ScanTek

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Contents

Chapter 1

ScanTek

1.1 ScanTek Manual

ScanTek 4.3

A scanner driver for
Microtek, Highscreen and Mustek
Flatbed Scanner

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http://www.users.odn.de/~odn05111/scantek.html

Get It, Feel It, Love It

1.2 Overview

Overview

The ScanTek scanner driver has the following features:

1. Support of the following SCSI Microtek scanner models:
MICROTEK IISP, MICROTEK II, HIGHSCREEN Flatbed Color IIs,
ScanMaker E3, ScanMaker 35t, ScanMaker E6,
Highscreen PerfectScan, older Highscreen HighScan

Microtek E3PLUS, V300, 330, 630 and new Highscreen HighScan

This new scanner model can be used in black&white, grey scale
and color scanning.
The download of color lookup tables (gamma curves) is now
supported.
Color scan images can contain a shifted segment, if the image
data is written to a harddisk on the same SCSI host adapter.
The image data should be written to a harddisk on another SCSI
host adapter or to a IDE harddisk.

Support of the following SCSI Mustek Paragon scanner models:
Three Pass Scanners:
Paragon 6000CX, 8000CX (not tested), 12000CX all should work

One or Single Pass Scanners:
Paragon 6000SP, 8000SP, 12000SP (now supported) all should work

```
    Paragon 6000CZ, 8000CZ (not tested)

    Paragon 600IISP, 800IISP


The following scanner models are in the development phase:
    Microtek ScanMaker 636, 336 and x6
      Scanned images of this models may contain strong color failures.
      After the reception of the new Microtek programming documentation
      this filaure can be resolved. A fast solution is possible.


The following scanner models are recognized but not fully supported:
    Mustek ScanExpress 12000SP
    Mustek Paragon 1200IIISP (caution: III -> version 3)
       Color scanning is only successfull at resolutions of 150, 300,
       600 and 1200 dpi.
       Grey scale scanning is possible.
       If the image to be scanned exceeds the scan buffer size than
       the image is corrupt. This effect is independent from the
       scan mode.
       The scanning quality is also (!) dependent from the used
       SCSI host adapter.
       The ScanExpress or Paragon 12000IIISP scanner models are
       not recommended for ScanTek.
       At least until sometimes in the future the corresponding
       Mustek SCSI programming documentation for these new models
       is available. I think this might be a Millenium projekt.


The following scanner models are not supported by now:
    All remaining Mustek ScanExpress and Paragon IIISP models.


The following scanner models are not supported:
    Canon, Epson, HP, Umax and any parallelport scanner.


Attention: In recent times Mustek has changed the scanner firmware.
           I urge you to test Mustek scanners with your Amiga
           configuration before buying it.

           Mustek scanners have a critical SCSI interface. It
           was reported to me that these scanners may not work
           with the A2091 and A3000(T) internal SCSI interface.
           It is possible that these scanners do not work with
           other SCSI host adapters, either.
           But the Mustek 6000CX and Paragon MFS-12000SP work in
           combination with an Oktagon SCSI host adapter.
           Be sure to disable reselection for Mustek scanners
           on your SCSI host adapter. Otherwise your system may
           not boot.
```

2. Support of black/white, built-in halftone (dither), one-pass-color-scan, three pass color scan, grey, red, green and blue scan.

3. Individual setting of resolution, scanning frame, contrast, shadow,

midtone, highlight, exposure time and scanning speed for download to the scanner.

4. Download of a color look up table (gamma correction table) to the scanner supported.

5. Scanning to IFF File of 1, 8 or 24 bit color depth. The maximum size of the scanned image is independent from the RAM size. After the scanning process it is possible to start an external program.

6. GUI for preview and configuration of the driver. You need Kickstart 2.04 but Kickstart 3.0 is recommended.

7. Sizeable preview window in black/white or grey scale. Color preview on Cybergraphix screens (15, 16 or 24 bit necessary).
   There are much more skilled programs to view and manipulate the scanned images in color. (A tool like ADPRO, IMAGE FX or so is needed, if you want to do sophisticated postproduction)

8. ARexx support

9. Screenmode requester to define custom screen for working. The actual public screen is supported as well

10. Configurable SCSI device and SCSI ID. The driver supports only SCSI connectable scanners.

11. The driver is tested with the following SCSI drivers: oktagon.device and gvpscsi.device V4.5.

12. ScanTek is written using SAS C 6.58.

13. ScanTek is SHAREWARE.

14. The non registered version of ScanTek is a full working version, but all scanned images have black lines to motivate you to register.
    Additionally the maximum size of the preview is restricted.

1.3 What's new

"What's new"

New for ScanTek V4.3

- Support of the transparency adapter and control of the scanning and transparency medium lamp for Microtek 63x, 33x and compatible Highscreen HighScan scanner models

New for ScanTek V4.2

- Locale catalogs now updated correctly

- No color failures if the LookUp tables are deactivted for Microtek 630, 330 and new Highscan II models

New for ScanTek V4.1

- Full support for Microtek 630, 330 and new Highscan II models
  - Color LookUp tables now supported
  - Faster preview for new generation of ScanMaker scanners

- ScanTek support homepage has been moved to
  http://www.users.odn.de/~odn05111/scantek.html

- Enhanced screen mode handling on program startup

New for ScanTek V4.0

- Localization of ScanTek. Supported locales: english, deutsch, dansk

- New email address: scantek@gmx.de, wzoehner@gmx.de

1.4 System Requirements

System Requirements

1. An AMIGA with Kickstart 2.04 or higher.

2. A SCSI host adapter (commonly known as SCSI controller)
   with an external connector for the scanner :-)

3. You should have more than 2 MByte RAM in one piece. If you have less, the
   scanning would be rather boring than fun.

4. A harddisk with a lot of free space.

1.5 Installation

Installation

The archive contains the following files:

ScanTek/ScanTek	- The scanner driver
ScanTek/ScanTek.info	- The appropriate info file
ScanTek/ScanInstall	- The ScanTek installer script
ScanTek/ScanInstall.info	- The appropriate info file
ScanTek/ReadMe	- A short english description
ScanTek/ReadMe.info	
ScanTek/OrderForm	- The english orderform
ScanTek/OrderForm.info	

```
  ScanTek/LiesMich                          - A short german description
  ScanTek/LiesMich.info

  ScanTek/Bestellformular                   - The german orderform
  ScanTek/Bestellformular.info

  ScanTek/Documents/ScanDeutsch.guide       - The german amigaguide
  ScanTek/Documents/ScanDeutsch.guide.info    documentation

  ScanTek/Documents/ScanEnglish.guide       - The english amigaguide
  ScanTek/Documents/ScanEnglish.guide.info    documentation

  ScanTek/Rexx/                             - Directory for ARexx scripts
  ScanTek/Rexx.info

  ScanTek/Gamma/                            - Directory for look-up tables
  ScanTek/Gamma.info                          (gamma)

  ScanTek/Images/                           - Directory for scanned images
  ScanTek/Images.info

  ScanTek/Temp/                             - Directory for temporarily files

  ScanTek/catalogs/                         - Localized ScanTek catalogs


To install, unpack the archive to a prefered location at your hard disk.
Assigns are not necessary.
```

1.6 Using ScanTek

```
                Using ScanTek

After
                installing
                you can start ScanTek from CLI or the
Workbench.


                Configuration
                Tayloring to your needs

                Scanning
                Scanning

                Menus
                The Layout of the Menus

                Windows
                The Layout of the Windows

                ARexx
                The ARexx interface

                Localization
```

Localized GUI

1.7 Configuration

Configuration

1. Select the menuitem >Settings/SCSI...<

   · Set the SCSI <Device Name> and scanner SCSI <Device ID> according to your

   SCSI system configuration
   . The SCSI <Device ID> must be same as the SCSI ID
   which is set with the push-indexing or rotary switch on the rear panel or the underside of the scanner. Any ID from 0 through 6 is valid as long as it is not used by any other device on the SCSI bus.
   · The <Scan Buffer> should be set as large as possible, because the scanner performs better with a large buffer. If the buffer is not large enough to receive the whole scanned image, then the scanner fills this buffer and stops until the data is processed. Then the scanner continues to scan the next portions until the whole image is scanned.
   · The <File Buffer> size is not as important as the <Scan Buffer> size. A value of several kBytes may also work well.
   · The <File Buffer> and <Scan Buffer> are only allocated during the scanner access and you should ensure that the specified memory is available at that time. The memory has to be in one piece.
   · The memory types <Scan Memory> and <File Memory> can be modified to speed up the SCSI performance on certain SCSI host adapters. You may test the various memory types and choose the one that performs best or reliable.
   · Examine your SCSI settings by clicking the <Test Device>-Button and wait for the delivered information in <Test Results>. ScanTek has checked, if the given SCSI parameters and the related SCSI device is suitable.
   · Click <OK> to accept your new settings or <Cancel> to forget it.

2. Select the menuitem >Dir Paths/Scanned Pics...< and >Dir Paths/Temp. Files...<

   · Set the initial default directory path, where the scanned images or the temporarily needed files should be located.
   · The temp directory should never be located in RAM. You should better set the <Scanner Buffer> to a higher value to increase the scanning performance.

3. Select the menuitem >Settings/Screenmode<

   · You will get a screenmode requester, where you can choose a new screenmode or change the color depth, ie. the number of screen colors.
   · If the screenmode requester does not appear, you must get a newer version of the ASL library, that supports the screenmode requester.

4. Select the menuitem >Settings/Save Settings<

   · You can save your current settings to a file. The default settings file name is 'ScanTek.cfg'. This file will be read during startup of the program.

· With the menuitem >Settings/Load Settings< you can read a different settings file.

1.8 Scanning

Scanning

After starting and configurating ScanTek, we can start to scan.

1. Place the desired object you want to scan on the scanner

2. Define the maximum size of the scanning or preview frame for further operation

3. Size the Preview Window as large as you want it to

4. Set the desired scanning mode

   · Click the <Scan Mode>-Button until your desired scanning mode appears.
   · Click the <Options>-Button to change the parameters of the current scan mode. Each scan mode has an Options Window. Even if the options window look similar, the options of each scanning mode are independent from another.

5. Getting a preview picture

   · Click the <Preview>-Button in the Main Control Window or select the menu item >Project/Preview<.
   · The scanner starts to scan a preview picture and displays it in the Preview Window.
   · The preview picture will be shown dependent on the chosen scan mode.

scan mode	normal preview mode	Cybergraphix, onepass and color preview
red	red	red
grey	grey	grey
blue	blue	blue
green	green	green
color	grey	color
halftone	halftone	halftone
black&white	black&white	black&white

   · The size of the preview picture depends on the size of the Preview Window.
   · During the scan the Scanner Access Window

is open and shows the scanning status.

6. Modify the
color look-up curves
with the
Look-Up Control Window
and go back to step 5.

7. Set the scanning frame in the Preview Window

- Press the left mouse button, hold it and move the mouse until the scanning frame is as large as you want it.
- The dimensions of the image defined by the scanning frame are shown in the Scanning Frame Box. These figures are only approximate.
- There is no real limitation of the scanning frame. If you choose a very small scanning frame then the scanned image may not look good in rare cases. Seize your scanning frame bigger and you will be happy again.
- To achieve a high correspondance between the scanning frame contents and the scanned image you should tag the parameter "accurate coordinates" in the
Scanning Misc Window.
8. Set the scanning resolution

- Move the <Resolution>-Slider to the desired resolution setting. (dpi = dots per inch). A high dpi value leads to more dots scanned per inch and to a larger scanned image. Take care of the moiree effect as described in
Trouble Shooting
.
Try to set resolution values that are integer parts of your scanners physical resolution. This leads to better scanning results.

9. Start the scanning process

- Click the <Scan>-Button in the Main Control Window or select the menu item >Project/Scan<.
- You will get a file requester, where you can define the file name for the image to scan.
- During the scan the Scanner Access Window is open and shows the scanning status.
- The scanned image will be written as uncompressed IFF File with either 1, 8 or 24 bit color depth.
- If your <Scan Buffer> is smaller than the picture to scan, then ScanTek will use temp files for saving. The scanning process will be divided into several scanning accesses until the image is completely scanned.

1.9 Menu Structure

Menu Structure

Project
|--
Scan
|--

```
                Preview
                |--
                About...
                `--
                Quit
                Settings
|--
                SCSI...
                |
|-- Scanning Modes
|   |--
                Black&White
                |   |--
                Halftone
                |   |--
                Color
                |   |--
                Red
                |   |--
                Green
                |   |--
                Blue
                |   `--
                Grey
                |
|-- Scanning Frame
|   |--
                Max Frame Size
                |   `--
                Adjust Frame
                |
|--
                Scanning Misc
                |--
                Look-Up Table
                |
|-- Toggle Lamp
|   |--
                Transparency Adapter
                |   `--
                Flatbed
                |
|-- Dir Paths
|   |--
                Scanned Pics...
                |   |--
                Temp. Files...
                |   |--
                Look-Up Files...
                |   `--
                ARexx...
                |
|--
                External Program
                |
|--
                ScreenMode
```

```
                |
|--
                Load Settings
                `--
                Save Settings
                ARexx
`--
                Execute Script...
```

1.10 Project/Scan

```
                Menu Item Project/Scan

After selecting this menu item, a file requester appears. This file requester
can be used to choose the filename for the image to be scanned.
The current parameters defined in the
                Main Control Window
                are taken for the
scanning of the image.
```

1.11 Project/Preview

```
                Menu Item Project/Preview

After selecting this menu item a preview image is scanned and displayed
in the
                Preview Window
                .
The size of the preview image depends on the current size of the Preview Window.
```

1.12 Project/About...

```
                Menu Item Project/About...

The About Window will be displayed to show general information about the
program. The ARexx port (if available) is shown here.

The name of the
                registrated user
                will be also displayed.
```

1.13 Project Quit

```
                Menu Item Project/Quit

If you want to quit the program, use this menu item. Alternatively you
```

```
can click on the close gadget in the
                Main Control Window
               .
```

1.14 Settings/SCSI...

```
                Menu Item Settings/SCSI...

After selecting this menu item the
                SCSI Parameter Window
                opens and you
can view and set the SCSI parameters.
```

1.15 Settings/Scanning/Black&White

```
                Menu Item Settings/Scanning/Black&White

After selecting this menu item the
                Black&White Options Window
                opens and you
can view and set the Black&White parameters.
```

1.16 Settings/Scanning/Halftone

```
                Menu Item Settings/Scanning/Halftone

After selecting this menu item the
                Halftone Options Window
                opens and you
can view and set the Halftone parameters.
```

1.17 Settings/Scanning/Color

```
                Menu Item Settings/Scanning/Color

After selecting this menu item the
                Color Options Window
                opens and you
can view and set the Color parameters.
```

1.18 Settings/Scanning/Red

```
                Menu Item Settings/Scanning/Red

After selecting this menu item the
                Red Options Window
                opens and you
can view and set the Red parameters.
```

1.19 Settings/Scanning/Green

```
                Menu Item Settings/Scanning/Green

After selecting this menu item the
                Green Options Window
                opens and you
can view and set the Green parameters.
```

1.20 Settings/Scanning/Blue

```
                Menu Item Settings/Scanning/Blue

After selecting this menu item the
                Blue Options Window
                 opens and you
can view and set the Blue parameters.
```

1.21 Settings/Scanning/Grey

```
                Menu Item Settings/Scanning/Grey

After selecting this menu item the
                Grey Options Window
                opens and you
can view and set the Grey parameters.
```

1.22 Settings/Scanning Misc

```
                Menu Item Settings/Scanning Misc

After selecting this menu item the
                Scanning Misc Window
                opens and you
can set the scanning misc parameters.
```

1.23 Settings/Look-Up Table

```
                Menu Item Settings/Look-Up Table

After selecting this menu item the
                Look-Up Control Window
                opens and you
can set the Look-Up Table parameters.
```

1.24 Settings/Scanning Frame/Max Frame Size

```
                Menu Item Settings/Scanning Frame/Max Frame Size

After selecting this menu item the
                Max Frame Setting Window
                opens and you
can set the parameters for the maximum size of the scanning frame.
```

1.25 Settings/Scanning Frame/Adjust Frame

```
                Menu Item Settings/Scanning Frame/Adjust Frame

After selecting this menu item the
                Adjust Frame Window
                opens and you
can set the position and size of the scanning frame.
```

1.26 Settings/Toggle Lamp/Transparency Adapter

```
Menu Item Settings/Toggle Lamp/Transparency Adapter

After selecting this menu item the Transpareny Lamp can be switched on
or off.
This switching does only work for the Microtek scanners of the newest
generation.
```

1.27 Settings/Toggle Lamp/Flatbed

```
Menu Item Settings/Toggle Lamp/Flatbed

After selecting this menu item the Flatbed Lamp can be switched on
or off.
This switching does only work for the Microtek scanners of the newest
generation.
```

1.28 Settings/Dir Paths/Scanned Pics...

```
Menu Item Settings/Dir Paths/Scanned Pics...

After selecting this menu item a directory requester opens and let you
set the default directory path, where scanned images are written to.

Caution: As a default the directory path is initialised with PROGDIR:
         This is a relative directory path and not an absolute path.

         If you use PROGDIR: as the path to save your scanned images and
         you want this image immediately displayed with an external viewer,
         then this may not work.

         You run into trouble because each executed program has its
         own PROGDIR: value.

         The following example should explain this problem:
         We assume that the program Scantek is located in the directory
         Work:ScanTek and VT in the directory Work:graphic/viewer.
         Furthermore we assume that you save your scanned image to
         PROGDIR:Image.iff

         ScanTek PROGDIR: --> Saved to Work:Scantek/Image.iff
         VT      PROGDIR: --> Assumed at Work:graphic/viewer/Image.iff

         The programs interpret PROGDIR: in their own way!
```

1.29 Settings/Dir Paths/Temp. Files...

```
Menu Item Settings/Dir Paths/Temp. Files...

After selecting this menu item a directory requester opens and let you
set the default directory path for temporary files.
```

1.30 Settings/Dir Paths/Look-Up Files...@

```
Menu Item Settings/Dir Paths/Look-Up Files...

After selecting this menu item a directory requester opens and let you
set the default directory path for the look up table files.
```

1.31 Settings/Dir Paths/Arexx...

```
Menu Item Settings/Dir Paths/ARexx...

After selecting this menu item a directory requester opens and let you
set the default directory path for Arexx scripts.
```

1.32 Settings/External Program

```
                Menu Item Settings/External Program

After selecting this menu item the
                External Program Window
                opens and you
can set the parameters for an external program, which may be started after
each scan.
```

1.33 Settings/Screenmode

```
                Menu Item Settings/ScreenMode

After selecting this menu item a screenmode requester opens and let you
set the screen mode. If you select a screenmode, then ScanTek closes
his current screen and opens a new screen.
To ensure a high quality preview image, try to get a large
                Preview Window
               .
The more colors you have the better the preview image output.

NOTE: The preview image will be deleted during the change of the screenmode.
```

1.34 Settings/Load Settings

```
Menu Item Settings/Load Settings

After selecting this menu item the parameters can be loaded
from a file. The filename can be choosen with a file requester.
The default parameter file is named 'ScanTek.cfg'. It is loaded during the
startup of ScanTek (if available).
```

1.35 Settings/Save Settings

```
Menu Item Settings/Save Settings

After selecting this menu item the SCSI and Scanning parameters can be saved
to a file. The filename can be choosen with a file requester.
The default parameter file is named 'ScanTek.cfg'.
```

1.36 Windows

```
                Windows


                Main Control Window
```

Color Options Window

BlackWhite Options Window

Halftone Options Window

Preview Window

Scanner Access Window

SCSI Window

External Program Window

Max Frame Setting Window

Adjust Frame Window

Misc Window

Look-Up Control Window

Look-Up Table Window

1.37 Main Control Window

Main Control Window

The following gadgets appear in this window:

Scan Mode : The supported scanning modes.

Opt : Dependent on the scan mode there are several scanning options.

Black&White

Halftone

Color

Red

Green

Blue

Grey
Scan Medium: The supported scanning medias.
Possible values:

Flatbed : the normal flatbed scanning mode
TMA : the transparency medium adapter to scan
slides

Resolution : The resolution to be used at scanning.
The highest resolution value depends on the scanner model.
The preview resolution is independent from this value and
derived from the Preview Window size.

Preset : The predefined resolutions for faster setting of
scanning resolution.

Change Resolution Preset :
Change the list of predefined resolution values.
The current resolution value of the slider is taken.
If the value is already in the list, then it will be removed.
If the value is not in the list, then it will be added.
The number of possible values is restricted.
In older versions of the operating system the changes can only
be ssen after a restart of ScanTek.

Preview : To get a preview image for displaying in the
Preview Window
.
This function can also be start by selecting the menu item

Project/Preview
.

Scan : To start scanning. This function can also be start by selecting
the menu item
Project/Scan
.

Keep Frame Size :
Tag this gadget, if you want to keep the size of the scanned
image constant. Regardless of your changes on the resolution.

Lock Aspect :
This operation is applied after a resize operation of the
scanning frame. It can be used to keep the x/y aspect of the
scanning frame.
Tag this cycle gadget, if you want to influence the shape
of the resized scanning frame.

Possible values:

No: Take the shape of the scanning frame as it is.
X : Take the percentual modification in x direction and apply
it to the y direction of the scanning frame.
Y : Take the percentual modification in y direction and apply
it to the x direction of the scanning frame.

If the new scanning frame is out of bounds, then the modification
is aborted.

CloseGadget : To quit the program.

The following information text fields appear in this window:

```
Width       : Displays the width of scanning frame in the current chosen
              length unit.

Height      : Displays the height of the scanning frame in the current chosen
              length unit.

Size        : Displays the size of the image
```

1.38 Color, Red, Green, Blue and Grey Options Window

```
Color, Red, Green, Blue and Grey Options Window

This window enables you edit the parameters for the Color, Red , Green, Blue
and Grey scanmodes.

The mentioned scanmodes have the same parameters, but they are independent
from another. If you edit the options for the red scanmode, then only this
options are changed.

The following gadgets appear in this window:

Exposure Time : The exposure time or analog brightness adjustment has a
                valid range from at least -18% to +21 % in steps of 3%.
                This range may vary for some scanner models.

Contrast      : The contrast setting has a valid range from at least
                -42% to +49% in steps of 7%.
                This range may vary for some scanner models.

Digital       : For scanners that support digital brightness adjustments
Brightness      this parameter has a valid range from -100% to +100%.


The following parameters are described by quoting from the Microtek
Programmers Reference:

Speed         : "Lower speeds can be used to prevent deterioration of image
                 quality when the <Scan Buffer> is small and the image must
                 be scanned in segments."

Shadow        : "... setting a value other than 0 in this register makes
                 the darkest scanned shades (all raw pixels values equal
                 to or less then the register value) come out as pure black
                 (0) and linearly maps the remaining scanned shades (all
                 raw pixel values greater than the shadow adjustment value
                 and less than the highlight register value) into the range
                 of 0 through 255."

Midtone       : "... setting a value other than 128 in this register causes
                 all raw scanned values from 0 (or the shadow adjustment
                 register value) through the midtone adjustment register
                 value minus one to be mapped linearly into the range of
                 0 through 127, and all raw scanned values from the midtone
```

adjustment value through 255 (or the highlight adjustment register value) to be mapped linearly into the range of 128 through 255."

Highlight : "... setting a value other than 256 in this register makes the lightest scanned shades (all raw pixels values equal to or greater then the register value) come out as pure white (255) and linearly maps the remaining scanned shades (all raw pixel values less than the highlight adjustment value and greater than the shadow register value) into the range of 0 through 255."

Cancel : Throw away changes.

OK : Accept changes.

NOTE: Parameters which are not supported by the scanner or ScanTek are ghosted.

1.39 Black&White Options Window

Black&White Options Window

Black&White : This value defines the threshold for the black&white conversion. All raw scanned values less than this value are black and the other values are treated as white.

Speed : "Lower speeds can be used to prevent deterioration of image quality when the <Scan Buffer> is small and the image must be scanned in segments."

Cancel : Throw away changes.

OK : Accept changes.

1.40 Halftone Options Window

Halftone Options Window

Halftone Pattern : There are at least 12 different build in dither patterns.

Speed : "Lower speeds can be used to prevent deterioration of image quality when the <Scan Buffer> is small and the image must be scanned in segments."

Cancel : Throw away changes.

OK : Accept changes.

1.41 Preview Window

```
                Preview Window

This window is used to show the preview image and to define the scanning frame.
The size of this window can be modified. During preview scanning the dimensions
of the window are taken to calculate the size of the preview image.
The preview will be scanned with a higher resolution, if the preview window is
larger. The aspect ratio of the usable scanner flatbed is considered as well.

The preview image is surrounded by a border frame, that shows the maximum size
of the image.

Within the border frame it is necessary to
                define the scanning frame
                with the mouse.

In the
                Main Control Window
                the current dimensions and memory size of the
image to be scanned are shown.
```

1.42 Define Scanning Frame

```
                Define Scanning Frame

The scanning frame can be defined by using one of two ways.
The first way is to set the parameters of the scanning frame within the

                Adjust Frame Window.
                The other way is to define the scanning frame by using the mouse  ↩
                   within the

                Preview Window
               .


If you move the mouse within the border frame of the preview window, than
the mouse changes its shape to show its current state.

The following mouse shapes (states) are supported:

Definition of a new scanning frame:

 |   Set a complete new scanning frame.
- -  Press the left mouse button, hold it and move the mouse until the
 |   scanning frame is as large as you want it.


Moving of the scanning frame:

 ^
<+>  Press the left mouse button to drag the scanning frame to a new position.
 V
```

If you see another shape of the mouse than it is possible to resize the current scanning frame.
Press the left mouse button to reposition the vertices or edges of the scanning frame.

1.43 Scanner Access Window

Scanner Access Window

This window appears during scanning. It informs about the current status of the scanning process.

Stop : Click to stop or abort the current scanning process. This event can be delayed due to the fact, that the transfer of raw data from the scanner to the <Scan Buffer> can not be interrupted immediately. This may lead to the fact that the current scanning action can not be stopped.

1.44 SCSI Window

SCSI Window

This window must be used to set and to enable the SCSI scanner configuration
.

Device Name : The device name of the used SCSI host adapter.

Common device names:

SCSI host adapter	SCSI device name
A3000 internal SCSI	scsi.device
A2008 Oktagon SCSI	oktagon.device
A1200 SCSI Blizzard	1230scsi.device
GVP with Gururom	omniscsi.device
GVP	gvpscsi.device
Squirrel	squirrelscsi.device

Device ID : The device ID or SCSI ID of the flatbed scanner.
The SCSI <Device ID> must be same as the SCSI ID which is set with the push-indexing or rotary switch on the rear panel or the underside of the scanner. Any ID from 0 through 6 is valid as long as it is not used by any other device on the SCSI bus.

Scan Buffer : The size in kByte of the <Scan Buffer> used for image scanning.
The memory is only allocated during the scanning access.
This memory space must be available in one piece.
As a rule of thumb: The larger the better. But as always in life

there is a physical/logical boundary. Not every SCSI device driver is capable of huge buffer sizes. Some drivers have a limit of 8 MBytes. If the buffer size is beyond this boundary this could lead to a scrambled image or a system lockup.

File Buffer : The size in kByte of the <File Buffer> used for file operations image scanning. The memory is only allocated during the scanning access.
This memory space must be available in one piece.
As a rule of thumb: A value of 100 to 300 kByte is enough.
A larger buffer does not lead to a better performance.

Scan Memory : Defines the type of used memory. This enables you to speed up SCSI performance in same cases.
On certain SCSI host adapters it is necessary to choose the proper memory type for a reliable connection. Test the different opportunities and choose the best.

File Memory : Defines the type of used memory. This enables you to speed up SCSI performance in same cases.
On certain SCSI host adapters it is necessary to choose the proper memory type for a reliable connection. Test the different opportunities and choose the best.

Test Device : Must be used to test the SCSI settings. You have to activate this test to enable the new settings.

Test Results : The results of the <Test Device> will be displayed in this list view.

Cancel : Throw away changes.

OK : Accept changes.

1.45 External Program Window

External Program Window

This window enables you to edit the parameters necessary for launching an external program. The program will be started right after scanning and saving an image.

Executable : This string gadget shows the current filename of the executable program (or what ever can be started with the built in SystemTags).
If you want, that the filename of the scanned image should be inserted in the command then you should insert %s at the appropriate position.

? : Opens a file requester, where you can choose an external program. If you select the external program, then the full path and the filename are valid as executable.

```
                  You may add %s if you like.

Start
Executable      : Tag this gadget, if you want the external program started.

Synchronization : This gadget lets you set the type of execution.

                  Sync   : ScanTek will wait until the launched external
                           program terminates. If a startup error occurs
                           during the execution of the external program
                           a notification requester appears with an error
                           description.

                  Async  : ScanTek does not wait and continues to work
                           without any relations to the launched program.
                           There will be in rare cases a notification
                           requester, since the error information is no
                           more relevant.

                  Test your external program in synchron mode and if this
                  works fine, then you may switch to asynchron mode.

Cancel          : Throw away changes.

OK              : Accept changes.
```

1.46 Max Frame Setting Window

```
Max Frame Setting Window

This window enables you to edit the maximum size of the preview frame.
With this settings you can optimize the preview frame, if your object to scan
does not cover the whole flatbed.
Additionally it is very helpful, to avoid problems with "Illegal scanning
frame coordinate" SCSI Errors.
The scanning frame maximum size can be set in parts of 1/8 inch
Any input is adjusted to the allowed range and to multiples of 1/8 inch.

You should experiment with these values, if you get the SCSI Error requester
"Illegal scanning frame coordinate". In most cases you have to decrement
the Width value.


Width  : The new maximum width of the scanning frame.

Height : The new maximum height of the scanning frame.

Cancel : Throw away changes.

OK     : Accept changes.
```

1.47 Adjust Frame Window

Adjust Frame Window

This window enables you to set the position and size of the scanning frame without using the preview window.

Orig Unit : Defines the measure unit for the origin position of the scanning frame. You can choose between 'inch', 'cm' and 'mm'.

X Start : The x position of the upper left corner of the scanning frame. The unit can be set in Orig Unit. At the left you can see the maximum possible value.

Y Start : The y position of the upper left corner of the scanning frame. The unit can be set in Orig Unit. At the left you can see the maximum possible value.

Dim Unit : Defines the measure unit for the dimensions (width and height) of the scanning frame. You can choose between 'inch', 'cm', 'mm' and 'pixel'.

Width : The width of the scanning frame in the unit specified with Dim Unit. At the left you can see the maximum possible value.

Height : The height of the scanning frame in the unit specified with Dim Unit. At the left you can see the maximum possible value.

Cancel : Throw away changes.

OK : Accept changes.

1.48 Scanning Misc Window

Scanning Misc Window

This window enables you to set several miscellaneous parmeters.

Reverse Colors :
If checked, then the scanner will produce a negative image. This parameter is ghosted if it is not supported by the used scanner model.

Accurate Coordinates :
If checked, then the scanning frame will be sent to the scanner in pixel unit. The scanned image dimensions will correspond with the scanning frame shown in the preview window.

This parameters should be checked for better scanning results.
This parameter is ghosted if it is not supported by the used
scanner.

Use own Black/White Mode :
If checked, then a special black/white scanning mode is used in
black/white scanning. The image is scanned in grey mode and then
converted to black/white.
This parameter should be checked, if you are not statisfied with
the normal black/white scanning.

Reverse BW and Half Tone :
If checked, then the normal black/white and half tone image is
reversed (inverted).

Color Preview :
If checked, then the preview is done in true color.
This parameter is ghosted if the current ScanTek screen is not
a Cybergraphix screen with 15, 16 or 24 bit color depth or your
your scanner does not support onepass color scans.
Remember: Color scanning increases the duration of the preview and
it consumes three times more memory to hold the preview
scan data.

Mustek Preview Correction :
If checked, then a special calculation of the preview and
scanning units will be done.
This parameter should be checked if your preview image in the

Preview Window
appears to be too small.
You should normally see the image that is specified by
the Width and Height of the
Max Frame Setting Window
.

Open on Public Screen :
If checked, then ScanTek tries to open his windows on the current
public screen (normally the Workbench). The public screen must
fulfill the following requirements:

1) More than 16 free color pens available
2) The Screen dimensions must be at last 640x400.
3) You must have OS3.0 or better.

SurfSquirrel Workaround :
If checked, then ScanTek uses a different, incompatible and at
least very slow scanning algorithm.
This algorithm is necessary for using the Surf Squirrel SCSI
host adapter. This workaround does only work for Microtek scanners.
Mustek scanner do not work with Surf Squirrel SCSI host adapter.

If you get a "Scanner Busy" requester you must increase the
SCSIHANGUPTIMER value in the ToolType section of the
ScanTek.info icon.
If you familiar with ToolTypes you can decrease the
SCSIHANGUPTIMER to get a faster scannning process.

```
          Remark: You do not need this for the "classic" squirrel and
                  other SCSI host adapters. As long as they do not show
                  the same failure.
                  The usage of this workaround may lead to errors on
                  normal SCSI host adapters and to a long scanning
                  process.

Use Slide Kit :
          If checked, then the slide kit unit (transparency adapter )
          is used for the current scan and preview process.
          This parameter is ghosted if the transparency adapter is not
          installed or not switched on.


Cancel  : Throw away changes.

OK      : Accept changes.
```

1.49 Look-Up Control Window

```
               Look-Up Control Window

This window enables you to set the parameters necessary for the download
of color look up tables. The current shape of the color look-up curves are
shown in the
               Look-Up Table Window.
               Use Table    : Tag this, if you want to download and use color
              look-up tables (gamma correction table).


Look-Up Type : The type of modification on the current active color
               look-up table.
               The following look-up types are supported:

                  Normal     : The same as no color correction.
                  Gamma      : Gamma correction with input value.
                               Set the gamma correction value in
                               the <Look-Up Input> and use it by
                               clicking on <Apply>.
                  Freestyle  : Modification of each pixel by hand.
                  Step       : Leads to a curve with steps.
                               Set the number of desired steps in
                               the <Look-Up Input> and apply it by
                               clicking on <Apply>.


Look-UpInput : If this field is not ghosted it is used to receive
               input data for the current Look-Up Type.


Apply : This button must be pressed, if a Look-Up Type with additional
        parameter input in Look-Up Input should be applied to the
        actived look-up curve.
```

```
All   : Defines the look-up table for color scanning.
        If <All> is active Red, Green and Blue will be processed with the
        same curve.


Red   : Defines the look-up table for the Red component.
Green : Defines the look-up table for the Green component.
Blue  : Defines the look-up table for the Blue component.

        If one of the above modes is active during a color scan, then Red,
        Green and Blue will be processed with their individual curves.


Grey  : Defines the look-up table for the Grey component.
        Only used, if scanning mode is <Grey>.


Save  : Save the color look-up tables to file.

Load  : Load the color look-up tables from file.

Cancel : Throw away changes.

OK     : Accept changes.
```

1.50 Look-Up Table Window

```
                Look-Up Table Window

This window enables you to watch and set the look-up tables necessary for
the download to the scanner.


    .-----------.255  light  With a look-up curve it is possible to remap the
    |        ./ |            scanned image data. It is possible to lighten or
    |       /   |            darken an image. This kind of technique is very
    |      /    |^     ^     important since every scanner has a specific color
    |     /     ||     |     characteristic. Several scanners tend to scan the
    |    /      ||     |     image slightly too dark with the default settings.
    | --'       |
    |/          |            This deviation depends on the electronical and
    `-----------'0    dark   optical calibration of the scanner hardware.
     0   -->   255           With a color look-up table is is possible to
                             compensate this deviation. The Look-Up Type
    dark -->  light          "Gamma" leads normally to the best results.
                             You should test various gamma values to get
                             the best curve for your scanner.


The look-up table will be sent to the scanner who recalculates his scanned
data by use of this color look-up table.

If the Look-Up Type in the
                Look-Up Control Window
```

```
                is set to
Freestyle than it is possible to manipulate the current look-up curve with
the mouse. You should move the mouse slowly to get a continous curve.

It is a good practice to predefine a curve by using "Normal", "Gamma" or
"Step" and than modify it, if necessary, with "Freestyle".
```

1.51 Execute ARexx Script

```
                Execute ARexx Script

After selecting this parameter you are able to select an
                ARexx
                script that
is executed. Within this ARexx scripts you can use
                ScanTek ARexx commands
                to perform several actions.
```

1.52 ARexx

```
                ARexx

ARexx is very useful with its ability to enable interprogram communication.

In this description only the
                ARexx commands
                are mentioned, that are useful
to access ScanTek.

For a detailed description of ARexx take a look at the "ARexx Manual" that
should be provided with your Amiga documentation.

The current ARexx Port Name is shown in the
                About Window
               .
This port name is built up in the following scheme:

   SCANTEK<NR>    <NR> = integer number = 1..n

<NR> depends on how many ScanTek programs are running simultanously at
the setup of the ScanTek AREXX port.

Caution: Be aware of the fact that the Port Name is in uppercase characters.
```

1.53 ARexx Command List

```
                ARexx Command List

The following ARexx command list shows all commands that ScanTek supports.
The ARexx commands consists of a Cmd Name and up to several Cmd Parameter.
```

The Cmd Name and the Cmd Parameter are checked for lexical and semantic syntax.

You have to provide the library "rexxsyslib.library", which is part of a standard ARexx installation. You must also have started the program RexxMast if you want to use ARexx.

No error encountered during syntax and execution of command:

Systemvariable "rc" is set to 0
Systemvariable "Result" is set to a certain value if neccessary.

Error encountered during syntax and execution of command:

Systemvariable "rc" is set to a value greater than 100
Systemvariable "Result" is not set.
Systemvariable "SCANTEK.LASTERROR" contains an error string

You can also take a look at the
ARexx Sample Script
that
is described here and that is located in the Rexx Directory of your ScanTek directory.

If you have created a ScanTek related ARexx script then feel free to send it to
me
. It may be very useful for other people as well.
If you have any suggestions for an ARexx script then send it to me.

Cmd Name	Cmd Parameter
SCAN	none Scan an image with the current settings.
PREVIEW	none Scan the preview picture and display it in the Preview Window .
FRAMESIZE	Orig_unit X-origin Y-origin Dim_unit Width Height Keep_size Set the position and size of the scanning frame. This scanning frame defines the contents of a scanned image. Orig_unit: ("INCH", "CM", "MM") X-origin: Float value that is related to the Orig_unit Y-origin: Float value that is related to the Orig_unit Dim_unit: ("INCH", "CM", "MM", "PIXEL") Width: Float value that is related to the Dim_unit Height: Float value that is related to the Dim_unit

```
                Keep_size: ("KEEP_SIZE", "IGNORE_SIZE")

                See
                 Adjust Frame
                 and
                 Main Control
                 for details.


FRAMEFULL       none
                Set the scanning frame to the maximum size.


SCANOPT         Scan_mode Resolution Use_LuT Use_ext_prog Image_filename
                Set the global parameters for the next scan.

                Scan_mode:      ("BW", "HT", "COLOR", "RED", "GREEN", "BLUE", " ↩
                   GREY")
                Resolution:     Integer dpi value
                Use_Lut:        ("NO_LUT", "USE_LUT")
                Use_ext_prog:   ("NO_EXT_PROG", "USE_EXT_PROG")
                Image_filename: (Device:Path/Name)

                See
                 Main Control
                 for details.


COLOROPT        Exptime Contrast Brightness Speed Shadow Midtone Highlight
REDOPT          Exptime Contrast Brightness Speed Shadow Midtone Highlight
GREENOPT        Exptime Contrast Brightness Speed Shadow Midtone Highlight
BLUEOPT         Exptime Contrast Brightness Speed Shadow Midtone Highlight
GREYOPT         Exptime Contrast Brightness Speed Shadow Midtone Highlight

                All parameters are integer values. The supported ranges can be  ↩
                   seen
                in the
                 Color Options
                .


BWOPT           BW_threshold Speed

                All parameters are integer values. The supported ranges can be  ↩
                   seen
                in the
                 Black&White Options
                .


HTOPT           Halftone_pattern Speed

                All parameters are integer values. The supported ranges can be  ↩
                   seen
                in the
                 Halftone Options
                .
```

```
MISCOPT       Reverse_BW Use_own_BW Reverse_color

              Set of some miscellaneous values.

              Reverse_BW:    ("NO_REV_BW", "USE_REV_BW")
              Use_own_BW:    ("NO_OWN_BW", "USE_OWN_BW")
              Reverse_color: ("NO_REV_COLOR", "USE_REV_COLOR")

              See
               Misc Options
               for details.


GAMMALUT      Lookup_table Gammavalue
STEPLUT       Lookup_table Stepcount
NORMLUT       Lookup_table
              Set shape of Look-Up Curves.

              Lookup_table: ("ALL", "RED", "GREEN", "BLUE", "GREY")
              Gammavalue:   Gamma float value
              Stepcount:    Integer step count value

              See
               Look-Up Control
               for details.


LOADLUT       Lookup_table_filename
SAVELUT       Lookup_table_filename
              Load and save a set of Look-Up Curves (Tables).

              Lookup_table_filename: (Device:Path/Name) of lookup-table

              See
               Look-Up Control
               for details.


GETIMAGENAME  none

              Return value can be found in the specific <Result> variable.
              --> Result: (Device:Path/Name) of current scanned picture


LOADCONFIG    Config_filename
SAVECONFIG    Config_filename
              Load and save a full ScanTek configuration.

              Config_filename: (Device:Path/Name) of config file
```

1.54 ARexx Sample Script

ARexx Sample Script

```
/*
 * $VER: ScanTek.strx 1.0 (16.04.97) Waldemar Zöhner
 *
 * Requirements: ScanTek V3.0 or higher
 *
 * Description:  This is a sample ARexx script that shows some of the
 *               ScanTek ARexx commands.
 *
 * Uses:         RC contains the Errorlevel of each ScanTek command
 *               SCANTEK.LASTERROR contains the related error string
 *               RESULT contains the result of some ScanTek command
 *
 */

OPTIONS FAILAT 100

OPTIONS RESULTS

/* This is the primary ScanTek ARexx port */
ADDRESS SCANTEK1


/* Scan the preview picture and display it in the Preview Window */
/* Template: PREVIEW                                             */
PREVIEW

/* Save the current ScanTek configuration                         */
/* In this example it is used because it chages almost everything */
/* Template SAVECONFIG Config_filename                            */
SAVECONFIG "T:ST_Sample.cfg"


/* Set Color Options                                                                  ↩
   */
/* Template: COLOROPT Exptime Contrast Brightness Speed Shadow Midtone Highlight  ↩
   */
COLOROPT   0 0 0 7 0 128 255


/* Set Black/White Options                              */
/* Not needed for a color scan, but this is an example */
/* Template: BWOPT BW_threshold Speed                   */
BWOPT 128 7


/* Set Half Tone Pattern Options                        */
/* Not needed for a color scan, but this is an example */
/* Template: HTOPT Halftone_pattern Speed               */
HTOPT 2 7


/* Set Frame Size                                                    */
/* Template : FRAMESIZE Orig_unit X-origin Y-origin Dim_unit Width Height  */
FRAMESIZE  INCH 0.5 1.0 PIXEL 600 400 KEEP_SIZE
/* This command sets the scanning frame to the starting point (0.5|1.0)    */
```

```
/* inch and the width and height (600|400) Pixel                          */
/* KEEP_SIZE is usefull if you want preserve the dimension of the scanning */
/* frame. Regardless what resolution you choose ScanTek tries to keep the  */
/* size constant.                                                          */


/* Set the global parameters for the next scan                                */
/* Template : SCANOPT Scan_mode Resolution Use_LuT Use_ext_prog Image_filename */
SCANOPT color 100 no_lut use_ext_prog "Work:ST_Sample.iff"


/* Start the scan of an image with the current settings */
/* This is the most important ScanTek ARexx command    */
/* Template : SCAN                                     */
SCAN


/* Get the (Device:Path/Name) of the last scanned image */
/* Template : GETIMAGENAME                              */
GETIMAGENAME
/* The filename is returned in the variable RESULT      */
IF RC > 0
 THEN SAY SCANTEK.LASTERROR
 ELSE SAY 'GETIMAGENAME Result is 'RESULT


/* Load a saved ScanTek configuration                          */
/* In this example it is used to udo all operations above here */
/* Template LOADCONFIG Config_filename                         */
LOADCONFIG "T:ST_Sample.cfg"


EXIT
```

1.55 Localization

```
                Localization

ScanTek is ready to be localized for different languages.
The default language is english but different languages are available.

If your language is not supported then why not translate ScanTek strings
to your language. Send
                me
                an email and you get all the information that
is needed to translate.

Localization requires Workbench 2.1 or better.
```

1.56 Registration

Registration

ScanTek is shareware.

You have tested ScanTek and want to register. The registered version
offers you the following advantage:

 · no more black lines in the scanned images

 · the maximum size of the preview is not restricted

The shareware fee is notified in the file "OrderForm".
Registered users receive a personalized keyfile which removes the
black lines.

Edit the file "OrderForm" or "Bestellformular", answer the questions,
print it out and sign it. Put it together with the registration fee
in an envelope and send it to
me
.

The keyfile will be sent to you via email or on a floppy disk.

1.57 Support

Support

You can visit the ScanTek WebSite to get the latest version and
related links to ScanTek:

URL: http://www.users.odn.de/~odn05111/scantek.html

--> Caution: case sensitive string

Every major release will be uploaded to the AmiNet.

The Xantilon BBS (Nürnberg, Germany) is offline. So there is no more
a BBS support available.

1.58 Tested Systems

Tested Systems

The following combinations have been reported to work:

Scanner model	Amiga	SCSI host device	annotation
Highscreen flatbed IIs	A4000	oktagon 2008 V6.10	

Mustek MFS 6000CX	A4000	oktagon 2008 V6.10	"Reselection" must be switched off
Mustek Paragon MFS 12000 SP	A4000	oktagon 2008 V6.10	"Reselection" must be switched off
Mustek ScanExpress MFS 1200 SP	A4000	oktagon 2008 V6.10	restricted support
Microtek ScanMaker 330	A4000	oktagon 2008 V6.10	very slow on the Oktagon
Microtek ScanMaker 636	A4000	oktagon 2008 V6.10	

1.59 Trouble Shooting

Trouble Shooting

If something goes wrong consider these golden rules:

- The whole system does not boot.
  -> Disable the SCSI parameter "Reselection" on your SCSI host adapter for your scanner.

- My scanner model is not recognized but it works!
  -> Send a
  bug report
  of a session with a preview and a color scan to

  me
  . I will examine this and modify the detection algorithm.

- During startup of ScanTek there opens a ScanTek SCSI Error requester.
  -> Switch on your scanner and wait for the end of the scanner selftest.
  -> Set the "SCSI Device Name" to the name of your SCSI device.
  The device name is case sensitive. So do not fiddle around with lower and upper case.

SCSI host adapter	SCSI device name
A3000 internal SCSI	scsi.device
A2008 Oktagon SCSI	oktagon.device
A1200 SCSI Blizzard	1230scsi.device
GVP with Gururom	omniscsi.device
GVP	gvpscsi.device
Squirrel	squirrelscsi.device
Surf Squirrel	squirrelscsi.device

This list is only a hint for you. You should take a look into the documentation of your SCSI host adapter for the real name.

```
   Caution: The Amiga 4000 and Amiga 1200 have also a scsi.device
            but this is a trick, because it is an emulation for the
            internal IDE port. It is not a SCSI host adapter.
            So you cannot use it for your scanner.

· The scanned image is scrambled.
  -> Check the
              SCSI settings
              in ScanTek and click the <Test Device>-Button
     for further information ;-)
     Experiment with the settings of the
              memory types and buffer sizes.
                    Some SCSI host adapter are not compatible with "ANY" memory ↩
                        type.
     They even crash the whole system.
     The required settings for the Memory Type can be found in the manual of
     the SCSI host adapter.

· The scanner is not ready (the READY lamp is blinking).
  -> Wait until the READY lamp is on or you have to reset the scanner by
     switching it off and on.

· The scanner may not be mounted, if you switch it on after the AMIGA
  has booted.
  -> Reboot the AMIGA or remount the scanner with an appropriate tool.

· During scanner operation there is a SCSI error.
  -> An SCSI error will be generated by the SCSI device handler. It denotes
     an error on the lower protocol layer. In most cases, there is an
     invalid SCSI bus termination, which will lead to this failure.
     The SCSI bus must be terminated on both ends, either akive or passive.
     See the SCSI host adapter manual for further information about SCSI
     bus termination.
  -> Old version of Oktapussy may lead to SCSI errors and abort scanning
     attempts. Use at least OktaPussy 1.9.
  -> The FastlaneZ3 SCSI host adapter (z3scsi.device version 8.5) does
     not work with scanners. It trashes SCSI data bytes.

· The SCSI bus locks up during the initialization phase of a preview or
  scan attempt.
  -> You are using the Surf Squirrel SCSI host adapter. Activate the
     gadget "Prevent SCSI Init HangUp" in the
              Scanning Misc Window.
                 -> If you get a "Scanner Busy" requester, then you must  ↩
                    increase the
     SCSIHANGUPTIMER value in the ToolType section of the ScanTek.info icon.

· The SCSI bus locks up during the scanner access.
  -> You may check your termination on the SCSI bus, since the scanner
     is not terminated internally. You may have to connect an external
     SCSI termination plug as well as terminate the SCSI bus correctly.
     The SCSI bus must be terminated on both ends. These is necessary,
     if you have problems with SCSI errors.
  -> You may have to change the order of the discrete SCSI components.

· The scanned image is full of black lines.
```

-> You are using the unregistered test version of ScanTek.
Get registered and this black lines are gone.

· There is a kind of pattern over the scanned image and the scanned image does not look good.
-> This may be caused by a moire effect.
You have possibly scanned a raster print. Each printed paper has its own dpi rate. This dpi rate overlaps with the scanners dpi rate and leads to the mentioned moire effect.
The only solution is to increase the scanner resolution to a value, that is more than twice as high as the dpi rate of the print.
As a rule of thumb the dpi rate of rastered prints goes from 100 to 150 dpi. If you get this moire effect you should choose a resolution of 200 to 300 dpi.

· There is a SCSI error requester saying "Illegal scanning frame coordinate"
-> Decrease the Width or Height value of the
maximum frame size.
· The scanned images have some kind of ghost pictures.
-> Any virtual memory manager software like VMM or GigaMem could scramble the scanned data and kills performance.
DO NOT USE VMM OR GIGAMEM with ScanTek.
There is no need to use these tools with ScanTek.
ScanTek uses his own virtual memory facilities to scan large images.

· The color of the scanned images are not identical to the original.
-> You may activate or modify the current
Look-Up Table.
· The external programme does not find the saved image.
-> You may change the directory path PROGDIR: in the
save requester
to something else.

· The preview image is cutted on the right and/or bottom.
-> Set the width and height parameters in the
Max Frame Setting Window
to the largest possible value.
-> You are using a Mustek scanner with more than 300(600) dpi.
You may tag the "Mustek Preview Correction" in the

Scanning Misc Window
.
This should enable you to see the whole preview area.

· Large images have corrupt image data, even if the beginning of the image file is correct for a couple of lines.
-> Maybe you are using a Mustek ScanExpress 12000SP or the identical Mustek Paragon 1200IIISP.
This scanner models do not support segment scanning in the original way.
-> A correct scanned image is only possible if the scanned image data fits into the scanning buffer (SCSI parameter window).
To reduce the risk of corrupt data extend the size of the <Scan Buffer> as large as possible.
-> Color Scanning for this model is only successful for 150, 300, 600 and 1200 dpi.

- FastlaneZ3 SCSI host adapter (z3scsi.device v8.5) does not work with scanners. FastlaneZ3 trashes data bytes. No solution at the moment.

- Old version of Oktapussy may lead to SCSI errors and abort scanning attempts. Use at least OktaPussy 1.9.

- Check if there is an interference with other programs. Especially programs like MultiCX, MCX or other system hacks. Switch them off and try again.

If nothing of the above mentioned first aid methods lead to a conclusion, then you may give me a
bug report
.

1.60 Frequently Asked Questions

Frequently Asked Questions

1.61 Bug reports

Bug reports

If you find something strange in the behaviour of ScanTek decide for yourself, whether it is a bug or a feature.

If you think it is a bug, there is a way to provide additional information. You must tell ScanTek to generate a LOG (protocol) file.

From CLI: ScanTek debug
From Workbench: Set the TOOLTYPE DEBUG=ON

With this startup value ScanTek protocols the actions during one session. The protocol of this session is written to a text file called 'ScanTek.log', that contains important information about several scanner operations.

The more information you can provide the greater is the chance of a solution.

Finally the bug report should contain the following items:

- The protocol file 'ScanTek.log'.
  The 'ScanTek.log' should contain the data of a scanning session where the bug has occurred. At least you have to start a preview and a color scan during this recorded session.

- A description of the performed actions and the recognized response from the system.

- Your AMIGA configuration: Model, RAM, OS-Version, accelerator board, graphic card, SCSI host adapter and SCSI

components

- The exact scanner model type

Send this bug report to
me
.

Any suggestions on ScanTek, this guide or other things of interest
are welcome.

1.62 Copyrights

Copyrights

1.63 Credits

Credits

The author says thank you to the following persons and companies for
their help and support.

- Arndt van der Molen for beta testing and constructive criticism
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· HiSoft for Surf Squirrel SCSI host adapter

· Nova Design for ImageFX 2.6

· Haage & Partner for arteffect 2

· Troy Sun (Mustek Development) for support

1.64 Author

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The private-email address has the highest priority.
Use the office-email addresse only, if you get no response
within 5 days, please.

www:
http://www.users.odn.de/~odn05111/scantek.html

For faster access and faster response use email.

1.65 History

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History

V1.0  30 Nov. 1995

  - first public release


V1.1  17 Dec. 1995

  - detection of Microtek scanner via SCSI inquiry enhanced
  - stepping of resolution slider adapted to expanded base resolution
  - calculation of scanning frame size data modified


V1.2   3 Jan. 1996

  - Debug output data revised and enhanced
  - Max Frame Setting setting introduced
  - Start of external program possible
  - Window positions are remembered and saved
  - Configuration file enhanced


V1.3  25 Feb. 1996

  - Detection of new ScanMaker E3 Flatbed scanner implemented
  - Special adaption for E3 to use 8.5 * 13.5 inch scanning frame
    (due to E3 inquiry data the max frame size is 8.5 * 11.69 inch)
  - No start of the external program, if the scanning process is aborted
  - Higher dpi rates for ScanMaker 35t (slide scanner) possible
    Preview image schould look better now.
  - "Main Control" window and gadgets modified
  - Debug filename "ScanTek.log" can be overriden through CLI or Tooltype


V2.0  30 Apr. 1996

  - Preview in color mode with proper options values
  - Use of expanded Contrast and Exposure Time selections on certain scanners
  - X and Y Aspect Ratio in scanned color images is now correct
  - ScanMaker E3 does not support undocumentated red, gree and blue scanning
  - Lookup Table command supported (Gamma Correction on certain scanner
    possible)
  - Scanning Frame Setting is now more intuitive
  - Reverse image scanning supported (only on certain scanners possible)
  - Accurate scanning frame definition. Scanning frame is now more precise.


V2.1  5 July 1996

  - Preview now fully supported for Mustek 6000CX
  - Special adaption for Mustek 6000CX to use 8.5 * 14 inch scanning frame
```

V2.2 26 July 1996

- Enhanced support for Mustek scanners
  "Exposure Time" and "Contrast" parameters are now correct
- Gamma value "All" now works on threepass scanner
- Alternative Black/White scanning mode

V2.3 6 Sept. 1996

- Color Preview on Cybergraphix screens in true color mode (15, 16 or 24 bit)
  for onepass flatbed scanners
- Grey/Red/Green/Blue Preview on Cybergraphix screens in true color mode
  (15, 16 or 24 bit) for threepass and onepass flatbed scanners
- Change and recall of predefined resolution values

V2.4 10 Sept. 1996

- Support of Mustek SCSI one pass color scanners in color mode and
  parameter ranges.
- ScanTek can now open its GUI windows on the current public screen.

V2.5 5 Oct. 1996

- Workaround to handle strange color mode behaviour of Mustek
  one pass scanners
- Reverse scanning in black and white mode introduced

V2.6 30 Oct. 1996

- Full support of Mustek one pass scanners
- Recognition of Mustek scanners enhanced

V2.7 6 Dec. 1996

- Recognition and handling of new Mustek scanners enhanced
- Recognition of Microtek ScanMaker E6 adapted

V2.8 11 Jan. 1997

- New icons for ScanTek
- Recognition and handling of new Mustek scanners enhanced
- Minior bug fixes
- Introduction of the ScanTek Support WebSite

V2.9 9 Feb. 1997

- Redesign of the Look-Up Table related window

V2.10 26 Mar. 1997

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  - Full size preview on 400 dpi Mustek scanners adjustable


V3.0  16 Apr. 1997

  - AREXX support
  - XBMI-chunk introduced to store DPI (dots per inch) information in
    IFF File
  - Handling of Microtek ScanMaker E6 enhanced
  - Bugfixes: "Exposure Time" and "Contrast" parameters for Microtek
              and some Mustek scanner models are now correct.
              This bug could lead to images that where to light.
              Grey preview of color image now work with all specified
              settings.


V3.1  19 May 1997

  - Recognition of Highscreen PerfectScan (600dpi) introduced
  - Recognition of Highscreen RealScan (300dpi) introduced
  - Activation of newly opened windows works now correct


V3.2  8 June 1997

  - Workaround for surfsquirrel.device to avoid SCSI bus hangup
  - AREXX scripts: Load scanned pictures into
                   ImageFX:   ST2ImageFX.strx
                   ArtEffect: ST2ArtEffect.strx


V3.3  1 August 1997

  - Detection of ScanMaker 35t+ introduced
  - Faster preview scanning process on some scanner models
  - "Accurate Coordinates" support for ScanMaker E6 and compatible


V3.4  21 October 1997

  - Support of Transparency Adapter (Slide Kit Unit)
  - Prevent system lockup during startup on Dataflyer SCSI+ host
    adapter


V3.5  4 December 1997

  - Rework of window activation procedures
  - Rework of font sentivity
  - PROGDIR: usage reduced
  - Support of multiple SCSI host adapters in one system


V3.6  21 December 1997

  - The Mustek MFS-12000SP is now supported
```

- Rework of ASL requester handling
- PROGDIR: usage reduced

V3.7 30 December 1997

- Detection of Mustek scanners enhanced
  Erkennung von Mustek Scannern weiterentwickelt

- German Documentation
  Deutsche Anleitung

V3.8 23 February 1997

- Bugfix of Mustek color scan process (Scrambled image data in segment scanning)

- Support of Transparency Adapter (Slide Kit Unit) enhanced

- First attempt to support the new european Mustek ScanExpress 12000SP and international Mustek Paragon 1200 III SP. These scanners are assumed to be identical. Due to missing Mustek programming documentation for the new firmware there is only a limited support of these scanner models:
  ... Gray scale scanning is supported.
  ... Color scanning is incorrect and is therefore unusable
  These scanner models are not recommended for the use with ScanTek. If there will be a Mustek programming documentation some time in the future than a second attempt for the support will be made.

V3.9 15 March 1998

- Better support for Mustek ScanExpress 12000SP and the identical international Mustek Paragon 1200 III SP.
  This scanner model is not recommended for ScanTek.
  Preview works now also on small preview windows.
  Color scanning is only successful at resolutions of 150, 300, 600 and 1200 dpi.
  Only small scanning images are successful. The automatic segment scanning is not possible on this scanner model.

- The new Microtek model ScanMaker E3PLUS is in the testing phase. (see Overview for details)

- Microtek V300, Microtek 330, Microtek 630
  These scanner models are due to the documentation related to the Microtek E3PLUS. They should work in an equivalent way.

V3.10 17 April 1998

- First attempt to support the new Microtek 330 scanner model. The scanning speed depends in a large degree on the SCSI host adapter. This scanner model may lead to hang ups of the SCSI bus (computer system) on critical SCSI devices.

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V3.11 24 May 1998

  - Support of the new Highscreen HighScan II (Microtek) and
    the new version of the Microtek E3Plus


V4.0 19 June 1998

  - Localization of ScanTek. Supported locales: english, deutsch, dansk

  - New email address: scantek@gmx.de, wzoehner@gmx.de


V4.1 29 August 1998

  - Full support for Microtek 630, 330 and new Highscan II models
    - Color LookUp tables now supported
    - Faster preview for new generation of ScanMaker scanners

  - ScanTek support homepage has been moved to
      http://www.users.odn.de/~odn05111/scantek.html

  - Enhanced screen mode handling on program startup


V4.2  9 September 1998

  - Locale catalogs now updated correctly

  - No color failures if the LookUp tables are deactivted for
    Microtek 630, 330 and new Highscan II models


V4.3  6 December 1998

  - Support of the transparency adapter and control of the scanning and
    transparency medium lamp for Microtek 63x, 33x and compatible
    Highscreen HighScan scanner models
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1.66 Future

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Future

  · Optimized performance speed
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1.67 Miscellaneous

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Miscellaneous

  · The ScanMaker E3 firmware (28-Feb-1996) reports the scanning frame
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as 8.5 * 11.69 inch.
But the maximum scanning frame is at least 8.5 * 13.5 inch wide.

- The ScanMaker E3 firmware (03-May-1996) does not support the undocumented red, green and blue scanning modes. These scanning modes are from now on disabled for this scanner model.

- The Mustek 6000CX firmware reports a smaller scanning frame than available.
But the maximum scanning frame is at least 8.5 * 14 inch wide.