, closed loop color calibration, one printer driver each for inkjet printer and ROWE printer, etc.
ROWE ScanManager TOUCH	**TWAIN + EDIT + SCAN+ COPY** Functions: Includes ROWE ScanManager TWAIN, LT with Main Viewer, user interface perfectly suited for touch screen operation plus Scan-to-Copy, Multiprint, Multitasking, Recopy, closed loop color calibration, one printer driver each for inkjet printer and ROWE printer, etc.
ROWE ScanManager PRO	**TWAIN + EDIT (Extended) + SCAN + COPY + CostControl + PrintMasterPRO** Functions: Includes ROWE ScanManager TWAIN, LT, SE plus advanced image editing, extensive cost center management, PrintMaster PRO, etc.
ROWE **C**ost**C**ontrol Professional	Advanced cost center management, ROWE ScanManager PRO required

Table 1.2: ROWE ScanManager models

Supplied accessories

- ROWE installation CD-ROM including:

    o Driver for ROWE Scan 450i

    o Installation process for ROWE Scan Manager

    o Operating Manual as PDF file

- Calibration Chart for ROWE Scan 450i

- Power unit 24 V

- Power cord (1xCE / 1xUL / 1xGB / 1xCN)

- USB 3.0 type A to type B for connection between PC and scanner

- Hardcopy of short manual

Optional accessories

Designation	Description
ROWE Scan 450i floor stand 24″	Floor stand 24″: Height of feed table for originals: 960 mm
ROWE Scan 450i floor stand 36″	Floor stand 36″: Height of feed table for originals: 960 mm
ROWE Scan 450i floor stand 44″	Floor stand 44″: Height of feed table for originals: 960 mm
ROWE Scan 450i PC holder for floor stand 24″ / 36″ / 44″	PC holder for floor stand 24″, 36″, and 44″ intended to accommodate a conventional computer housing
ROWE Scan 450i touch screen Holder for floor stand 24″ / 36″ / 44″	Bracket for touch screen and other flat screens for floor stand 24″, 36″m, and 44″ with a size of 17″ to 23″ with VESA MISD75/100 holder and a maximum weight not exceeding 10 kg. The flat screen is not included in the scope of supply.
ROWE Scan 450i MFP stand 24″ / 36″ / 44″	Intended to integrate a ROWE Scan 450i into an inkjet printer (up-to-date list of compatible printers on request). Height of feed table for originals: 1,145 mm to 1,265 mm. **Including bracket** for flat screen 17″ to 23″ with VESA MISD75/100 holder and a maximum weight not exceeding 10 kg. The flat screen is not included in the scope of supply.
ROWE Scan 450i PC holder for MFP stand 24″ / 36″ / 44″	PC holder for MFP stand 24″, 36″, and 44″, intended to accommodate a conventional PC housing
ROWE Scan 450i touch screen	17″ to 23″ flat screen with DVI input and a resolution of 1,280 x 1,024 pixels
ROWE Scan 450i Controller PC	Standard PC, information on features on request
ROWE Scan 450i Calibration Chart 24″	Calibration chart for ROWE Scan 450i 24″
ROWE Scan 450i Calibration Chart 34″	Calibration chart for ROWE Scan 450i 36″
ROWE Scan 450i Calibration Chart 44″	Calibration chart for ROWE Scan 450i 44″

> For information on the available accessories for the individual scanner types, please refer to the current ROWE Scan 450i leaflet.

1.3 System Overview

Figure 1.1 shows the ROWE Scan 450i front view. The following components are shown:

1. Scanner top

2. Control panel

3. Feed table with graduation for formats

4. Feeding slot for document feed

5. Zero point

6. Locking scanner top (on both sides)
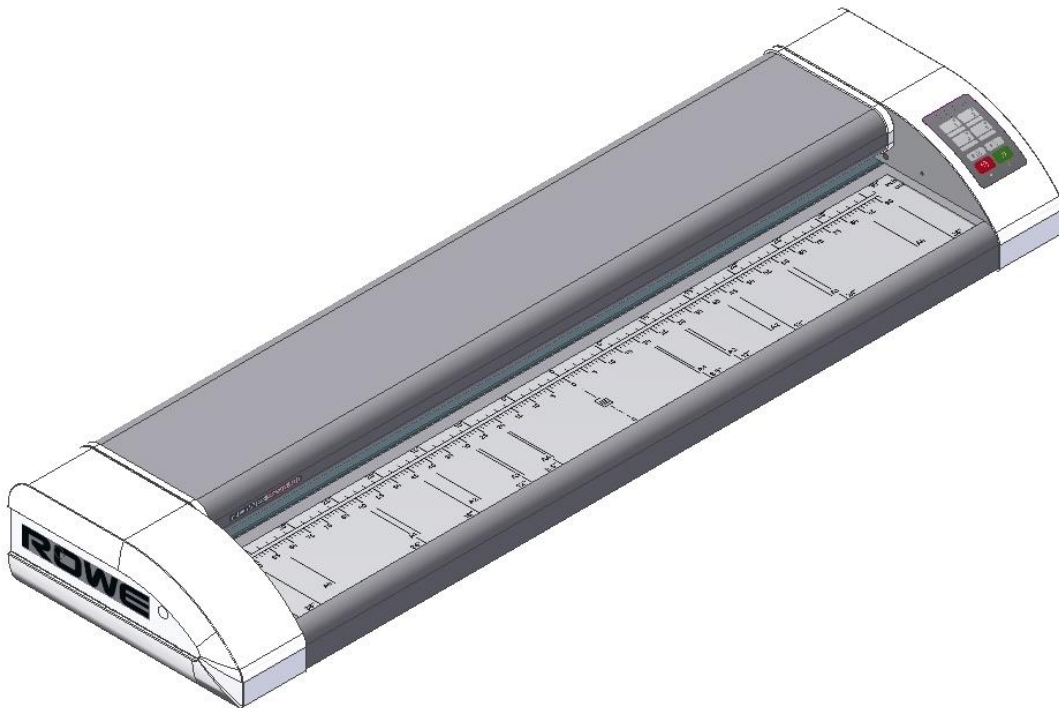
Figure 1.1: ROWE Scan 450i

Figure 1.2 shows the ROWE Scan 450i control panel. It includes the following components:

1. Start key

2. Stop key

3. Forward motion key

4. Backward motion key

5. Favorite keys (individual allocation of scan settings via ROWE ScanManager)

6. Operating LED

7. Malfunction indicator LED

Figure 1.2: Control panel ROWE Scan 450i

> ℹ️ If you want to mark the favorite keys of the control panel, use a conventional permanent marker. Please use household cleaning agents to remove or clean it.

Figure 1.3 shows the back of the ROWE Scan 450i with the left side box. There, you see the following connections:

1. Connection for 24 V power unit

2. USB slot (USB 3.0 for ROWE Scan 450i) to connect scanner to PC
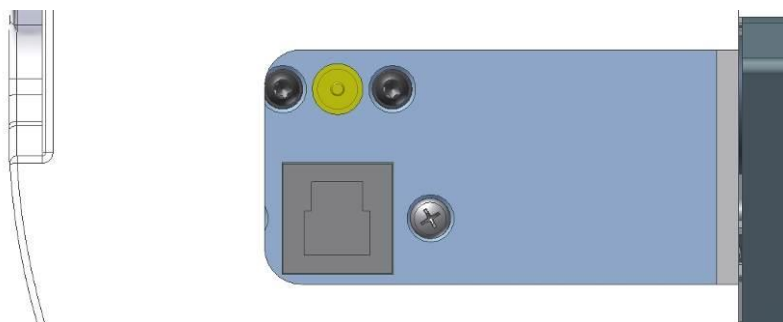
Figure 1.3: Back of ROWE Scan 450i

1.4 Unpacking of Device

In order to install the scanner, a space of at least 2.5 m x 2.0 m is required which meets with the ambient conditions described in Annex B.3.1 (Page 130). When unpacking the scanner, do not lift it by grabbing the side boxes (see Figure 1.4).
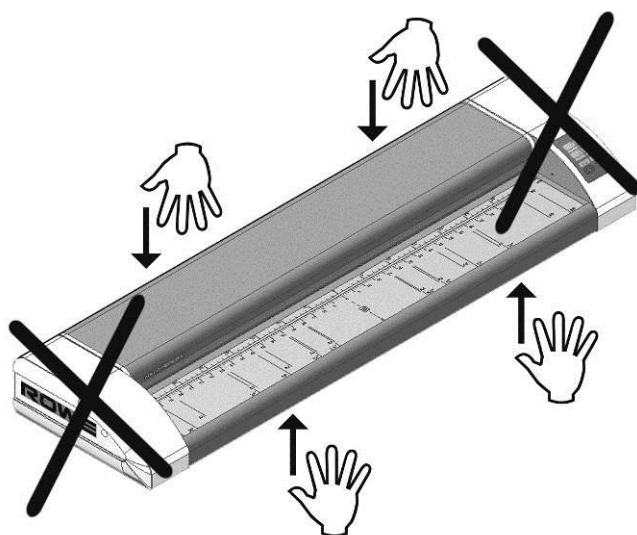
Figure 1.4: Unpacking of ROWE Scan 450i

Before installing the device, check the consignment for completeness. Check the scope of supply by means of the list in Chapter 1.2 on Page 10.

Visible damages are to be notified in writing by a corresponding comment on the consignment note. Otherwise, payment of damages by the carrier is excluded.

⚠️ In order to avoid damages to the device, please do not place any tools, components, or the like on the scanner!

1.5 Requirements as to PC

Use of the scanner requires connection of a PC (not included in the scope of supply). This PC shall comply with the minimum requirements mentioned in Table 1.3. However, we recommend compliance with the optimum requirements to benefit from optimum performance.

Component	Minimum requirements ROWE Scan 450i	Optimum requirements ROWE Scan 450i
CPU	1.66 GHz Dual-Core	3.0 GHz Quad-Core
Memory	2.0 GB	4.0 GB

Component	Minimum requirements ROWE Scan 450i	Optimum requirements ROWE Scan 450i
Hard disc	5,400 rpm SATA 5 GB free memory	7,200 rpm SATA 50 GB free memory
Interface	High Speed USB (2.0)	Super Speed USB (3.0)
Operating system	Windows XP SP3 (32 bits)	Windows 8. (64 bits)
Screen	Size: 17" Resolution: 1,280 x 1,024	Size: > 19" Resolution: > 1,280 x 1,024
Touch screen (optional)	Size: 17" Resolution: 1280 x 1024	Size: > 19" Resolution: > 1,280 x 1,024

Table 1.3: PC requirements for ROWE Scan 450i with ROWE Scan Manager (as from version 1.4.7)

Administrator rights are required for installation of the ROWE Scan 450i software on your PC.

In exceptional cases, a USB 2.0/3.0 host controller chip set may not be compatible with the high performance transfer mode of the ROWE Scan 450i. We recommend to use hardware meeting these requirements. A current list of compatible USB chip sets is available on request.

1.6 Connection of ROWE Scan 450i to Power Supply

Before using the ROWE Scan 450i, connect the scanner to the power supply using the power unit. Plug the connector socket of the supplied power unit into the connection on the back of the scanner. Plug the connector of the power unit into a socket. Please absolutely observe the following:

STOP   The scanner must only be connected to a grounded socket with VDE homologation.

STOP   The socket has to be protected by fuses (10 A).

STOP When several devices are connected to one socket using an extension cord and/or a multiple socket, the total current draw shall not exceed 10 A.

The socket has to be located near the scanner.

2 Installation

In this chapter, you learn how to install the software on a PC to operate the ROWE Scan 450i. The PC shall comply with the minimum requirements mentioned in Chapter 1.5. However, the optimum requirements indicated there are recommended.

⚠️ When starting installation, the scanner must neither be connected to power supply nor PC. Should you use mouse and keyboard on the scanner top, place the cables in a way that they do not obstruct the paper outlet.

⚠️ First install the software on the PC. The scanner must be connected only afterwards.

🛑 The power unit of the scanner is fitted with a grounded three-core power plug. Only skilled workers are allowed to modify plug and socket. Never bypass or ignore grounding.

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2.1 Erecting Scanner

Place the scanner either on the suitable ROWE floor stand, the suitable ROWE MFP stand (see *Optional Accessories ROWE Scan 450i Series,* Chapter 1.2 on Page 10), or on a sturdy table. Erect the scanner in a way that document feed and outlet can be accessed from all sides.

Do not yet connect the scanner to power supply or computer.

Do not lift the scanner by grabbing the side boxes (also see Chapter 1.4 on Page 15).

2.2 Starting Software Installation

In order to install the software, you need the supplied CD-Rom. First, switch the computer On which is not yet connected to the scanner. Put the CD-Rom into the CD-Rom drive of the PC. Usually, installation of the software starts automatically. If not, start from the CD by double-clicking *"autorun.exe"*. The dialog box shown in Figure 2.1 appears from which you simply select *"Install"*.	 **Figure 2.1: Installation screen**
The installation process has been started and you are first prompted to select the language.	 **Figure 2.2: Selection of language**
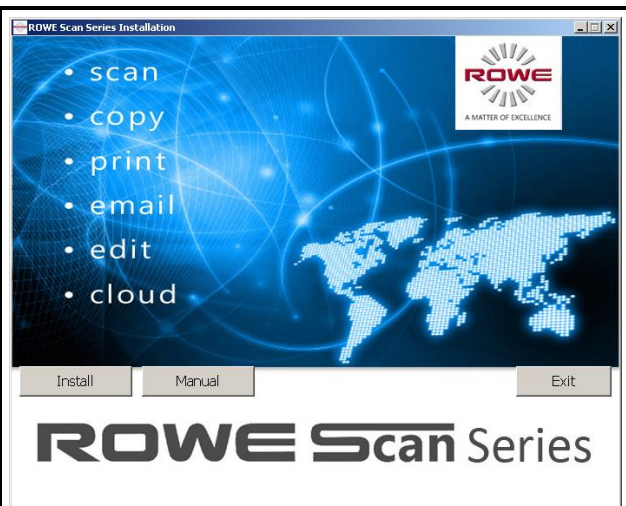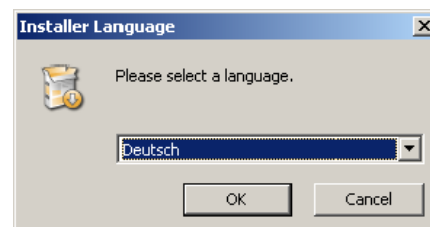
Afterwards, the welcome window is displayed as shown in Figure 2.3. By clicking „*Next*" you access the installation directory (Figure 2.4). ℹ️ You can stop the installation process at any time by pressing the "Cancel" button. The software is not installed then. However, the ROWE Scan 450i scanner cannot be operated in this case.	 **Figure 2.3: Welcome dialog box**

2.3 Selecting Folder

When selecting the folder (Figure 2.4), a folder where to install the ROWE Scan 450i software is already suggested. The shown figures have the following meaning: 1. *Destination folder*: Currently selected folder is displayed 2. *Browse*: Selecting another folder 3. *Information* on the required and available storage space 4. *Back*: Return to previous dialog box 5. *Install:* Start and/or continue installation 6. *Cancel*: Cancel installation prematurely. The scanner cannot be used in this case.	 **Figure 2.4: Selection of folder**

2.4 Installation Process

After actuating the *"Install"* button, the files will be installed. In the meantime, the installation progress and the current state are displayed as shown in Figure 2.5.	 **Figure 2.5: Installation process**
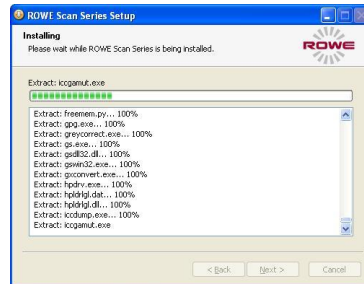
2.5 Installation of Device Drivers

During data transmission several dialog boxes pop up indicating that the appropriate drivers for the device are being installed. During installation, Windows (Windows XP) may point out that the drivers did not pass the so-called "Windows logo testing" (Figure 2.6). This is normal and installation can be continued by clicking "Continue anyway".	 **Figure 2.6: Windows logo testing**
After having installed the drivers on the computer, the installation can be continued by pressing the *"Finish"* button (see Figure 2.7).	 **Figure 2.7: Driver installation completed**

2.6 Installation of Additional Plug-ins

After having completed the installation of device drivers and files, additional plug-ins required for use of the ROWE Scan 450i software are installed. By actuating *"Next"* (see Figure 2.8) installation will be continued.	 **Figure 2.8: Homepage for installation of plug-ins**
In the opening dialog box (Figure 2.9), you are prompted to accept the license agreement. Select *"I agree"*.	 **Figure 2.9: License agreement for plug-ins**
The required plug-ins are now installed automatically. In the dialog box seen afterwards (Figure 2.10), you have to click *"Finish"* to complete installation. Then, another installation dialog box appears for installation of the standard ICC color profiles. Proceed as described above.	 **Figure 2.10: Complete installation of plug-ins**
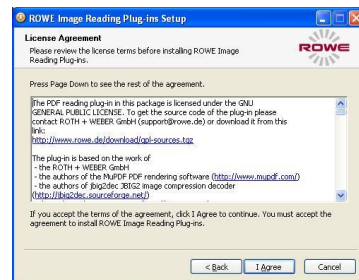
2.7 Shutting Down Computer – Connecting Scanner – Switching ON Computer and Scanner

After actuating *„Finish"* you are prompted to shut the computer down (Figure 2.11). Please confirm by actuating *"Yes"*. Now wait until the computer has been shut down and switched OFF.	 **Figure 2.11: Prompt to shut computer down**
After having switched the computer OFF, proceed as follows: 1. Connect the computer to the scanner using the USB cable. Use the supplied USB cable (see Figure 2.12). 2. Connect the scanner to the power supply using the supplied power unit. 3. Switch the computer ON again.	 **Figure 2.12: USB plug (connection scanner)**
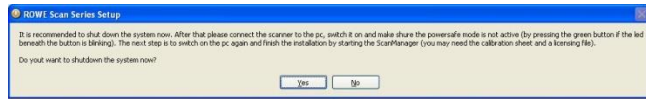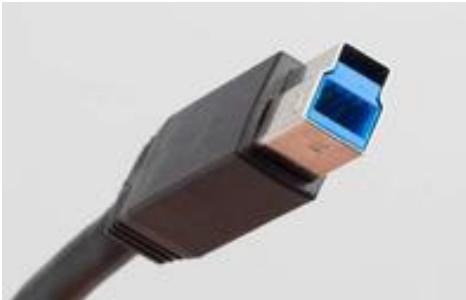
2.8 Continuing Installation

⚠ If Windows XP is installed on your computer, the operating system may browse for new scanner software after restart. Otherwise, you can skip this step. For driver installation, the dialog boxes in Figures 18 to 21 are displayed. Please select *"No, not this time"* and click the *"Next"* button in Figure 2.13.	 **Figure 2.13: Disable Windows update**
Afterwards select "*Install the software automatically*" in Figure 2.14 to use the driver already installed.	 **Figure 2.14: Installing driver automatically**
Afterwards select *"Continue anyway"* in the dialog box shown in Figure 2.15*.	 **Figure 2.15: Continuing driver installation**
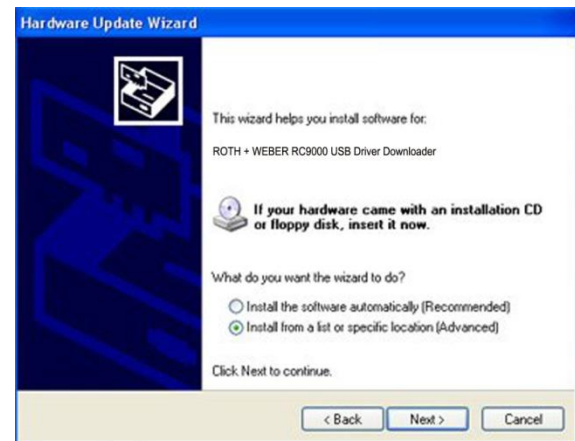
By actuating "*Finish*" (Figure 2.16*)*, the driver installation is being completed.	**Figure 2.16: Driver installation finished**

2.9 Establishing Connection to Scanner

After having restarted the computer, start the *Setup Wizard* via *Start → Programs → ROWE Scan Series* and follow the instructions.	**Figure 2.17: Start Setup Wizard**
The Setup Wizard now establishes the connection between scanner and computer automatically. This process may take some time depending on the PC performance. ⚠ If you actuate the *"Cancel"* button during the connection process, installation is canceled. ℹ If the connection cannot be established, check the connection lines and whether the scanner is switched ON. If the operating LED is flashing, the scanner is	**Figure 2.18: Connection establishment**
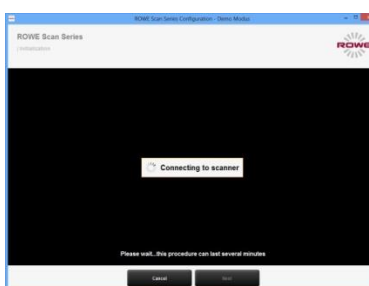
in energy saving mode. If so, actuate the green key ("*Start*") on the device once.	

2.10 Activation of License Options

Should you have purchased additional license options, you can install the license file in the following dialog box. Proceed as follows: 1. *Open license file*: Select the license file (file extension ".key"). After purchasing ROWE Scan 450i as well as later upgrades, you obtain the file usually by e-mail or on request on an additional data carrier. 2. Press "*Next*" to activate the license or to proceed with the already existing license.[1] ℹ️ If you obtained a license file by e-mail, you have to save the attached .key file on your PC, first, to be able to select it under 1. 3. If you want to fit your ROWE Scan 450i with additional functions, you can confirm the button labeled 3. ("*Order license*"). If a connection to the Internet is given, your Internet browser pops up automatically and you access the ROWE website where you can order further license options. As an option, you can also contact the ROWE Sales Department (see Chapter 1.1).	**Figure 2.19: License installation**

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[1] By default, the ROWE Scan 450i is fitted with a 30-day trial license for ScanManager PRO. This is why you can press "*Next*" immediately – unless you purchased additional license options.

2.11 Calibration of Scanner

Now, the scanner needs to be calibrated to obtain perfect scan results.

For this purpose, place the supplied calibration chart in the paper feed of the scanner.

⚠️ The calibration chart has to be placed with the printed side facing up and with the depicted arrow facing the front because the calibration process cannot be effected correctly otherwise.

Press *"Next"* afterwards. The calibration process is started and will take some time. Any remaining time is depicted.

ℹ️ Should the wizard detect soiling and/or dust during the calibration process, a message pops up. In this case, check and clean the glass plate. Afterwards, you can repeat the process.

⚠️ Please handle the calibration chart with care. After calibration put it back into the provided cardboard box.

After completion of calibration, the scanner is in working order and ready for use. For this purpose, read chapter *"Simple Scan"* and/or *"Introduction to ROWE ScanManager"*.
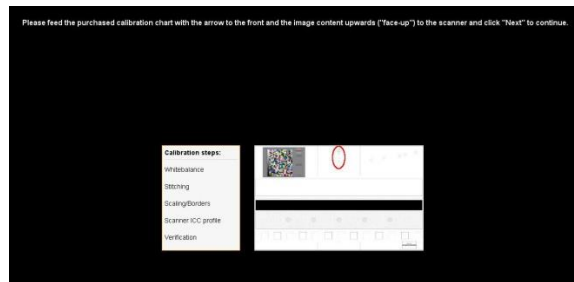
Figure 2.20: Calibration of scanner

ℹ️ In general, the Scan 450i software on the supplied CD-ROM is the most recent version. However, it may also occur that a more recent version is already available. The latter can now be downloaded and installed if you intend to do so. Press the *Update* button in *ConfigManager* (see Chapter 6). For this purpose, read Chapter 6.7.

3 Switching Scanner ON/OFF

STOP Operate the ROWE scanner at a supply voltage of 100 to 240 volts and a frequency of 50 / 60 Hz, only.

3.1 Connection of Power Unit

The scanner is switched ON by connecting the power unit to a socket. The connector for the power unit is located on the back of the scanner on the right. (see

Figure 3.1). If the device is switched ON, the operating LED under the green button (2) on the control panel (see Figure 3.2) lights up.

⚠️ During the installation process switch the scanner ON only after being prompted to do so.

ℹ️ The scanner works properly only after installation of the ROWE Scan 450i software (see Chapter 2) prior to use. • Plug the connector of the power unit into the socket to switch the device ON.	 **Figure 3.1: Position connector power unit**
On the control panel of the scanner (see also Figure 1.2 on Page 14) you see two LEDs. After having switched ON the device, the operating LED under the green button (2) lights up. Should a failure occur (e.g. paper jam), the LED under the red button (1) lights up. If the operating LED under the green button (2) is flashing, the scanner is in *energy saving mode*. In this mode, the scanner is not recognized by the PC. In order to put the scanner into operation again, simply press the green button once. ℹ️ If you do not use the scanner for a longer period, pull the mains plug.	 **Figure 3.2: Control panel**
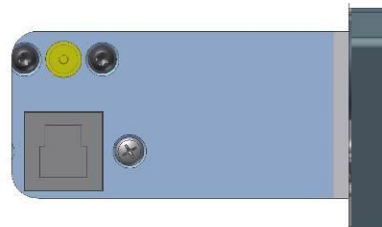
4 Simple Scan

Moreover, the ROWE Scan 450i scanners are fitted with automatic width detection (see scan format, Chapter 5 on Page 57).

4.1 Performing a Scan

Switch the scanner ON, boot the PC, and afterwards start *ScanManager*. For this purpose, double-click on the icon on the desktop or use the link in the Start menu.	 **Figure 4.1: Desktop link ScanManager**
• Place the document onto the feed table (1) with the printed side facing up. • Align the document in a way that the zero point (3) is in the middle of the document. • Feed the document into the scanner until the scanner takes it in. • Select the requested color mode in ROWE ScanManager (see Chapter 5.10.3.1 on Page 52). • Select the requested *scan format* in ROWE ScanManager (see Chapter 5.10.3.3 on Page 57) if applicable. For the document width being recognized automatically, select the default setting *"Auto"*. • Select the storage location in ROWE ScanManager (see Chapter 5.10.1.1 on Page 45) if required.	 **Figure 4.2: How to position the document**
Press the *"Start"* button (2) on the control panel of the scanner or in ROWE ScanManager. ℹ The *"Start"* button on the control panel (2) and in ROWE ScanManager have the same function.	 **Figure 4.3: Start button control panel**
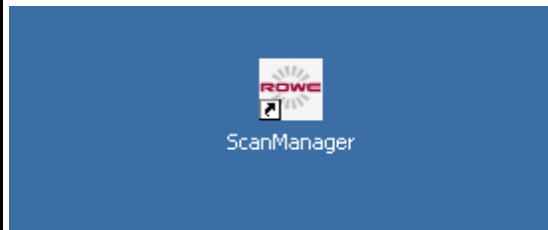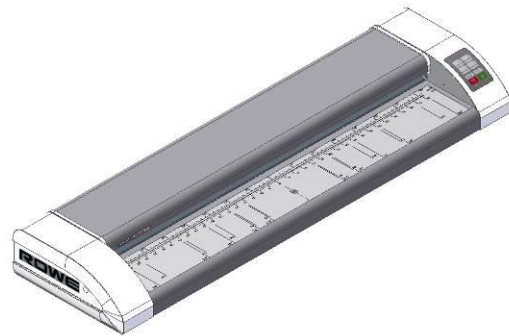
5 ROWE ScanManager

ROWE ScanManager is the central software needed to operate the ROWE Scan 450i series. The present chapter describes how to use the scanner efficiently by means of this software.

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ROWE ScanManager Versions

Several versions of the ROWE *ScanManager* featuring various functions are available. An overview of the available models is given in Table 5.1.

ROWE ScanManager Version	Description
ROWE ScanManager TWAIN	**TWAIN + EDIT** Functions: Direct scanning in all applications by support of TWAIN, basic kit image editing, 2 viewers (General Viewer and Main Viewer), ICC color management, etc.
ROWE ScanManager LT	**TWAIN+ EDIT + SCAN** Functions: Includes ROWE ScanManager TWAIN plus Scan-to-Net, Scan-to-USB, Scan-to-Email, etc.
ROWE ScanManager SE	**TWAIN + EDIT + SCAN + COPY** Functions: Includes ROWE ScanManager TWAIN, LT plus Scan-to-Copy, Multiprint, Multitasking, Recopy, closed loop color calibration, one printer driver each for inkjet printer and ROWE printer, etc.
ROWE ScanManager TOUCH	**TWAIN + EDIT + SCAN + COPY** Functions: Includes ROWE ScanManager TWAIN, LT with Main Viewer, user interface perfectly suited for touch screen operation plus Scan-to-Copy, Multiprint, Multitasking, Recopy, closed loop color calibration, one printer driver each for inkjet printer and ROWE printer, etc.
ROWE ScanManager PRO	**TWAIN + EDIT (Extended) + SCAN + COPY + CostControl + PrintMasterPRO** Functions: Includes ROWE ScanManager TWAIN, LT, SE plus advanced image editing, extensive cost center management, PrintMaster PRO, etc.
ROWE **C**ost**C**ontrol Professional	Advanced cost center management, ROWE ScanManager PRO required

Table 5.1: ROWE ScanManager models

ℹ️ ROWE Scan 450i scanners can be operated with a desktop computer with mouse and keyboard or with a touch screen. For touch screen operation, the specially optimized version ROWE ScanManager TOUCH is available while the other versions LT/SE/PRO are not intended for touch screen operation (i.e. without mouse and keyboard). The figures given in the following chapters refer to versions LT/SE/PRO. Appearance and operation of ScanManager TOUCH vary only slightly. For detailed information please refer to Chapter 5.15.

⚠️ For being able to use all functions of ScanManager, you have to connect the scanner to the PC and switch it ON. Otherwise, ScanManager can be used in a limited demo mode, only.

⚠️ ROWE ScanManager SE, PRO, and TOUCH are supplied with one printer driver each for an inkjet printer and a ROWE printer, only. Drivers for further printers are to be

purchased as an option.

5.1 Starting ROWE ScanManager

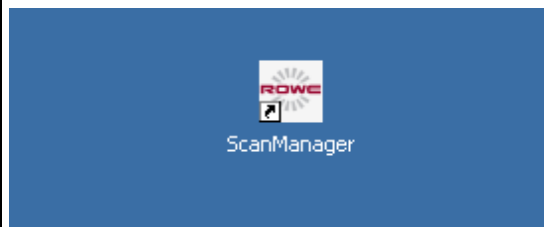|	
First, make sure that the scanner is connected to the PC and switched ON. After installation of the software, an icon named "ScanManager" can be found on the desktop. It is easiest to start ScanManager by double-click on this icon. ⚠ Should you prefer operation by touch screen and have a ScanManager TOUCH license, you have to use the Icon "ScanManager Touch" instead.	 **Figure 5.1: Desktop link ScanManager**

5.2 Main Window of ROWE ScanManager

Figure 5.2: ROWE ScanManager overview

The ROWE ScanManager includes the following components:

1. Functions (depending on the purchased license options not all functions are available (see Chapter 5.4, Page 36)

2. Toolbar of main viewer (see Chapter 5.8, Page 40)

3. Main viewer to display scans (detailed view, preview); for detailed information, refer to Chapter 5.5, Page 37

4. Settings (automatically adjusts to the respective function), refer to Chapter 5.10, Page 44

5. Toolbar editing and measuring functions, refer to Chapter 5.9, Page 42

6. Overview to display complete scan, refer to Chapter 5.6, Page 38

7. Toolbar with keys (refer to Chapter 5.7, Page 39)

5.3 Selection of Language

Should ROWE ScanManager display information not in the requested language, press the	 **Figure 5.3: Settings button**

"Settings" button left to the "action keys".	
Press the "Language" button and select the requested language. After having selected the respective language in the list, the selection is accepted; however, the new language is activated only after a restart of ScanManager. By pressing "Close" you return to the main window.	 **Figure 5.4: ScanManager - Settings**

5.4 Functions

Figure 5.5: Functions ScanManager

In order to render your work as easy as possible, the control elements of ScanManager are divided into so-called functions so that only the required functions are available.

By selecting one of the buttons in the top line of ScanManager you can switch between different functions. You thereby determine what to do next. The functions have the following meaning:

- *Copy:* Select "Copy" if you want to output copies of originals on a printer. For detailed information see Chapter 5.10.2, Page 48. This function cannot be used in version Rowe ScanManager *LT*.

- *Scan:* Select "Scan" if you want to scan originals and save them as image files. For detailed information see Chapter 5.10.1, Page 44.

- *Job list:* Select "Job list" if you want to monitor or control current print jobs. For detailed information see Chapter 5.12, Page 65. This function cannot be used in version Rowe ScanManager *LT*.

- *PrintMaster PRO:* Select this function if you want to print files and/or prepare complex print jobs / sets. For detailed information see Chapter 5.13, Page 66. For being able to use this function, you need ScanManager *PRO* license option.

- *Favorites:* Select "Favorites" to manage frequently used settings. For detailed information see Chapter 5.11, Page 60.

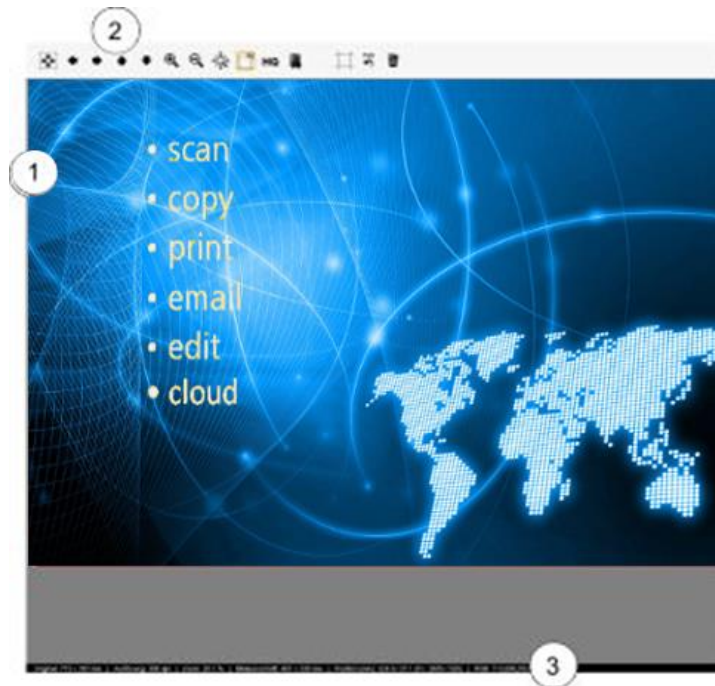|	
i	For license upgrades see Chapter 2.10, Page 26.

5.5 Main Viewer

Figure 5.6: Main viewer

The main viewer serves to display the document scanned last and/or a loaded image file. Numerous zoom functions allow zooming of individual areas. For this purpose, you can highlight an area within the displayed image by pressing and holding the left mouse key down. This area will then be enlarged. The viewer includes the following components:

1. Image display area: Preview / detailed view

2. Toolbar of viewer (see Chapter 5.8, Page 40)

3. Status bar: Display of useful information on the depicted image (resolution, dimensions, color mode, etc.)

As soon as you make changes in the Settings (Page 44) affecting the appearance of the image (e.g. brightness, color mode, etc.), the view is updated automatically in the viewer so as to see the effects of the settings immediately.

5.6 General Viewer

Figure 5.7: Interaction General Viewer - Main Viewer

The small viewer (1) embedded at the bottom on the right serves to keep track of the position in the complete image when using the zoom functions of the main viewer (3)

The General Viewer is linked with the main viewer in a way that the section shown in the main viewer is always highlighted by a red frame (2) in the overview viewer.

Now, you can "grab" this frame by means of the mouse and move it to another position to show another area in the main viewer.

If you want to display a smaller or bigger section in the main viewer, you can also "grab" the four edges of the viewer and shift them.

⚠️ The General Viewer is deactivated in the ScanManager TOUCH version (see Chapter 5.15).

5.7 Action Keys

Figure 5.6: Toolbar with action keys

In the toolbar on the bottom right side of the ScanManager, there are keys which are linked to the most important functions required to use the ROWE Scan 450i. By means of these keys you can start a scan job or print a document on a printer.

1. *Start*: By means of this key you initiate the action linked to the function – depending of the selected function.

    ▪ In the function "Scan" you therewith start the scan operation and subsequent saving in a file.

    ▪ In the function "Copy" you therewith start the scan operation and subsequent printing.

2. *Stop*: By means of this key you can interrupt a scan in process. The scanner then stops paper feed immediately.

    ℹ️ Action keys *Start* and *Stop* have the same functions as the green and red key on the scanner's control panel.

3. *Prescan*: Execution of a prescan. The prescan behavior can be affected by the *Settings*:

    ▪ *Normal prescan*: The scan is effected as in case of actuation of the start key. However, there is *no output*. You are thereby given the opportunity to edit the scanned image before output. After having effected the requested editing steps, simply press action key (5) to start output on the basis of the selected settings.

    ▪ Fast prescan: A fast scan with reduced resolution is effected and shown in the viewer. Afterwards, the original is transported back and you are asked whether you want to select a scan section. Afterwards, you can select with the mouse an area in the preview the dimensions and position of which are set automatically as user-defined format. When pressing the *Start* key afterwards, this selected area is scanned and output, only.

4. *Batch scan*: The so-called batch scan function can be switched ON and OFF. If the batch scan is activated, the scan starts automatically as soon as an original is positioned in the paper feed of the scanner. Pressing the *Start* key is thus not required anymore. This option is very useful when you want to scan/copy many documents with equal settings.

5. *Save/print*: Depending on the selected function, action key (5) is labeled "Save" (Function *Scan*) or "Print" (Function *Copy*). In both cases, output is initiated by pressing the key – either in a file or on a printer. You need this key when you want to

   ▪ edit the image and/or settings after the scan (prescan, edit, output) and/or

   ▪ perform the output again, perhaps with different settings.

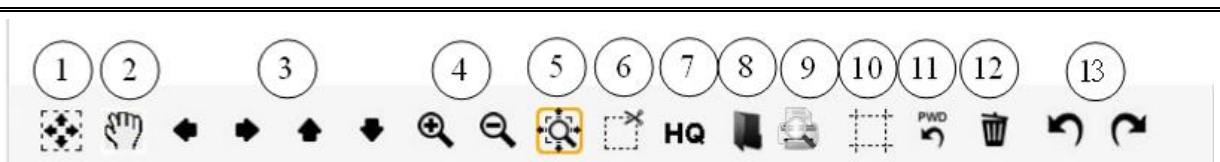## 5.8 Toolbar of Main Viewer

Figure 5.7: Toolbar above Main Viewer

The toolbar above the Main Viewer includes the following buttons:

1. *General view*: Shows complete image in Viewer. This button is particularly useful if you selected a section for being zoomed before and now want to return to the general view.

2. *Manual shift*: The currently displayed detail can be shifted in all directions by means of the mouse; however, a section needs to be zoomed in before. Manual shift does not work if the *Enhanced cutting function* is active.

3. *Arrow keys*: The currently displayed detail can be shifted in the respective direction if a section has been zoomed in before.

4. *Zoom +/-*: Zooming a detail shown in the Viewer in or out.

5. *Expanding detail*: By means of this button you define the behavior of the display of a detail when you expand a detail by means of the mouse: If the button is active (orange frame) *at least* the selected detail is always displayed in the Viewer so that the area of the Viewer is filled best. If you want only the selected area to be displayed, activate 5.

6. *Cut detail*: Similar to 4., but *exactly* the selected detail is displayed in the Viewer. The detail is then enlarged in a way that either the entire width *or* the entire height of the Viewer is used.

7. *High Quality Modus (HQ)* ON/OFF: You can select whether the image shall be displayed in a higher quality in the Viewer. In particular, when processing drawings with very fine structures, they are possibly not displayed completely in the Viewer (in particular in the General View) as the image has to be scaled down to "fit" into the Viewer. The HQ mode reduces this effect considerably but results in the fact that it takes a little bit longer until

the picture is fully displayed.

> **ℹ** For originals without fine structures or photos you do not normally see any difference between HQ and normal mode.

8. *Load image*: By means of this button you can load an image file saved on your computer into the Viewer and edit it instead of scanning an original.

> **⚠** When loading an image file, the image displayed in the Viewer before gets lost because it is not possible to open several files in the Viewer simultaneously. However, you can save the image first (see 5.7).

9. *Print preview.* By means of this function, you are able to check the printout on the roll.

> **ℹ** The print preview can be seen under "Copy" and PrintMasterPro.

10. *Enhanced cutting function*: By means of this function you can easily cut the edges of an image and position cutting edges pixel by pixel. When you activate the button, red lines appear on the four sides in Main Viewer which are first located on the outside. Now, you can "grab" these lines by means of the mouse and pull them into the image. When you start the output now, you are asked whether you want to output the marked detail or the entire image.

> **ℹ** The advantage of this function when compared to function *Cut detail* (5) mainly is the fact that you can set four cutting edges while zooming any detail in. This is how you can position edges precisely – in particular for large-sized drawings.

> **ℹ** This function can only be used if ScanManager *PRO* license option is available.

11. *Reset width detection*: This function allows to deactivate automatic width detection for the scan effected before. This function is particularly useful if the scanned document is damaged resulting in a failure of the automatic width detection. In this way, you can prevent contents from getting lost without having to scan the document again and/or select another scan format. When pressing this button the image is displayed in the same width as if you had selected the option *"Auto (Sensor)"* under *Scan format*. E.g., you can then cut the image manually using the *Enhanced cutting function (8)* if requested. Further information on width detection and scan format can be found in Chapter 5.10.3.3 on Page 57.

12. *Delete image*: Here you can delete the currently displayed image from the Viewer. The image is now being removed from the Viewer, i.e. it does not get lost if it was already

saved as file.

13. *Undo and Repeat*: By means of this tool you can undo the last activities. Actions undone before can be repeated only!

ℹ️ A document CANNOT be loaded into the Viewer again with this tool! However, any type of modification such as black correction can be undone and/or repeated.
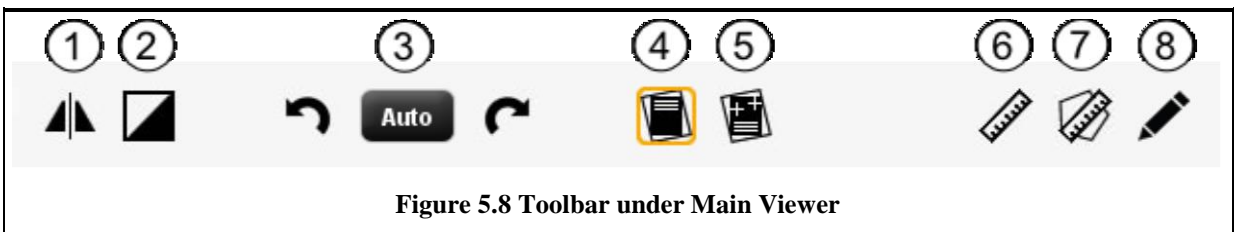
5.9 Toolbar Editing and Measuring Functions

Figure 5.8 Toolbar under Main Viewer

The toolbar under the Main Viewer provides functions for image editing and measuring of distances or areas.

1. *Vertical mirroring On / Off*: Mirror entire image along vertical axis.

2. *Invert On / Off*: Invert entire image. For gray scales and B/W light and dark are inverted; for RGB a negative is created.

3. *Rotation*: Set orientation of entire image in steps of 90°.

   - *Auto*: The best rotation is determined automatically for output. For "Scan to File" a rotation is not effected; the output on a printer is effected in a space-saving way depending on the width of the original. In this case, the rotation is not visible in the Viewer, i.e. the output orientation may be different from that shown in the Viewer.

   - *0°, 90°, 180°, 270°*: The image is rotated clockwise by a set value. The rotation is visible immediately in the Viewer. Output is effected as displayed. In case of output on a printer, an alternative rotation may however occur if a medium with the appropriate width is not available.

   - By means of the *arrow keys* (left, right) you can rotate the image in the respective direction in steps of 90° starting from the current position.

4. *Automatic correction of displacement*: The image is aligned automatically so that a slight displacement is corrected. In doing so, the orientation is defined automatically on the basis of the document edges.

5. *Manual correction of displacement*: Manual alignment of image by setting two reference points. The reference points are set by simple click of the left mouse key onto the requested image position. In order to exactly reach the requested positions, you can also use all zoom functions of the Viewer in this mode. After having set the second reference point, the image is aligned on the basis of the virtual connection between the two points. By actuating the button again, you can undo the alignment.

> ℹ️ You can perform an alignment on the basis of a horizontal as well as vertical reference (detected automatically).

6. *Measuring function*: Measuring of a section (distance between two points to be set). The reference points are positioned as described in 5. After having set the second point, a dialog box opens where you can read the measured value. Here, you can also select a unit and define a scale for conversion. E.g. this function is useful when measuring structures in a construction drawing or map.

7. *Calculate area*: By means of this feature you can calculate the area of any polygon within a drawing. After having pressed the button, you can define the polygon by clicking on any number of points using the left mouse key.

> ℹ️ The last point of the polygon is defined by a *double click*.

> ⚠️ This function is available with *ScanManager PRO* license, only.

8. *Edit image:* This function provides numerous image editing options. After actuating the button, the image and/or selected detail is loaded into an external editor. First you are asked whether you want to embed or link the image. You can simply press "OK" in this dialog box. With the editor you can now edit the image using the available options. After having edited the image, you simply close the editor. Now, you are asked whether you want to save the edited image. Press "Save". Afterwards, the changes are applied automatically to the image in ScanManager.

> ℹ️ When loading the image into the editor, tasks such as rotating, mirroring, and inverting are not considered. However, the steps effected in the editor are effected in the respective positions.

> ⚠️ This function is available with *ScanManager PRO* license, only.

5.10 Settings

The appearance of the settings area in ROWE ScanManager (No. (4) in Figure 5.4, Page 36) is adapted slightly depending on the selected function *Scan* or *Copy* so that the essential functions are always available depending on your work process.

In the following paragraphs, the settings relating to the selected function will be explained briefly. The respective settings options will be described in detail in a separate paragraph.

The functions PrintMaster PRO and Job list deserve special attention and will be dealt with in separate chapters.

5.10.1 Function "Scan"

Figure 5.9: Scan settings
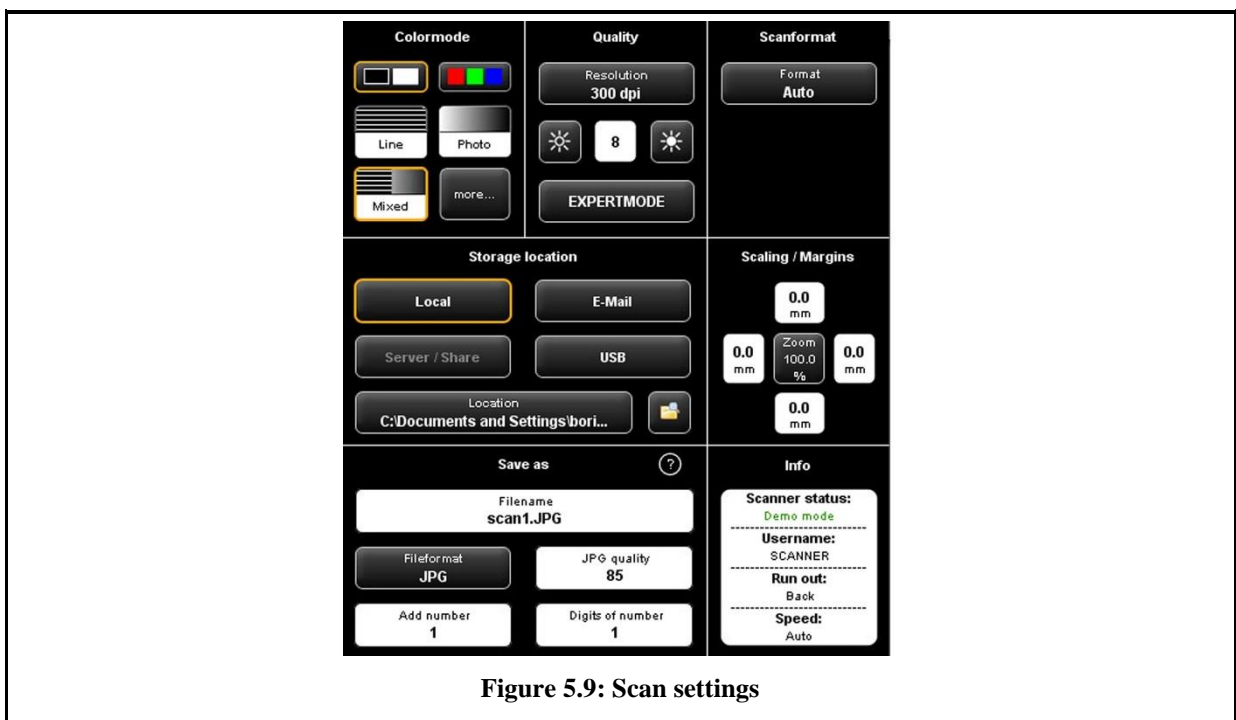
When you are in the "Scan" function, the settings are as follows:

- *Color mode*: Select the color mode for the next scan. This setting is also applied to a displayed image if any (see 5.10.3.1).

- *Quality*: Here, you can set resolution and brightness for subsequent scans and select other image settings (*Expert mode*). For detailed information see 5.10.3.2 .

- *Scan format*: Here, you can select whether the document width is to be detected automatically in subsequent scans or if you want to define a standard format. As an option, you can also define the dimensions (*User-defined*). For detailed information see 5.10.3.3 .

- *Storage location*: Here, you define where to save the scanned documents. Here, you can also define to send documents as attachment to an email. For detailed information see

5.10.1.1 .

- *Scaling/margins*: Here, you can define whether to add margins to the four sides of the document to be scanned or to cut them off. Moreover, you can set comprehensive scaling options (see 5.10.3.4).

- *Save as*: Define the file format of your scanned document. Depending on the selected file format, further options are available (see 5.10.1.1).

- *Info*: In this area, special status information is given. The contents can be defined (see 5.10.3.5).

5.10.1.1 Storage Location

Figure 5.10: Settings Storage location

1. *Local*: Save on local computer (drive, folder)

2. *E-mail*: Send as attachment to an e-mail.

3. *Server/Share*: This button is not yet active in the present version and has been provided for future updates.

4. *USB*: Save on USB data carrier.

5. *Location*: Select folder.

6. *Open folder in Windows Explorer:* The selected folder is opened directly in Windows Explorer for you to be able to call the file(s) quickly.

Local: Press this button if you want to save the file on your local computer in a particular folder.

Press button (1) to select and/or change the folder.

Figure 5.11: Target folder

E-Mail: Press this button if you want to attach a file to an e-mail and send it. After scanning or when actuating the *Send* key (allocation of *Prescan* key changes) your standard e-mail program pops up. ⚠ Depending on your computer configuration, the operating system may ask for your standard e-mail program. Make sure that an e-mail program is installed on your computer and select it if required. ⚠ For large-sized files sending by e-mail may not be possible. Enter the e-mail address into text box (1). The address is accepted by pressing *Enter*.	**Figure 5.12: "Scan to Mail" - E-mail address**
USB: By means of this button you can easily select a USB data carrier (e.g. flash drive or external disk) as storage location. This function is only available if the operating system recognized a USB data carrier being connected. By means of button (1) you can also select a subdirectory.	**Figure 5.13: Storage location - USB data carrier**

5.10.1.2 File Format
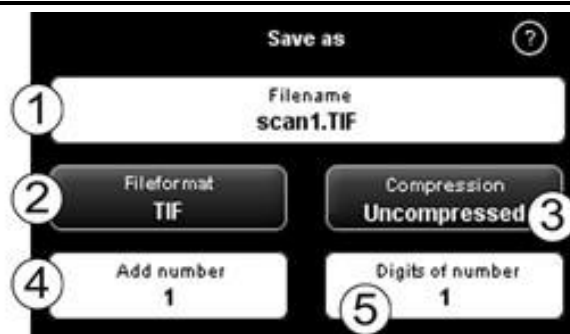
Figure 5.14: Settings - File format

1. *File name:* Text box where to enter the file name. The file extension is added automatically on the basis of the selected file format (2).

2. *File format:* Type of file. The following formats are supported TIFF, JPEG, PDF(/A), Multipage TIFF, Multipage PDF(/A), BMP, JP2 (JPEG2000), CALS, PNG, DWF.

3. *File options:* Depending on the selected file format (2), additional options are available (e.g. compression type for TIFF).

4. *Add number:* Here, you can define whether files are to be numbered automatically. In the text box you can define the start number. When saving a new file, this number is incremented. In this way, you can save many scans in one directory one after another without having to adjust the file name before each scan.

> ℹ️ You can place the number at any position in the file name. For this purpose, enter the character "%" at the requested position in the file name.

5. *Digits of number:* Here, you can define the number of digits of automatic numbering. Increase the number of digits if you need a correct sorting for numerous scans.

> ℹ️ If you do not want to use any numbering, enter 0.

> ℹ️ *Example:* You entered "scan%test" in the field File name (1), selected "TIF" as file format (2), and entered 3 under Digits of number (5). In this case, the following file names would be created: "scan001test.tif", "scan002test.tif", etc.

> ℹ️ You can enter further wildcards in the file name:
> - „{DATE}": The date is added to the file name.
> - „{TIMESTAMP}": The time is added to the file name.

In order to create a Multipage TIFF/PDF file, first select the file name and then file format Multipage TIFF/PDF. Each scan or saving operation effected subsequently will then be added as additional page to the multipage file.

Figure 5.15: Multipage settings

1. *File name:* The previously entered file name is displayed.

2. *Pages:* The pages already added to the multipage file are shown.

3. *Delete last page:* Press this button if you want to delete the page added last.

4. *Interrupt:* With this button you can perform a normal scan (or saving operation) in between which will not be added to the multipage file; afterwards you can add pages to the multipage file again by selecting *Multipage TIFF* and/or *PDF* as file

format again.	
5. *Complete*: Press this button after having scanned the last page for the multipage file.	

5.10.2 Settings "Copy"

Figure 5.16: Settings - Copy

When you are in the "Copy" function, the settings are as follows:

- *Color mode*: see 5.10.3.1

- *Quality:* see 5.10.3.2

- *Scan format*: see 0.

- *Printer/Program*: Here, you can define the printer for output. Moreover, you can set printer-specific output options (e.g. folding programs if any). For detailed information see Chapter 5.10.2.1 , Page 49.

⚠️ For being able to use a printer, you have to set it once. Printer setup is described in Chapter 6.5.1, Page 83.

- *Medium/Roll*: Here, you can define on which medium and/or roll to print if the selected printer supports this option.

- *Scaling/margins see* 5.10.3.4 .

- *Copies*: Define how many copies shall be made.

- *Set*: This option can be activated if you want to unite several scans in one set. This set can then be output on the printer. A detailed description of the set function can be found in Chapter 5.10.2.4 , Page 51.

- *Info*: see 5.10.3.5 .

5.10.2.1 Printer Selection

Here, you can select on which printer you want to output a document.

ℹ️ Depending on the selected printer (1) other options may be available (e.g. *Folding* for ROWE printers)

1. *Printer:* Select the requested printer.

2. *Folding program:* Available only if a ROWE printer was selected in (1). See Figure 5.18.

3. *Settings:* Further options affecting the print depending on printer type.

   ▪ ROWE printer: see Figure 5.19.

   ▪ Inkjet printer: see 5.10.2.3

Figure 5.17: Printer selection

5.10.2.2 Output Settings for ROWE Printer

Figure 5.18: Folder settings

If you print on a ROWE printer featuring a folding machine, you can select the following folding options:

1. Select folding program

2. *Header position:* Here, you can define in which quadrant there is a header if any. If a

folding program is activated, the drawing is rotated automatically so that the text field is always at the top.

3. *Output bin:* Here, you can select where printer and/or folding machine shall output the drawing. E.g. if a sorter is connected, you can select the conveyor.

4. *Fallback folding machine:* Response to folding machine not existing or not ready (also refer to 5.13.4).

5. *Fallback tab:* Response to missing tab if a folding program with tab is selected (also refer to 5.13.4).

6. *Fallback output bin:* Response to output bin which is not available and/or full (also refer to 5.13.4).

After having enabled all requested settings, you return to the previous view by pressing *"Back"*.
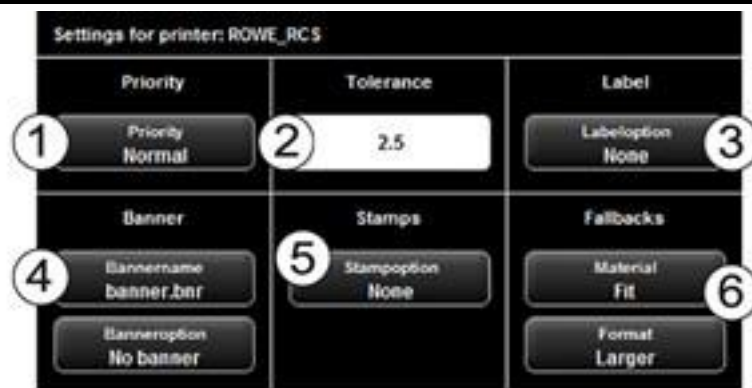
Figure 5.19: Extended settings for ROWE printer

In the advanced settings you can select the following options if you selected a ROWE printer:

1. *Priority:* Define behavior in printer job list.

    ▪ *Normal:* The job is added to the job list normally.

    ▪ *Low:* All print jobs with a higher priority are prioritized.

    ▪ *High:* The print job is started as soon as possible.

    ▪ *Suspended:* For the time being, the drawing is not printed but the job has to be started manually on the printer.

2. *Tolerance:* Define the tolerance by which the dimensions of the document may be exceeded (in %) for the document being printed on the next smaller roll nonetheless.

    ⚠ In this case, the print is not reduced correspondingly but the protruding part is cut off.

3. *Label:* Selection of the label defined on the printer and to be printed on the document.

4. *Banner:* Here you can select the banner file and set whether this banner shall be output

at the beginning and/or end.

5. *Stamps*: Selection of a stamp defined on the printer and to be printed on the document.

6. *Fallbacks*: Here, you can define the printer's response if the required material and/or format of the print medium is not available. Options are:

- *Standard*: Standard behavior of printer (depending on printer configuration)

- *Ignore* (material): Printer uses the material available (e.g. paper instead of transparent)

- *Larger* (format): Printer uses the larger format available next (e.g. A1 instead of A2).

- *Fit*: Printer does not print and requires the respective resource giving a message.

5.10.2.3 Output Settings for Inkjet Printer

In the advanced settings, you see the following options if you selected an inkjet printer:

1. Quality: Draft, normal, or high

2. Cut On/Off: Set whether the paper is to be cut off after output of a document.

Figure 5.20: Output settings for inkjet printer

5.10.2.4 Set Function
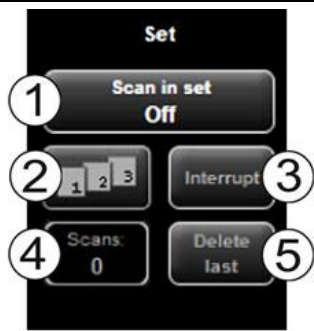
Figure 5.21: Set function
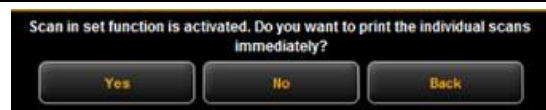
Figure 5.22: Query whether set shall be printed immediately

As soon as you enable the set function (1), you are asked whether you want to print the documents in the set immediately. If you press "Yes", the output is started immediately; if you press "No", the output is started only after completion of the set (press (1) again).

5.10.3 Settings Independent of Function

In this section, those settings are described which are available in "Scan" as well as "Copy" function. They mainly cover parameters such as color mode, brightness/contrast as well as numerous other options for improving the quality of scans and copies.

5.10.3.1 Color Mode

Figure 5.23: Color mode

One of the most important settings is the color mode.

1. Selection of *Color* (RGB) and *gray scale* and/or *black/white*. The following scan is effected in the mode set here.

> If you effected a gray scale and/or black/white scan and switch to color later, the image is, however, displayed in gray scale in the Viewer.

2. *Set type of original:* Here, you can easily achieve the best quality for many different types of originals by selecting the condition of the scanned original. Specially optimized settings are then selected to achieve the best possible result.

   - Select "*Line*" if the original exclusively includes line structures and/or homogenous areas (e.g. CAD drawings).

   - Select "*Photo*" if the original includes complex structures and color gradients (e.g. photos, posters, etc.).

   - Select "*Mixed*" if the original includes line structures as well as color gradients.

   - *More*: Behind this button there are more special document types in addition to "*Line*", "*Photo*", and "*Mixed*" (e.g. optimization for maps, etc.).

> If you are not sure to which original type a document is to be allocated, you can test which settings meet your requirements best as the display in the Viewer is updated immediately with the selected mode. You do not have to scan the document again.

> If you scan a special original which does not match any of the available settings, you can perform further individual modifications in the expert mode (see 5.10.3.2).

5.10.3.2 Quality
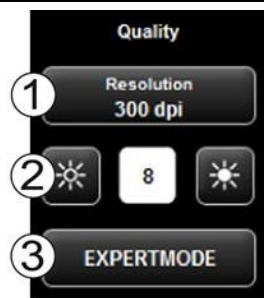
Figure 5.24: Quality settings

Here, you can select settings affecting the quality of the scanned originals.

1. *Resolution*: Selection of the resolution to be used for the next scanning operation. The selection has to be made *before* the scan.

    ℹ️ In case of the available "Turbo modes", a lower scanning resolution is used in feeding direction and afterwards interpolation is effected. A significantly higher speed is achieved thereby. In the selected optical resolution, the original is scanned perpendicular to the feed direction so that interpolation is effected in feed direction, only.

2. *Brightness*: By setting the brightness, the reproduction becomes darker or brighter. In the text box in the middle you can enter the requested value. By means of the keys on the left and right, the value can be reduced/increased. Setting range: -127...128 (0: neutral).

3. *Expert mode*: By pressing this button, you access a submenu with numerous further setting options (see Figure 5.25).
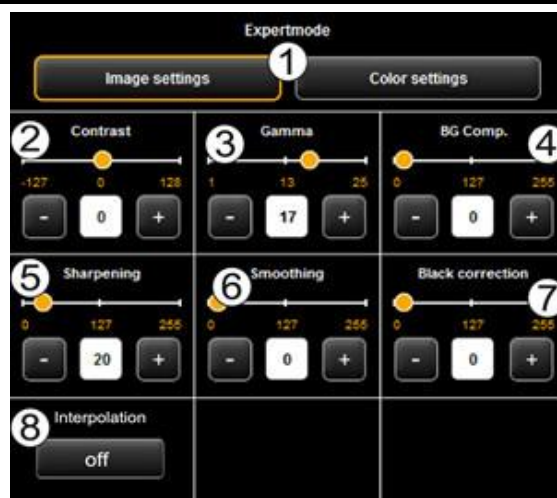
Figure 5.25: Expert mode – Image settings

1. *Image settings/Color settings*: If you switch to "Color settings", you access another submenu (see Figure 5.26).

2. *Contrast*: Increase / reduce contrast (setting range -127...128, 0: neutral).

3. *Gamma*: Adjust the gamma curve (setting range 1...25, 17: neutral). This setting should not be changed because the default value (17) perfectly matches the scanner's color space.

4. *Background compensation*: This slide control is extremely useful if the background of a scanned original is not really white. The white of paper normally does not correspond to exact white in the RGB representation (setting range 0...255, 0: neutral).

⚠ In particular for photos you should set the background compensation carefully in order not to lose any information (e.g. in color gradients). But also in drawings with lines, information which is very bright can get lost. In case of doubt, simply check the result in the Viewer.

5. *Sharpening*: By means of this slide control you can increase the sharpness of the image (setting range 0...255, 0: neutral).

⚠ If you select a very high value, slight color fringes may occur at edges in the image.

6. *Smoothing*: By means of this slide control you can smooth angular structures in the image (setting range 0...255, 0: neutral). In areas with fine structures, information may be blurred.

7. *Black correction*: Similar to the brightening of the background on white you can turn very dark areas into black if requested (setting range 0...255, 0: neutral).

8. *Interpolation*: If you want to use another resolution than that used for scanning, you can set the requested output resolution, here. The image will then be interpolated to this resolution.

Figure 5.26: Expert mode – Color settings

1.   *Image settings/Color settings*: If you switch to "Image setting", you see the submenu depicted in Figure 5.25.

2.   *Red/ Green/Blue*: By means of these three slide controls, you can shift the weighting of the three color channels red, green, and blue (R, G, B). E.g., if you want to reduce the red share in the image, reduce the setting of slide control "*Red*" (setting range 0...255, 127: neutral).

3.   *Gray scale correction*: If there are any gray scales in an image which cannot be presented in a color neutral way (e.g. greenish cast), you can compensate this deviation by means of this slide control. When setting a higher value, colors which are almost gray are switched to the next shade of gray. If the value is very high, also those colors are shifted to gray which are quite far away from a gray scale. (setting range 0...255, 0: neutral).

4.   *Color depth*: In color mode (RGB), the color information is usually coded with 8 bits per color channel (R, G, and B), i.e. 24 bits per pixel. This may result in relatively large files. In particular for originals with only a few colors (e.g. CAD drawings), it may be reasonable to reduce the color depth. This can be achieved by selecting the option "Indexed color". The color depth is then reduced from 24 to 8 bits per pixel so that 256 colors can be displayed.

5.   *Highlighter optimization*: When scanning originals which are marked with permanent markers, it may occur that these marks are not shown properly. In order to enhance the presentation, special optimizations can be enabled. Three degrees of intensity can be selected (*normal*, *medium,* and *high*). In most cases, the reproduction of markings with permanent markers should be ok without any optimization.

⚠	When optimizing markings with permanent marker heavily, other colors of the image may change slightly, too. You can check the result in the Viewer at any time.
⚠	Should some permanent markers not be visible at all (white), reduce the value for background compensation if applicable. Usually, the brightness of permanent markers cannot be distinguished from the actual background (white of paper).

6. *ICC profiles:* Select an ICC color space in which the file is to be saved. In general, sRGB is appropriate. If you want to save a color scan in the device color space of the scanner, select *None*.

7. *Color table:* By means of color replacement tables, defined colors can be replaced by certain selected colors. This function may be useful to ensure that a logo is shown in a clearly defined shade.

5.10.3.3 Scan Format

In the field "Scan format", you can determine the dimensions of the following scan. If you actuate the button as shown in the adjoining figure, a menu pops up where you can select the following settings:

Auto: The format is established automatically using the width detection feature. In most cases, this setting induces the requested result.

Figure 5.27: Scan format

Autoformat: The format is established automatically by means of the width detection feature as in case of "Auto" but afterwards it is extended to the standard format fitting next. Moreover, the following options are available:

- *Orientation Portrait/Landscape:* Select whether the default format is portrait or landscape.

- *Fixed format On/Off:* If the fixed format is activated (*On*), the length in feeding direction is considered in addition to the width when adjusting to the default format. Otherwise, the width is adapted to the default format, only.

⚠️ The document has to be placed in the center.

⚠️ If the fixed format is enabled, one part of the information is cut off if the original is longer than the fixed format to be adapted on the basis of the detected width.

Figure 5.28: Autoformat

Maximum width: In case of this setting, the maximum document width is used. Usually, a margin will then still be visible at the sides which can be cut off manually afterwards. This option is recommended for damaged originals if the automatic width detection is not working properly.

Figure 5.29: Auto (Sensor)

User-defined: If you select "*User-defined*", you can enter any dimension for the scan range in the displayed text fields: • *Width*: Scan width in mm • *Length*: Scan length in mm • *Start at*: Start position in feeding direction from beginning of document in mm • *Zero point*: The zero point is marked in the middle of the feed table of the scanner. In the default setting, the middle of the document has to be close to the zero point. By means of this option, you can shift the reference point for the middle of the document to the left (negative value) or right (positive value).	**Figure 5.30: User-defined format**
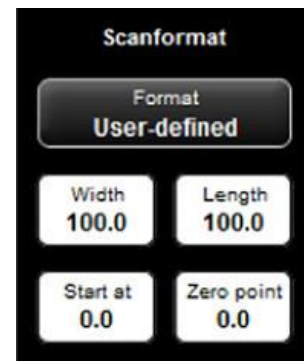
5.10.3.4 Scaling/Margins

In the area "Scaling/Margins" you can add, cut off, extend, or reduce margins on the four sides of a document. Enter positive values in the four text fields in order to enlarge the left (1), right (2), front (3) and/or rear margin (4) (white). If you want to cut the margin off, simply enter negative values. By means of the "Zoom" button, you access a submenu where you can select extensive scaling options.	**Figure 5.31: Scaling/margin**
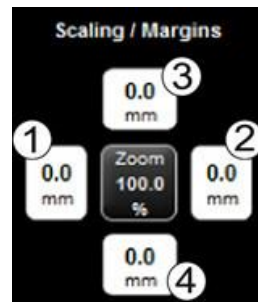
- *Scale factor*: Enlargement and/or reduction factor in % (100 %: no scaling). Setting range 1.0 to 999.0 %.

- *Page size*: Auto (according to set factor) or scaled to a special default format (e.g. ISO A4).

- *Fixed format On/Off*: If the fixed format is activated (*On*), the length in feeding direction is considered in addition to the width when scaling to the default format selected under "Page size".

⚠ If the fixed format is enabled, one part of the information is cut off if the original is longer than the fixed format to be scaled to on the basis of the detected width.

- *Orientation*: Selection of portrait or landscape (when scaling to default format).

- *Scale Mode*: According to the three options, the document is positioned on the printout and/or adjusted.
  Original: Maintain original size.
  Fit: If required, the document is scaled down to the selected format.
  Assimilate (bigger or smaller): Document completely utilizes the selected format.

- *Page position:* Not available if *Assimilate (bigger or smaller)* was selected. Otherwise, the position of the document on the roll is defined. E.g. "Center".

Figure 5.32: Scaling

5.10.3.5 Info

<table>
<tr>
<td>

In the area "Info", useful status information is given. The contents of the area "Info" can be selected in the ScanManager settings (see 5.14).

</td>
<td>

Figure 5.33: Area "Info"

</td>
</tr>
</table>
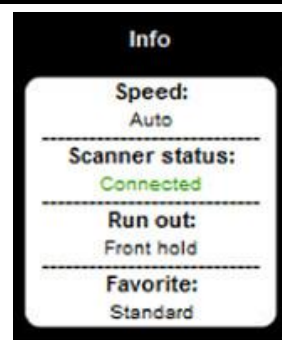
5.11 Favorites

ROWE ScanManager provides a vast range of settings to adjust scans and copies according to individual requirements. Often a manageable number of settings and/or combinations of settings are used over and over again. In order that you do not have to set and adjust each option individually again, you can save settings once made as so-called *Favorites*. These settings can then simply be loaded again by a few clicks and are always available. For this purpose, click the *"Favorites"* function. In each favorite you can save all scan and print settings described in Chapter 5.10. The set function as well as the file format Multipage TIFF/PDF present the only exception from the above.

Figure 5.34: Functions - Favorites

When clicking the "Favorites" function, the depicted menu pops up:

1. *List of favorites*: Here, all favorites already saved are listed. In order to load and activate the saved settings, simply click on the entry in the list.

2. *Save favorite*: If you want to save the current settings as favorite, press the "*Save*" button. Prior to this enter a name in the text field. If a favorite with this name already exists, you are asked whether to overwrite the latter.

3. *Edit favorites*: Here, you can rename favorites and/or allocate them to numeral keys on the control panel of the scanner (see Figure 5.36).

4. *Multiprint*: This function is useful if you want to issue copies on several output devices. The Multiprint function is described in a separate chapter (see Chapter 5.11.1)
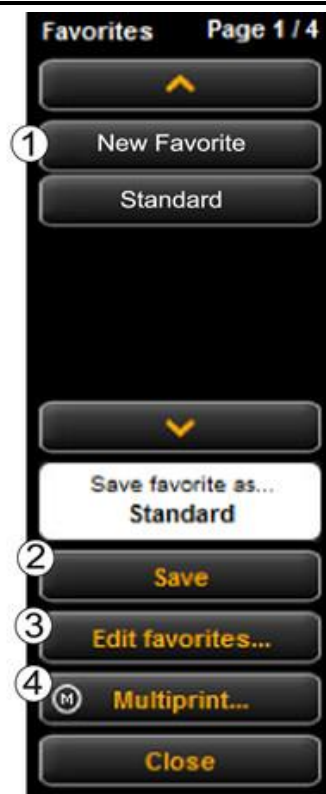
Figure 5.35: Favorites

If you press the "Edit favorites" button (see Figure 5.35), the depicted menu pops up:

1. Allocate favorite key: Here, you can allocate a favorite to a numeral key on the control panel of the scanner. For this purpose, enter the number of the key (1-4) into the text field (1). The favorite settings are then loaded if you actuate the corresponding key on the device.

2. *Rename favorite*: If you want to rename an existing favorite, enter the new name in the text field and confirm by pressing *Enter*.

3. *Delete favorite*: Actuate this button if you want to delete the corresponding favorite.

4. *Browse:* The arrow keys serve to browse the favorites list if it contains so many entries that they do not fit the displayed area.

Figure 5.36: Edit favorites

5.11.1 Multiprint Favorites

By means of the so-called *Multiprint* function you can output documents simultaneously on any number of output devices – and namely with individual print settings for each output device. For this purpose, you only have to create a Multiprint favorite once. Afterwards, you can perform the following tasks with only one scan by loading an individual favorite (or pressing the corresponding numeral key on the device) and by actuating the start key:

- Printing a B/W copy on a ROWE printer,

- Printing a second color copy on an inkjet printer,

- Issuing three more copies on a ROWE printer scaled to ISO A3 including folding,

- Saving the scan as TIFF file in a folder with activated background compensation, and

- Archiving the scan with standard settings as PDF file.

In order to understand the Multiprint concept, it is first required to logically distinguish the parameters saved in the favorite by

- Scanning parameters (e.g. color mode, scan resolution, scan format, etc.)

- Output parameters (e.g. printer, scaling factor, background compensation, etc.)

Accordingly, a favorite as described in Chapter 5.11 includes a package of parameters *(parameter set)* for the scan and exactly one parameter set for the output. The Multiprint approach now

extends this concept in a way that not only *one* parameter set for one output device can be included in a favorite but that any number can be activated simultaneously.

In order to create a Multiprint favorite, you have to add another *output configuration* and/or another *parameter set for an output* to an existing favorite. This is effected almost similar to the creation of a usual, new favorite and is explained in the following.
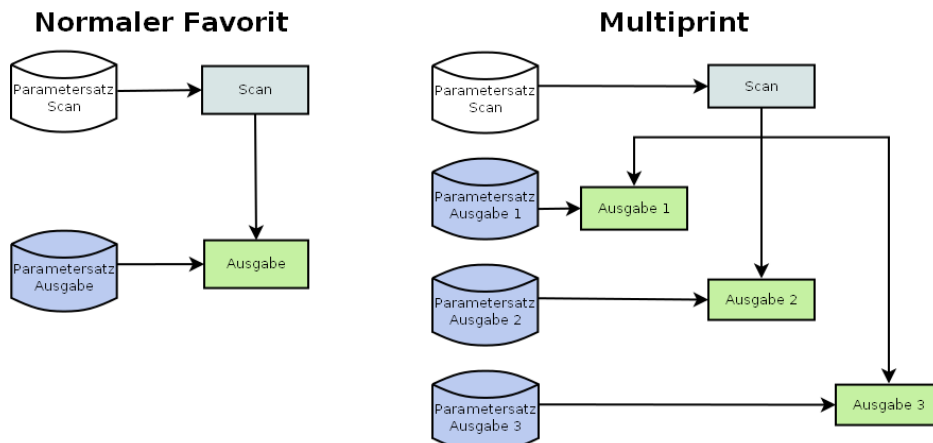
Figure 5.37: Concept favorite – Multiprint

In the list of favorites (1) (click function *Favorites*), a Multiprint favorite is marked with an (M).

In order to create a Multiprint favorite or to extend a favorite by another output configuration, make all requested settings in the ScanManager.

Afterwards, you have to add the respective settings as additional output configuration to an existing favorite. In this respect, it is irrelevant whether this favorite already has several output configurations (M) or not. Press the *Multiprint* (2) button. Afterwards, the dialog depicted in Figure 72 pops up.
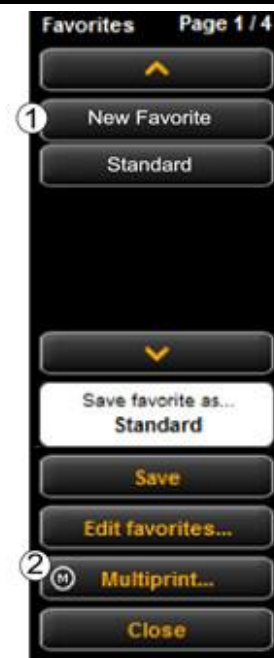
Figure 5.38: Favorites selection - Multiprint

In this dialog box, you can see how many output configurations the favorite has and to which output devices they refer (1) (for "Scan to File" the target folder is indicated). In the shown example, the favorite "New favorite" is a Multiprint favorite with three output options: Scan to File on drive C:₩, copy/copies on printer HP5500 as well as copy/copies on printer RCS6000. Now, you have the following options:

- *Add new output configuration (2):* Another output configuration is added. The new configuration includes the parameters currently set in the ScanManager.

- *Edit output configuration (3):* Here, you can subsequently change the settings for the respective configuration. When pressing the button, you move automatically to the ScanManager settings where you can make the desired changes. At the top edge of the Viewer an additional bar with the buttons "Save" and "Cancel" is depicted. Click "Save" after having effected all changes.

- *Delete output configuration (4):* Click here if you want to remove an output configuration from the favorite.

Figure 5.39: Create / edit Multiprint favorites

If you start an output with a Multiprint favorite being activated, a dialog box pops up after pressing the start key where you can check/set on which output devices to output:

1. *Activate/deactivate output on device:* Enable the field if you want to output on the indicated device otherwise remove the check mark by clicking.

2. *Number of copies:* For output on a printer you can enter the number of copies in this text box before starting if
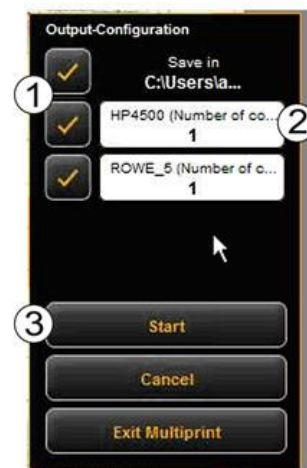
Figure 5.40: Multiprint output

more than one copy is needed. Here, the name of the printer is also shown. For *Scan to File* the target folder appears. 3. *Start*: By pressing the Start button, the operation is started.	

5.12 Job List

The function "Print jobs" of ScanManager serves the management of print jobs created by ScanManager. The general structure of the job list is shown in Figure 5.41.

Figure 5.41: Job list

Print jobs are shown in a table; each line presents one job. The information on the jobs given in the columns is

- Job number

- Date/time of order

- User initiating the job

- Name of printer

- Size of file to be printed

- Status (e.g. "Processing", "Waiting", etc.)

- Action keys for deleting, editing, and stopping jobs (see below)

The following actions are available to control individual print jobs:

1. *Stop*: Stopping a print job (depending on the printer model this may not be possible if the printer already started the print process).

2. *Edit*: By means of this button, you can edit the job using PrintMaster PRO and output the job again with the modified settings if applicable. For details please see Chapter PrintMaster PRO (5.13) as from Page 66.

3. *Delete*: If the output has not yet been started, you can delete the job if you do not want to output it.

Figure 5.42: Edit print jobs

Moreover, the buttons above the table provide the following options:

1. *Active jobs*: Displays jobs which have not yet been processed.

2. *Ready jobs*: Displays jobs which have already been finished (provided for future updates).

3. *Delete all jobs:* By means of this button you can cancel all print jobs shown in the list.

Figure 5.43: Settings job list

5.13 PrintMaster PRO

By means of the function "PrintMaster PRO" you can create extensive print jobs as single files or complete sets with individual settings for each file. An overview of PrintMaster PRO is given in Figure 5.44.

⚠️ You can use PrintMaster PRO only if the license option "PrintMaster PRO" is available.

5.13.1 Layout of PrintMaster PRO
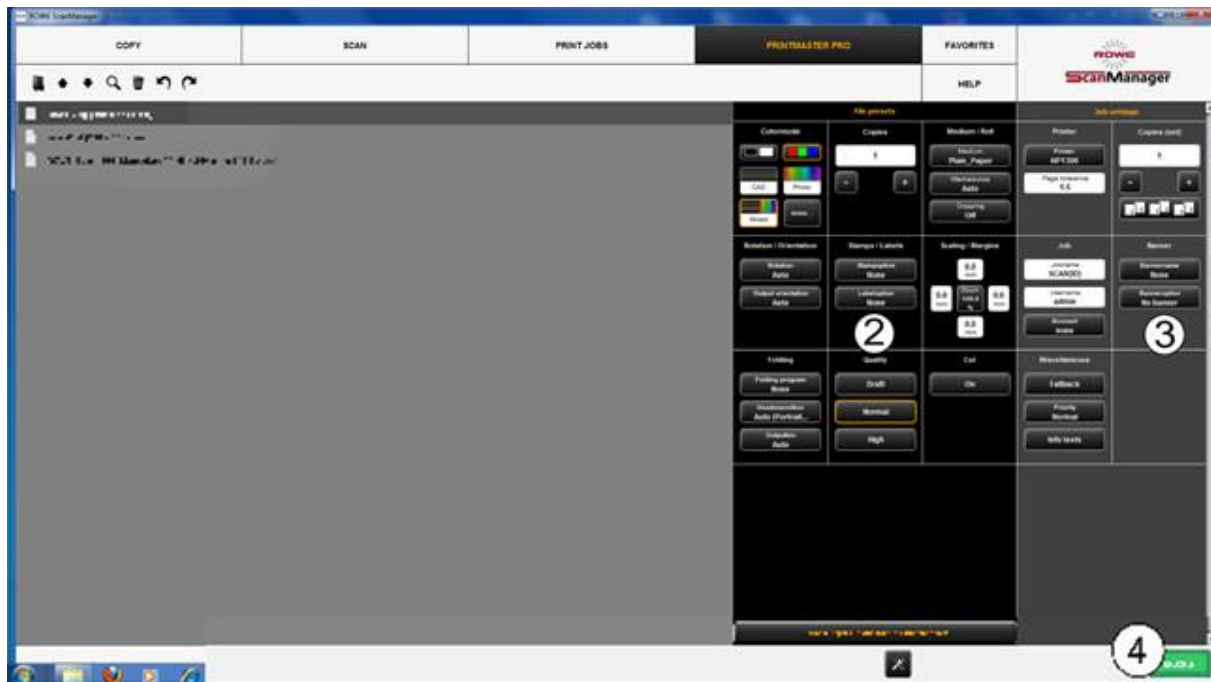
Figure 5.44: Print Master PRO – Overview

PrintMaster PRO is divided into the following sections (see Figure 5.44):

1. *File list*: List of files added to a print job (see Chapter 5.13.2).

2. *File presets*: Here, you can make the settings which shall apply to the file highlighted in list (1) (see Chapter 5.13.3).

3. *Job settings*: The settings made here apply to all files of a print job (see Chapter 5.13.4).

4. *Print*: Button to start the print job.

5.13.2 File List
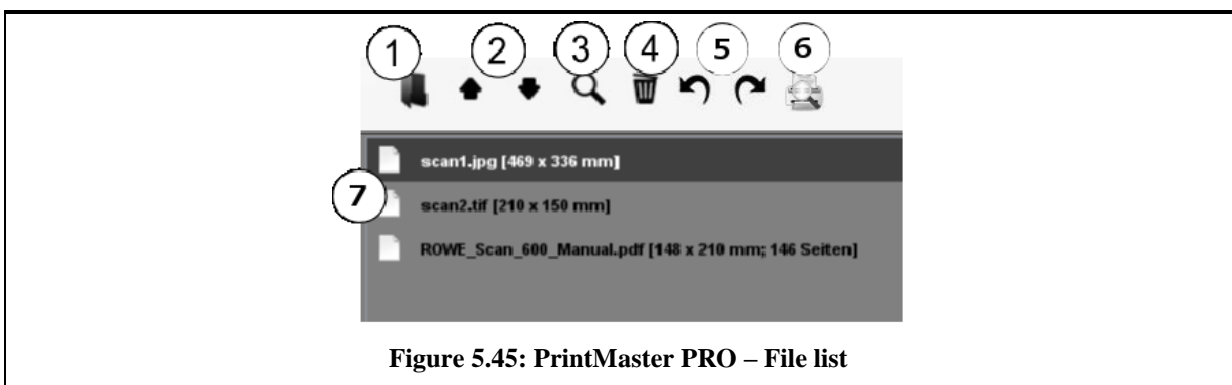
Figure 5.45: PrintMaster PRO – File list

By means of the file list you can administer which files belong to a print job and see a preview.

1. *Add file(s)*: Add one or several files to the print job at once. The files are output in the order given in the list.

2. *Move file in list up/down:* You can change the print order subsequently by highlighting the respective file in the list and afterwards pressing the corresponding arrow key.

3. *Preview:* By means of this key you open a preview of the file selected in the list (highlighted in dark gray). You can also open the preview by double-click on the respective entry in the list. For details on preview see Figure 5.46.

4. *Delete file(s):* By means of this button you can remove one or several file(s) from the list.

5. *Undo/redo key:* By means of this button, various settings can be undone, such as printer selection.

6. *Print preview:* Enables viewing of printout on the selected roll.

7. Listing of files: In addition to the file name, further information is given:

    ▪   Dimensions in mm

    ▪   Number of pages (for TIFF/PDF files with several pages).

ℹ️ By pressing and holding the *Shift* and/or *Strg* key, you can also highlight several files in the list – as in Windows explorer.

ℹ️ As soon as you highlight a file in the list by clicking, the corresponding settings are shown under *File presets* (see 5.13.3).
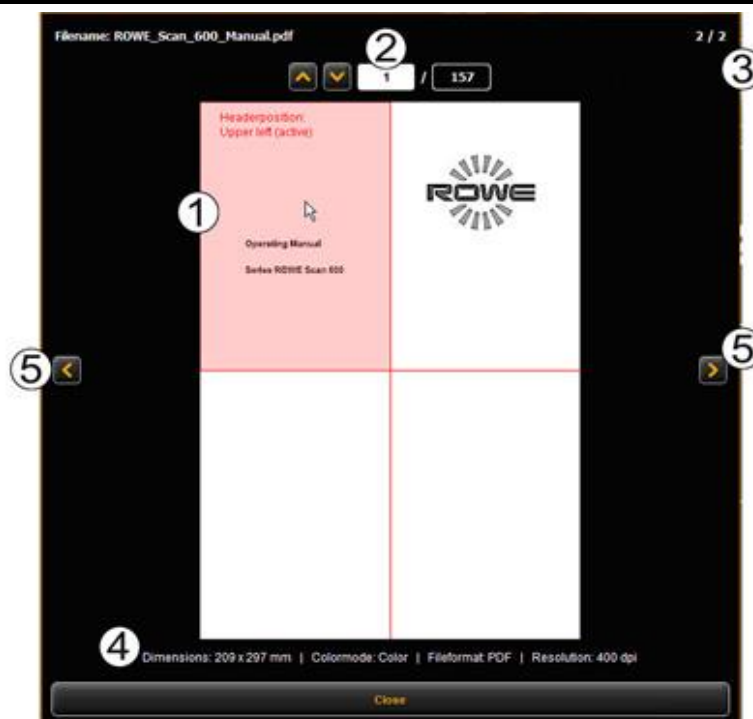
Figure 5.46: PrintMaster PRO – File preview

The file preview provides the following options:

1. *Set header position:* By clicking one of the four quadrants top left, top right, bottom left,

or bottom right you can select where the header shall be positioned. If you output the file on a ROWE printer and set a folding program (if a folding machine is available), the file is rotated automatically in a way that the header is at the top and visible after folding. For documents with several pages, the header position can be set for the first page, only.

2. *Selection of page* (available for TIFF/PDF files with several pages, only): By means of the arrow keys, you can browse the pages of the document in the preview. As an alternative you can also enter a page number in the text field and press the *Enter* key to move to the desired page immediately.

3. *Position in file list*: This is to show in which position of the file list the depicted document is. If 1 / 3 is shown, this means that the displayed document will be printed first as one of three files.

4. *File information*: Here, useful information on the depicted file is given: Dimensions, color mode, file format, and resolution.

5. Browse file list: By means of the arrow keys left/right you can easily switch to the next/previous file within the file list in the preview.

5.13.3 File Settings

Figure 5.47: PrintMaster PRO - File presets

All settings made in the section *File presets* always apply to the file selected (highlighted) in the file list. If you selected several files in the list, the settings made are adapted to all highlighted files. In this way, you can easily define settings for larger sets which shall apply to many but not to all files in the set.

1. *Indication of file name:* For your information, the name of the file to which the settings apply is shown again. The shown name corresponds to the name of the file highlighted in the file list. For lack of space, the name of the file highlighted first is shown here only when several files are selected.

2. *Color mode:* Select the color mode for the output of the file. Similar to color mode and original type selection for scan operations (see 5.11.3.1), special presets are available for common original types (e.g. CAD, photo, line).

3. *Copies:* Number of copies to be prepared of the selected file (also see 5.11.2, settings "Copy").

4. *Medium/roll*: Selection of medium or roll (also see 5.11.2, settings "Copy"). Moreover, the option *"Cropping"* allows to cut off any white margins automatically.

5. *Rotation/orientation*: Here, you can select whether a drawing shall be rotated for the output or whether it is a portrait or landscape.

6. *Stamps/labels*: Adding stamps or labels (also see 5.11.2, settings "Copy").

7. *Scaling/margins:* see 5.11.3.4.

8. *Folding*: If output is effected on a ROWE printer with folding machine, a folding program can be selected here. Moreover, you can define in which quadrant any text field shall be located. If a folding program is activated, the drawing is rotated automatically so that the text field is always at the top. With the option "Auto" you can also determine the header position automatically. Moreover, you can select where the printer and/or folding machine shall output the drawing. E.g. if a sorter is connected, you can select the conveyor.

9. *Quality: Draft, normal,* or *high* Only available for output on inkjet printer (also see 5.11.2.3).

10. *Cut On/Off:* Set whether the paper is to be cut off after output of a document. Only available for output on inkjet printer (also see 5.11.2.3).

11. *Settings for all files take*: Here, the current settings can be accepted for all files in the file list by one click.

5.13.4 Job Settings

Figure 5.48: PrintMaster PRO - Job settings

All settings made in the section *Job settings* apply to all files within a set, i.e. to all files available in the file list.

1. *Printer*. Selection of printer for output of set. With the option *Page tolerance* you can determine the tolerance by which the dimensions of the documents may be exceeded (in %) for the document being printed on the next smaller roll nonetheless.

2. *Copies*. Here you define the number of copies of the complete set.

   2a. Sorting. If you want to prepare more than one copy of the set, you can additionally define how to sort the output by means of button (2a). In the default setting, output is effected in the same order as if you printed the set several times individually one after another. You can modify sorting so that first all copies of the 1st file, then all copies of the 2nd file etc. are output.

3. *Job name/user name/account*. Here, you can define various job data facilitating identification of the print job in the job list.

4. *Banner*. Here you can select whether and/or which banner to be printed in which

position.

5. *Miscellaneous*:

      5a. Fallback: See Figure 5.49.

      5b. Priority: Define behavior of job in printer job list.

- *Normal*: The job is added to the job list normally.

- *Low:* All print jobs with a higher priority are prioritized.

- *High:* The print job is started as soon as possible.

- *Suspended*: For the time being, the drawing is not printed but the job has to be started manually on the printer.

      5c. Info texts: See Figure 5.50.

Figure 5.49: Fallback

By means of the fallback option you can define the action if a resource required for the print job is not available.

1. *Material:* Response to missing material (e.g. transparent medium).

- *Fit*: Printer does not print and requires the respective material giving a message.

- *Ignore*: Printer uses the material available (e.g. paper instead of transparent)

2. *Format*: Response of printer to missing roll format

- *Fit*: Printer does not print and requires the respective roll format giving a message.

- *Larger*: Printer uses the larger format available next (e.g. ISO A0 instead of A1).

- *Default:* Use standard response of respective printer.

3. *Folding machine*: Response to missing folding machine

- *Default:* Use standard response of respective printer where the folding machine is and/or should be located.

- *Ignore:* The printer prints without folding.

4. *Tab*: Response to missing tab if a folding program with tab is selected.

- *Fit:* The printer does not print the job and instead requires a (new) tab roll giving a message.

- *Ignore:* The folding program is effected without applying a tab.

5. Output bin/runout: Response to full output tray of sorter and/or output bin of printer (top or back).

- *Default:* Use standard response of respective printer where the sorter is and/or should be located.

- *Fit:* Printer does not print the job and requires discharging of the output bin instead by giving a message.

- *Ignore:* Printer prints the job on the next free output bin.

Ident nb.	Drawing nb.	Comment
Text		

Figure 5.50: Info texts

Info texts: Here, you can enter additional information on a print job. This information helps to identify the job in the job list.

ℹ️ The info texts are provided for future extensions and do not yet have any function (also see Chapter 6.7).

5.14 Configuration of ScanManager

By pressing the button shown on the right which can be found on the left of the action keys in the lower section of the ScanManager you can make several basic settings.

ℹ️ Access to the settings may be protected by a password. This protection can be enabled in the parameter settings of ConfigManager (see 6.8). You are then asked for the administrator password. The password is equal to the administrator password set in ConfigManager (see Chapter 6.9).
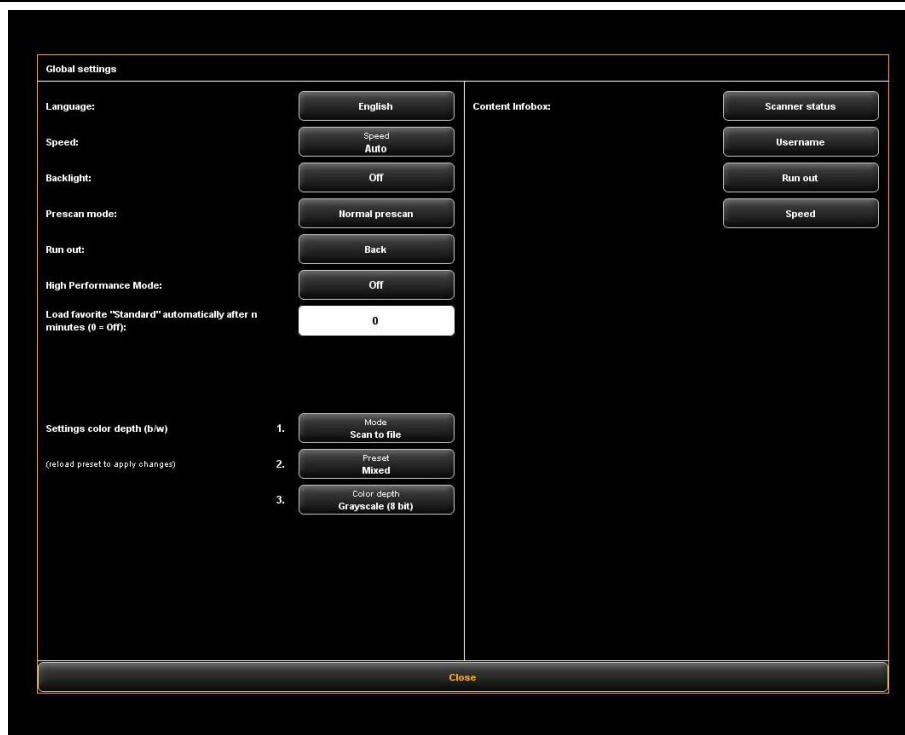
Figure 5.51: ScanManager - Global settings

The following settings can be made:

- *Language*: Select the desired language of the texts in ScanManager.

- *Speed*: Select automatic and reduced feed speed (to protect sensitive originals). The height of the reduced speed can be set in the ConfigManager (see Chapter 6.8).

- *Backlight*: Enhanced presentation of extremely dark originals.

- *Prescan mode*: Determine behavior when pressing the *Prescan* button:

  - *Normal prescan*: Prescan is effected with the selected settings. The preview then corresponds to the result obtained when pressing the *Start* button.

  - *Fast prescan*: A fast prescan with reduced resolution is effected. Using the mouse, you can afterwards highlight an area which you want to scan with the selected settings. In general, this option is reasonable only if you want to scan a special area of the original.

- *Runout*: Select where and how the scanner shall output the original after the scan: Back, Back hold, Front, Front hold, Hold

- *High Performance Mode:* When enabling this mode, in the Scan to File mode, creation of the output file is already started before completion of the scan process by starting a scan with the green button *Start* (or in the Batchscan mode) so that throughput is increased thereby.

  Direct writing of the output file during scanning is possible under certain conditions

only and depends upon the selected settings. If, for example, rotation is enabled (see 5.9), output can be started after completion of the scan, only. If the settings are selected in a way that direct output is not possible, output is started automatically only after completion of scan. Direct output is possible only if the following requirements are met:

- Either JPEG or TIFF are selected as file format.

- The resolution is not 2400TURBO.

- Mirroring, rotating, inverting, and automatic alignment must be deactivated.

- All margins are set to 0.

- Scaling (zoom) is 100 %, i.e. no scaling is effected (not to a format either).

- No Multiprint output is effected.

- *Load favorite "Standard" automatically after n minutes*: Period in minutes after which the favorite "Standard" shall be loaded automatically. The previous settings get lost if they were not saved in a favorite (0: automatic loading deactivated).

- *Settings color depth b/w*: Here, you can influence the color depth for output in b/w mode which is hidden behind the color mode buttons (so-called *Presets*) in b/w and/or gray scale mode. You can set the behavior for each b/w mode (line, photo, mixed, and more) separated by Scan to File/Copy. By means of buttons 1. and 2. you select to which mode the setting selected in 3. refers. You can select the following settings:

  - Black/white (1 bit)

  - Dithered (1 bit)

  - Gray scale (8 bits)

  E.g. if you want to save the files as gray scale with 8 bits per pixel for Scan to File, select *Scan to File* under *1.*, then *Photo* under *2.* and finally *Gray scale (8 bits)* under *3.*

  ℹ️ Changed settings for a preset are enabled only after the modified preset is loaded again.

  - *Content Infobox*: Determine which files shall be displayed in the info box.

5.15 ScanManager TOUCH

ROWE Scan 450i scanners can be operated with a desktop computer with mouse and keyboard or with a touch screen. For touch screen operation, the specially optimized version *ROWE ScanManager TOUCH* is available while the other versions Twain/LT/SE/PRO are not intended for touch screen operation (i.e. without mouse and keyboard).

Appearance and operation of ScanManager TOUCH vary only slightly. The decisive difference is that the buttons of the user interface are much bigger to be able to actuate them better using the finger. As the bigger buttons require much more space, the General Viewer is not provided (see Chapter 5.6). Figure 5.52 shows the layout of ScanManager TOUCH.
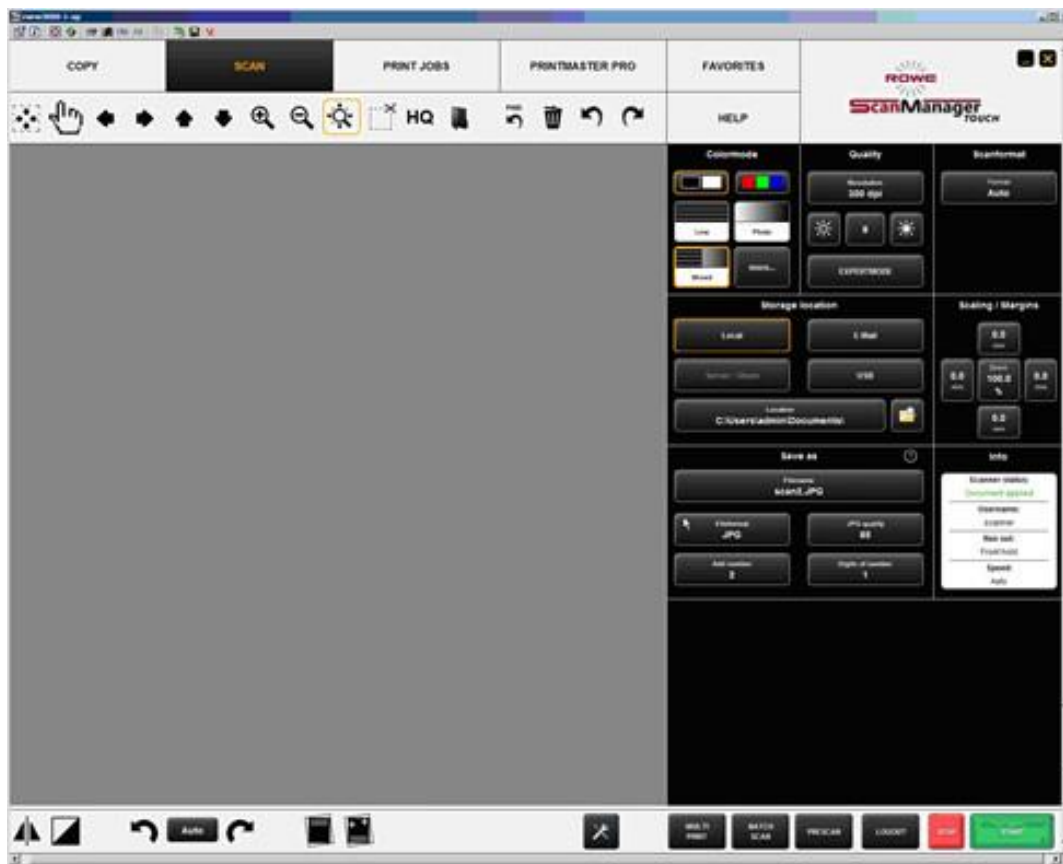
Figure 5.52: ScanManager TOUCH

As a conventional keyboard is usually not available when using a touch screen, a virtual keyboard is shown when an entry is required. By means of the buttons you can enter the desired text and/or figures by finger.

Every time a number needs to be entered, a virtual numeric keypad is shown automatically.	 **Figure 5.53: Numeric keypad**
If you touch a text field with the finger where a text needs to be entered (e.g. a file name), a virtual keyboard is shown automatically.	 **Figure 5.54: Virtual keyboard**

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6 ROWE ConfigManager

The ROWE ConfigManager provides all administrative functions for the scanners of the ROWE Scan 450i series. Apart from configuring all basic settings, printers can be set, license upgrades can be loaded, or the scanner can be recalibrated here among others.

6.1 Starting ROWE ConfigManager

First, make sure that the scanner is connected to the PC and switched ON. After installation of the software, an icon named "ConfigManager" can be found on the desktop. It is easiest to start ConfigManager by double-click on this icon.	 **Figure 6.1: Desktop link ConfigManager**
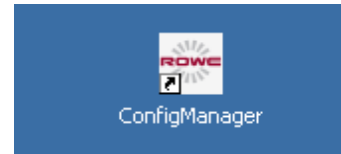
6.2 Main View of ROWE ConfigManager
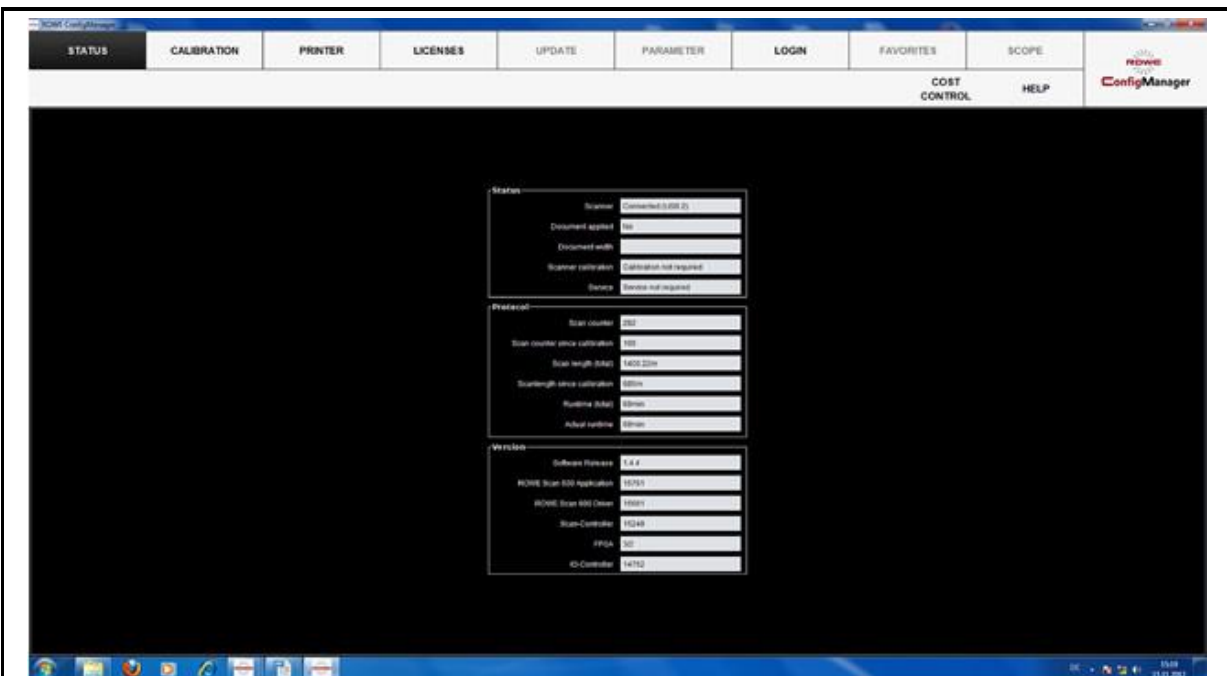
Figure 6.2: ConfigManager - Overview

The ConfigManager layout is similar to that of ScanManager. Similar to ScanManager the provided configuration options in the ConfigManager are divided into different *functions* by topics:

- Status: Different status information on the scanner is displayed (see 6.3).

- Calibration: Here, you can calibrate the scanner again (see 6.4).

- Printer: Management of printers which can be used in ScanManager (see 6.5).

- Licenses: Display of existing license options, loading of license upgrades (see 6.6).

- Update: Here you can check whether a new version of the ROWE Scan 450i software is available (see 6.7).

- Parameter: Administration of general parameters (see 6.8).

- Login: Authentication/access protection for advanced settings (see 6.9).

- Favorites: Here you can set additional options for the behavior of the favorites in ScanManager (see 6.10).

> In some sections of ConfigManager you are guided through the setup of the selected options by wizards. At the bottom edge of ConfigManager the two buttons "*Next*" and "*Back*" are displayed then. In order to reach the next step, simply actuate "*Next*". By means of "*Back*" you can return to the previous step to correct your selection if applicable.

6.3 Status of Scanner

The following information is given under *Status*:

- Status of connection between scanner and PC

- Whether an original was placed and if yes its approximate width

- Whether calibration is required

- Whether maintenance by the ROWE Service is required

Under *Protocol* you can see the scanner's intensity of utilization. There you can see the number of scans already effected, the overall scan length, as well as the operating hours of the scanner.

Under *Version* you can see detailed information on the software version as well as firmware of the scanner. Usually, only the entry "*Software Release*" (here 1.3.0) is important.

Figure 6.3: ConfigManager - Status

6.4 Calibration

Under *Calibration* you can calibrate the scanner again. A new calibration is always recommended if the scan quality seems to have deteriorated. Moreover, calibration is to be effected at regular intervals – depending on the degree of utilization.

In order to perform a calibration you simply have to follow the instructions given on the screen. In this respect, also refer to Chapter 2.11).
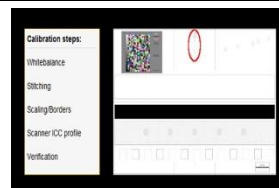
Figure 6.4: ConfigManager - Calibration

6.5 Printer
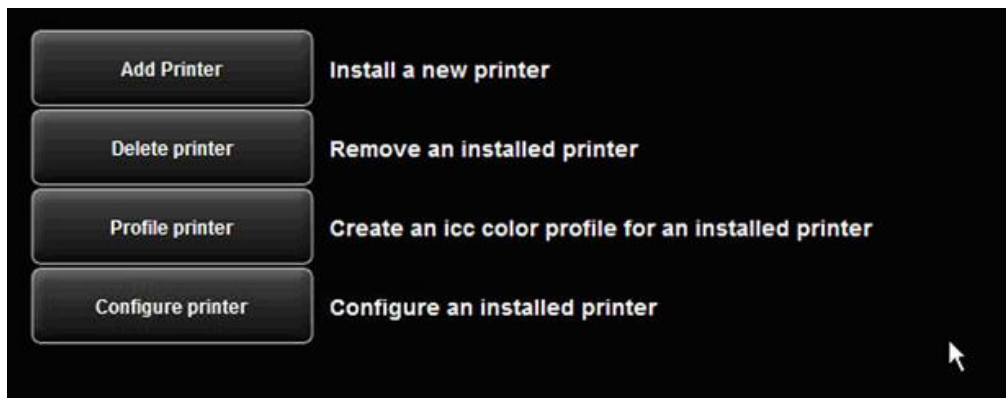
Figure 6.5: Selection of printer actions

In order to set up your printer, ConfigManager provides numerous options:

- Add printer (see 6.5.1)

- Delete printer (see 6.5.2)

- Profile printer: Create a color profile for an inkjet printer to optimize the color reproduction quality (see 6.5.3)

- Configure printer: Depending on the printer model, numerous other settings are available (see 6.5.4).

  i If you are not logged in as administrator, you are requested to do so as soon as you press one of the buttons (see 6.9).

6.5.1 Adding Printer

If you want to add a printer, press the button "Add printer" (Figure 6.5).
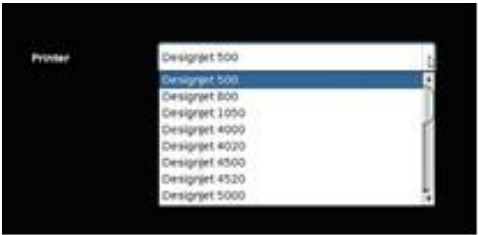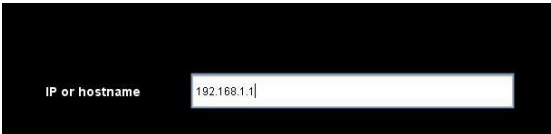
Afterwards, you are prompted to enter the printer manufacturer. For this purpose, select the appropriate manufacturer from the list and click "*Next*".

i The available manufacturers are dependant upon the installed license options. Should the required manufacturer name not be provided, you may need a license upgrade. (see Chapter 2.10).
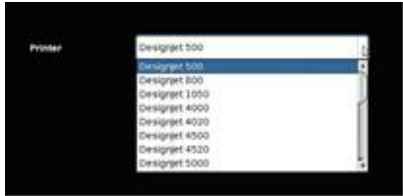
Figure 6.6: Selection of printer manufacturers

In the next step you are prompted to select the printer model from the list. Here too, the available selection is dependant upon the existing license options. Press "*Next*" afterwards.	 **Figure 6.7: Selection of printer model**
After having selected the printer model, you have to indicate how to access your printer in the network. For this purpose, enter the IP address of the printer or its host name in the text field. ℹ️ Should you have problems regarding the availability of the printer in the network, check the network settings of your computer and the printer.	 **Figure 6.8: Printer IP / host name**
Enter any designation for the printer to be set up in the following text field. ScanManager then identifies the printer on the basis of this name (see printer selection, Chapter 5.10.2.1). ℹ️ The printer name is also saved under the favorites. Should a printer be saved in a favorite which is NOT available (name changed, not available, license invalid, etc.), a corresponding message is displayed when starting ScanManagers. In this case, the loaded favorite should be modified! Check for: Correct name, network connection, license, etc.	 **Figure 6.9: Printer name** **Figure 6.10: Warning - printer name**
If the printer just added is a color printer, you are asked whether you want to perform a color calibration. If yes, click "*Start profiling".* For the further steps, please refer to Chapter 6.5.3 as from Figure 6.13. If you do not want to effect color profiling, click "*Skip*" whereby the printer installation is completed. You can also perform the color calibration of the	

printer later.	
If the added printer is not a color printer, the installation has now been completed successfully.	

6.5.2 Deleting Printer

|	
If you want to remove a printer already installed, select „*Delete printer*" under "*Printer*". Afterwards, you are prompted to select the printer to be deleted. The list shows all printers already installed. After having selected the printer to be deleted, click "*Next*" and confirm the safety query.	**Figure 6.11: Printer selection**

6.5.3 Creating a Printer Profile
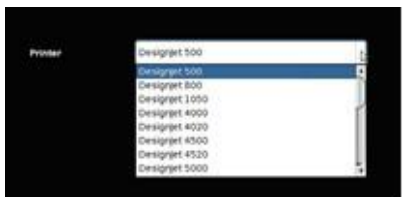
The color reproduction quality on color printers can be optimized by so-called ICC color profiles. This optimization is necessary because each printer shows colors differently. Even if directly comparing two identical printer models, different results may be produced. All in all, the color reproduction is dependant upon a number of factors, mainly:

1. Printer model but also the device itself,

2. Medium to be printed on (e.g. normal paper, high-gloss photo paper),

3. Age and condition of ink.

> ⚠ The factors *printer model* and *medium* have a great influence. In the following steps of creation of a color profile therefore make sure that the appropriate medium is actually available in the printer.

In order to achieve a reproducible reproduction of color, ROWE ConfigManager offers the "*Closed loop calibration*" option. This means that the printer prints a specific color pattern (a so-called *target*) about which the precise color values are known. Afterwards, this target is scanned with the printer and the actual color values of the individual color fields are established. An ICC profile is then calculated on the basis of the measured data and the reference data which compensates "color errors" as well as possible.

In order to optimize the color reproduction for a color printer you can also have a so-called ICC profile be calculated automatically. For this purpose, select the option "*Profile printer*" under "*Printer*". Afterwards, you are prompted to select the printer to be profiled. The list shows	**Figure 6.12: Printer selection**

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all printers already installed.	
In the following dialog select the medium for which you want to create a profile. As some color printers have several rolls, you further have to indicate on which roll the medium can be found. ⚠️ Make sure that the appropriate medium is actually available on the selected roll. Afterwards, enter roll width as well as desired quality level for the target to be printed. Then press "*Print chart*". ℹ️ If your printer has several rolls which are provided with different media and if you want to create a profile for further media, you can click "Back" afterwards and print the target already on the next medium. When creating a profile later, you can then skip this step.	 **Figure 6.13: Selection of paper grade**
In the next step, the printed target needs to be scanned. ⚠️ Allow the target to dry for about one hour, as the colors may still change during this period. After the drying time, place the target in the scanner and click "*Next*". The target is scanned and the ICC profile is calculated automatically. This process may take a few minutes. If you want to optimize the reproduction of the gray scale of the printer additionally, you can perform a so-called gray balance optimization. For this purpose, another target which has been optimized for the gray scale reproduction is printed and scanned. Simply follow the instructions on the screen. ℹ️ Normally, gray balance optimization is not required. On request you can skip this step. Afterwards you can complete the process by pressing "*Finish*".	 **Figure 6.14: Inkjet profiling - target**

6.5.4 Configuring Printer

If you want to configure the settings of a printer already installed, select the option "*Configure printer*" under "*Printer*". Afterwards, you are prompted to select the printer to be configured. The list shows all printers already installed. Afterwards press "*Next*".
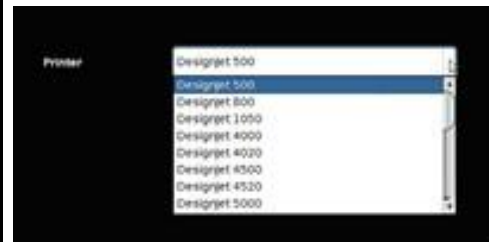
Figure 6.15: Printer selection
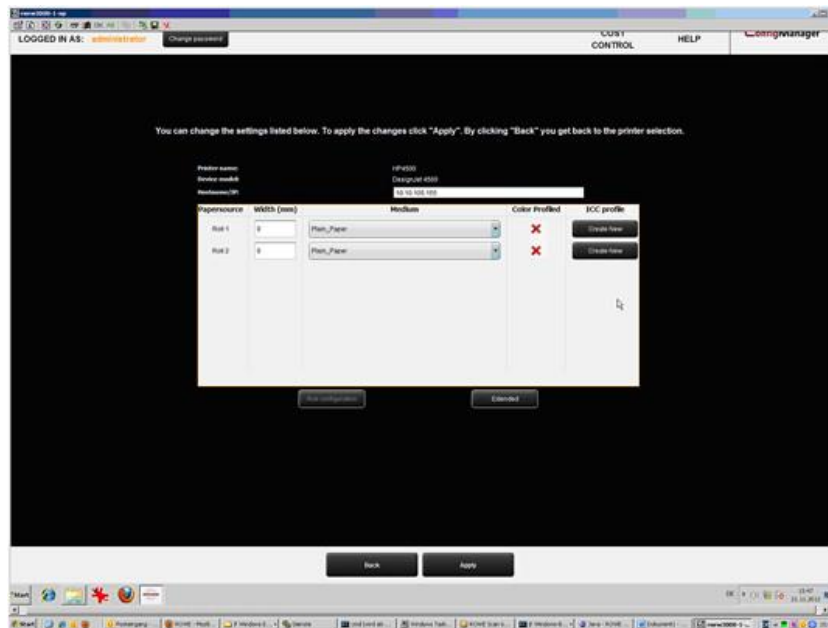
Figure 6.16: Roll configuration

Now you access the configuration area of the printer. There you can

- Change IP address and/or host name of the printer,

- See whether a color profile is already available for a medium (only for color printers),

- Create a (new) color profile for a medium (see 6.5.3) (only for color printers),

- Change the medium type and the width of a roll (only for color printers),

- Call extended settings (see Figure 6.17).
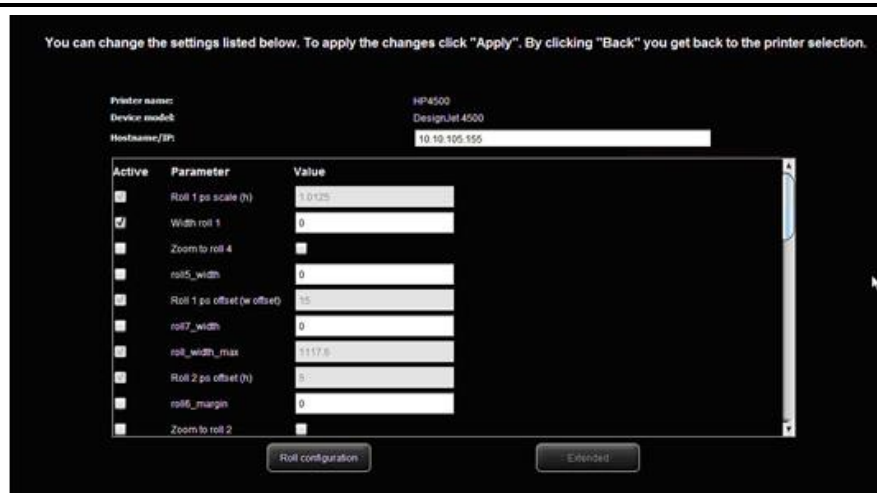
Figure 6.17: Extended printer settings

In the extended settings you can make some complex settings affecting the behavior of the printer quite individually. The most important settings refer to the printable area of inkjet printers and margins. You should not make any modifications in this section unless problems occurred in this connection.

The effect of changed settings may vary depending on the printer model.

Different parameters are available depending on the printer model.

Some options can possibly not be edited.

6.6 Licenses

Figure 6.18: License options during and after trial phase

If you purchased a new scanner, it is provided with a license which allows you to use all options for trial purposes first. This *trial* license either expires after 30 days or after 2000 scans – depending on which limit is reached first. The free features of the trial license can be seen under *Licenses*. There, you also see how long the trial phase will run.

After expiry of the trial phase only those options are left that you bought when purchasing the device and installed during installation of the software (see 2.10). These options can also be seen in the display.

By means of the button "*Open license file…*" you can install a (new) license file if you purchased a license upgrade subsequently and obtained a new license file.

If you want to purchase a license upgrade, click "*Order license*". ConfigManager then automatically opens the ROWE website using your Internet browser where you can order the requested upgrades. But you can also contact the ROWE Support (e.g. if you do not have an Internet connection on your computer). For the contact details please see Page 9.

6.7 Update

As ROWE intends to continuously enhance its software products, they undergo permanent further development. This is why new versions are made available occasionally including an extended scope of functionality and/or error corrections.

Accordingly, it may be worthwhile to check under "*Update*" once in a while whether a more recent version of ROWE Scan 450i software is available. As in case of the license upgrade order, ConfigManager opens the ROWE website automatically using your Internet browser where you can

see whether an update is available. Should this be the case, you can directly download the new version from there. The installation can be effected similar to the initial installation (see Chapter 2.2).

> **i** You can call the function *Update* only after logging in as an administrator (see 6.9).

6.8 Parameters

Under *Parameter* you can make some basic settings for scanner and software.

> **i** You can call the function Update only after logging in as an administrator (see 6.9).

Figure 6.19: ConfigManager - Parameters

The following parameters are available:

- *Password protect ScanManager settings:* You can protect the ScanManager settings with a password (see 5.14) to prevent unauthorized persons from changing them.
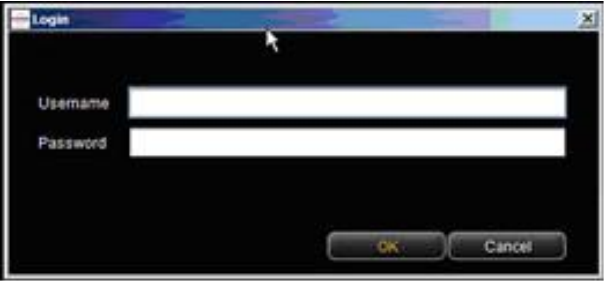
- *Correction scale factor (length)*: If you want to scan special originals which are particularly light or heavy and find out that the scale in feed direction is not exact, you can define a correction factor here. But normally you should not make any modifications. Enter a value of more than 1.0 if the scanned documents are too short.

- *Language*: Here you can change the system language.

- *Reduced speed*: If you scan very sensitive originals presenting a risk of being damaged when transported through the scanner, you can transport them at a reduced speed. Here you can select the target speed. (see 5.14).

- *Correction scale factor (length):* If this parameter is activated, you can set a correction in y direction between 0,980 and 1.020 per mill in ScanManager under "Expert mode". In case of existing favorites, this parameter is to be checked for correctness and to be saved, once.

- *Margin back/front/left/right*: Here you can define additional (global) settings for the scan margins. For negative values, the corresponding margin is cut off; for positive values, it is added.

- *Tolerance for mapping autoformats:* Here you can define by how many per mills the width of a scan format recognized by the width detection may be exceeded for being allocated to the next smaller format nonetheless.

- *Delay infeed*: Here you can define how long the scanner waits after positioning the document until it takes the document in.

- *Standby waiting time*: Waiting time until the scanner enables the energy saving mode (0: Energy saving mode deactivated).

⚠️ In energy saving mode, the scanner is not recognized by the computer (as if switched OFF). The operating LED is flashing. By pressing the start key on the control panel, you can "wake the scanner up".

- *Active format systems:* Here you can select which format systems are available in ScanManager when selecting the format.

- *Units of measurement*: Determine which units shall be used.

6.9 Login

Some functions in ConfigManager can be used with special access rights, only. For this purpose, an administrator account has been created. Click on the function *Login* for authentication. The factory-set access data is: • *Username*: administrator • *Password*: admin	 **Figure 6.20: ConfigManager - Login**
After successful login you can see at the top on the left under the functions that you are logged in as *administrator*.	 **Figure 6.21: ConfigManager - Login**
If requested, you can now change the password (only when logged in) by clicking *Change password*. You are then prompted to enter the old password first and then to enter the new password (two times).	 **Figure 6.22: ConfigManager - Change password**

6.10 Favorites

Figure 6.23: ConfigManager - Favorites

In addition to the numerous ScanManager options regarding handling of favorites (see 5.11), in the function *Favorites* you can define for each individual parameter whether it shall be saved in the favorite (checked) or not (not checked).

The following effects result therefrom:

- Parameter *included* in the favorite: When loading the favorite, the parameter is always set to the value saved in the favorite. As a consequence, the temporary setting of the parameter in the ScanManager gets lost and *after* loading of the favorite it needs to be set again if a value deviating from the favorite shall be used.

- Parameter *not included* in the favorite: After loading the favorite, the parameter set in the ScanManager when loading the favorite remains.

By default, all check marks are set, i.e. all parameters are included in the favorite. In order to change the setting, first select the favorite to be changed (*selection of favorite*).

If it is a Multiprint favorite, the latter includes several print parameter ranges (one for each output configuration). If you want to change the print parameter settings, you have to select for which

output device (*Parameter range*) you want to make the changes.

7 ROWE Cost Control

By means of the ROWE Cost Control software module all scan/print and – if applicable – folding operations can be collected and evaluated so that a precise breakdown of the accruing costs is possible. As an option, an extensive user and account management is possible which allows the preparation of precise accounting and a limitation of device use if required.

Two ROWE Cost Control versions are available: The standard version in which all relevant data of a scanning, printing and/or folding operation are recorded and provided in a table in ROWE ConfigManager for evaluation (see Chapter 7.2).

The ROWE Cost Control Professional version provides a clearly more extensive scope of functions in which a comprehensive user and cost center management is included allowing precise breakdown and accounting of the costs caused by use of the device. Moreover, use of devices by user and cost center can be limited by setting limits.

ROWE Cost Control version	Required license
• ROWE Cost Control • ROWE Cost Control Professional	• ROWE Scan Manager PRO • ROWE Cost Control Professional

A MATTER OF EXCELLENCE

7.1 Main View ROWE Cost Control Professional
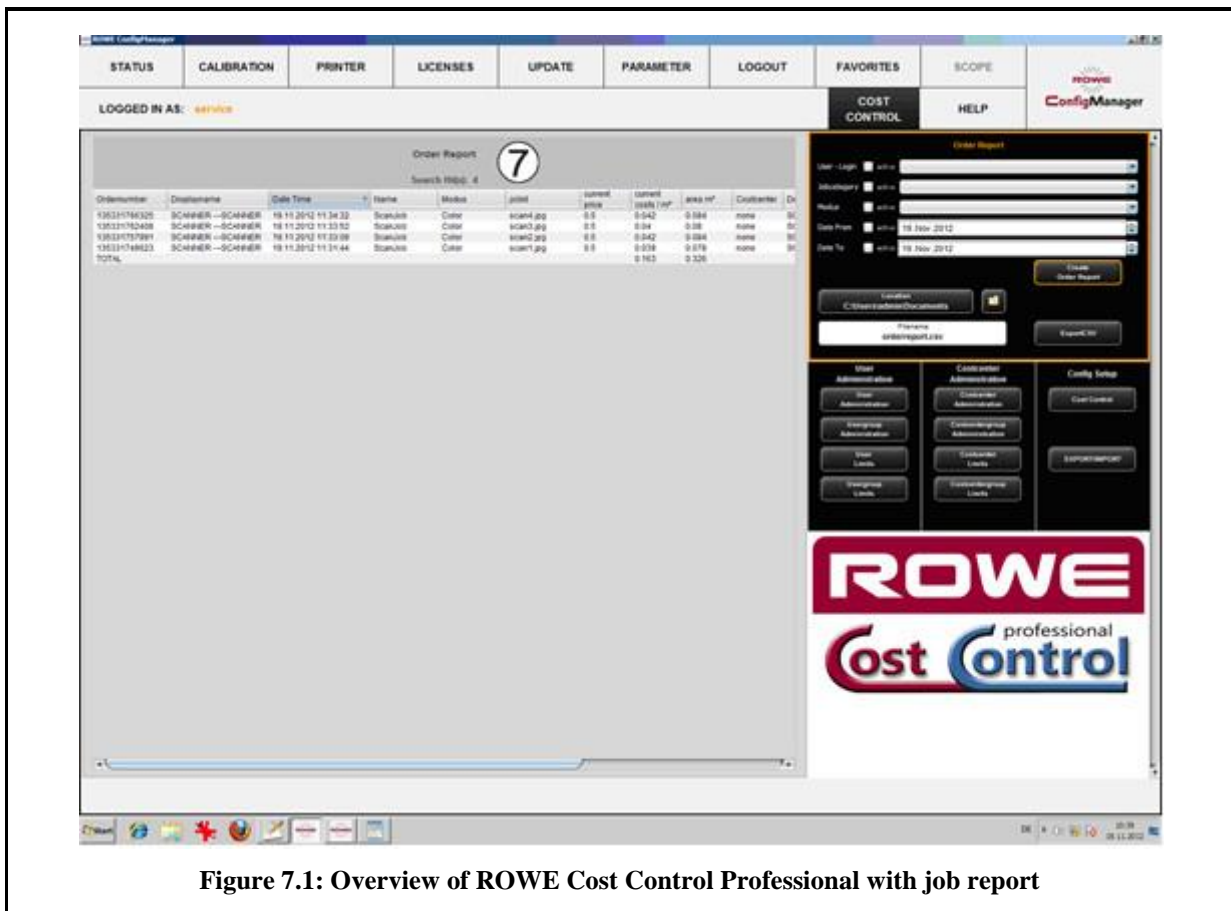
Figure 7.1: Overview of ROWE Cost Control Professional with job report

ROWE Cost Control Professional comprises of the following components:

1. Via this tab in the ConfigManager, Cost Control can be opened.

2. Menu Order report (see 7.2)

3. Menu User administration (see 7.4)

4. Men Cost center administration (see 7.5)

5. Menu Configurations (see 7.6)

6. Toolbar with action keys[2]

7. Main window for presentation of order report and editing of menu entries.

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[2] Overview of ROWE Cost Control Professional with job report

7.2 Menu Order report

The order report includes information on each performed job (scanning, printing, or folding). This information can be filtered by various criteria and be exported into a file with comma-separated values (.csv) for further analysis in tables.

In the standard version, only the order report is provided. The latter is started automatically when opening the Cost Control menu.

Figure 7.2: Fields in order report

Possible filter criteria	Description
User login	If active, the order report will provide information on the selected user, only.
Job category	If active, the order report will provide information on the selected job category, only, e.g. scanning.
Color mode (Modus)	If active, only information on the selected color mode will be displayed (e.g. color or black/white).
Date from/to	If active, only information on the selected period will be displayed. This search key can be

	used as follows:
	Arrow up/down only changes the date by one day. If the mouse pointer is positioned in the area of the month, the month is changed; this also applies to the year.

All filter criteria can be combined. If all filter criteria are selected, press the button *Create order report* (1) to update the tabular report in the main window.

For further analysis the order report can also be exported in a file with comma-separated values (*.csv). By means of the button *Export CSV* (2) a CSV file will be created in the selected folder (3). When creating the file, all filter criteria selected above will be considered.

In order to define the storage location, actuate the button *Location* (3) and select the requested target folder on your computer. Your own user folder is preset first.

In the text field *File name* (4) a name can be allocated to the CSV file to be created. By default, orderreport.csv is used. File extension .csv will be added by the program automatically.

By means of the *Explorer* (5) button, the set folder can be opened to access the exported file directly.

Order Report

Search Hit(s): 4

Ordernumber	Displayname	Date Time	Name	Modus	jobId	current price	current costs / m²	area m²	Costcenter	De
135331766325	SCANNER —SCANNER	19.11.2012 11:34:32	ScanJob	Color	scan4.jpg	0.5	0.042	0.084	none	S(
135331762408	SCANNER —SCANNER	19.11.2012 11:33:52	ScanJob	Color	scan3.jpg	0.5	0.04	0.08	none	S(
135331757991	SCANNER —SCANNER	19.11.2012 11:33:09	ScanJob	Color	scan2.jpg	0.5	0.042	0.084	none	S(
135331749623	SCANNER —SCANNER	19.11.2012 11:31:44	ScanJob	Color	scan1.jpg	0.5	0.039	0.078	none	S(
TOTAL							0.163	0.326		

Figure 7.3: Order report table

In the tabular view of the order report, information is sorted by date of creation (see Figure 7.3). Sorting can be applied to any column of the order report by clicking the header of the respective column.

The system allocates an order number to each order. Interrelated jobs are given the same order number. Example: Prescan and scan or scan and subsequent print.

The view of the standard version deviates from the Cost Control Professional view in that information on cost centers and costs is given in the Professional version, only.

7.3 ROWE Cost Control Professional

In addition to the options for consumption analysis provided in the standard version of ROWE CostControl, the Professional version provides an extensive user and cost center administration which allows precise breakdown and accounting of the costs caused by use of devices. Moreover, use of devices by user and cost center can be limited by setting limits.

7.3.1 Allocation of Limits and Discounts

Per job category an upper limit can be set for a person, cost center, or a corresponding group. If this limit is reached when working with ScanManager, no further jobs of this category can be executed until the limitation is reset by authorized personnel (administrator).

The system also allows granting of discounts to selected persons and/or cost centers or groups. An existing discount is considered in the order report in column *Price incl. discount.*

Calculation of the consumption per job category is effected as follows:

1. Limits allocated directly to a person have top priority.

2. Afterwards, limits allocated to a user group follow.

3. Limits allocated to a cost center or cost center group have the same priority but are checked in the third place.

The course of a job entirely monitored with ROWE Cost Control Professional is as follows:

*   A person logs into ScanManager with user name and password.

*   The job is started; e.g. black/white scanning.

*   A window pops up where the person can select a cost center.

*   If the person is allowed to use this cost center, the limit is checked.

*   If the limit for the selected job category has not yet been reached, the job starts as usual and all relevant information is recorded.

*   Afterwards, the program calculates the consumed quantity which is also recorded.

For further information on the process, see Chapter Warnings, Limits, Errors.

7.3.2 Allocation of Limits and Discounts

ROWE Cost Control Professional provides the option to set a limit for each job category[2] and to grant a discount if applicable.

Limits can be allocated in four different ways.

- User limits - User group limits - Cost center limits - Cost center group limits	 **Figure 7.4: Fields for limits**

7.4 Menu User Administration

This menu includes four areas where the administrator can create accounts for users and user groups and set limits for users and user groups.

Among others, the present chapter describes the configuration of limits and discounts in detail.

Setting of limits for users, user groups, cost centers, and cost center groups is effected identically and is therefore described for user group specific limits in Chapter 7.4.3 as an example.

Information on the user are displayed in the order report in a pop-up window when moving the mouse pointer over this name.

Figure 7.5: User info box in order report

7.4.1 User Administration

By clicking *User administration* in the menu of the same name, the list of persons currently available in the system pops up. When you call up this item for the first time, the list is empty.

Figure 7.6: User administration

Figure 7.7: Empty user list

By clicking *Add*[3] the area where you can create a user account opens.

In this menu, various information on the user is entered.

The fields marked with an asterisk have to be completed:

- E-mail address
- Login
- Password

The remaining fields are intended for detailed information on the user.

By means of the field *Status,* a user can be disabled temporarily to prevent login to ScanManager.

If user groups are available, the user can be allocated to a group.

Figure 7.8: Create user account

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[3] The field *Add* is located under the main window.

After successful creation of a user account, cost centers can be allocated to that user.

If cost centers are available, a list of all cost centers appears which can be allocated by means of the button

Add cost center[4].

Cost centers already allocated are listed in alphabetic order and can be removed by means of the button *Remove account* if required.

Figure 7.9: Add cost centers to user

7.4.2 User Group Administration

By clicking *User group administration* a list with all user groups available in the system pops up.

Figure 7.11: User group list

Figure 7.10: User group administration

By double-click the user group selected before opens to make changes or to view a list of the users currently allocated.

By pressing the *Add* button, the menu for a new entry opens.

The name of a user group has to be unique.

The fields *Location* and *Description* only serve ease of administration.

By means of the field *Status* an allocated

Figure 7.12: Create user groups

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[4] The buttons *Add cost center* and *Remove account* are located under the main window and replace the button *Add*.

limit can be suspended temporarily; i.e. NO job category limits can be booked for this user group.	
Modifications in the main window are confirmed, rejected, or deleted – if allowed – by means of the buttons.	Figure 7.13: Buttons – User group administration

In the following, the configuration of user-related limits is described as an example. This process is equal for all other limits (user groups, cost centers, and cost center groups) except for the labels which may be different.

7.4.3 User Limits

First, the list[5] of users currently available in the system appears. By double-click on an entry another list opens in which the job category limits currently allocated are indicated.	 Figure 7.14: Limits - List of currently allocated job categories
On this level, you can change existing job category limits or create new ones. By clicking *Add* and/or double-click on an existing entry, the menu for setting limits and discounts opens. In order to create a new limit[6], select an existing job category from the list[6]. In the field *Limit* the upper limit is defined for	 Figure 7.15: Job categories - Define limit

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[5] The entries in this list correspond to the entries in the administration menu. However, they cannot be deleted or edited. For this purpose, you have to move to the corresponding administration menu.

[6] In the list all available job categories are indicated in alphabetical order. Three designations are displayed: Name of job category, color mode for job category, and scale of job category currently used. The scale is decisive for determining the limit.

this job category. Please pay attention to the scale! In the field *Discount* a discount in % can be granted for the selected job category and the allocated user.	
The field *Current consumption* gives information about the current situation and can be reset by means of the *Reset* button.	 **Figure 7.16: Reset current consumption**

After having made all settings, the changes have to be accepted by the *Save* button.

This operation can be repeated for all existing job categories. A job category which is not allocated may result in a refusal of ScanManager to execute the job (see Figure 7.17).

Figure 7.17: Error message Limit exceeded

7.4.4 User Group Limits

See Chapter 7.4.3. Setting of user group limits is similar to user limits. If user groups have not yet been defined, an empty list appears with the note that at least one user group needs to be defined.

7.5 Menu Cost Center Administration

This menu includes four areas where the administrator can create cost centers and cost center groups and set limits per cost center and cost center group.

7.5.1 Cost Center Administration

By clicking *Cost center administration* a list with all cost centers available in the system pops up.

In the menu *Configurations – Cost Control* (Chapter 7.6.1) a standard cost center is given which always appears in this list[7].

Figure 7.18: Cost center administration

Figure 7.19: Cost center list

By pressing *Add* or double-click on an entry, the area for defining and/or changing a cost center opens.

The name of the cost center shall be unique.

The fields *Status* and *Available date* serve to allow bookings on this cost center in ScanManager or not.

> It is not possible to charge to inactive cost centers and cost centers with an expired date under *Available date*[7].

Figure 7.20: Create/edit cost centers

After successful definition of a cost center, users can be allocated to the latter. For this purpose, select the user you want to add to the cost center from the list and afterwards confirm by pressing *Add user.*

By means of the button *Remove user* you can remove users already allocated to a cost center.

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[7] Only if the current date of the day is older than the set date, an entry is prevented.

7.5.2 Cost Center Group Administration

By clicking *Cost center group administration* a list with all cost center groups available in the system pops up. As in case of cost center administration, the input mask for cost center administration can be opened by clicking *Add* in the toolbar below the main window. In order to modify an entry, select this entry in the list and press the *Modify* button in the toolbar on the right side.	**Figure 7.21: Cost center group administration**
The field *Name* shall include a unique name for the cost center group. The field *Status* defines whether job category limits can be used for this cost center group in ScanManager.	**Figure 7.22: Define / modify cost center group**
After successful definition of the cost center group, cost centers can be added to this group. For this purpose, corresponding buttons are displayed in the toolbar under the main window. They are used similar to the buttons of the cost center administration.	**Figure 7.23: Add cost center to cost center group**

7.5.3 Cost Center Limits

See Chapter 7.4.3. Setting of cost center limits is similar to user limits.

7.5.4 Cost Center Group Limits

See Chapter 7.4.3. Setting of cost center group limits is similar to user limits.

| | If a cost center group has not yet been defined, an empty list appears with the note that at least one cost center group needs to be established. |

7.6 Menu Config Setup

In this menu, the behavior of ScanManager with Cost Control Professional being activated is defined. Moreover, it is possible to save and restore the recorded consumption data as well as any user and cost center data.

7.6.1 Cost Control

In the submenu *Cost Control,* the behavior of the ScanManager relating to ROWE Cost Control Professional is defined.

Changes in this menu have to be confirmed by the *Save* button for being effective in ScanManager.

i A note regarding the saving status is given in red and/or green font.

Figure 7.24: Menu Config Setup – Cost Control

Figure 7.25: Cost Control Settings

1. *Cost Control Professional:* The professional version can be deactivated by disabling this

field. In this case, the standard version is active and jobs are recorded, only.

2. *Cost center editable*: Define whether the user shall be allowed to enter a cost center (in a text box) independently when logging onto ScanManager.

3. *Cost center listable:* Define whether the available cost centers shall be displayed in a list from which the user may select one when logging onto ScanManager. A combination with (2) is possible.

4. *Cost center check*: Define whether the cost center entered by the user has to exist, be active, and be provided with sufficient limit to accept jobs.

5. *Default cost center*: Define which cost center to be used if the user is not allowed to select a cost center him-/herself due to (2) and (3).

6. *Use login/password*: Define whether the user has to authenticate for using ScanManager. If this setting is not enabled, the current Windows login name is used for recording.

7. *Prescan to protocol*: Define whether prescans shall be recorded, too.

8. *Local server time*: Serves to display the date/time column in the order report. If 'automatic' is selected, the time zone set in the local PC is used. If you want to use other time zones, you can select them manually.

9. *Backup path:* Define in which directory the current data records as well as the monthly[8] order report files shall be saved.

⚠️ Make sure to save the contents of the indicated folders regularly.

7.6.2 Job Category Administration

This menu can be opened by means of the button *Job category administration* under the main window.	**Figure 7.26: Buttons menu Cost Control – Job category administration**
By clicking you open a list of the job categories currently available in the system which can be adjusted by a double-click.	**Figure 7.27: List of job categories**

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[8] At the beginning of each month, ROWE Cost Control creates a new database which includes information on the recorded jobs of the previous month. Older data is maintained and you can still access it.

The *Name* of the job category is defined by the system and cannot be modified. This also applies to the *Color mode*.

The field *Price* defines the height of costs of the job category per set unit of measure.

A currency has been waived intentionally in order to ensure utmost flexibility. Accordingly, data included in the CSV file after exporting the order report can for example be processed and interpreted as required.

Three versions of job category can be entered. *Piece, m², and cm².* In general, a square measure is recommended for scanning and printing while the quantity is interesting for folding operations.

Changed settings are accepted by pressing the *Save* button.

Job categories can neither be deleted nor can new entries be added.

A change of the units of measure and/or price may result in irreproducible entries in the order report and should be effected only when performing an overall reset of the consumption data if possible.

Figure 7.28: Edit job category administration

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7.6.3 Order Report Administration

7.6.3.1 Backup Settings

This menu can be opened by means of the button *Order report administration* under the main window.	**Figure 7.29: Order report administration**
In this menu, the settings for the monthly backup are made. ROWE Cost Control automatically saves the order tables in a separate database file at the beginning of the month. The latter may for example have the name *jobdb_201205__20120502_20120530.db*	**Figure 7.30: Backup settings**
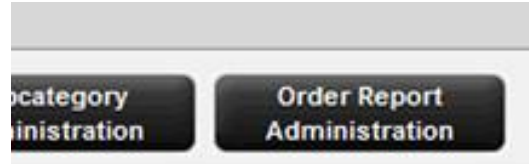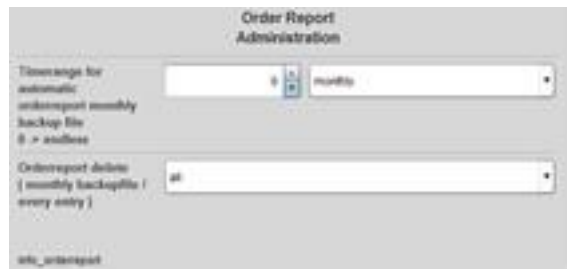
You can select a period of time for defining how long the monthly backup file shall remain visible in the order report. You can define whether the period shall apply to months or years. E.g., if you select three months, the information of the previous three months and the information on the current month will be given in the order report. The selection of years works in the same way so that the information on the current month and on the number of previous years is available in the order report.

> ℹ️ When selecting zero, the monthly backup files will ALWAYS remain in the order report.

The name of the monthly backup file jobdb_201205__20120502_20120530.db gives some information:

- 201205

  - To which month this file applies (May 2012)

- 20120502

  - Day of the first entry in the order report (2 May 2012)

- 20120530

  - Day of the last entry in the order report (30 May 2012)

A file with the name *jobdb_201206__empty.db* means that the monthly backup file does NOT include any information. Such a file may occur if all information from the order report were deleted and ROWE Cost Control created a monthly backup file automatically afterwards.

7.6.3.2 Deleting Order Report

In the area *Order report delete* the monthly backup files can be removed from the order report or all information including the current month can be deleted.

In a list, the available files can be displayed and deleted by pressing the *Delete* button in the toolbar. Should these files be available in a backup folder, too, they are renamed and are provided with a time stamp as file name.
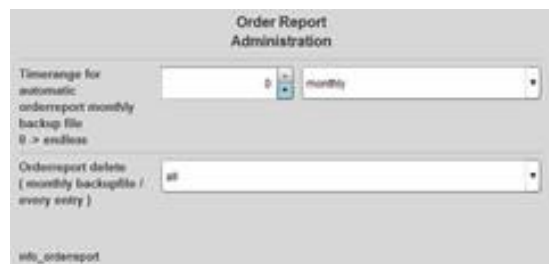
Figure 7.31: Delete order report

If *All* data are deleted from the order report, the system establishes a copy of the total database in addition to the above mentioned backup files (costMasterdata_all_delete_120710162156.bkp) which is also provided with a time stamp in the selected backup folder. If required, these files can be deleted manually.

> ℹ In this menu, the buttons *Save* and *Delete* have to be actuated. For this purpose, a popup menu is displayed where you have to enter the administrator password.

7.6.4 Export/Import

By means of the export/import functions, backups of existing data records can be established and loaded again. In general, it is possible to include all data in a backup, i.e. order records including incurred costs as well as master data (users, user groups, cost centers, cost center groups) and current configuration.

> ℹ In order to be able to open this menu, you have to have service access rights at least!

In the field *Export database tables* you select which tables[9] shall be saved.

By means of the field *Export file* you open a file manager to select the storage location and file name.

Figure 7.32: Export – backup of tables

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[9] Four backup versions are offered; Master data tables: include user and cost center administration, Configuration tables: include job categories and settings for Cost Control, Order tables: all data about the current month, All: all tables are saved.

By pressing *Export* a backup file is created in the selected folder.	
Under the main window, the button *Import Cost Control* can be pressed to access the menu for restoring of backup files. In this menu, you select the file to be restored by means of the file manager. By clicking *Import* the data records included therein are loaded into the system.	 **Figure 7.33: Import – Restore tables**

When preparing backup files for the order report, the monthly backup files are also taken into account. Per monthly backup file an SQL file with the corresponding name is created in the selected folder. They can then be used separately for restoration.

Example:

For backup the file name 'Sicherung_Auftragsreport.sql' was selected. In the system, there are two more monthly backup files. They are established automatically in the selected directory so that the following files are available afterwards:
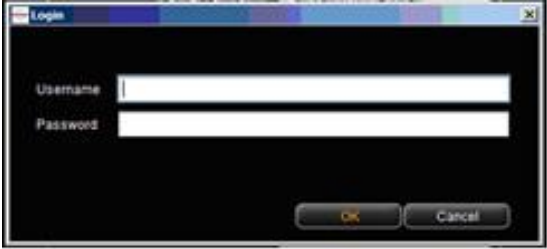
- Sicherung_Auftragsreport.sql
  - Data of current month
- Sicherung_Auftragsreport_jobdb_201204.sql
- Sicherung_Auftragsreport_jobdb_201205.sql
  - Data of months April and May 2012

7.7 Warnings, Limits, Errors
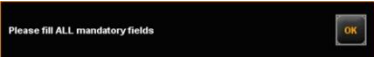
This chapter describes warnings and error messages which may occur. Moreover, examples for the limits are given.

7.7.1 Warnings

7.7.1.1 Login

If in the menu *Cost Control Use login/password* is activated, a window pops up when ScanManager has been started. After having entered login name and password, the authentication is started when pressing *Start*. By pressing *Cancel* the current ScanManager session is closed.	 **Figure 7.34: Cost Control login**
If in the user administration a user was deactivated, login to ScanManager is not possible. Login is only possible if the user is enabled.	 **Figure 7.35: Error message - User not active**
If the combination of user name and password was not correct, this message is displayed. If a repeated login is not possible, an administrator should check the user's access data.	 **Figure 7.36: Error message - Invalid login**
If not all fields are completed, this fact is shown by a corresponding note. Please complete all fields so that the system can effect the authentication correctly.	 **Figure 7.37: Missing login / password**
After successful login, the button *LOGOUT* is displayed next to the *STOP* button in ScanManager. By means of this function, you can change the user.	

7.7.1.2 Editing Range

For being able to change a data record, you have to highlight a line in the corresponding list first. This warning may appear if you try to delete or change an entry without having highlighted it before.	**Figure 7.38: Error message - No selection made**
The fields in the administration menus marked with an asterisk have to be completed. If all highlighted fields are completed, click *Save* again.	**Figure 7.39: Please fill ALL mandatory fields**
If the login name is already used in the system, you have to change this entry.	**Figure 7.40: Field: User login is not unique**
If the e-mail address is already used in the system, you have to change this entry.	**Figure 7.41: Field: E-mail address is not unique**
If the name is already used in the system, you have to change this entry.	**Figure 7.42: Name is not unique**
Some entries have to be confirmed before deleting them if they are used across the system. The query may occur in • User administration • User group administration • Cost center administration	**Figure 7.43: Confirm deletion**

• Cost center group administration	

7.7.1.3 Cost Center Query

Figure 7.44: List cost centers	**Figure 7.45: User-defined cost centers**
Depending on how the query for cost centers is set in the system, different windows pop up. After having selected a cost center, the check whether the user is allowed to use this cost center and, if selected, whether sufficient limit is available is started after pressing the *Start* button. Possible warnings are described in the following.	**Figure 7.46: Input of cost center**
If the user selected a cost center he/she is not allowed to use, this warning is displayed. Another cost center has to be selected. If this fails, an administrator has to allocate at least one cost center to this user.	**Figure 7.47: Combination of user name and cost center not valid**
If the user entered a cost center which does not exist in the system and if the check for a *valid cost center* is active, this warning is displayed. Either the user enters a valid cost center or the check for valid cost centers has	**Figure 7.48: Invalid cost center**

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to be disabled. Then, an entered cost center is used for recording only.	
If a limit was not defined for the job category or if the latter was exceeded, this warning is displayed. An administrator either has to define a limit for this job category or reset/increase an existing limit.	Attention! for the current jobcategory is NO limit available: Scannen Grayscale [OK] **Figure 7.49: No limit**
In order to be able to reset/increase an existing limit of a job category early, this warning is displayed.	Warning you have reached 10 % of Limit from 20. Your current consumption: 19.8 for jobcategory: Scannen Grayscale [OK] **Figure 7.50: Warning limit 10 %**

7.7.2 Examples for Limits

> ℹ️ If you want to use limits, a user has to be allocated to at least one cost center where his/her jobs may be entered.

7.7.2.1 Limit by User Groups

In order to implement a user-group-related access and/or consumption control, you may proceed as follows:

- Define user groups for different tasks, such as group *Scanning* and group *Printing*.

- Allocate the corresponding job categories and define the requested limits/discounts per user group in the area of user group limits.

- Define users to be included in the respective user group. A user may be a member of one group at most.

All jobs effected in ScanManager are then entered in the respective user group. The advantage of a limitation by user group is that only a few settings are to be made for job category limits if many users are divided into a few groups.

Should individual group members however require a separate job category limit, this can be set under *User limits*.

> ℹ️ All user-related job category limits have the highest priority. If a job category limit has been exceeded, this user is blocked for this job category until further notice. This limit is always applicable even if the limit on cost center basis was set.

7.7.2.2 Limit by Cost Center Group

In order to implement a cost-center-related access and/or consumption control, you may proceed as follows:

- Define cost center groups for particular areas, such as *Projects, department, private*.

- Set the corresponding job category limits per cost center group in the area *Cost center group limit*.

- Define cost centers which will be allocated to a cost center group, e.g. *Accounting* (→ *Departments*), etc.

- Allocate users and/or user groups to the respective cost center group(s).

All jobs effected in ScanManager are then entered in the respective cost center group. The advantage of this limitation is that only a few settings are required for the job category limit if some cost centers can be included in groups.

> **i** Cost centers and cost center groups have the same priority. If a job category limit is also set for a cost center, it is checked first whether the consumed quantity is charged to the cost center or the cost center group. The check is effected on the basis of the discount while the "most favorable" for the user is always used. If the discount is identical for the cost center and the cost center group, the consumed quantity is charged to the item having more limit.

8 Maintenance of Scanner

The present chapter describes how to clean the scanner of the ROWE Scan 450i series and how to replace wear parts.

8.1 Cleaning of Scanner

Dirt and dust particles on the glass plate of the scanner may result in a deterioration of the scan result.

This can be avoided by regular cleaning of glass plate, reflector rollers, and feed table.
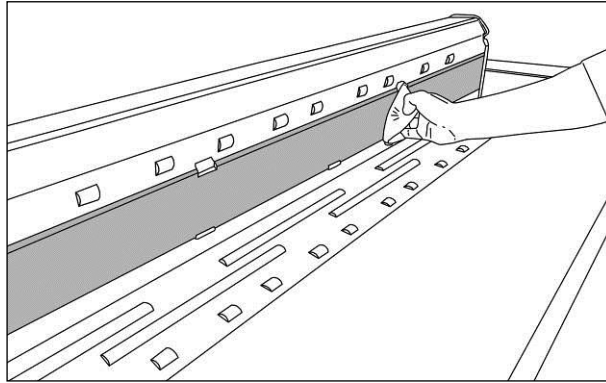
Figure 8.1: Cleaning of glass plate

In order to clean glass plate, reflector rollers, and feed table, first open the scanner top. For this purpose, grab the left and right side of the scanner top and release it from its locking (see Figure 1.1, Page 13). Afterwards, you can tilt the top by about 95°.

Put a small quantity of mild glass cleaner on a clean, fuzz-free cloth and wipe the glass plate. Now, take a second clean and fuzz-free cloth to rub the glass plate dry.

⚠ Make sure that the liquid does not penetrate under the glass plate and allow the area to dry completely.

🛑 It is absolutely necessary to switch the scanner OFF and to pull the mains plug before cleaning operations.

⚠ We recommend not to clean the glass plate in the device but to remove it before cleaning (see 8.2). Make sure that all components are completely dry before switching the device ON again.

In order to clean the reflector rollers, wipe them with a clean, fuzz-free cloth. The roller cleaner LIXTON W1-H is recommended as cleaning agent.

8.2 Replacing Glass Plate

If the scanner is used often, the glass plate may wear out and the scan result may deteriorate as a consequence. If cleaning of the glass plate does no longer improve the scan result, replace the glass plate.

In order to replace the glass plate, first open the scanner top (see Figure 1.1, Page 137). 1. Recess for thumbs 2. Upper support for glass plate 3. Glass plate 4. Lower support, retaining clip	 **Figure 8.2: Glass plate**
Now, put both thumbs into the recesses above the glass plate and push it down.	 **Figure 8.3: Removing glass plate**
Now swivel the glass plate to the front and remove it. First, place the new glass plate in the retaining clips of the lower support and push it down again. Swivel the glass plate and let it slide slowly upwards into the second support. Make sure of the correct lateral fit of the plate. ⚠ Do not touch the bottom side of the installed glass plate with your fingers. Moreover, the bottom side has to be free from dust and dirt. Clean the top side after replacement if applicable. ⚠ Do not touch the image sensors when the glass plate is removed. ⚠ Do not remove any covers for which a tool is required.	 **Figure 8.4: Removing glass plate**
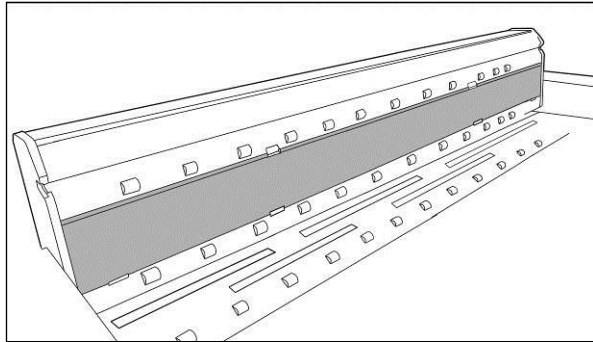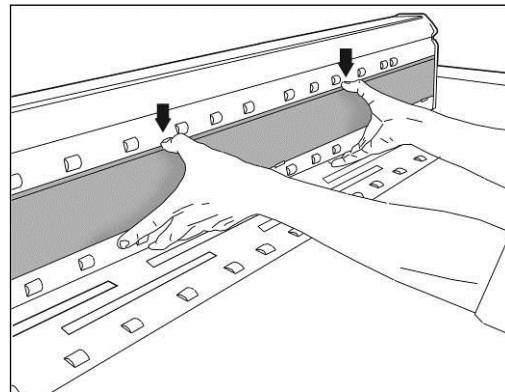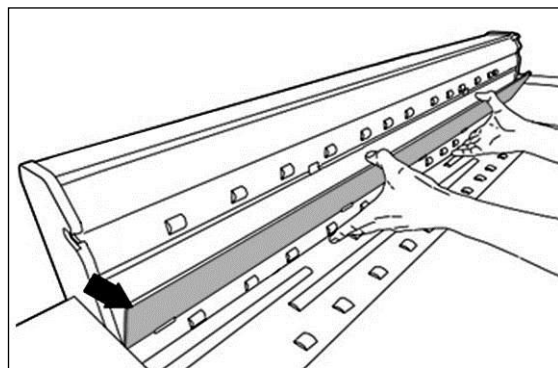
9 Trouble Shooting

This chapter describes the actions to be taken if a problem occurs when using the scanner.

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9.1 Malfunction Indicator Lamp on Control Panel

There is a malfunction indicator lamp (1) on the control panel of the scanner. If this lamp lights up, the scanner detected a paper jam. If the scanner is fitted with the optional height adjustment, the malfunction indicator LED may also show a problem with the height adjustment if it lights up. In this case, please contact the ROWE Service.	 Fig. 9.1 Malfunction indicator lamp

9.2 Installation Problems

The following table lists some problems that may occur during installation and describes remedial actions.

Problem	Remedy
Installation program does not open after inserting the CD-ROM	Enable Windows Autorun or start installation program directly from the CD
Installation fails giving an error message	Make sure that the minimum requirements are satisfied. Among others, you need administrator rights, see Chapter 1.5
No connection via USB	Check whether the entry "ROWE Scanner" is available in the Windows Device Manager. Check whether the Windows Utility "ROWE Scan-Controller" is started (perform a restart of the PC). If applicable, deactivate firewalls and afterwards reinstall the software.
The document is not taken in	Restart Setup Wizard (see Chapter 2.9)
License installation fails	Check whether the connection to the scanner is established (see above). Reinstall the software.
Calibration fails	Repeat calibration. Check the chart for damages.

9.3 Scanning Problems

The following table lists some possible problems when working with the ScanManager and describes remedial actions.

Problem	Remedy
ROWE ScanManager does not detect the scanner.	Make sure that the scanner is switched ON and recognized by the PC. Restart ScanManager.
The document is not taken in	Switch scanner OFF and ON again. Execute the Setup Wizard again if applicable (see Chapter 0).
Only a part of the original is scanned.	Check the setting of the *Scan format* (*Auto or sufficiently large format*). Make sure of centered document feed.
Scan to File: Image file is not created in the target folder	Make sure that you have the appropriate write permission for the target folder and that sufficient storage space is available.
Image is not printed	Check the job list (Job/print may be stopped?) and whether the printer can be accessed in the network.
Quality and color reproduction on inkjet printer not perfect	Calibrate the scanner. Afterwards, establish a new color profile for the printer. Make sure that the correct medium is used (see Chapter 6.5.3).

9.4 Problems with Automatic Width Detection

If you have any problems with automatic detection of the document width, the following information may be useful.

Problem	Remedy
Parts of the image are missing on at least one side	Make sure that the original is positioned in a straight and centered way. Check the original for damages (in particular at the front and front edges). Should the background color (paper white) of the original be equal to the color of the transport rollers and should the original be

	very thin, faulty detection may occur.
Image too wide on both sides	Make sure to use the scan format *Auto* and not *Auto (Sensor).* If applicable, recalibrate the scanner.

9.5 Scan Quality

In case of problems with decreasing scan quality, you should usually recalibrate the scanner (see Chapter 6.4). In addition, please consider the following information.

Problem	Remedy
One or several thin light or dark stripes in the image (in feed direction)	Clean the glass plate (see Chapter 8.1). Even small dust/dirt particles may result in a deterioration of the scan result. Afterwards calibrate the scanner. If the problem persists, check the glass plate for scratches. If any, replace the glass plate (see Chapter 8.2).
The image is not composed precisely (stitching offset) over entire length of original	Recalibrate the scanner. Check the feed path for obstacles (e.g. correct fit of glass plate).
Stitching offset only at front edge of very thin originals.	For extremely thin and light originals, a minor offset may occur at the front edge when composing the image which is caused by the feed. In this case, it may be useful to stabilize the front edge with transparent adhesive tape.

A Technical Requirements

A.1 Java Runtime Environment

In order to be able to use all functions of the ROWE applications, a "Java Runtime Environment", version 1.6.0 update 39 or higher has to be installed. If it is not yet installed on your computer, it will be installed together with the ROWE applications (see Chapter 2).

B Safety Notes

This Annex includes safety notes to be read prior to commissioning of the scanner of ROWE Scan 450i series. You obtain information on possible risks of personal injury and property damage regarding the devices of ROWE Scan 450i series.

B.1 Disclaimer

The contents of all safety data sheets in this manual are subject to the following disclaimer. The safety data sheets have been compiled to the best of our knowledge and belief as a short instruction regarding safe handling of ROWE Scan 450i devices. We reserve the right to revise safety data sheets if new findings are on hand.

It is the customer's responsibility to check if this information is exhaustive, to deduce all required safety precautions, and to make sure that the most recent version of the data sheet is on hand by contacting ROWE in this respect.

Insofar as permitted by law, we do not accept any liability for completeness and correctness of these safety data sheets.

B.2 Safety Information

The ROWE Scan 450i devices have been designed and manufactured according to the state-of-the-art. However, health hazards and risks of property damage may occur during use.

Operators shall use the ROWE systems in proper technical condition, according to the intended use, being aware of safety and hazards, and observing this Operating Manual. In particular failures impairing safety have to be eliminated immediately.

The ROWE systems of the Scan 450i series shall exclusively be used as described in this Operating Manual. Another use or use exceeding the above shall not be deemed intended use. The manufacturer is not liable for damages resulting therefrom. Solely the user bears the risk for the above.

All persons dealing with erection, commissioning, operation, and maintenance of the device shall be appropriately skilled and trained. In order to ensure their safety, it is important to observe the Operating Manual thoroughly.

B.3 Prior to installation

Read the Operating Manual including the safety notes. Also ensure that all operators read the Operating Manual. The documents as to the device shall be stored close to the device where they can be found easily by any operator. Check the conditions at the intended place of installation.

B.3.1 Conditions of Room

Provide for the following conditions:

- There shall be sufficient space around the scanner so that it is easily accessible from all sides.

- Sufficient ventilation of the system shall be ensured.

- We recommend to install the device in a place without any vibrations if possible (e.g. not close to a large-sized punching machine).

- The relative humidity of air shall amount to 30 to 60 %.

- Slots and openings at the devices serve ventilation. They shall always be kept free.

- The devices shall be kept dry.

B.3.2 Fuse Protection

The ROWE scanner must be protected by fuses (10 A).

B.3.3 Assembly and Commissioning

The device shall only be connected to a grounded socket with VDE homologation and located close to the machine. Check in advance whether the mains voltage complies with the nominal voltage indicated on the type plate. The type plate is located on the left side plate of the scanner (open scanner top). Please also consider the following aspects:

- If the device is connected to an extension cord/a multiple socket, make sure that the current draw of the devices connected to the extension cable/multiple socket does not exceed the cable capacity. Make sure that not more than 10 A are applied to the wall socket.

- The plug connection shall be easily accessible without presenting any hazards.

- The mains plug connection shall not obstruct access to the machine.

- Make sure that no objects are placed onto the power cord. Make sure that nobody steps onto the cord by mistake.

- The components of the devices must not be installed nor removed using force.

B.3.4 Intended Use

- Never bypass any mechanical or electric disconnectors.

- Do not remove any screwed parts.

- It is not allowed to repair the scanner independently. Behind the covers which can only be removed by means of a tool, there are components which are live or bear hazards otherwise. Only authorized skilled service staff shall be charged with maintenance in these areas of the scanner.

- The housing is fitted with louvers at the bottom ensuring reliable operation. Do not cover or close these louvers nor place any objects in front of them. In order to prevent the above, the product must not be operated on soft furniture such as beds, carpets, or other soft surfaces. Do not place the product close to or above a heat source (radiator, etc.). It is allowed to place the product in closed furniture or rooms only if sufficient ventilation is ensured.

- Do not push any objects through the louvers of the scanner. Live components may be touched, components may be short-circuited, and a fire or an electrical shock may occur. Prevent liquids from getting onto the scanner.

- Prior to any intervention in the electric or mechanical part of the device, disconnect the power supply.

- Only use cleaning agents which are approved by the manufacturer for the respective purpose.

- The printing, scanning, and folding systems shall only be modified by authorized ROWE service staff.

- Please observe the service intervals.

- Use only original ROWE wearing and spare parts or wearing parts approved by ROWE. Use of wearing parts which are not approved by ROWE may damage the devices. ROWE does not accept any liability if wearing parts are used which are not approved by ROWE.

- Observe the safety notes on the wearing parts.

- Dispose of packaging etc. according to the applicable legal regulations.

- Plastic material must not be burnt.

B.3.5 Commitment of Operators

The operators undertake to

- refrain from any working method impairing the safety and functionality of the system.

- ensure that only trained and authorized staff works on the systems.

- notify of modifications impairing safety and functionality of the system.

- disconnect the system from the power supply before taking any maintenance and repair actions.

B.3.6 Take-back of Devices at the End of Service Life (WEEE)

The device delivered by ROTH + WEBER GmbH is subject to the European Directive 2002/96/EC and the corresponding implementation in the law of the respective EU member state (in Germany

ElektroG). Accordingly, you can return the device at the end of life for proper disposal and recycling.

1. The device shall not be disposed of in unsorted industrial waste.

2. In terms of WEEE, the device is a device for mere commercial use and must not be given to municipal waste collection like consumer devices, e.g. washing machines, video recorders, or standard computers.

3. For disposal please contact the Roth + Weber GmbH Company (www.rowe.de or your local sales partner) in order to obtain information about the current mode of take-back.

The WEEE symbol – dustbin crossed out and underlined – on your device points out that it is subject to WEEE and has to be disposed of correspondingly. In some EU states like Germany this symbol is not required for devices used for mere commercial purposes only; however, Roth+Weber GmbH applies it uniformly throughout Europe. This symbol does not mean return to municipal waste collection!

Figure 9.2: WEEE symbol

C Service and Contact

Should you have any questions about the ROWE products or need any technical support in case of problems with your ROWE device, do not hesitate to contact our Service Department:

Phone: +49 (0) 2743 9217 -21

Fax: +49 (0) 2743 2018

E-mail: service@rowe.de

www.rowe.de

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D About this System

This software is partly based on the work of

- Python Software Foundation (http://www.python.org, License/Copyright)

- The authors of Python for Windows Extensions – pywin32 (http://sourceforge.net/projects/pywin32, License/Copyright)

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