Image Access

WideTEK 25
Operation Manual

Introduction

Dear Customer,

We congratulate you on the acquisition of this innovative product from Image Access.

We at Image Access are proud of the work we do; it is the result of our extremely high standards of production and stringent quality control.

With this scanner, Image Access offers an efficient scanner which covers a wide scope of applications due to its versatility. Its integrated web based user interface makes all functions available in structured menus.

This operation manual is designed to lead you through all situations which will arise when using the scanner.

For this reason, we ask you to read the manual attentively before starting to work with the scanner. By doing so, you will avoid operation errors and you can control all functions from the beginning.

In addition please consider the following points:

- Damages to your unit may have occurred during shipping. Please check for damages immediately after delivery of the unit. Inform your supplier if damage has occurred.

- Read and ensure that you understand the safety notes. They were developed for your protection and safety as well as to protect the unit.

- Regular maintenance conserves the high quality and safety of your scanner during the entire service life.

If you have any further questions, please feel free to contact your local dealer or Image Access, Inc. directly. Our staff will be happy to help you.

For your daily work with your new scanner, we wish you success and complete satisfaction.

Regards

Your Image Access Team

WideTEK 25

About this Manual

Operation Manual

The **Operation Manual** gives all information about the normal operation and behavior of the device. It is written for people who only operate the device and do not perform setup and adjustment procedures. All device elements and software functions are described in detail, although some of them might never be used. This manual does not cover any application software. Refer to the appropriate application software manual to learn about the application software.

Setup and Assembly Manual

The **Setup and Assembly Manual** is written for technical staff with some basic mechanical as well as software skills. Many resellers will offer on-site installation; therefore, large parts or all of the setup and assembly manual might not be of interest to the reader. The access level at which the setup and adjustment processes are performed is called "Power user". This "Power user" level is password protected from access by the normal operator.

All manuals can be downloaded from our customer service portal at http://service.imageaccess.de. Be sure to always check for the latest versions of these manuals.

This manual is divided into four sections, A to D.

Section A   describes the hardware of the device. It includes unpacking and mechanical installation. These instructions must be followed carefully to ensure proper functionality, best possible quality and performance of the device. This device is a precise optical instrument and should be handled accordingly.

Section B   describes the software setup. It includes the optical adjustments necessary after the setup. The section also describes the installation procedure for software options.

Section C   describes troubleshooting procedures and test scan generation.

Section D   shows all technical data and declarations.

WideTEK 25

Version History

Version	Published in	Content/Changes/Supplements
A	April 2008	Preliminary release version. Because of the preliminary status of this manual some variations in the screenshots of the S2N user interface are possible.
B	May 2008	Preliminary version for S2N software version 5.
C	June 2008	**First release.**
D	October 2008	Hardware improvements: Two transportation locks at the back. Some minor modifications in the wording of the describing texts.
E	December 2008	Additional information concerning the menu "Format" in the S2N user interface.
F	March 2009	**Firmware V 5.20.** New functions in the S2N user interface / the touch panel. New: Adaptive Stitching 2D, "Image Control 2" menu in the touch panel.
G	September 2009	Chapter B.2.3.2 added. Description of "Despeckle" function. Some minor modifications in the wording of the describing texts.
G2	February 2010	Additional information about certifications. Order of chapters A.5 to A.8 have been changed. Chapter D.3 Electr. Spec.: New value for stand-by consumption, another power supply is used.

As an ENERGY STAR® Partner, Image Access has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

WideTEK 25

Image Access

Table of Content

WideTEK 25

Table of Content, part 2

Table of Content, part 3

Table of Content, part 4

WideTEK 25

Table of Pictures

Table of Pictures, part 2

Table of Pictures, part 3

A   Hardware

A.1   Safety Notes

Read and ensure that you understand the safety notes.

They are designed for your protection and for your safety.

Follow all safety notes to avoid damage to the device.

A.1.1   Marking of Safety Notes

All safety notes are marked with a yellow triangle warning sign.

Next to the warning sign, you'll find a description of the danger.

Safety Note!
Example text.

A.2   Certification

The WideTEK 25 scanner fulfills all requirements of the following safety standards:

IEC 60950-1, International Safety Standard for Information Technology Equipment

UL 60950-1, Safety for Information Technology Equipment (US standard)

CAN/CSA C22.2 No.60950-1, Safety for Information Technology Equipment (Standard for Canada)

EN 60950-1, Safety for Information Technology Equipment (European standard)

A.3   General Notice

This manual describes the functions of a complete equipped WideTEK 25 scanner. If your device is not equipped with all features, deviations are possible.

A.4 Safety Precautions

Warning: Please read all the safety precautions before you operate the scanner. Serious injury can occur to you or to others if you do not know how to use it safely.

> To prevent fire or shock hazard, **do not expose** this device to rain or any type of moisture.

Follow all safety precautions to avoid personal injury or damage to the device.

1. Place the scanner in a clean, well-ventilated room. Do not operate the scanner in an area with poor ventilation.

2. Openings in the scanner's housing in the front or at the back are provided for air circulation. Do not cover or block the openings.

3. Do not place the scanner near a heat or cold emitting source such as a space heater, furnace, or air conditioning unit.

4. Do not place the scanner near any devices or electrical boxes emitting high voltage.

5. Always place the scanner on a stable surface.

6. Do not lean on the scanner.

7. Do not place cups containing liquids or other such objects on top of the scanner or on the scanner table. If liquid spills into the scanner it can cause damage. If this occurs, turn the scanner off, unplug the power cord from the wall receptacle and contact the Image Access Technical Support.

8. Do not put any objects into any scanner housing openings unless specifically instructed to do so by Image Access Technical Support.

9. Do not disassemble the scanner. If there is a need to disassemble the scanner, please contact the Image Access Technical Support.

10. Do not use the scanner if it has been physically damaged. If this occurs, turn the scanner off, unplug the power cord from the wall receptacle and contact the Image Access Technical Support.

11. The scanner should be used only with the power cord that is supplied with the scanner. If you are unsure, please contact the Image Access Technical Support.

12. Image Access recommends plugging the scanner into an appropriately-rated power conditioner.

13. Always turn the power off and unplug the power cord from the wall receptacle before cleaning the scanner.

14. When cleaning, only use Image Access approved cleaners. Do not use any type of solutions, abrasives, or acids such as acetone, benzene, kerosene, mineral spirits, ammonia, or nitric acid. Do not use any cleaners that contain these chemicals.

15. Use a dry or damp lint free cloth for cleaning the scanner.

16. Do not spray any liquids directly onto the scanner. Spray cleaning fluids directly onto the cleaning cloth and use the cloth to clean the scanner.

A.5   Device Location

Please allow a minimum of 150 mm (6 inch) from any side walls and 300 mm (12 inch) from a back wall. Leave one meter (3 feet) minimum distance from any door or entrance way. Use the illustration below as a guide.
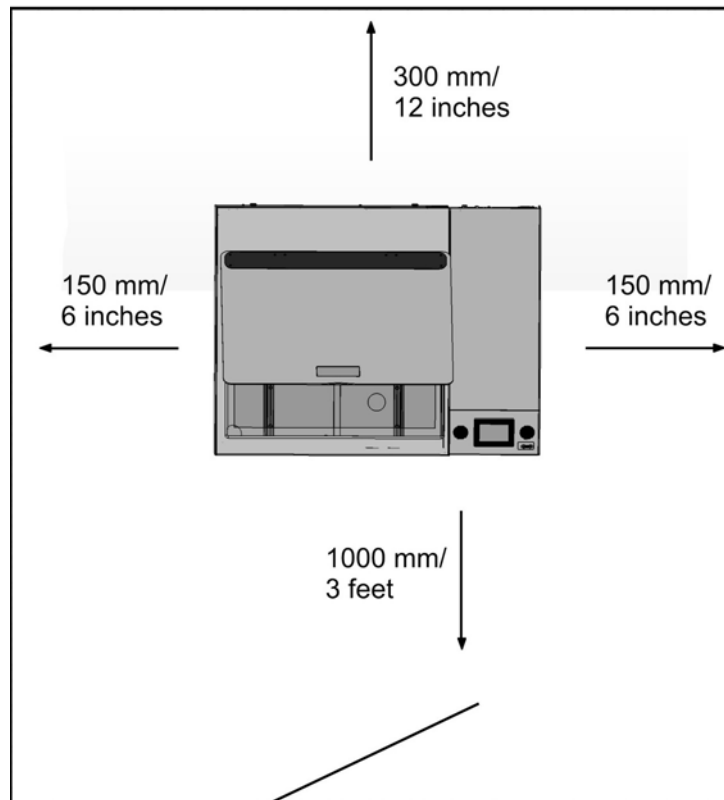
Picture 1: Minimum distances

Do not operate the scanner in an area that has poor air circulation and/or that is non-ventilated.

Place the WideTEK 25 on a flat and solid base. The load bearing capacity of the base must correspond to the device weight.

Placing the WideTEK 25 on the optional floor stand is recommended for the best ergonomic position while using the scanner.

Choose a location that complies with the limits of temperature and humidity. Refer to the technical specification.

Note: Before using the WideTEK 25 scanner in the new environment allow at least one hour for temperature adaptation.

Temperature adaptation means:
A fast change from cold to warm environmental conditions can build up condensation inside the housing. This will result in unfavorable scanned images and could cause permanent damages to the unit.

A.6　　Maintenance and Repair

Note:　　There are not any parts or components of the WideTEK 25 scanner which can be repaired by the user.

All repairs and service works should be done by a trained technician only.

A.6.1　　Cleaning

Important:　　Ensure that no liquids will penetrate into the device housing.

A.6.1.1　　Surfaces

Use a soft, dampened cloth to clean the housing of the scanner. Recommended is a micro fiber cloth.

A.6.1.2　　Glass plate

Important:　　**Do not use** any cleanser with solvents to clean the glass plate!

The glass plate of the WideTEK 25 has a special non-reflective surface coating.

Clean the glass plate with an appropriate glass cleaner and use a soft cloth. Recommended is a micro fiber cloth.

After cleaning dry the glass plate with a soft cloth.

A.7   Content on Delivery

The scanner is delivered in a wooden transport box. The transport box also contains two plastic bags, a folder with reference targets, and the manuals.

Picture 2 shows the transport box including all material which comes with the scanner.
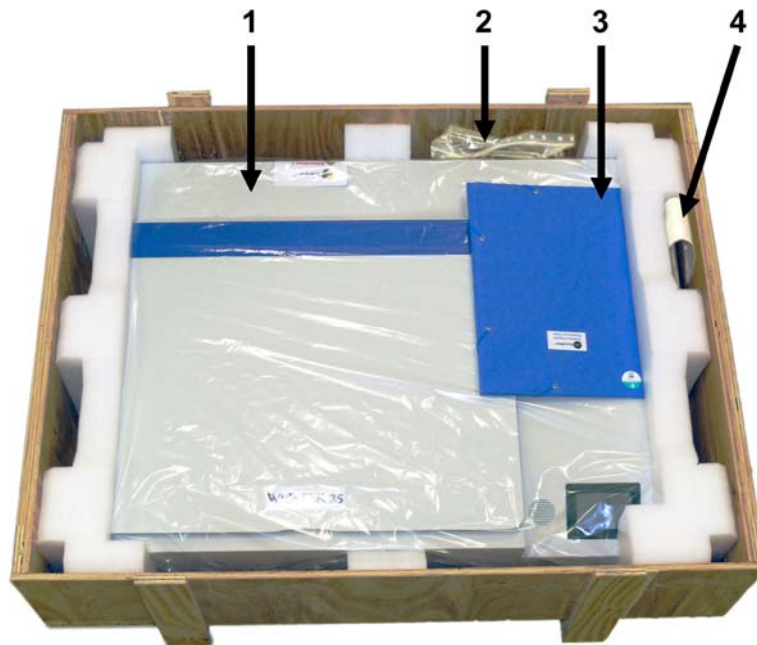
Picture 2: Scanner WideTEK 25 in transport box

1:   Scanner WideTEK 25.

2:   Plastic bag with "Recovery Key" and cable set. The cable set consist of:

Network cable. Connects the scanner to the network. All network parameters such as IP address, subnet mask and gateway must be set via the touch panel prior to the first use.

Crossover cable. Connects the scanner directly to a computer via the network card.

Power cable. Connects the scanner to the wall outlet

3:   Reference folder. It contains:

4x Color Scanner Test Target CSTT-1

4x Line Reference Sheet LRS-200

4:   Plastic bag with 3x White Reference Targets WT36-Z-02-A.

Please note: Keep the wooden transport box for future use! In case of guarantee the scanner must be sent back in the original transport box to avoid transport damages.

A.8 Transportation Locks

A.8.1 Removing the transportation locks

> ⚠️ **Attention**
>
> The transportation locks have to be removed **before initial start-up** of the device!

The transportation locks are located at the back of the scanner. A label marks each transportation locks.
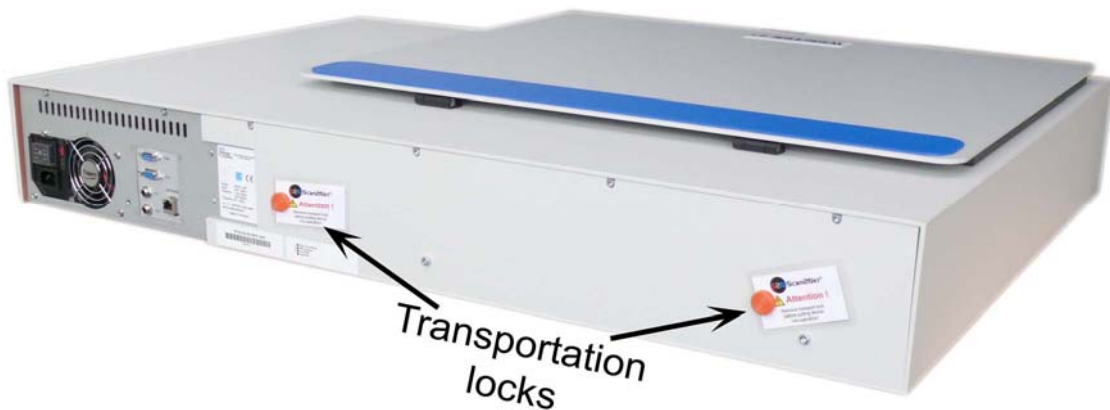
Picture 3: Position of transportation locks

Turn the transportation lock counterclockwise to remove it.

Picture 4: Removing the transportation lock

Important: Keep the transport lock for future use!

The transportation locks must be inserted **before** every transport. This will prevent the sensitive components inside the camera box unit against damages.

A.8.2   Inserting the transportation locks

	Attention
⚠	**Before transporting** insert the transportation locks to prevent the camera box unit against damages!

Before inserting the transportation locks the camera box unit must be moved into transport position.

The transport position of the camera box unit is at the back side of the scanner – seen from the operator's position.

When the power down sequence ends normally, the camera box unit moves to its transport position. If the camera box unit is in any other position after switching off, restart the device as described in chapter A.11.1.

Afterwards turn it off as described in chapter A.11.2. The power down sequence moves the camera box unit to the transport position, finalizes all internal processes in the scanner and switches the device to stand-by mode.

Switch off the WideTEK 25 at the main power switch (see Picture 7).

Picture 5: Inserting the transportation lock

Insert carefully the transportation locks which come with the scanner.

Hand-tighten by turning it clockwise. Using more force could result in damage of the camera box unit.

A.9   Connecting to the Power Source

Before connecting the scanner to the electrical outlet check the following items:

Ensure the electrical outlet is in perfect condition and that it is properly grounded.

Ensure that the electrical outlet is equipped with a fuse with the proper capacity.

The electrical outlet must be near this device and must be easily accessible.

Inspect the power cable and ensure that it is undamaged.

Use only the power cable delivered with the scanner.

Turn the device off before plugging or unplugging any cable.

All connectors are positioned at the right side of the back of the housing, seen from the operator's position (i.e. from the front of the scanner).

A.9.1 Connectors on the Back

Picture 6: Back of WideTEK 25
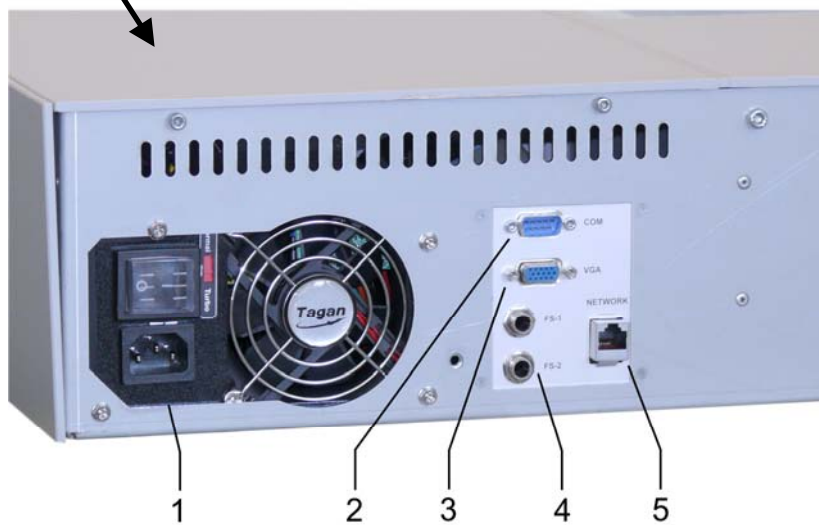
Picture 7: Connectors on the WideTEK 25

1: Power connector and main power switch

2: Serial connector

3: VGA connector

4: Two foot pedal connectors

5: Network cable connector

A.10   Powering up the WideTEK 25

The main power switch is found above the power connector. Picture 7 shows the position of the power connector and main power switch.

After connecting the scanner to the electrical outlet, switch the main power switch to position **I**. When the main power switch is in position **I**, the scanner is in stand-by mode.

> **NOTE:**   While using the WideTEK 25 in work conditions, it should **only be switched on and off by the touch panel**!

!

A.11   WideTEK 25 Touch Panel

The WideTEK 25 parameters can be set and modified with the integrated touch panel. It shows an easy-to-use menu and helps the user to control all scanner parameters with the touch of a finger.

When the WideTEK 25 is powered up using the main power switch, the touch panel is illuminated in a dimmed mode and shows the stand-by screen. The stand-by screen shows the Image Access logo and the blinking message **Touch screen to power up**.

A.11.1   Starting the WideTEK 25 from Stand-By Mode

When the WideTEK 25 is in stand-by mode, it can be started by tapping the touch panel on any arbitrary position. The touch panel lights up and a rotating hourglass indicates that the start sequence is running.

When the start-up sequence is finished, the touch panel shows the start menu screen.
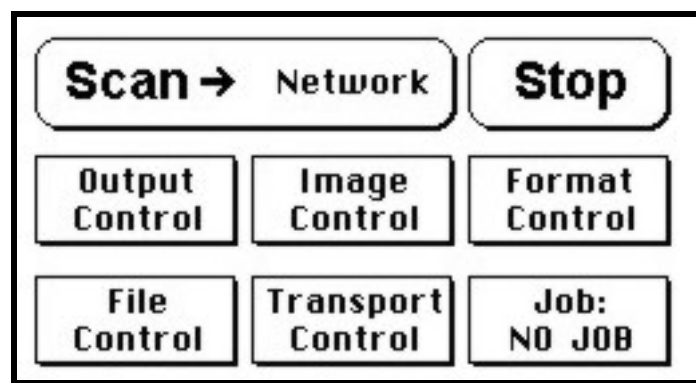
Picture 8: Start menu screen

A.11.2   Turning-off the WideTEK 25 by the Touch Panel

NOTE: **Always** turn off the WideTEK 25 scanner with the **Stop** button on the touch panel!

The main power switch should only be used when the WideTEK 25 is in stand-by mode and **before** it is disconnected from the electrical outlet.

To turn off the WideTEK 25, press and hold the **Stop** button on the touch panel.

While the **Stop** button is held, a counter in the button shows the remaining time until the WideTEK 25 is powered down. ➔ "Going to sleep in x seconds"
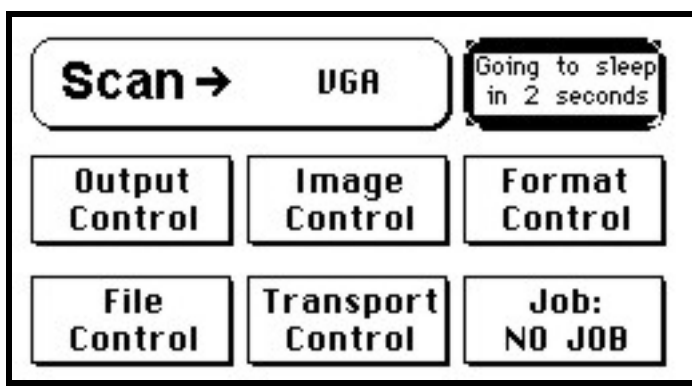
Picture 9: Touch panel while shut down in progress

At the end of the power down sequence, the display will be dimmed.

A.11.3   The Help Function
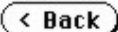
To support the user when working with the WideTEK 25, a help function is integrated into the touch panel menus. A **Question Mark** (?) symbol in the lower right corner of the screen activates the help function.

After touching the question mark, all controls in the screen start blinking. To see the corresponding help text, the appropriate control must be touched. To return to the respective screen, the screen must be touched again on any arbitrary place.

A.11.4   Navigating through the Screens

Some of the screens show on the bottom line the buttons (< Back) (> More) (Default)

(< Back)   Returns to the former screen. Sometimes only the symbol **<** is displayed.

(> More)   Switches to the next logical screen, e.g. from **Format Control 1** to **Format Control 2**. Sometimes only the symbol **>** is displayed.

(Default)   Resets all values in the respective screen to default value.

A.11.5   How to Enter or Change Values

To enter new values or change existing values, the corresponding field or line in the screen must be touched. If a parameter requires an alphanumeric value, the touch panel display changes and shows a keyboard with which text and numeric values can be entered.

Moves cursor to the left.

Moves cursor to the right.

Erases the character at the cursor position.

Checkmark symbol returns to previous screen.
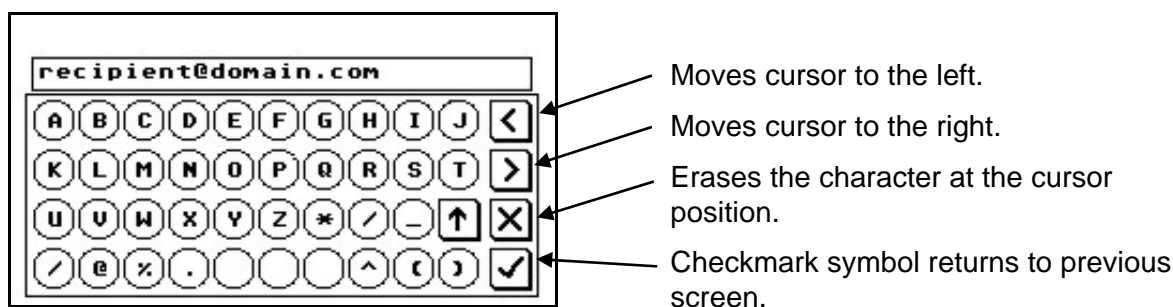
Picture 10: Keyboard with capital letters

The keyboard enables the user to enter capital letters, lower case letters, special characters as well as numbers.

The content of the keys is switched with this key: ↑

Toggles between capital letters and special symbols (e.g. backslash or @) and lower case letters and numbers.
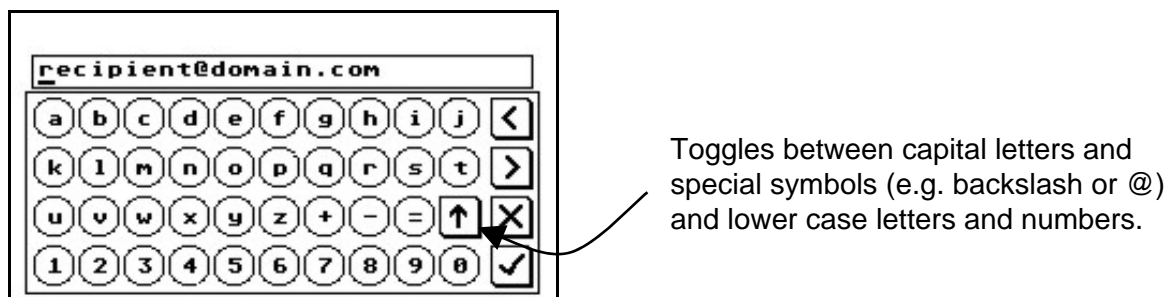
Picture 11: Keyboard with lower case letters

A.11.6   Self Test Mode

While the start sequence is running, the WideTEK 25 can be switched to Self Test mode. Tapping on the touch panel **at least three times** starts the setup mode. After the start sequence is finished, the touch panel shows the **Self Test 1** screen.
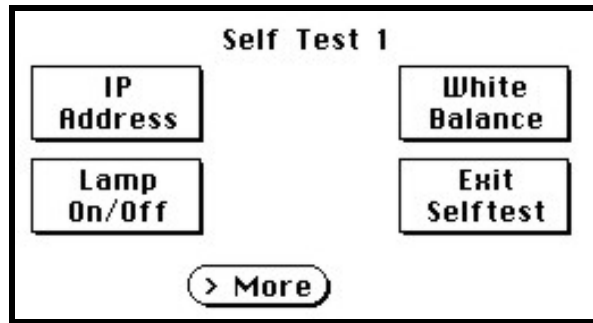
Picture 12: Self Test 1

To move forward to the **Self Test 2** screen touch the button (> More).
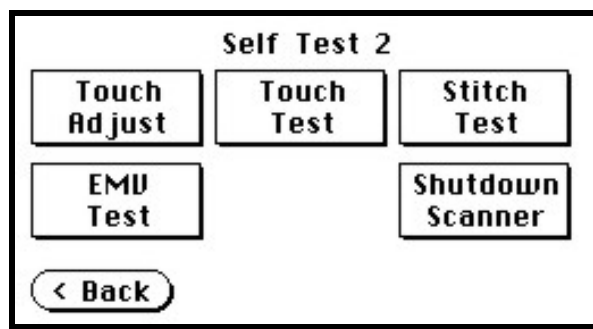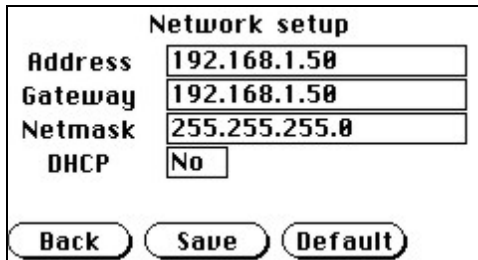
Picture 13: Self Test 2

To return to the former screen touch (< Back).

A.11.6.1 IP Address
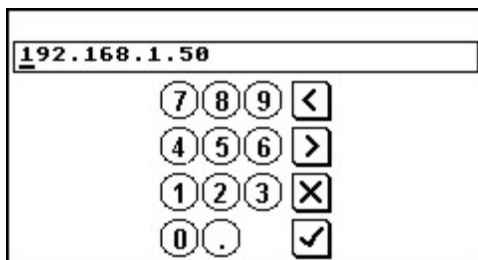
Touch the control field **IP Address**. The touch panel changes to the **Network setup** screen.

```
          Network setup
Address  [192.168.1.50 ]
Gateway  [192.168.1.50 ]
Netmask  [255.255.255.0 ]
 DHCP    [No ]

( Back )  ( Save )  (Default)
```

Picture 14: Network setup

Touch on the line to be changed, e.g. the **Address** line. The touch panel shows:
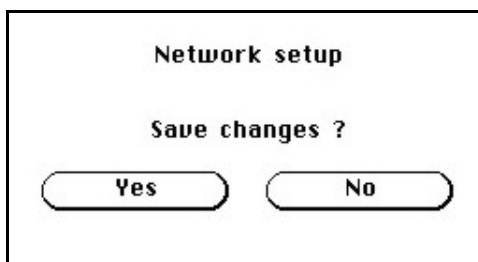
```
[192.168.1.50                    ]
        (7)(8)(9) [<]
        (4)(5)(6) [>]
        (1)(2)(3) [X]
        (0)(.)    [✓]
```

Picture 15: Numeric key pad

Enter the new values. The **<** and **>** keys move the cursor, the **X** key deletes the number at the cursor position.

To finalize the input tap on the checkmark key. [✓]

If entries have been changed, a screen opens where the changes must be confirmed. **Yes** confirms the changes, **No** discards the changes.

```
      Network setup

      Save changes ?

( Yes )        ( No )
```

Picture 16: Confirm changes

After the changes have been saved, the setup screen is displayed again.

A.11.6.2   White Balance
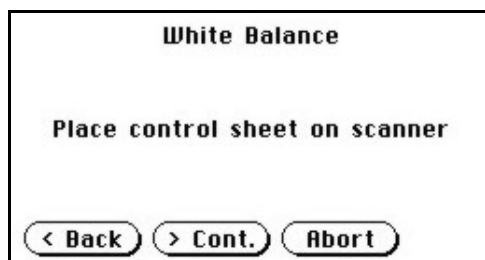
Picture 17: Place the control sheet

Touch the **White Balance** button to start the white balance measurement sequence. Place the white reference sheet on the upper edge of the glass plate. The white reference sheet must cover the complete width of the glass plate. Then touch the **Cont.** button.

The measurement lasts a short time.

The **Abort** button returns to the previous screen if the white balance measurement should not be executed.
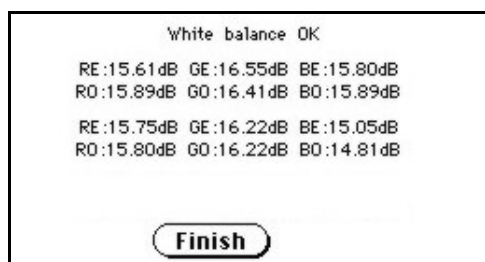
Picture 18: Results of White Balance Test

After the white balance has been finished, the result is displayed

Touch the **Finish** button to return to the **Self Test 1** screen.

A.11.6.3   Lamp On / Off

Touch the **Lamp On / Off** button to switch the lamps on. As long as the button is touched, the lamps will shine.

A.11.6.4   Exit Selftest

Touching **Exit Selftest** finalizes the setup mode, switches to the operation mode and shows the start menu.

A.11.6.5   Touch Adjust

This function defines the dimension of the writing area of the touch panel. The first step after selecting this function must be done very quickly to activate the adjustment procedure.

Note: It is recommended to read first, then act. It is recommended to use for the following adjustment steps an appropriate pen, e.g. as used with a PDA.

Touch the **Touch Adjust** button, then press and hold the touch panel. The first message on the screen can be ignored.

After a short moment a blinking dot appears at the upper left corner of the touch panel and the instruction **Touch this blinking dot** is displayed. Touch the blinking dot with the tip of a suitable pen.

In the next step the instruction changes to the lower right corner. Repeat touching the blinking dot in the lower right corner. After this, the touch panel returns to the **Self Test 2** screen and the setup procedure is finished.

It is recommended to check the adjustment with the **Touch Test** function.

A.11.6.6   Touch Test

Touch Test is used to check the correct function of the touch panel.
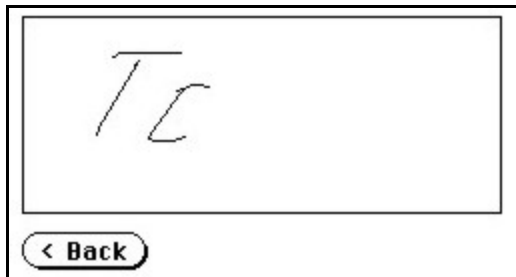
Picture 19: Testing the touch panel

After selecting this function the display changes to a blank area.

By using an appropriate pen, e.g. as used with a PDA, write some symbols or lines on the touch panel. While writing, check the correlation between the pen's position and the position of the signs that have been written.

If the difference is to large, repeat the adjustment as described in chapter A.11.6.5.

To return to the prior screen, touch the button (**Back**)

A.11.6.7   Stitch Test
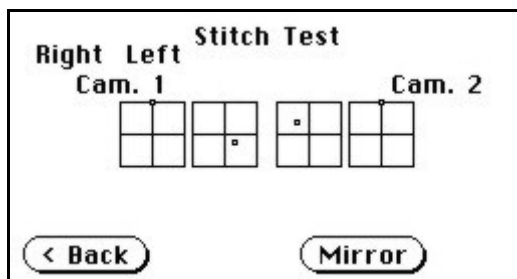
Picture 20: Stitch Test screen

Press the **Stitch Test** button to start the stitch test. This starts a program in which you can see an automatically updated view of the stitching indicators for each camera. The measurement will be executed continuously, once every second.

The cameras left and right are identified as the left and right cameras when looking at the scanner from the operator's view (i.e. from the front of the scanner). Each camera has a set of two stitching coordinate boxes. A stitching coordinate box consists of four quadrants.

Picture 20 shows a typical situation of the stitching indicators. That means, that all camera settings are within the specified tolerances.

Ideally, the stitching indicators (the small dots inside the four-quadrant boxes) should be positioned close to the center of the crosshairs.

If a stitching adjustment is necessary, it must be done by a trained technician.

A.11.6.8   EMV Test

This function is used for Electromagnetic Compatibility (EMC) tests.

After inserting a test document into the scanner, the scan sequence is repeated until the button (**Back**) is pressed.

A.11.6.9   Shutdown Scanner

Switches the WideTEK 25 scanner off.

A.11.7   Start Menu Screen
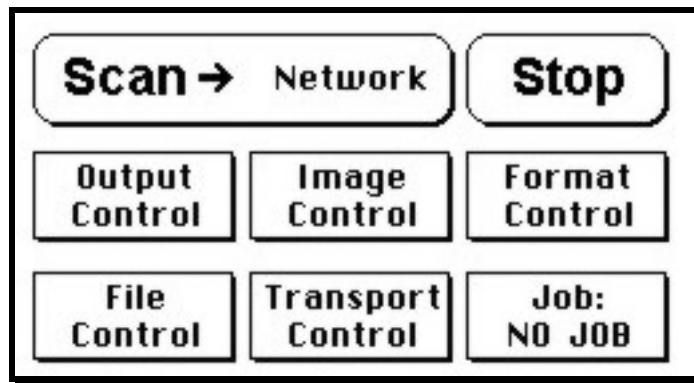
Picture 21: Start menu screen

When all initial tests are finished, the display shows the start menu screen.

At the top of the start menu, the main controls to start a scan sequence and to stop the current action are displayed.

The scanned image can be directed to different targets.

The selected target is named between the **Scan** and the **Stop** button. Picture 21 shows as selected target the network in which the scanner is integrated.

The controls in the middle line and in the lower line of the menu are used to configure the parameters in detail.

A.11.8   Output Control Screen
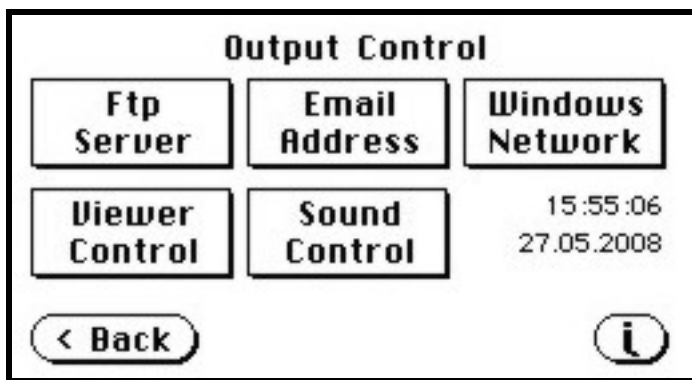
Picture 22: Output controls

A.11.8.1   FTP Server

The "Ftp Server" button on the **Output Control** menu enables the user to enter all necessary information for data transfer to a dedicated FTP server. The parameters are entered in two screens named **Ftp Server 1** and **Ftp Server 2**.

A.11.8.1.1   Ftp Server 1

This screen contains the server IP address and the port, the user name and the password for the server access. Additionally a path to an existing directory on the FTP server where the files should be stored can be entered.

Returns to the previous screen.

Changes to the **Ftp Server 2** screen.

Picture 23: Ftp Server 1

Note: The IP address 127.0.0.1 (as shown in the above picture) does not represent a real existing FTP server. This IP address is typically used in networks to make the own system, the so-called "localhost", available for TCP/IP applications.

A.11.8.1.2   Ftp Server 2

This screen contains all data for the connection with a FTP server.

```
        Ftp Server 2
Proxy   127.0.0.1
Port    21
Use proxy No

Auth.   Anonymous
( < )   ( Save ) ( Cancel )
```

Save   Stores all parameters.

Cancel   Erases all changes.

Picture 24: Ftp Server 2

Use proxy   Select **Yes** to use a proxy server for the connection.

Auth.   Defines the type of authentication at the FTP server. By tapping on the field the methods will be switched.

    Anonymous: An anonymous connection will be used. The data in the fields **User** and **Password** from the **FTP Server 1** mask will be ignored.

    Login/Password: To save the images on the FTP server a login name and a password must be entered.

Ask the administrator of your FTP server for the necessary information to get access to the designated FTP server.

A.11.8.2   Email Address

This menu item enables the user to send the scanned image to any arbitrary e-mail address.

Picture 25: E-mail address parameters

To store all entries of this menu touch the button Save .

A.11.8.2.1   Input an E-Mail Address

Tap on the line of the e-mail address. The screen changes to input mode as shown in Picture 10 and Picture 11. Enter the desired e-mail address. The **@** symbol is found on the keyboard in the capital letter layout in the bottom line.

To delete a character place the cursor below the character and tap on the **X** key.

When the complete e-mail address is entered, tap on the checkmark key to return to the previous screen.

To store the values touch the button Save

To return to the former menu, touch the button < .

If entries have been changed, a screen opens where the changes must be confirmed. **Yes** confirms the changes, **No** discards the changes.
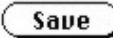
A.11.8.3   Windows Network

Allows the user to

- define the network path where the image should be stored,
- the define the authentication method,
- define the user name,
- define the password,
- define the filename

Picture 26: Network parameters

To store all entries of this menu touch the button (**Save**) .

A.11.8.3.1   Input a Network Address

Picture 27: Input a Network Address

Tap on the line of the network path name. The touch panel screen changes and displays the keyboard layout.

The slash symbol **/** is found on the keyboard in the capital letter layout in the bottom line.

To delete a character place the cursor below the character and tap on the **X** key.

When the complete network address is entered, tap on the checkmark key to return to the previous screen.

To store the values touch (**Save**) .

To return to the former menu, touch the button (<) .

If entries have been changed, a screen opens where the changes must be confirmed. **Yes** confirms the changes, **No** discards the changes.

A.11.8.4   Viewer Control

An external monitor can be connected to the WideTEK 25 to show the scanned image directly.

Touching the **Viewer Control** button starts the Zoom/Move Control mode. When this mode is active, the displayed image on the screen can be moved and the zoom factor can be changed.
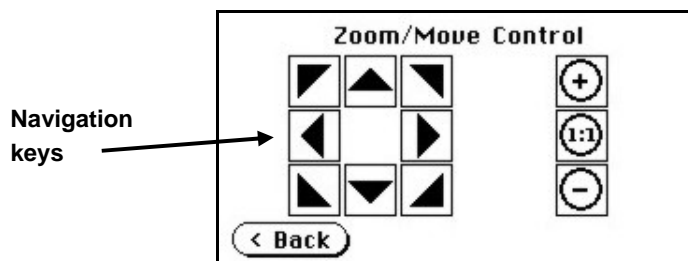
Picture 28: Viewer Control

Increases the zoom factor.

Decreases the zoom factor.

Zooms the image to its genuine dimension (100%) without scaling.

Returns to the prior menu.

If the image dimension overlaps the monitor dimension, the navigation keys can be used to scroll the displayed area on the monitor.

A.11.8.5 Sound Control

The menu item **Sound Control** allows the user to link sounds to system events.
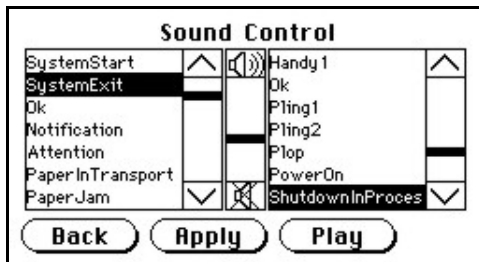
Picture 29: System events and sound files

To select a system event, touch the scroll bar in the left window or the up/down arrows. The currently selected sound file associated with this system event will be displayed in the right window.

To select a different sound file from the list, touch the up/down arrows or the scroll bar in the right window until the sound file to be used is marked in reverse color.

To modify the sound volume, move the scroll bar between the loudspeaker symbols up- or downwards.

Back	Returns to the prior menu.
Apply	Links the system event and the marked sound.
Play	Plays the sound which is marked in reverse color.

A.11.9   Image Control Screen

The parameters are set in two screens named **Image Control 1** and **Image Control 2**.

A.11.9.1   Image Control 1
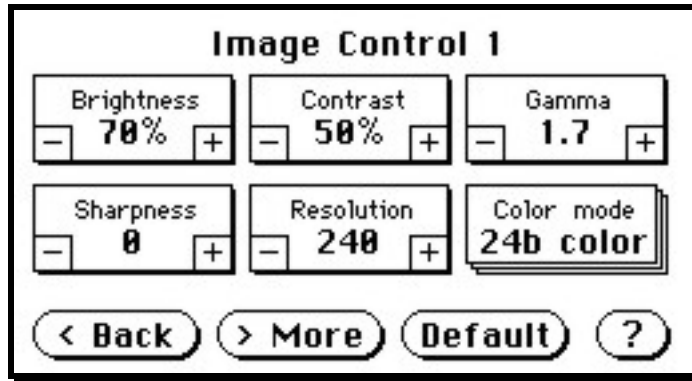
Picture 30: Image Control 1

In general:

- Tap the **+** or **–** to change the values in steps of one.

- Tap the **+** or **–** and hold for at least five steps, then the value changes in steps of five.

A.11.9.1.1   Brightness

The brightness control defines the resulting brightness of the image. A lower value results in darker images, a higher value results in brighter images.

Values close to 0% or 100% may result in unwanted artifacts.

A.11.9.1.2   Contrast

The contrast control defines the contrast of the image. A lower value results in an image that is smoother, a higher value shows more details and the image will become crisper.

Values close to 0% or 100% may result in unwanted artifacts.

A.11.9.1.3   Gamma

The gamma control defines the gamma correction used by the scanner camera. A value of 1,6 is a good approximation. The range of values are from 0 (no gamma) to 2,5 (maximum gamma).

A higher gamma value shows more details in darker areas and compresses bright areas.

A.11.9.1.4   Sharpness

An automatic sharpening algorithm is applied to the image before any other operation is performed.

The value zero disables the function. Very high values may produce artifacts, depending on the document characteristics.

A.11.9.1.5   Resolution

This parameter defines the scanner's resolution. This button offers three ways to set the desired value:
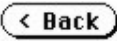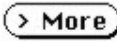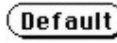
- Tap the **+** or **–** to change the resolution in steps of one DPI.

- Tap the **+** or **–** and hold for at least five steps, then the value changes in steps of five DPI.

- Tap the numeric value in the middle of the button. This will step through the list of available resolutions.

A.11.9.1.6   Color mode

The color mode parameter defines the color mode if scanning in color or the algorithm used for binarization in binary mode.

- ➢ 24b color   24 bit color mode
- ➢ 8b color   8 bit color mode
- ➢ Grayscale   8 bit grayscale mode
- ➢ Binary   1 bit black/white mode
- ➢ Photo   1 bit black/white mode with dithering. Dithering means that finest details in the image are optimized by rastering.

This control also influences the compression method that is offered in the **File Control** screen.

Chapter A.11.4 gives information about the buttons (< Back) (> More) (Default).

Chapter A.11.3 gives information concerning the help function, which is activated by the **Question Mark** symbol.

A.11.9.2   Image Control 2
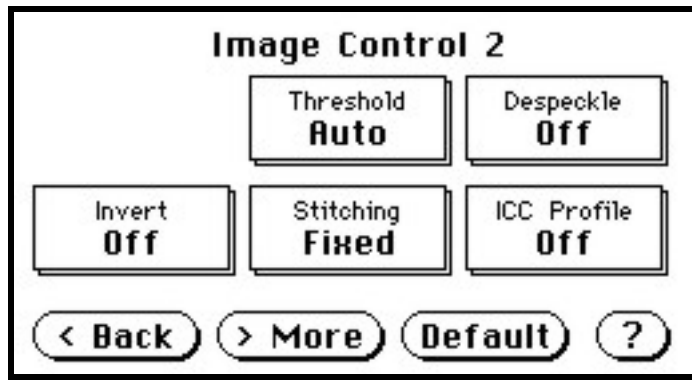
Picture 31: Image Control 2

Note: Depending on the selected color mode, some buttons may not be displayed.

A.11.9.2.1   Threshold (only in Binary mode)

Defines the contrast control mode.

Available modes are **Fixed** and **Auto**.

Fixed: The contrast is fixed to defined value.

Auto: The contrast of the image set dynamically, depending on the values found in the image. This can be used to improve delicate details in the image.

A.11.9.2.2   Despeckle (only in Binary mode)

Removes isolated pixel in the images.

Available modes are **4x4p** and **Off**.

A.11.9.2.3   Invert (only in Binary and Photo mode)

Inverts the displayed image.

A.11.9.2.4   Stitching

Defines the stitching method which is used to merge the image data to one image.

Fixed: Merges the image data at a specified offset area.

Adapt.2D: Merges the image data dynamically.

A.11.9.2.5   ICC Profile

ICC profiles add color correction values to each scanned image.

A.11.9.3   Image Control 3
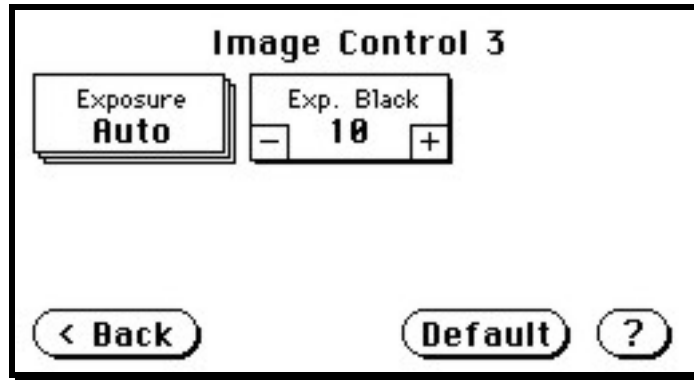
Picture 32: Image Control 3

Note: Only in the color modes **24b color**, **8b color**, and **Grayscale**.

A.11.9.3.1   Exposure

Defines the exposure correction mode.

Available are **Black Cut, Auto** and **Fixed**.

Black cut	All color values in the image which are below the threshold for black are displayed as black.
Auto	Activates the threshold for black and the automatic brightness control. Automatic brightness control means the brightness range of the image is expanded to the maximum range of the scanner. This converts the darkest areas of the image to solid black and the brightest areas to solid white.
Fixed	Switches off the exposure correction mode.

A.11.9.3.2   Exp. Black

Defines the value for the threshold for black.

Chapter A.11.4 gives information about the buttons **< Back** **> More** **Default**.

Chapter A.11.3 gives information concerning the help function, which is activated by the **Question Mark** symbol.

A.11.10 Format Control Screen

The parameters are set in two screens; **Format Control 1** and **Format Control 2**. By using the **Back** and **More** buttons, you can switch between the **Format Control** screens.

A.11.10.1 Format Control 1
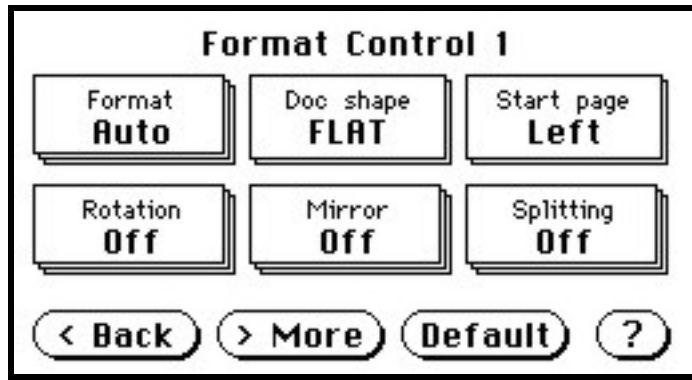
Picture 33: Format Control 1

A.11.10.1.1 Format

This control specifies the format of the document. In most cases the setting **Auto** should be selected.
The format list includes the well known DIN A formats as well as US ANSI formats, e.g. Letter or US C. Some formats are specified with an additional **L**(andscape) or **P**(ortrait).

A.11.10.1.2 Doc shape

Defines the documents structure. Flat is currently the only available setting.

A.11.10.1.3 Start page

This defines the start page if **Splitting** is activated.

A.11.10.1.4 Rotation

The value set here defines the rotation of the image in a clockwise direction after scanning.

A.11.10.1.5 Mirror

This control activates the horizontal mirroring of the image.
It can be useful if scanning a transparency or a blueprint from the back side.

A.11.10.1.6 Splitting

The following options are valid:

- **Left**:   The image is taken from the left side of the specified area.

- **Right**: The image is taken from the right side.

- **Auto**:   Divides the specified scan area symmetrically into two sides and sends the images consecutively. The second image will be sent without scanning the document again.

    The start is defined in **Start Page** (see chapter A.11.10.1.3).

A.11.10.2 Format Control 2
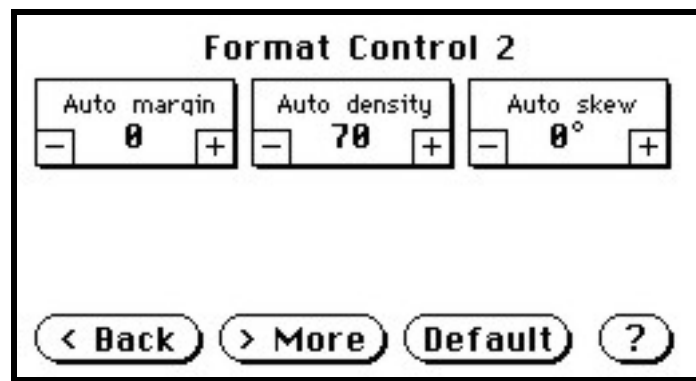
Picture 34: Format Control 2

A.11.10.2.1 Auto margin

The **Auto margin** control detects the edges of a document and cuts it out of the scanned image.

If the value (in pixels) is negative, the resulting image will be smaller than the document. This is helpful to remove unwanted borders from the image.

If the value is positive some of the background will remain in the scanned image.

A.11.10.2.2 Auto density

The **Auto density** function detects the edges of a document only if they are surrounded by a dark background.

This control specifies the density level used to decide whether a pixel belongs to the background or not. A value of 40 is the proper setting in most cases.

Note: When scanning very dark documents, it could be necessary to vary this value to detect the correct document dimension with the format setting **Auto** (see chapter A.11.10.1).

A.11.10.2.3 Auto skew

The image of the scanned area will be deskewed before it is displayed.

Auto skew enables the deskew function and defines the maximum angle of the document to be deskewed.

Chapter A.11.4 gives information about the buttons (< Back) (> More) (Default).

Chapter A.11.3 gives information concerning the help function, which is activated by the **Question Mark** symbol.

A.11.11 File Control Screen
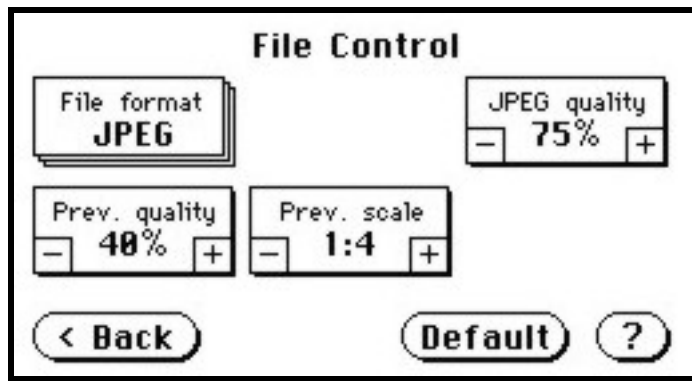
Picture 35: File Control

The control **File format** specifies the file format of the image file. Depending on the selected file format all other controls in this screen vary. The list of formats includes **JPEG**, **TIFF**, **PNM**, and **PDF** (if the option is installed).

A.11.11.1   JPEG
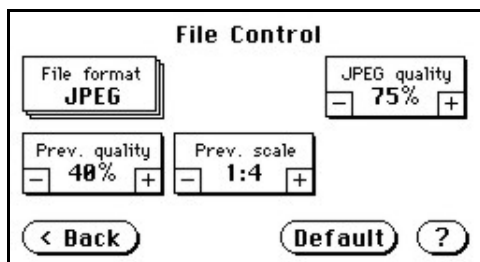
When selecting the file format **JPEG** the functions of the controls are:

- **JPEG quality**: Defines the compression. The JPEG quality level is defined with this control. A higher percentage gives better quality but the file size will increase. A lower factor will show some artifacts in the image but the file size will be reduced.

- **Prev. quality**: The JPEG quality level used for the preview is selected here. A higher percentage gives better quality but the file size will increase. A lower factor will show some artifacts but the file size will be reduced.

- **Prev. scale**: This control defines the preview scale factor. Higher values result in smaller previews; lower factors will produce larger previews but take more time to send and display.

A.11.11.2 TIFF
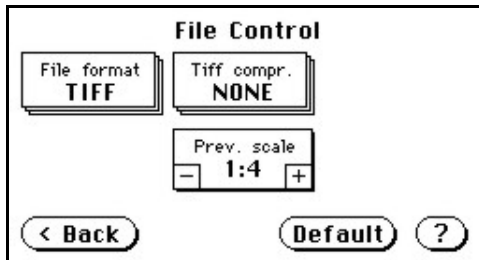
When selecting the file format TIFF the functions of the controls are:

Note: Depending on the selected color mode in **Image Control** the available compression methods vary.

- **TIFF compr.**

    None: Available with all color modes.

    JPEG: Available with "24b color" and "Grayscale". Additionally the controls "JPEG quality" and "Prev. quality" will be displayed.

    CCITT G4:   Available with "Photo" and "Binary".

- **Prev. scale**:   This control defines the preview scale factor used. Higher values result in smaller previews; lower factors will produce larger previews but take more time to send and display.

A.11.11.3 PNM
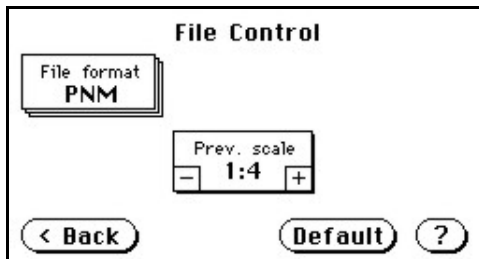
When selecting the file format PNM only the preview scale can be selected.

A.11.11.4 PDF

File Control

File format
PDF

JPEG quality
– **75%** +

Prev. quality
– **40%** +
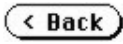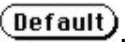
Prev. scale
– **1:4** +

PDF compr.
JPEG

< Back   Default   ?

When selecting the file format PDF the functions of the controls are:

- **JPEG quality**: Defines the compression rate. The JPEG quality level is defined with this control. A higher percentage gives better quality but the file size will increase. A lower factor will show some artifacts in the image but the file size will be reduced.

- **Prev. quality**: The JPEG quality level used for the preview is selected here. A higher percentage gives better quality but the data size will increase. A lower factor will show some artifacts but the data size will be reduced.

- **Prev. scale**: This control defines the preview scale factor. Higher values result in smaller previews; lower factors will produce larger previews but take more time to send and display.

- **PDF compr**: "None" disables the data compression. The controls "JPEG quality" and "Prev. quality" will not be displayed.

    "JPEG" enables the data compression. The controls as shown above will be displayed.

Chapter A.11.4 gives information about the buttons < Back   > More   Default .

Chapter A.11.3 gives information concerning the help function, which is activated by the **Question Mark** symbol.

A.11.12 Transport Control Screen
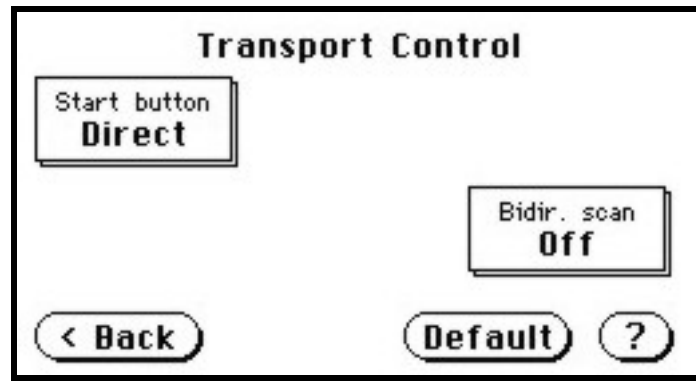
Picture 36: Transport Control

A.11.12.1 Start button

The Start button defines the start method of the scanner.

Direct: The scan starts when the scanner receives the start command from the application.

Wait: The scan will only start if the start button is pressed. The start button can also be a foot pedal.

A.11.12.2 Bidir. scan

The Bidir. scan button defines the scan direction of the scanner.

On: The scanner scans in both directions (bidirectional). This increases the document throughput while scanning documents of similar dimensions.

Off: The scanner always starts scanning from its zero position. This setting is recommended if the dimension of the documents vary.

A.11.13 Job
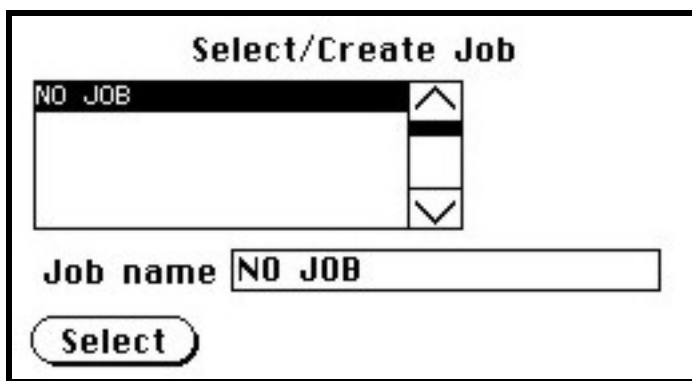
Picture 37: List of available jobs

The control **Job** allows the user to create and store specific settings of the scanner. This is useful if the scanner is operated by several users with different settings for document size, resolution or other parameters.

A.11.13.1 Creating a Job

Creating a "job" is done in a few steps.

First, the job settings have to be specified; i.e. definition of document size, resolution, file format etc. When all settings have been specified, tapping on **Job** in the **Start Menu Screen** opens the screen displayed in the picture above.
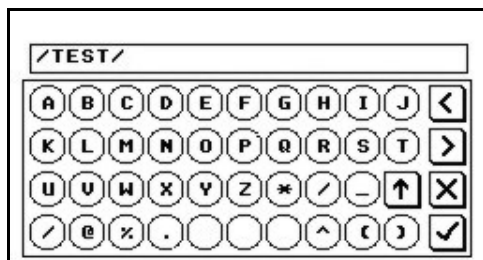
Tapping in the line **Job name** will open the input screen with the keyboard. Here the job name can be entered. The new job name must be confirmed with the checkmark button.

Picture 38: Keyboard of input screen

Refer to chapter A.11.5 for get more information how to handle the keyboard.
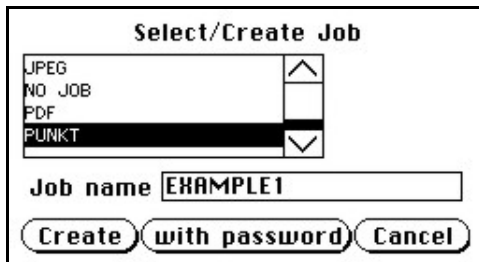
Picture 39: Creating a job

Tap on **Create** to save the job.

Tap on **with password** to save the job in combination with a password.

Tap on **Cancel** to cancel procedure.
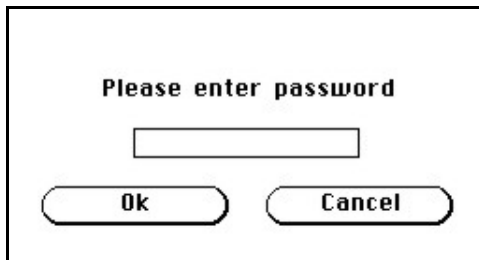
Picture 40: Entering the password

If a password should be used, tapping on the button **with password** opens a screen as shown in the picture on the left.

Tapping in the empty field opens the screen with the alphanumeric keyboard (Picture 38).

Enter the password.

Tap on the checkmark button in the alphanumeric keyboard to confirm the password and to return to the former screen.
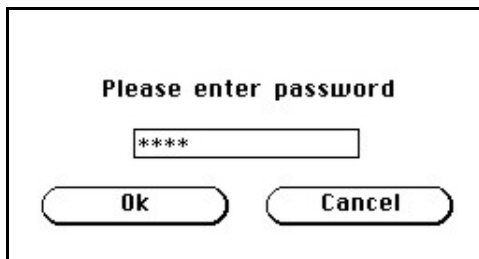
Picture 41: Number of password elements

The screen now shows the number of elements of the password.
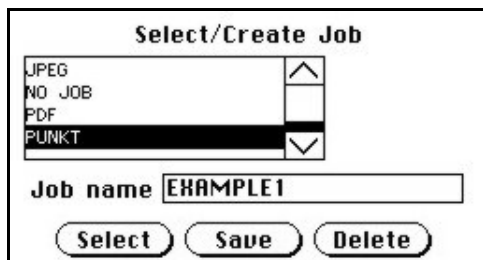
Tapping on **Ok** returns to the list of available jobs (Picture 37).

The job is now active.

If no password for the job is necessary, tapping on **Create** opens a screen where the operator is asked to confirm the new job name. This is easily done with the **Yes** button.

A.11.13.2 Selecting a Job

New job names are added to the list of available jobs.

Jobs can be selected from the list of available jobs by tapping on the selection arrow or directly on the job name.

Tapping the **Select** button activates the job.

Selecting a password protected job opens a screen where the operator must enter the password. Tapping in the empty field opens the alphanumeric keyboard and the password can be entered.
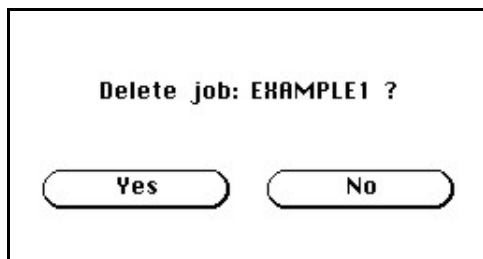
Tapping on the checkmark button finalizes the input sequence.

After the password is entered, the screen shows the **Select job** screen (see above) again. Tapping on the **Ok** button finally selects the job and returns to the **Start Menu Screen**.

A.11.13.3 Deleting a Job

Select the job to be deleted from the list of available jobs.

Tap on the **Delete** button.

In the next screen, tap on the **Yes** button to delete the job.

If the job is password protected, the password must be entered first. After selecting the job to be deleted, a screen opens where the password is entered.

Tap on the empty field. The screen with the alphanumeric keyboard opens. Enter the password and tap on the checkmark button to finalize the input sequence.

In the next screen tap on **Ok**.

The screen returns to the **Start Menu Screen.**

A.11.14 Software Option: Scan2VGA

An external monitor can be connected to the WideTEK 25 to show, edit and save the actual scanned image on the fly.

When the scan sequence has been finished the menu in the touch panel changes.
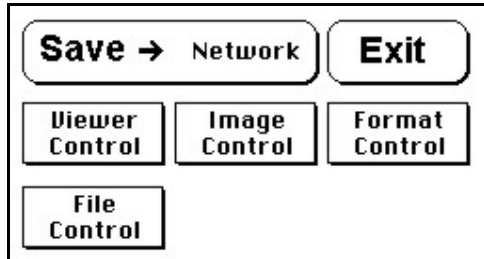
Picture 42: Scan2VGA

By tapping at the respective buttons the menus can be selected.

Scan settings which made before can be changed here again and the results are shown directly at the external monitor.

The edited image can be saved by touching the **Save** button. Available targets are:

- Network
- USB
- Printer
- FTP
- Email

With touching the **Exit** button the mode will be left.

B   Software

Essentially, the scanner is a web server and comes with its own HTML-based user interface. To access a Scan2Net scanner, any standard web browser can be utilized.

B.1   Start Screen

Start your browser.

Enter the IP address of the scanner. The default IP address of the scanner: **192.168.1.50**

The start screen of the integrated user interface will be displayed.
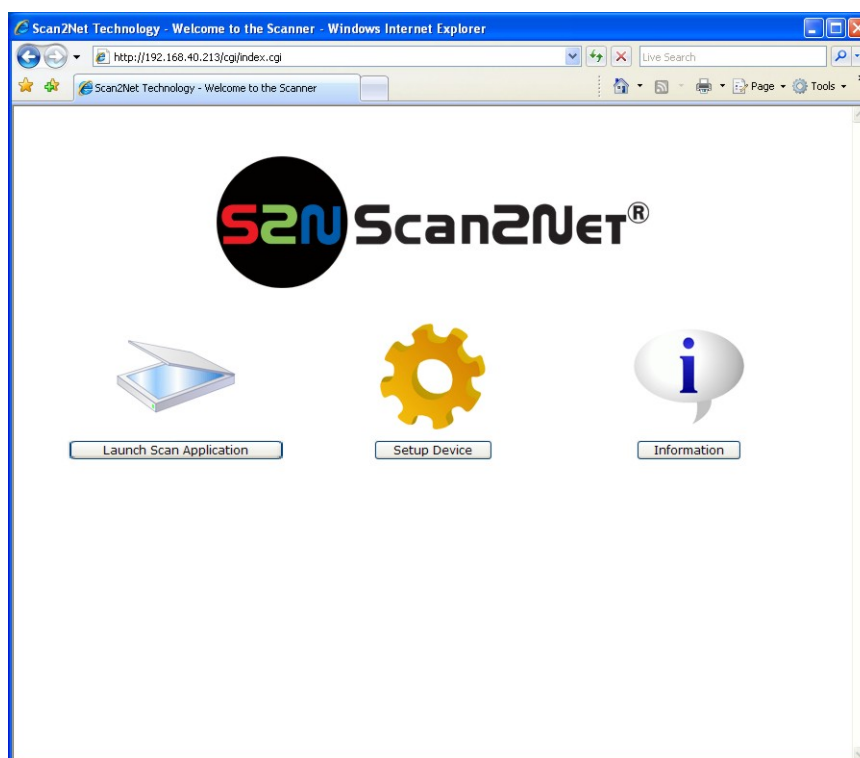
Picture 43: Start screen

Launch Scan Application switches to the main screen. Detailed information will be found starting in chapter B.2.

Setup Device switches to the setup menu. Detailed information will be found starting in chapter B.5.

Information gives a short summary of the device parameters. Information will be found in chapter B.4.

B.2 The Main Screen

After launching the scan application, the main screen of the integrated user interface will open. The main screen is structured in three parts. Switching between the sections is done with a mouse click.
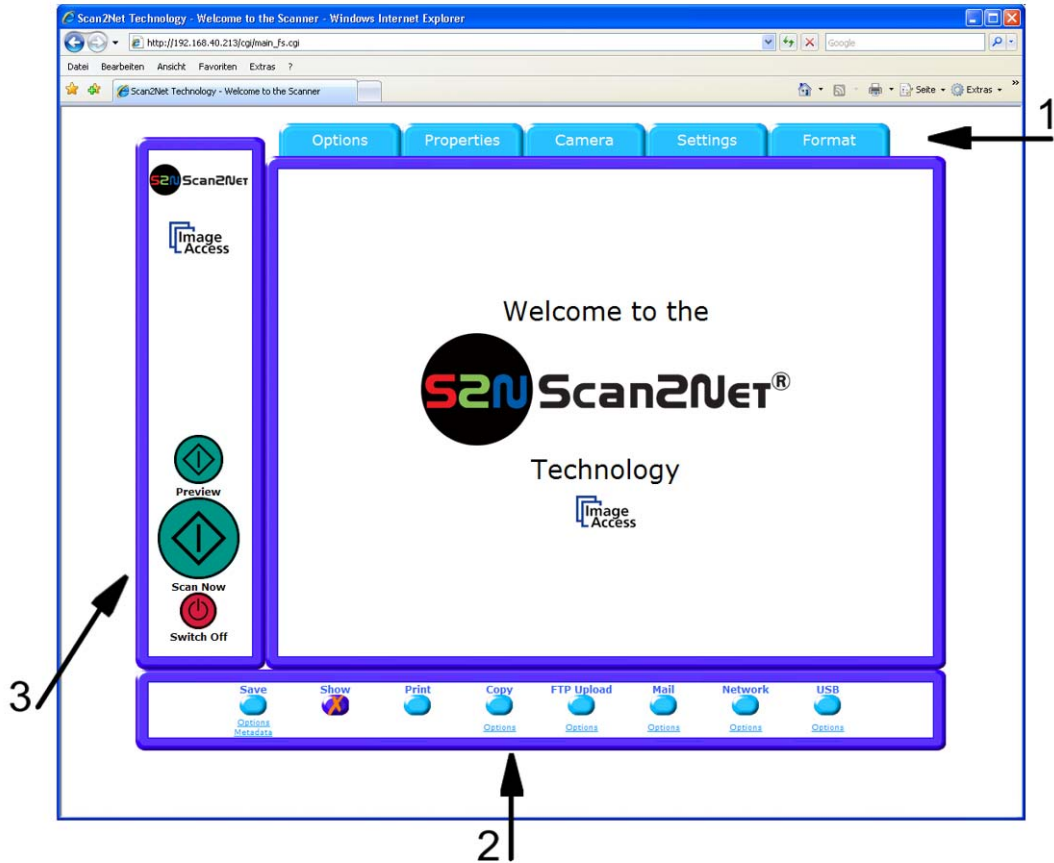
Picture 44: Main screen

1: The menu bar of the large frame on the upper right part has five menu items:

> ➢ Options

> ➢ Properties

> ➢ Camera

> ➢ Settings

> ➢ Format

Click at a menu item to select and set parameters of the scanner.

2: The eight control buttons in the lower part of the screen control the output modes.

As default the output mode **Show** is selected. After clicking onto the button **Preview** or onto the button **Scan Now** a window opens and shows the image.

When selecting **Save** the scanned image will not be displayed. Instead of the second window a box opens where the desired directory can be set.

Selecting **Print** will display the scanned image in a second window and direct the scanned image to locally available printers.

Selecting **Copy** prints directly to a previously installed network printer.

Selecting **FTP Upload** scans directly to a FTP server.

Selecting **Mail** sends the scanned image directly to a previously defined e-mail address.

Selecting **Network** uploads the scanned image directly to a previously defined workstation in the network.

Selecting **USB** the scanned image is stored on an USB stick. A USB stick can be connected to the scanner at the connector at the front side.

3: The frame on the left side shows the buttons for preview scan (**Preview**) and main scan (**Scan Now**).

Pressing this button switches the scanner off.

If the red button is pressed, the following window will appear.
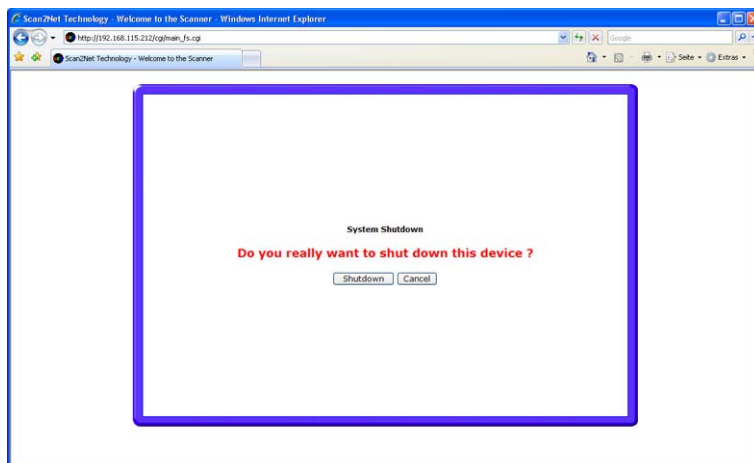
Picture 45: Shutdown confirmation

Click on the button Shutdown and the scanner switches off.

B.2.1 The Options Screen

Picture 46: **Options** screen

The **Document Mode** allows the user to select between different types of documents. Currently the only mode is **Flat Mode.** In this mode the scanner works with a fixed focus setting, regardless of the actual shape of the document.

The **Preview Scale** selector will be used for previews. If set to **Auto,** the function will perform a best fit before the image is displayed on the screen.

The **Preview JPEG Quality (%)** determines the compromise between quality and compression rate. A higher quality factor produces larger files. The default setting of 40 is a good compromise for most documents.

The **Bidirectional Scan** allows two settings:

Bidirectional Scan: Yes: The camera scans the selected scan area size and stops at the position where the scan area ends. The next scan sequence starts from this position in opposite direction.

Bidirectional Scan: No: The camera scans the selected scan area size and returns to its initial start position. While the camera returns to the start position the document can be changed.

Image Rotation
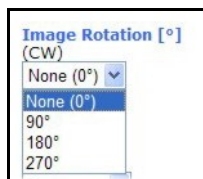
The image can be rotated before it is displayed.

The rotation can be any degree of out of 90°, 180°, 270° or none. The angle is defined in the clockwise direction.

Click on the selection arrow and select the rotation angle from the list.

The **Embedded ICC** switch is either **Yes** or **No**.

The **Embedded Meta Data** switch is either **Yes** or **No**.

Clicking the **Option** link opens a window, where the embedded metadata can be entered.
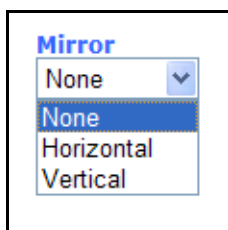
The **Mirror** function can be set to **None** or **Horizontal** or **Vertical**.

B.2.2 The Properties Screen
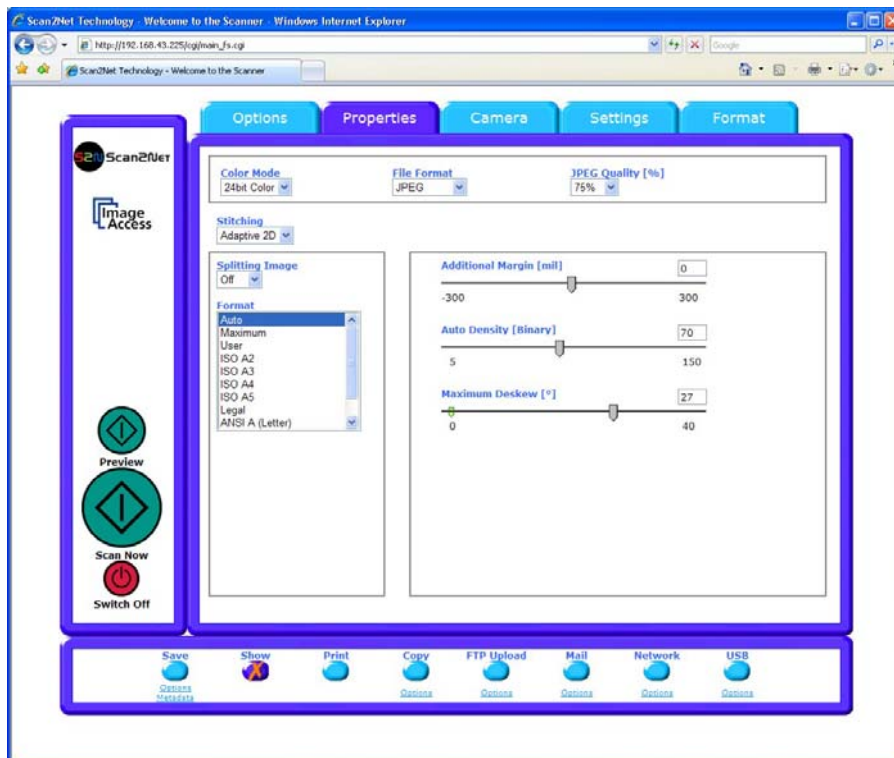
Picture 47: Properties screen

The **Color Mode** allows the user to select various color modes. 24bit Color, 8bit Color, Grayscale, Binary and Photo are available color modes.
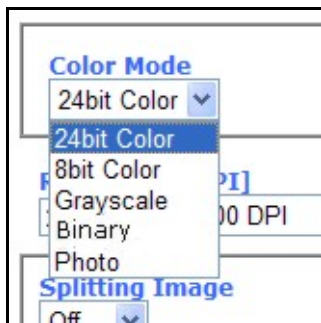
The available color modes are displayed in the picture on the left.

To select a color mode first click on the selection arrow, then select a mode from the list.

The **File Format** defines the file format that is used to store a scanned document.

> **Note**: There are some interdependencies between **Color Mode** and **File Format**. That means, it is not possible to combine all color modes with all file formats. For example, an image scanned in "24bit Color" can not be stored in TIFF file format with TIGG G4 compression.

Depending upon the selected file format, the control beside it can vary:

Example:

Color Mode 8bit Color, **File Format** TIFF
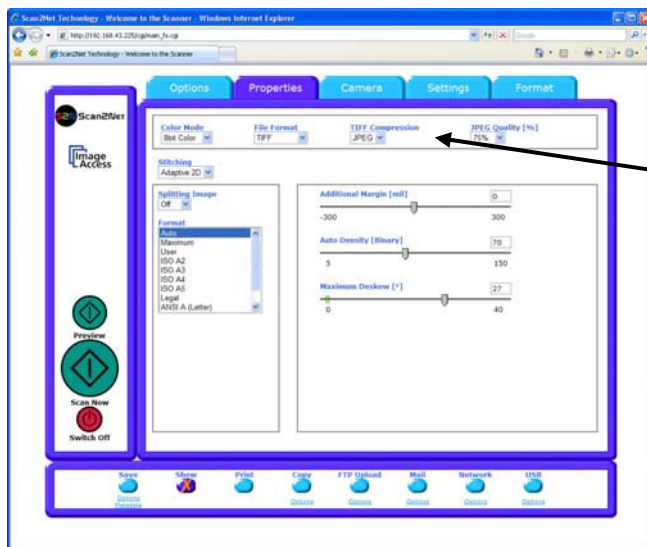
TIFF Compression is displayed additionally.

Picture 48: 8bit Color

The **Stitching** selector defines the method for the merging of the data of the cameras.

Fixed   Select this setting when scanning documents with a plain surface without crinkles or when a short scan time is important.

Adaptive 2D   Default setting.
Select this setting when scanning documents with uneven structured surface, e.g. multiple folded paper. The image data will be merged dynamically. The time until the image is displayed will increase a little.

The **Splitting Image** function allows the operator to split the image of the scanned document.
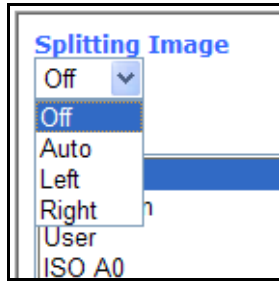
Off: No page splitting.

Auto: The first image is taken from the side which is defined in the setup menu as start page. Click on **Preview** or **Scan now** again to get the other half.

Left: The image is taken from the left half of the specified area.

Right: The image is taken from the right half of the specified area.

The **Format** list offers various standard paper formats.

If **Auto** is selected, the scanner scans the complete document and then crops the document to its real size. This function is highly advanced and works with default values most of the time.
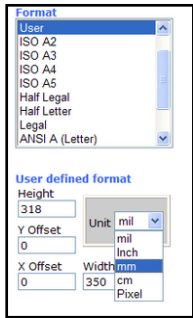
If **User** is selected the **User defined format** control opens. It allows to set the values for **Height** and **Width** of the area to be scanned. It also allows to define the position of the area to be scanned. The position is set by the values for **X Offset** and **Y Offset**.

Note: The point of origin for **X Offset** and **Y Offset** is defined in the upper left corner of the document area. Only positive values are allowed.

Picture 49: User Defined Format

An **Additional Margin [mil]** can be added to or taken away from the image.
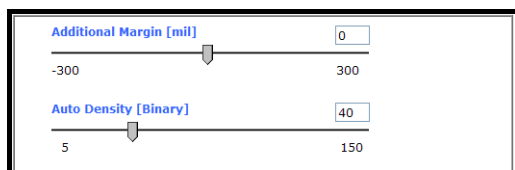
Picture 50: Additional Margin/Auto Density slider

The margin is defined in **mil** (1/1000 inch). The desired value can be entered as a numeric value or by clicking on the slider and moving it to the desired value. If a numeric value us entered, confirm the input with the ENTER key or the TAB key on the PC keyboard.

The **Auto Density (Binary)** parameter defines the scanner's sensitivity for the automatic format detection. Default value: 40

When scanning dark documents, the value should be reduced in small steps until the desired result is achieved.

In general: The higher the numeric value, the more contrast there must be between background and scanned document.

The **Use Deskew** control activates the automatic deskew function.
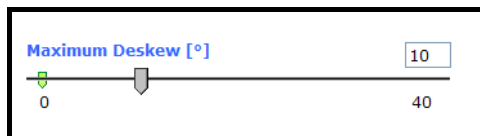
If **Yes** is selected, a slider is displayed which allows to set the maximum corrected angle.

Picture 51: Set deskew angle

The desired value can be entered as a numeric value or by clicking on the slider and moving it to the desired value.

If a numeric value us entered, confirm the input with the ENTER key or the TAB key on the PC keyboard.

B.2.3 The Camera Screen
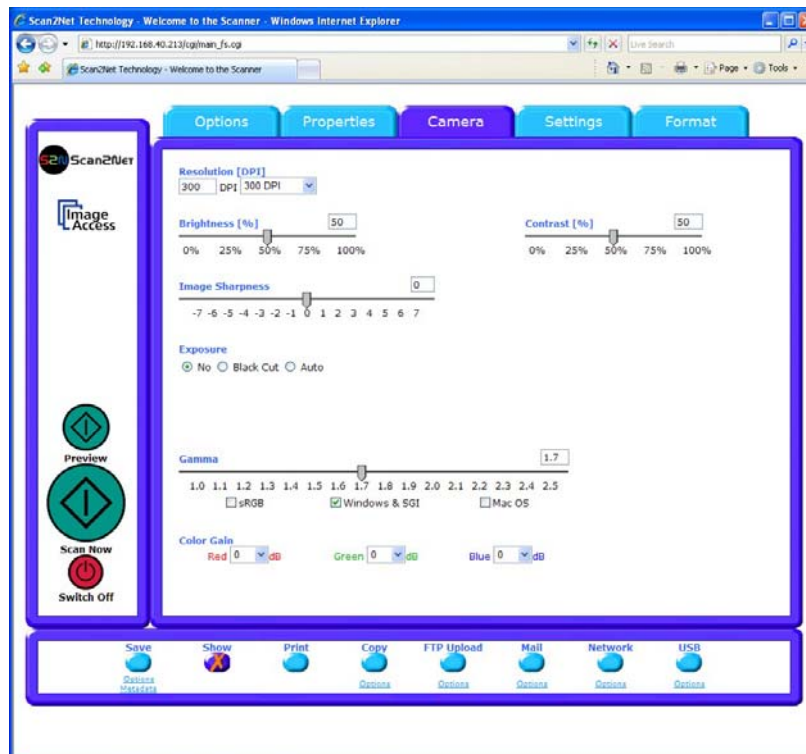
Picture 52: **Camera** screen

The **Resolution** field allows the operator to set the desired resolution in two ways.

Selecting the resolution: Click the selection arrow beside the right field. Select the desired value from the list.

Entering the resolution: Enter any value between 150 dpi and 1200 dpi into the left field. Confirm the input with the ENTER key or the TAB key on the PC keyboard.
If the entered resolution differs from the values offered in the list, **user defined** is displayed in the right field.

The **Brightness [%]** slider defines the brightness of the resulting image. Lower brightness values make the image darker.

The **Contrast [%]** slider defines the contrast of the resulting image. Higher contrast values show more details. If scanning in binary modes (i.e. Line Art or Photo), the behavior of the contrast slider changes.

The **Image Sharpness** slider invokes an advanced algorithm which sharpens the image according to the local content of a given area.

The **Exposure** function sets the threshold value for the black cut function or for the auto exposure function.

Note: The **Exposure** function is not displayed in the color modes **Binary** and **Photo**.
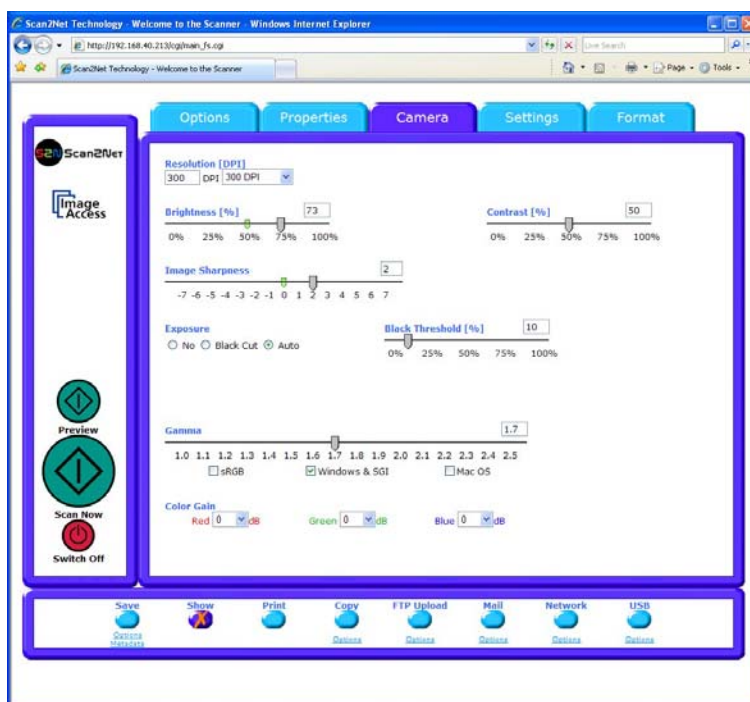
Picture 53: Exposure control slider

When **Black Cut** or **Auto** are selected, an additional slider is displayed.

No	Function disabled.
Black Cut Value range from 0 (zero) to 100.	Sets the threshold for **black**. All pixel values found in the image below the selected value are set to black. Result: The image contrast is improved.
Auto Value range from 0 (zero) to 100.	Sets the threshold for **black** and activates the **automatic exposure control**. These function searches the image for the highest and the lowest pixel value. The highest pixel value is defined as "white". Is the lowest pixel value higher than the threshold it is defined as "black". Otherwise all values below the threshold are defined as "black". Result: Automatic contrast control and the image contrast is improved.

The **Gamma** slider does the gamma correction directly inside the camera electronics. Three typical settings are available through the check boxes directly below the slider.

The **Color Gain** drop down list changes the gain on a specific channel. This function is used to eliminate any color shift or tints from the background.

B.2.3.1   Threshold Dynamic / Threshold Fixed
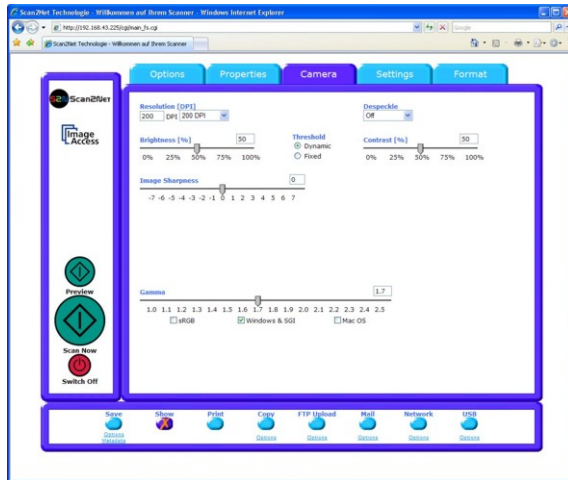
Picture 54: Threshold method selector

In the color mode **Binary** an additional button allows to select between **Dynamic** and **Fixed** threshold.

Dynamic   The contrast level in the image varies depending on the content of the document. This can help to improve fine details in the image.

        Note: In the **Dynamic** mode modify the setting of the contrast slider carefully because if set to the extremes, unexpected image artifacts can occur.

Fixed   The contrast level is fixed to a specific value.

B.2.3.2   Despeckle
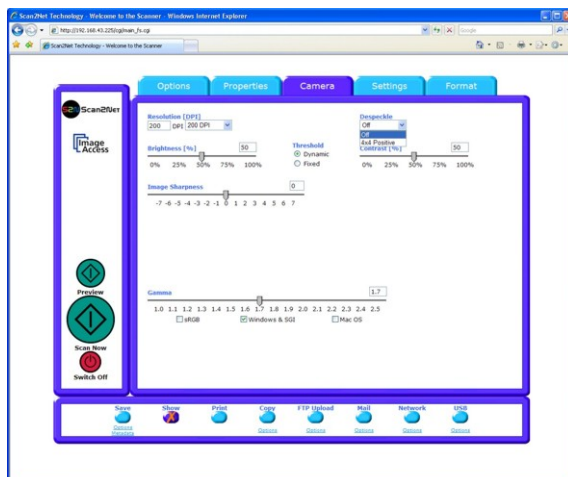
Picture 55: Despeckle function

The **Despeckle** function is only available in color mode **Binary**.

This function removes isolated speckles in the image. Its use is recommended if old documents on crumpled paper or vellum should be scanned.

B.2.4   The Settings Screen
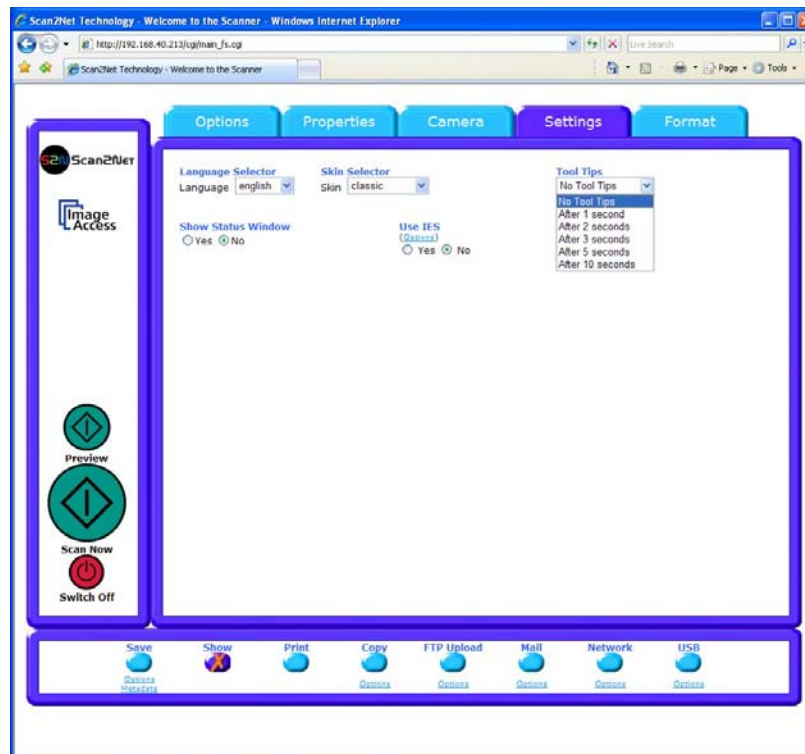
Picture 56: Settings screen

Language Selector   Sets the language of the user interface. Available languages are English (**english**), German (**deutsch**), French (**francais**), Polish (**polski**), and Russian (Cyrillic script).

Note: After selecting the language the user interface changes immediately to the selected language.

If **Russian** is selected, all text is displayed in Cyrillic script.

Skin Selector
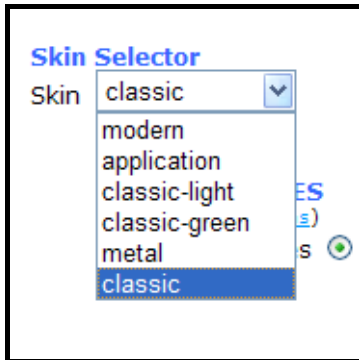
The **Skin Selector** allows the operator to choose between different surfaces (skins) for the user interface.

The picture on the left shows the currently available surfaces. More skins can be designed and integrated by the user.

Picture 57: Available skins

Tool Tips   If activated the user will be informed with short texts about the available functions in each screen. With the drop down list, the delay time can be defined. Selecting **No Tool Tips** switches this function off.

Show Status Window   If set to is set to **Yes** a small window opens where some scan status information is displayed.

Picture 58: Scan status window

Use IES   Opens an additional window where the **Image Enhancement System** is displayed in demo mode. The **IES** allows to modify specific scan parameters.

B.2.5   The Format Screen

Picture 59: Format screen

When selecting this screen, a test image is displayed.

If a scan has been executed before selecting the Format screen, the image scanned and displayed at last is shown. The dimension of the image depends on the selected format in the Properties screen.

The **Preview (Maximum)** button allows to rescans the complete document area. The image will be displayed in the preview area of the Format screen.

The **Preview** button rescans the document area which is set in the Properties screen.

To get a new preview scan, first change to the Properties screen, set the new format, and finally return to the Format screen. Click on the **Preview** button to display the new image.

To select a specific area of the image, click with the mouse in the preview area and drag a rectangle. Dragging the rectangle with the mouse starts in the upper left corner and ends in the lower right corner.

Click the **Zoom in** button to display the selected area of the image in detail.

Picture 60: Rectangle dragged with mouse

Picture 61: "Zoom in" result

Click the **Zoom out** button to return to the previous dimension of the image.

Click the **Get Clip** button to get the selected area of the image in full resolution in a separate window.
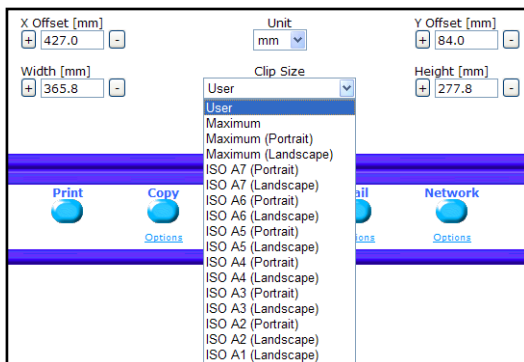
The control fields **X Offset** and **Y Offset** allow the user to position the rectangle.

The control fields **Width** and **Height** allow the user to set the dimension for the rectangle of the specific area.

The control field **Unit** allows the user to select from a list the unit of measurement for the specification of the rectangle.

The control field **Clip Size** offers a list of formats for the specific area. The content of the list depends on the size of the preview scan area. I.e. the smaller the preview scan area, the shorter the list of available formats.

B.3 Output Options
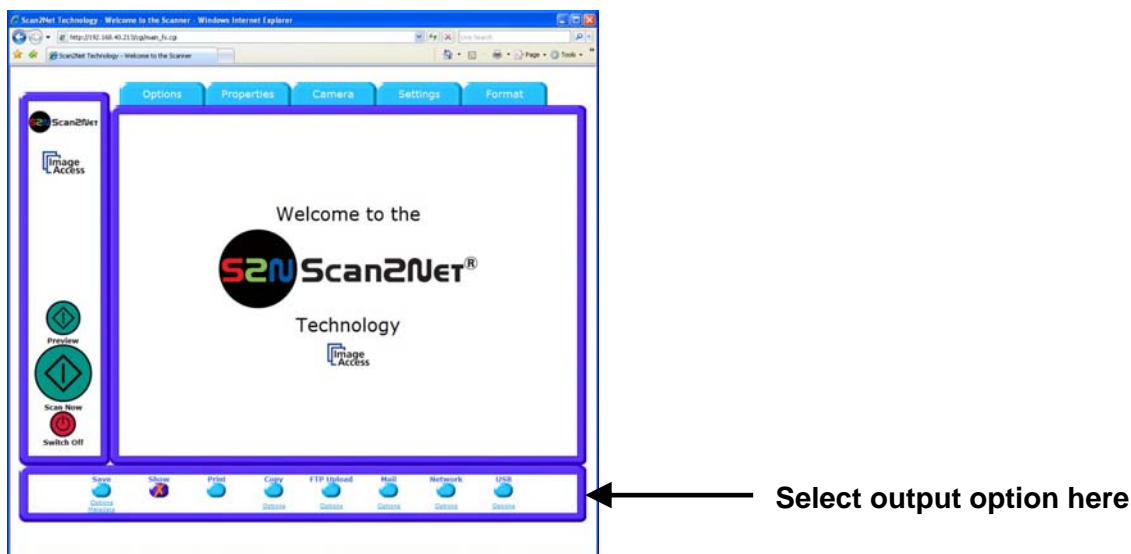
There are eight output options available on a Scan2Net scanner, selectable at the bottom part of the main window.

B.3.1 Output Option Save

Select the output mode by clicking with the mouse on the button **Save**.

When the output option **Save** is selected, a preview window will not open.

This output option scans to a local or network disk drive. After the scan is performed, a window opens where the default file name is shown. This window allows to select the directory where the image should be stored and to change the file name.

Options   Click on this link to define the file name. A additional window will open. Enter the desired file name. When defining the file name, variables can be used. To learn more about the variables click on Wildcard characters in the window **Image Output: File name**.

Metadata   Click on this link to change the meta data stored with the image. An additional window will open. Enter the meta data here.

B.3.2   Output Option Show

In most cases, the button **Show** is activated.

Picture 62: Output Option Show

A scan will open a new browser window and display the image on the screen. The output options described in this and the following chapters are accessible from a menu present in the upper part of each scanned image.
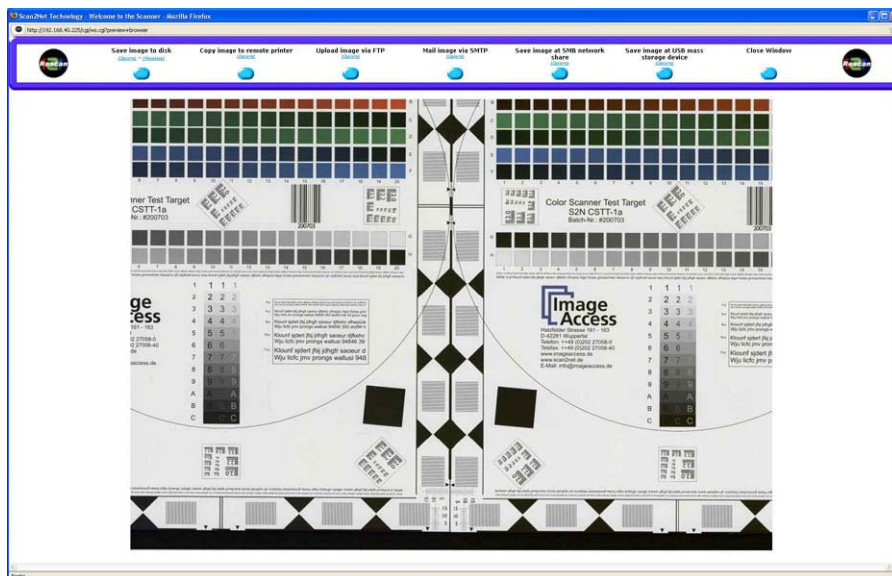
Picture 63: Output Options in Scan Window

Their functions are identical, therefore only the output option screen is described here.

B.3.3   Output Option Print

This output option prints the image at a locally configured printers.

Picture 64: Output Option Print

After the scan is executed, the standard printer interface opens. The user can select one of the available printers.
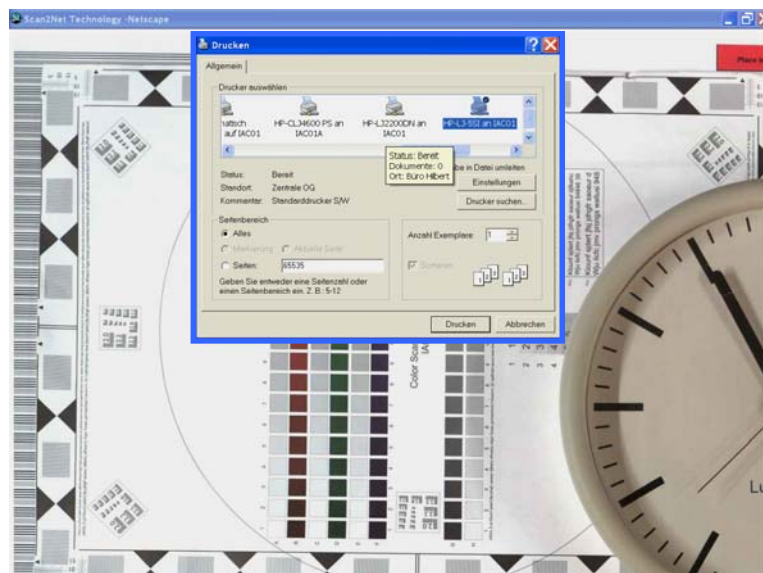
Picture 65: Available List of Printers for Option Print

B.3.4   Output Option Copy

This output option prints directly to a previously installed network printer. The **Option** key is used to configure the remotely connected printer.
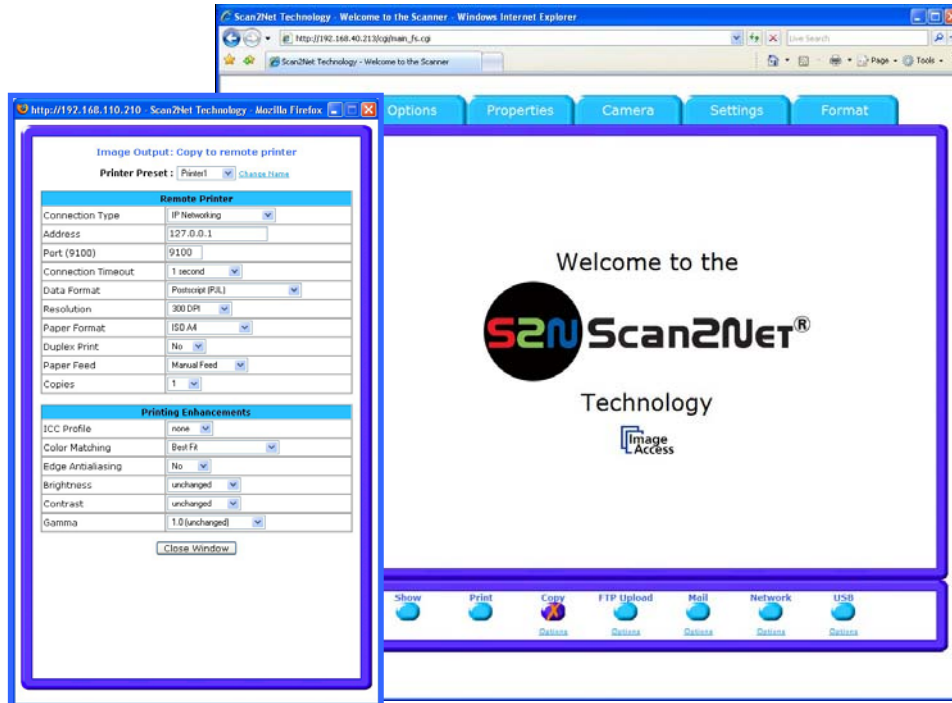
Picture 66: Output Option Copy

B.3.4.1   Remote Printer

Parameter	Description
Printer Preset	Choose a printer configuration out of five possible sets of parameters. If you click on Change Name you can change the name of this set.
Connection Type	Choose between **IP Networking** and **SMB Printer Queue**.
Address (with IP Networking only)	Enter the IP address of the printer.
Port (9100) (with IP Networking only)	Enter the IP port of the remote printer. Default is port 9100.
Connection Timeout (with IP Networking only)	Choose the timeout for connecting to the remote printer before the connection is aborted.
Port (139) (with SMB Printer Queue only)	Enter the IP port of the remote printer. Default is port 139.
Server Authentication (with SMB Printer Queue only)	Select **Yes** or **No**

Note: Each change of an entry field is transferred to the scanner immediately.

Parameter	Description
Login (with SMB Printer Queue only)	Enter the login for the printer if Server Authentication is set to **Yes**.
Password	Enter the password for the printer if Server Authentication is set to **Yes**.
SMB Path (with SMB Printer Queue only)	Enter the path of the directory where the printer is established.
Data Format	Choose the data format of the remote printer. Selectable are Postscript, Postscript with framing HP/PJL communication, HP DesignJet (HP/RTL) and HP LaserJet / HP Color LaserJet compliant printers. Changing the data format will change some of the options in this configuration window.
Data Compression (with HP printers only)	Select the data compression of the data to be sent to the printer.
Resolution	Select the printing resolution. If an exact 1:1 copy of the scanned document is required, the scanning resolution and printing resolution must match.
Paper Format (not with HP Design Jet)	Choose the paper format for the output.
Duplex Print	Switch on/off printing on both sides of a sheet (duplex).
Paper Feed	Select the paper feed method for the remote printer. The menu may contain manual paper feed, various paper trays and paper rolls.
Copies	Number of copies of each print

B.3.4.2 Printing Enhancement

Parameter	Description
Quality Level (with DesignJet only)	Allows to select the printing quality in steps from **Draft** to **Best** quality. Only available with HP/RTL compliant remote printers.
ICC Profile (not with all printer types)	Select the profile used for printing. One can upload a set of printer ICC profiles in the Poweruser setup. Only available with HP/RTL compliant remote printers.
Color Matching (not with all printer types)	Select the color rendering method for the remote printer. **Best Fit:** The printer uses the nearest matching colors of its own color space. **Printer Color Range**: The printer uses the full range of its color space despite of the color definition of the scanned document. Only available in conjunction with HP/PJL communication framework.
Edge Antialiasing (not with all printer types)	Switch on/off printer featured edge anti aliasing. Only available in conjunction with HP/PJL communication framework.
Brightness	Modify the brightness level of the print. Only available with HP/RTL compliant remote printers.
Contrast	Modify the contrast level of the print. Only available with HP/RTL compliant remote printers.
Gamma	Modify the printer gamma. Only available with HP/RTL compliant remote printers.

Note: Each change to an entry field is transferred to the scanner immediately.

B.3.5 Output Option FTP Upload

The scanner can directly scan to an FTP server.
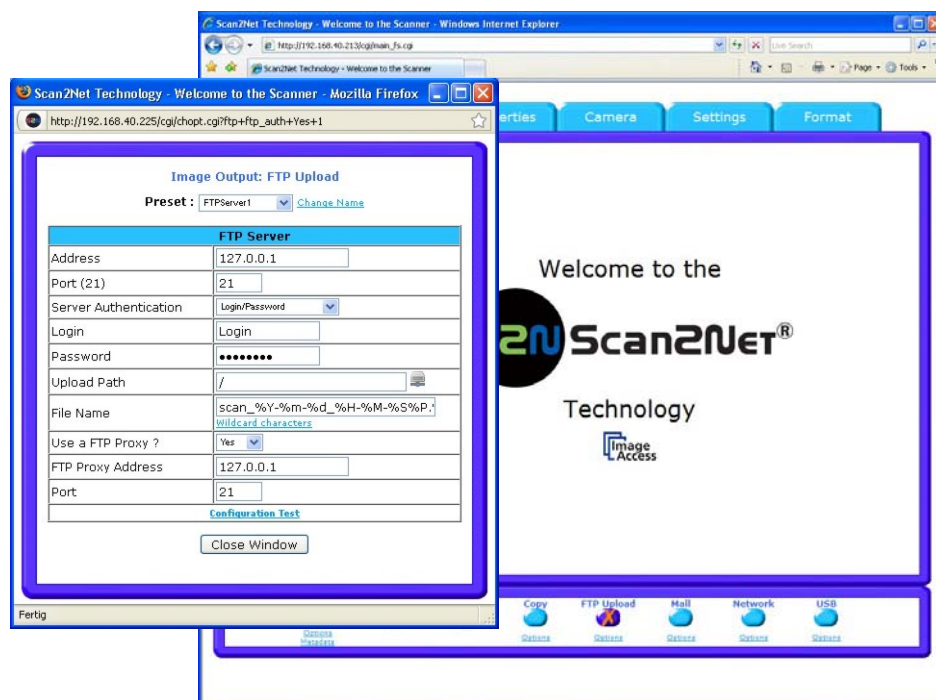
Picture 67: Output Option FTP Upload

Go to **Options** to configure the FTP interface. A configuration window will pop up.

B.3.5.1 FTP Server

Parameter   **Description**

Preset	Choose a preset out of five possible sets of parameters. If you click on Change Name you can change the name of this set.
Address	Enter the IP address of the remote FTP server.
Port (21)	Enter the IP port of the remote FTP server. Default is port 21.
Server Authentication	Select the authentication method.
Login	Enter the login name.
Password	Enter the password for the login at the remote FTP server. The password is stored using encryption.
Upload Path	Enter the upload path at the remote FTP server, starting with / (root). Click on the icon, to browse the directory structure of the remote FTP server. Note: You must have a valid login for browsing the directory structure.

Parameter	Description
File name prefix	Enter the file name prefix. A time stamp will be added to this prefix to form the complete file name.
Use a FTP Proxy ?	Switch on/off the use of an FTP proxy for connecting to a remote FTP server outside the local network.
FTP Proxy Address	Specify the IP address of the FTP proxy.
Port	Specify the IP port of the FTP proxy.

Configuration Test: Click on this link to test the settings. A separate window will open and shows the test results.

Note: Each change to an entry field is transferred to the scanner immediately.

B.3.6   Output Option Mail

The scanner can directly send each scan via e-mail.
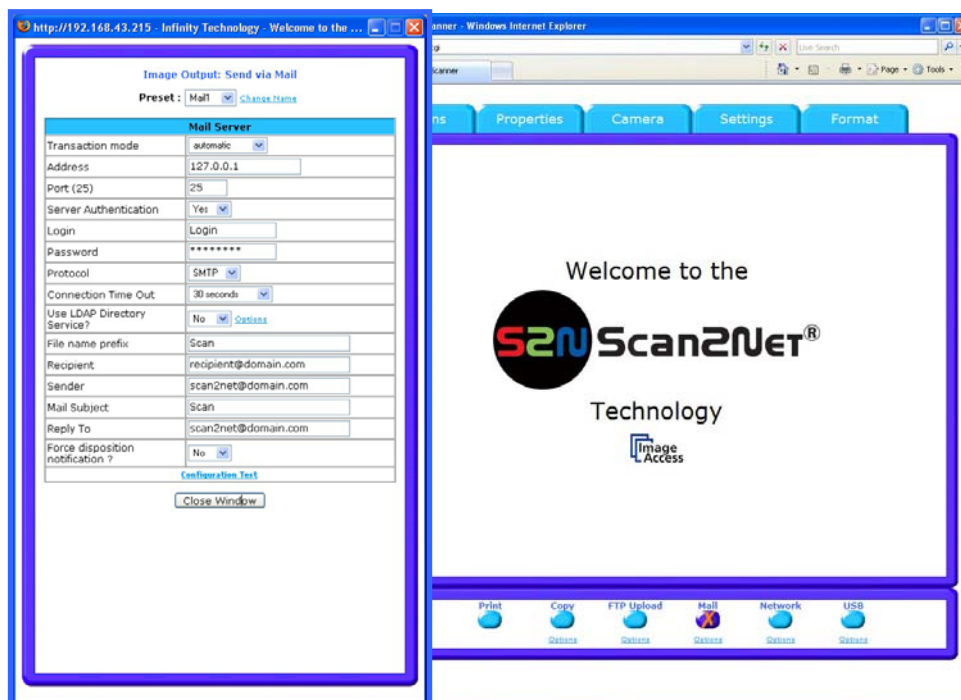
Picture 68: Output Option Mail

Go to **Options** to configure the mail interface. The above configuration window will pop up.

B.3.6.1   Mail Server

Parameter	Description
Preset	Choose a preset out of five possible sets of parameters. If you click on <u>Change Name</u> you can change the name of this set.
Transaction mode	Choose **automatic** if all scanned documents will be sent to the same recipient. Choose **interactive** if the scanner should ask after every scan for the recipients address..
Address	Enter the IP address of the outgoing mail (SMTP/LMTP) server.
Port (25)	Enter the IP Port of the outgoing mail server. Default: Port 25.
Server Authentication	Set to **YES** if the mail server requires an authentication.

Parameter	Description
Login	Enter the user name for authentication at the outgoing mail server.
Password	Enter the password for authentication at the outgoing mail server. The password is stored using encryption.
Protocol	Choose the connection protocol. SMTP is the most common protocol.
Connection Timeout	Choose the timeout for connecting to the outgoing mail server before the connection is aborted.
Use LDAP Directory Service	Select **Yes** to use the LDAP function of the network where the scanner is installed.
File name prefix	Enter the desired file name. Variables can be used to complete the file name. To learn more about the variables, click on the link Wildcard characters.
Recipient	Type in the recipient of the e-mail. Format: fully qualified e-mail address.
Sender	Type in the sender of the e-mail. Format: fully qualified e-mail address.
Mail Subject	Type in the e-mail subject. (Optional) Variables can be added to the mail subject. To learn more about the variables, click on the link Wildcard characters.
Reply To	Type in a reply address for answers. (Optional) Format: fully qualified e-mail address.
Force disposition notification?	Request for a notification when the recipient has opened the mail. **Note:** This feature is not supported by all mail servers or clients.

Configuration Test: Click on this link to test the settings. A separate window will open and shows the test results.

Note: Each change to an entry field is transferred to the scanner immediately.

B.3.7   Output Option Network

SMB is a network protocol which is used by Microsoft Windows-based networks.

If output option **Network** is selected, the scans will be stored directly in a network directory.

Picture 69: Output Option Network

Go to **Option** to configure the SMB Upload interface. A configuration window will pop up.

B.3.7.1   SMB Configuration

Parameter	Description
Preset	Choose a preset out of five possible sets of parameters. If you click on <u>Change Name</u> you can change the name of this set.
Port (139)	Enter the IP port of the SMB network communication. Default is port 139.
Server Authentication	Select the authentication method.
Login	Enter the user name on the Windows workstation/file server which you want to connect to.
Password	Enter the password associated with the user name on the Windows workstation/file server which you want to connect to. The password is stored using encryption.
SMB Path	Enter the upload path at the Windows workstation, starting with a single **/** (slash), which stands for the root directory. If you click at the icon you can browse the workstation/server list and the directory structure of the Windows workstation/file server. Note: You must have a valid login for browsing the directory structure.
File name	Enter the file name. Variables can be used to complete the file name. To learn more about the variables, click on the link <u>Wildcard characters</u>.

<u>Configuration Test</u>:   Click on this link to test the settings. A separate window will open and shows the test results.

Note: Each change to an entry field is transferred to the scanner immediately.

B.3.8   Output Option USB

Universal Serial Bus (USB) is a serial bus standard for interface devices, e.g. storage devices.

The output option USB enables direct scanning to a USB Standard-A flash memory data storage device.
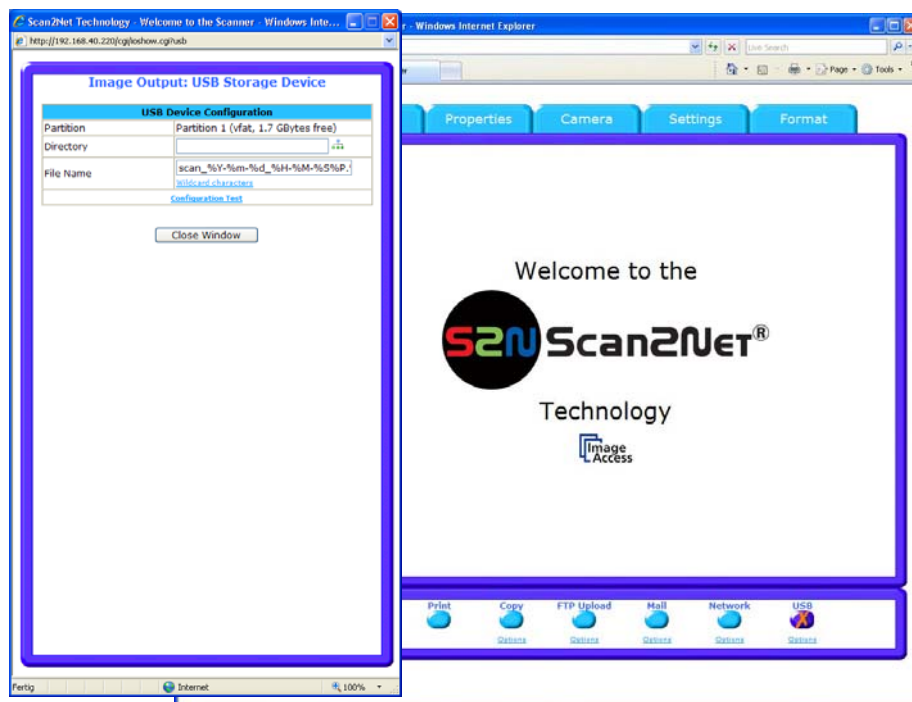
Picture 70: Output Option: USB

At the front panel of the WideTEK 25 scanner a USB connector is found beside the touch panel.

Picture 71: USB stick in USB connector

Go to **Options** to configure the USB interface. A configuration window will pop up.

B.3.8.1   USB Storage Device

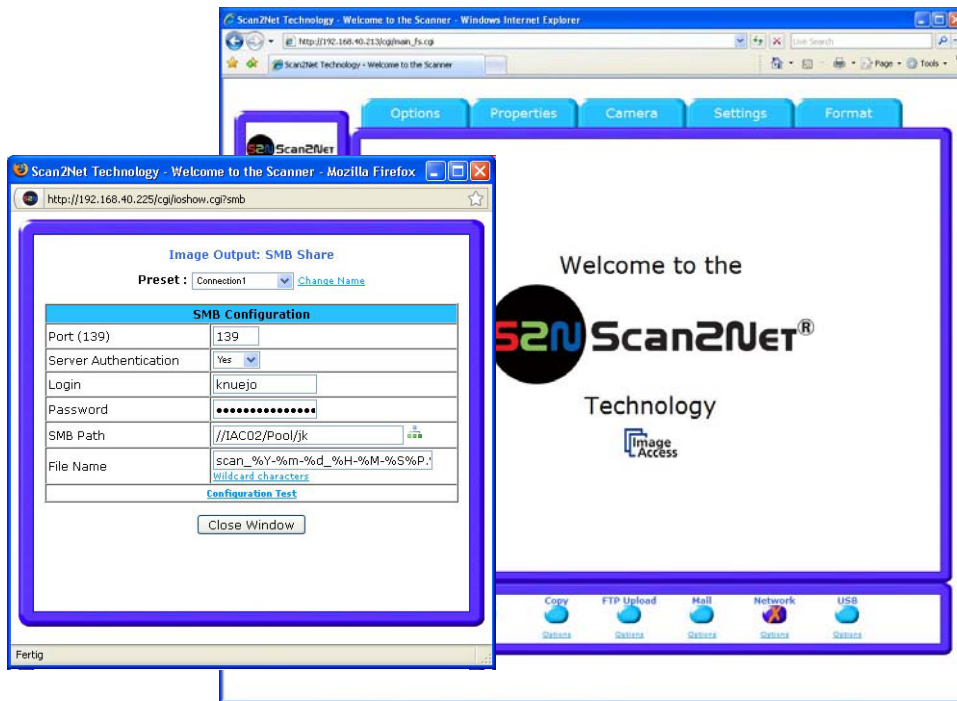| Parameter	Description
Partition	Shows the status and available memory of the currently mounted partition of the connected USB flash device.
Directory	Allows choosing a subdirectory on the connected USB drive for storing the scans.
File name	Shows the actually setting of wildcard characters for the automated naming of each produced image file.
Wild card characters	Offer the complete list of the available wild cards.
Configuration Test	Initiates a short test connection to the connected USB device.

Configuration Test: Click on this link to test the settings. A separate window will open and shows the test results.

Note: Each change to an entry field is transferred to the scanner immediately.

B.4 Information

The start screen (Picture 43) shows three buttons. The button │Information│ gives a short summary of the device parameters.
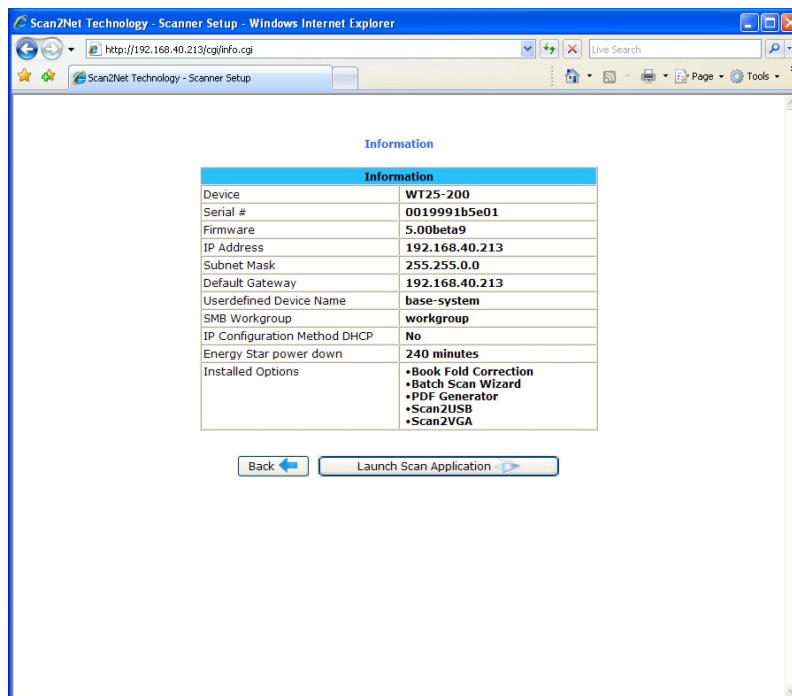
Picture 72: Information

The screen is helpful if technical support is necessary. It shows e.g. the exact device type, the installed firmware version as well as currently installed options.

Click the button │Back│ to return to the start screen.

Click the button │Launch Scan Application│ to switch to the main screen (Picture 44).

B.5   The Setup Screen

The system level is divided in three access levels. The access levels **Poweruser** and **Admin** are protected through a password.

The **User** access level allows showing certain information about the system like power up time, remaining lamp life time or firmware version.

Furthermore the access level **User** allows to set some basic parameters.

Start your browser and enter the IP address of the scanner to get access to the scanner. The start screen (see chapter B.1) will open.

B.5.1   Login Screen

On the start screen, click the button Setup Device .

The next screen shows the login levels User , Poweruser and Admin .
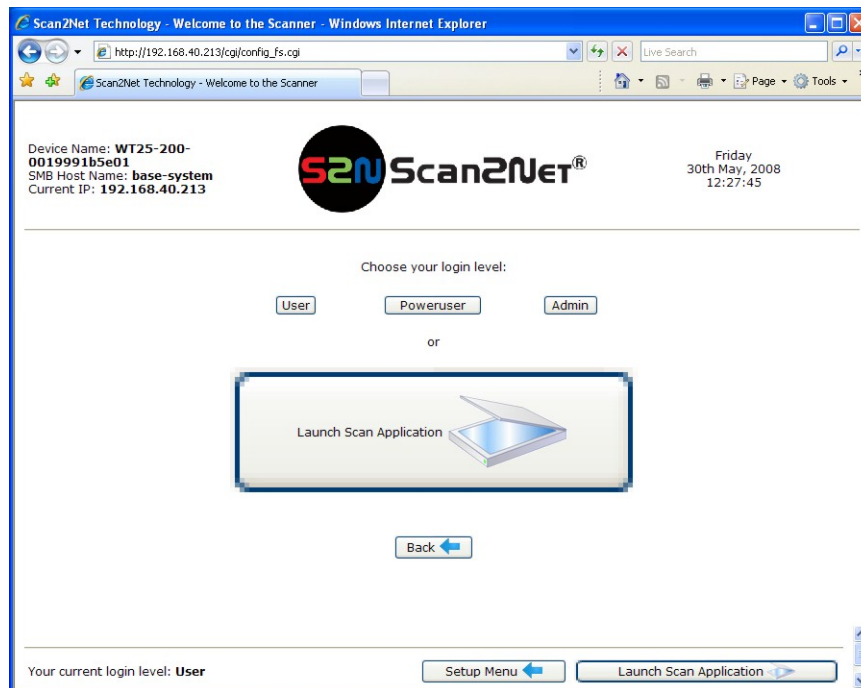
Picture 73: Login screen

Note: The login levels **Poweruser** and **Admin** are password protected. Only trained technicians should use these levels.

B.5.2   Access Level User

Click the button ⎡User⎤. This will open the below displayed screen.
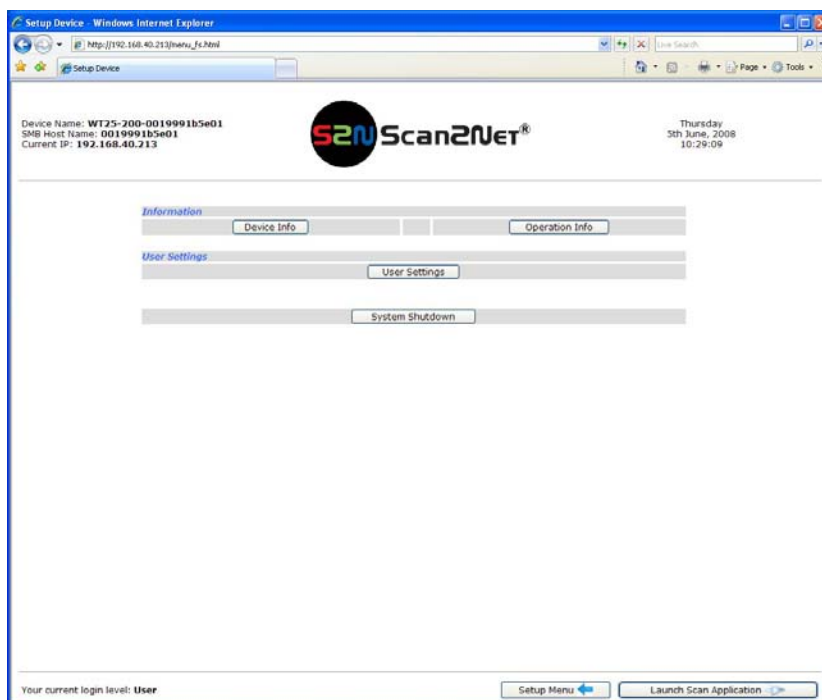
Picture 74: User screen

The user screen is divided into two sections.

The section **Information** shows some details of the scanner and gives a general operation information.

The section **User Settings** allows the user to define some basic parameters of the scanner.

The button ⎡System Shutdown⎤ switches the scanner off.

B.5.2.1   Device Info Screen

In the section **Information**, click the button ⟨ Device Info ⟩ and the following list (Picture 75) will be displayed.

Specific information can be reached by clicking the links below the headline **Device Info** or by scrolling through the list.
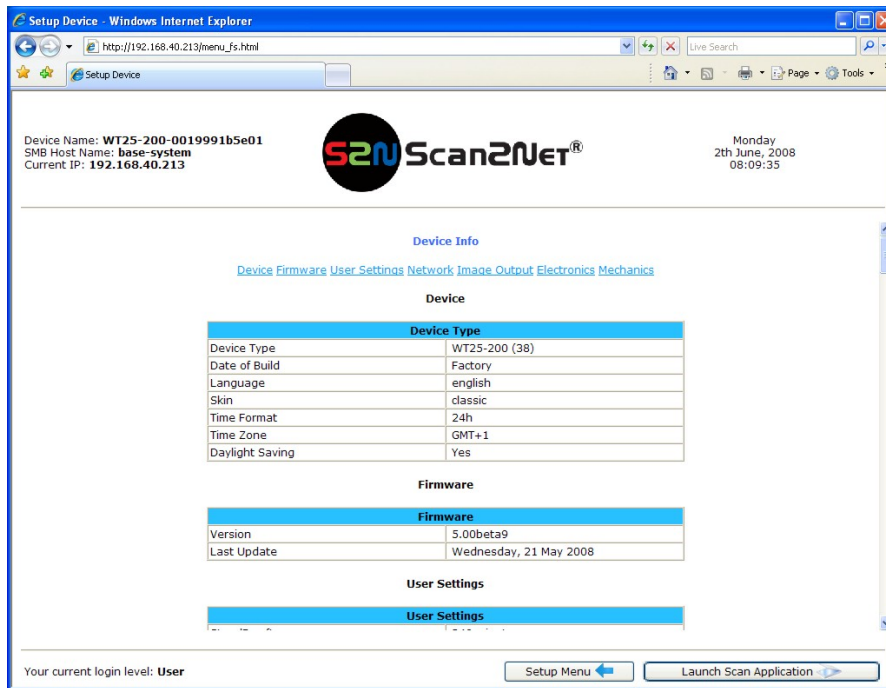
Picture 75: Device Info screen

The tables following the keyword show the current status of the WideTEK 25 scanner.

The most important information for users is the firmware version in the second table. Other information may be of interest if a service technician is onsite or if the service hotline is called.

To return to the **USER** screen (Picture 74) scroll down completely and click the button ⟨ Back to Main Menu ⟩ or click on the "Return" button in your browser.

To return to the **Login** screen (Picture 73) click the button ⟨ Setup Menu ⟩ .

Click the button ⟨ Launch Scan Application ⟩ to switch directly to the main screen of the integrated S2N user interface.

B.5.2.2   Operation Info Screen

In the section **Information** click the button Operation Info and the following list will show various scan counters and elapsed times.
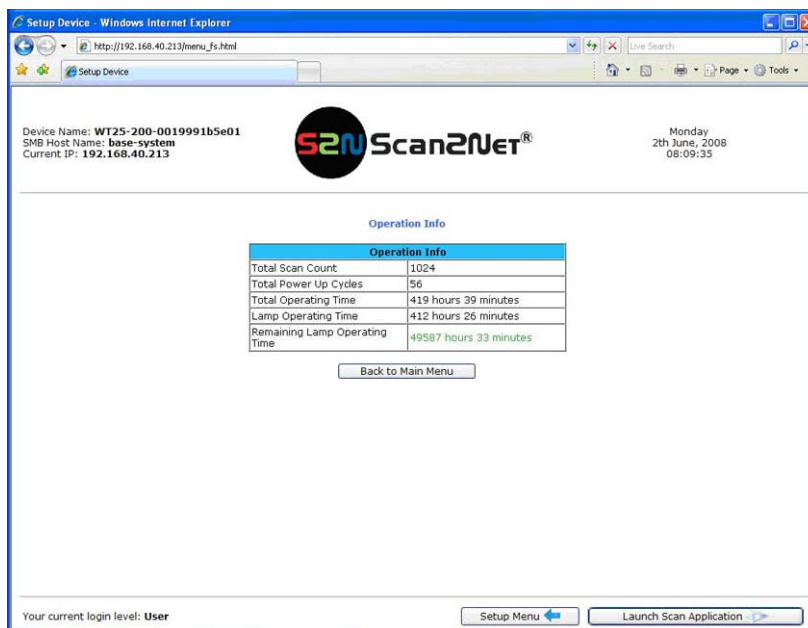
Picture 76: Operation Info screen

The following table gives a brief description.

Field	Description
Total Scan Count	The total number of scans performed since the scanner left the factory. Each CCD scan cycle is counted, regardless of it being a pre-scan or a full scan.
Total Power Up Cycles	The total number of power up cycles performed since the scanner left the factory. This function counts the start/stop button invoked cycles only.
Total Operating Time	The total operating time since the scanner left the factory. This is the on-time only, standby time does not count.
Lamp Operating Time	The total lamp operating time since the scanner left the factory. This is the on-time including the dimmed lamp periods.
Remaining Lamp Operating Time	The typical remaining lifetime of the lamps. The WideTEK 25 scanner lifetime is so long, that the lamps usually last for the complete lifetime of the device.

To return to the **USER** screen (Picture 74) scroll down completely and click the button Back to Main Menu or click on the "Return" button in your browser.

To return to the **Login** screen (Picture 73) click the button Setup Menu ←.

Click the button Launch Scan Application to switch directly to the main screen of the integrated S2N user interface.

B.5.2.3   User Settings Screen

In the section **User Settings** click the button ⌐User Settings⌐ and the following screen will be displayed.
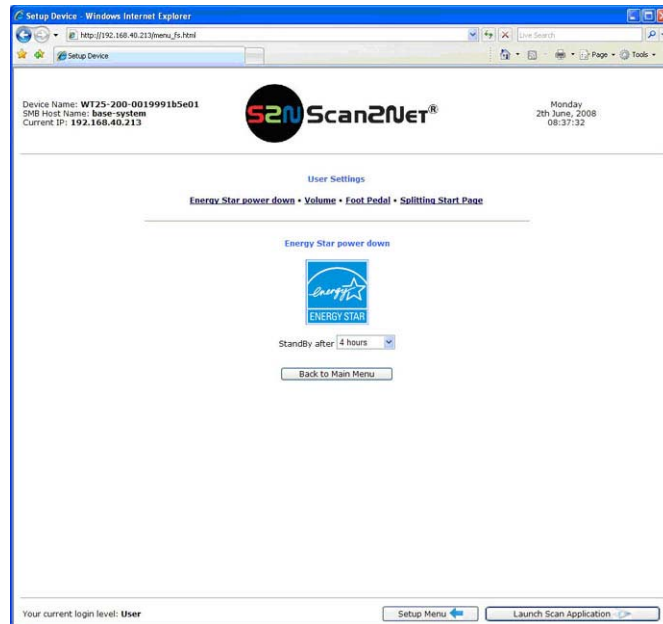
Picture 77: Available user settings

Click onto the links below the headline to set the respective parameters.

To return to the **Login** screen (Picture 73) click the button ⌐Setup Menu ⬅⌐ .

To return to the **USER** screen (Picture 74) click the button ⌐Back to Main Menu⌐ .

Click the button ⌐Launch Scan Application⌐ to switch directly to the main screen of the integrated S2N user interface.

B.5.2.3.1 Energy Star power down

The WideTK 25 scanner is Energy Star compliant.

Use the function **Energy Star power down** to set the time until the scanner goes into stand-by mode.

Click on the link **Energy Star power down.**

Click on the selection arrow and select the desired value from the list.

Picture 78: User Settings screen

The Energy Star guidelines define the default time until the device goes into standby to be 15 minutes.

In stand-by mode its power consumption is only six Watts.

Picture 78 shows the list of available values. The list starts with "5 minutes" and ends with "4 hours". Four hours is the maximum time period defined through the Energy Star guidelines.

B.5.2.3.2   Volume

Click the button **Volume** to set the loudspeakers volume of the scanner.
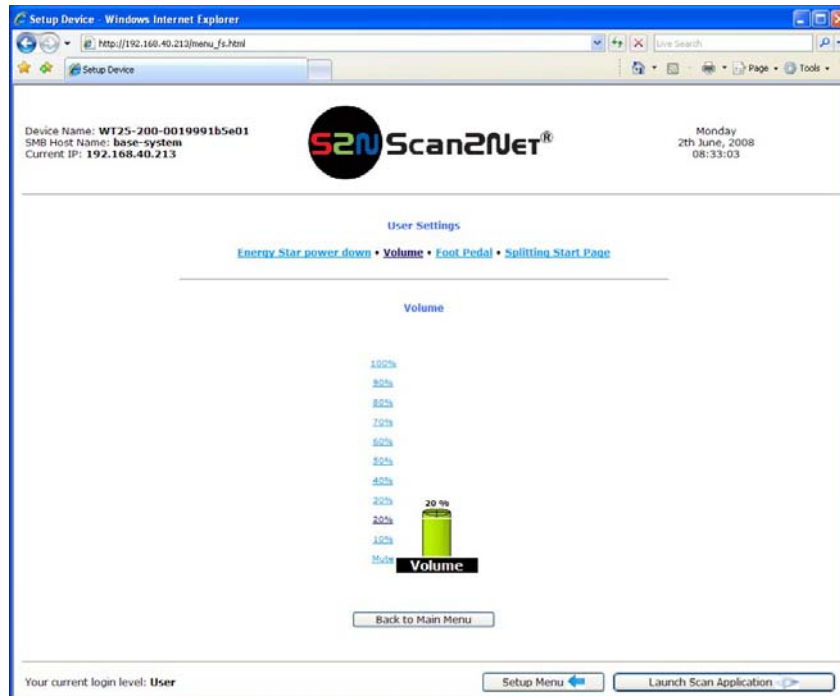
Picture 79: Volume level

A screen opens and shows a graphic to symbolize the volume.

Click on the percentage value to change the volume level. The color of the graphic will change depending on the selected volume level.

Volume level	Volume bar color
Up to 30%	Green
40% to 60%	Yellow
70% or higher	Red

To return to the **Login** screen (Picture 73) click the button Setup Menu ⬅ .

To return to the **USER** screen (Picture 74) click the button Back to Main Menu .

Click the button Launch Scan Application to switch directly to the main screen of the integrated S2N user interface.

B.5.2.3.3   Foot Pedal

Click the button **Foot Pedal** to define a function for the foot pedals.

Picture 80: Foot pedal settings

The scanner has two connectors (FS1 and FS2) on its back to connect foot pedals. For each foot pedal a specific action can be defined.

Click below the designated foot pedal and select from the drop-down list which action should be executed when the pedal is operated.

Drop-down list item	Function
Start scan	Starts the scan with the selected scan area size
Start scan left page	Starts the scan and displays the left half of the selected scan area size.
Start scan right page	Starts the scan and displays the right half of the selected scan area size.

B.5.2.3.4 Splitting Start Page

Click the button **Splitting Start Page** and select either the left page or the right page as start page.
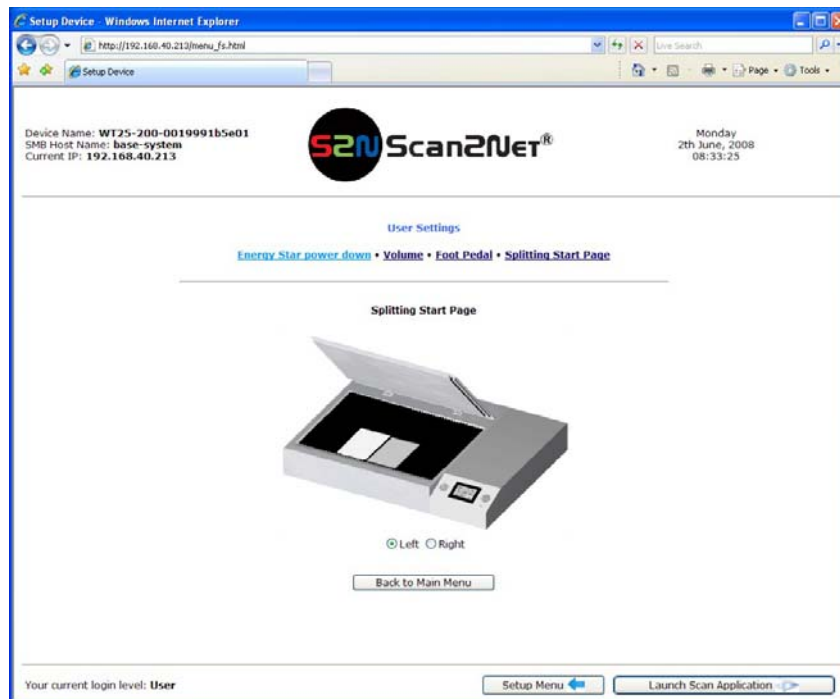
Picture 81: Splitting start page

In some cases it is necessary to start splitting the documents image in reverse order, i.e. starting with the right side followed by the left side in the second step.

To return to the **Login** screen (Picture 73) click the button Setup Menu ← .

To return to the **USER** screen (Picture 74) click the button Back to Main Menu .

Click the button Launch Scan Application to switch directly to the main screen of the integrated S2N user interface.

C   Tests and Troubleshooting

C.1   Troubleshooting Matrix

Fields with a light blue background need the **Poweruser** access level. All other fields are available to all users.

Problem	Possible cause	Action
The touch panel does not show the stand-by message.	No power	Check main outlet, power cord, power-on switch on the left side of the device.
Touching the touch panel does not power up the device.	Connector failure, software glitch …	Switch power off for at least 10 seconds. Retry after touch panel is illuminated again.
Touching the STOP button on the touch panel does not power down the device.	Internal software hangs, application hangs …	End all applications and retry. If problem persists, touch the **STOP** button for at least 10 seconds. Power up again.

Problem	Possible cause	Action
Image is darker than expected.	The target used for white balance is much brighter than the scanning target.	Go to the Adjustments function and modify the Brightness Correction setting.
Image is brighter than expected.	The document is much brighter than the target used for white balance.	Go to the Adjustments function and modify the Brightness Correction setting.
Image has vertical stripes or streaks.	Improper white balance.	Exercise the White Balance procedure.
Image shows a color shift towards red (tint)	The target used for white balance is more blue than the scanning target.	Go to the RGB adjustments and lower the gain on red.
Image shows a color shift towards blue (tint)	The target used for white balance is more red than the scanning target.	Go to the RGB adjustments and lower the gain on blue.
Image shows a color shift towards red (tint)	The scanner receives significant amounts of infrared light (sun or spot lights) not visible to the human eye.	Change position, close blinds, dim or shut off any bright spotlights.

C.2   Error Codes

The scanner does report error conditions on the display and through the API. Some errors are only sent to the API.

A green problem description signals that operation of the scanner is still possible although the error will have an influence on the behavior or quality of the scanner.

A red problem description signals that a problem occurred which will stop the scanner and further scanning is inhibited.

Note: Problem description text with a red background indicates a critical error.

Text with green background indicate warnings.

White backgrounds indicate that the message is information only.

Error #	Error message shown in the display	Error message sent to application	Problem description
1		Scanner in use.	An attempt to access the scanner was made from a different application.
2		Invalid session ID.	An attempt to access the scanner with an invalid session ID was made.
4		Invalid password	An attempt to access the scanner with an invalid password was made.
5	E05 S2N BOARD	S2N board failure	The S2N board is either not found or found defective. Make sure board is sitting correctly on the motherboard.
7	USER BREAK	Stop button pressed.	The stop button was pressed during the operation.
8		User timeout	The function ended because of a time out
9		Warming up	The device is still warming up and cannot be used.
10		Invalid setting value.	The value sent to the device is invalid.
11		Setting does not exist.	The settings does not exist.
12		Invalid user docsize.	The size of the user format is invalid.
14		Invalid resolution or color mode.	Either the resolution or the color mode is invalid.
20	E20 MOTOR 1 (O) SCAN DRIVE	Motor 1 (Scan drive): End switch permanently open.	The home position switch is permanently open. The mechanics of the corresponding motor could be blocked or the switch/cable is defective.
21	Error 21 Motor 1: Transport locked	Motor 1 / PCI 1 (Box drive): Transport locked	

Error codes, part 2

Error #	Error message shown in the display	Error message sent to application	Problem description
30		File format not supported.	The specified file format is not supported or it is invalid in combination with the color mode.
31		Preview not possible	The application specified an invalid preview scale. Not all scale factors are allowed with all image sizes.
32		Invalid color conversion	The application changed the color depth between scanning and image transfer and a conversion between these modes is not possible. Example: scan in binary, then changed color mode to truecolor.
33		No image available	The application attempted to get an image from the scanner and there was no scan since the device was turned on.
55	E55 WRONG S2N HW CCD PORTS	Wrong S2N board detected (not enough CCD ports)	The S2N board found is not the right one for this device. Error can occur after a repair/exchange. Exchange with correct board.
56	Error 56: S2N Board: wrong revision	Wrong S2N Board detected (Revision not OK)	The S2N board found is not the right one for this device. Error can occur after a repair/exchange. Exchange with correct board.
60	Error 60: General camera error	General camera error.	General error on the CCD camera board. Check power, cables and S2N-PCI board.
61	Error 61: Camera 1 failed	Camera 1 failed	Initializing of camera 1 failed. Check power, cables and S2N-PCI board.
62	Error 62: Camera 2 failed	Camera 2 failed.	Initializing of camera 2 failed. Check power, cables and S2N-PCI board.
65	Error 65: Camera 1 data bus error	Camera 1 data bus error.	Test data transfer to camera failed. Check cables / connectors to camera 1 and S2N-PCI board.
66	Error 66: Camera 2 data bus error	Camera 2 data bus error.	Test data transfer to camera failed. Check cables / connectors to camera 2 and S2N-PCI board.

Error codes, part 3

Error #	Error message shown in the display	Error message sent to application	Problem description
69	Error 69: ADC error camera 1	Camera 1 adc error.	Test data transfer through analog digital converter failed. Check cables / connectors to camera 1.
70	Error 70: ADC error camera 2	Camera 2 adc error.	Test data transfer through analog digital converter failed. Check cables / connectors to camera 2.
75		General keyboard error	General keyboard error. Check keyboard and cables.
99		Internal error.	The firmware has detected an internal error of unknown cause.

C.3   Warnings

Warning #	Warning shown in the display	Warning sent to application	Problem description
144		Light level is low	The light level is found to be low during the white balance function.
145	Camera adjustment required	Camera adjustment required	General information about the camera adjustment. Check for details and readjust.
160	W160 NO WHITE BALANCE DATA	No white balance data	No white balance data was found. Perform white balance.

C.4   Information

Info. #	Information shown in the display	Information sent to application	Description
200	CREATING RECOVERY PART..	Creating Recovery Partition	While creating the recovery partition, the scanner can not be accessed.

D   Technical Data

D.1   Scanner Specifications

Optical System

Maximum Document Size	25 x 17,7 inch / 635 x 420 mm
Optical Resolution	1200 x 600 dpi
Sensor Type:	Two tricolor CCDs, encapsulated and dust-proof
	12bit grayscale (internal resolution)
	36bit color (internal resolution)
Sensor Resolution:	45.600 pixels (2x 22.800)
Scan Modes:	1bit Black/White
	8bit Grayscale
	24bit Color, 8bit indexed

Illumination:

Light Source:	Two lamps with white LEDs
Warm-up Time:	None. Immediately after switching on maximum brightness
Temperature Dependence:	None
UV / IR Emission	None
Lifetime	50.000 hours scanning time

D.2   Ambient Conditions

Operating Temperature	+5 to +40° Celsius
Storage Temperature	0 to +60 °Celsius
Relative Humidity	20 to 80% (non-condensing)
Noise Level	48 - 53 dB(A) (Operating) 33 dB(A) (Stand-by)

D.3   Electrical Specifications

This device is Energy Star compliant.

Voltage	100–240V AC
Frequency	50/60 Hz

Power Consumption

Stand-by	0.1 W
Start Procedure	90 W
Ready to scan, lamps off	70 W
Scanning	105 W

D.4   Dimensions and Weight

Scanner outer dimensions	160 x 1026 x 782 mm (H x W x D) 6,3 x 40,3 x 30,8 inch
Weight of Scanner	41 kg
Weight of Transport Box	35 kg
Dimensions of fully packed Transport Box	400 x 1200 x 960 mm (H x W x D) 15,75 x 47,25 x 37,8 inch
Total shipping weight	76 kg

D.5   CE Declaration of Conformity

The undersigned, representing the manufacturer:

Image Access GmbH

Hatzfelder Strasse 161 – 163

42281 Wuppertal, Germany

C E

herewith declares that the

Product: **WideTEK 25 Scanner**

Model Designation: **WT25 –XXX**
                      (XXX represents the device version number and configuration details)

Serial number: All

is in conformity with the following European standards and IEC directives:

EMC Directive 2004/108/EEC as per:

EN 55022:2006 + A1:2007

EN 61000-3-2:2006

EN 61000-3-3:1995 + A1:2001 + A2:2005

EN 55024:1998 + A1:2001 + A2:2003

FCC 47 CFR Ch.1 Part 15

Safety:

Low Voltage Directive (Safety) 2006/95/EEC as per

IEC 60950-1:2005 (2nd Edition)

EN 60950-1:2006

UL 60950-1:2007 (2nd Edition)

CSA C22.2 No 60950-1:2007 (2nd Edition)

Wuppertal, 02.06.2008

T. Ingendoh

Thomas Ingendoh , President and CEO

D.6 FCC Declaration of Conformity

Responsible party:

Image Access GmbH

Hatzfelderstrasse 161 – 163

42281 Wuppertal, Germany

Product: **WideTEK 25**

Model Designation: **WT25 –XXX**
(XXX represents the device version number and configuration details)

For unique identification of the product configuration, please submit the 12-digit serial number found on the product to the manufacturer.

This device complies with Part 15, Class B of the FCC Rules. Operation of this product is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

For your notes