ScanTek

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ScanTek

1.1 ScanTek Manual

```
               ScanTek 3.11

            A scanner driver for
       Microtek, Highscreen and Mustek
              Flatbed Scanner


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          Get It, Feel It, Love It


   Overview              The features
   What's new            What's new
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```

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, Highscreen HighScan

   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 E3PLUS
           This new scanner model can be used in black&white, grey scale
           and color scanning.
           The download of color lookup tables (gamma curves) does not
           work at the moment.

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

   The following scanner models are recognized but not fully supported:
       Mustek ScanExpress 12000SP
       Mustek Paragon 1200IIISP (caution: III -> version 3)
           Color scanning is only sucessfull 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 V3.11

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

New for ScanTek V3.10

  · 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.

New for ScanTek V3.9

  · 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.

New for ScanTek V3.8

  · 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.

New for ScanTek V3.7

  · Detection of Mustek scanners enhanced
    Erkennung von Mustek Scannern weiterentwickelt
  · German Documentation
    Deutsche Anleitung

New for ScanTek V3.6

  · The Mustek MFS-12000SP is now supported
  · Rework of ASL requester handling
  · PROGDIR: usage reduced

New for ScanTek V3.5

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

New for ScanTek V3.4

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

New for ScanTek V3.3

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

New for ScanTek V3.2

  · Workaround for surfsquirrel.device to avoid SCSI bus hangup.
    Activation of this workaround in the Scanning Misc Window.
  · ARexx scripts: Load scanned pictures into
                     ImageFX: ST2ImageFX.strx
                     ArtEffect: ST2ArtEffect.strx

New for ScanTek V3.1

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

New for ScanTek V3.0

  · 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.

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/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
```

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
```

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 | Cybergraphix, onepass and color
                  |  mode           | 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
|
|-- 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/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!
```

1.27 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.
```

1.28 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.
```

1.29 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.
```

1.30 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.
```

1.31 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.
```

1.32 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).
```

1.33   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'.
```

1.34   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
```

1.35   Main Control Window

```
Main Control Window

The following gadgets appear in this window:

Scan Mode  : The supported scanning modes.

Options    : Dependent on the scan mode there are several scanning options.
             Black&White
             Halftone
             Color
             Red
             Green
             Blue
             Grey
```

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
```

1.36   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
```

```
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.
```

1.40   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.
```

1.41 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.
```

1.42 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.
```

1.43 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.

1.44   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.

1.45   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'.

  XOffset     : 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.

  YOffset     : 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.
```

1.46 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.
```

1.47   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.
```
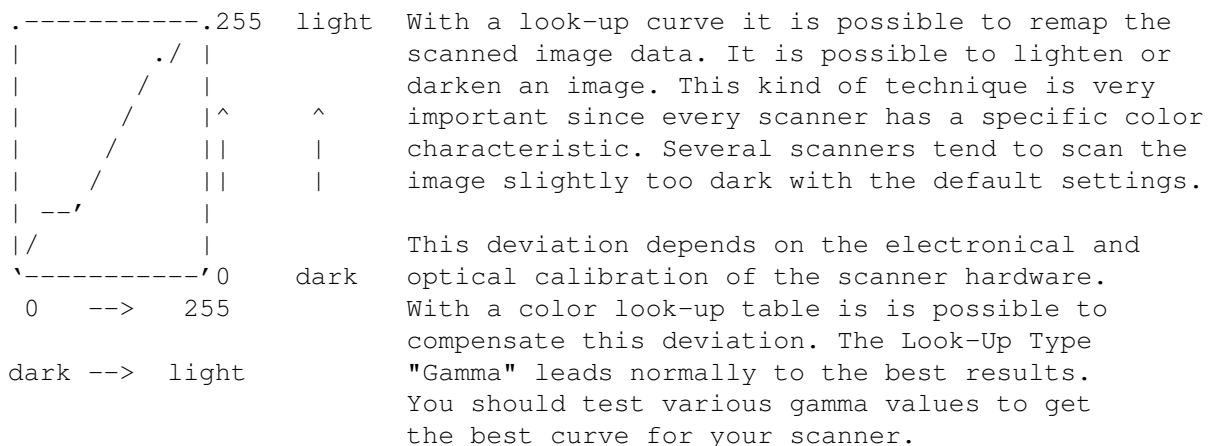
1.48 Look-Up Table Window

```
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".
```

1.49 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.

1.50   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.

1.51   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
```

1.52 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
```

1.53 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.

1.54 Support

Support

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

URL: http://www.nuernberg.netsurf.de/User/wzoehner/scantek.html

--> Caution: Take care of the capital U in User ;-)

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.

1.55 Tested Systems

Tested Systems

The following combinations have been reported to work:

```
                  .         .                 .
 Scanner model  | Amiga | SCSI host device   | annotation
================+=======+====================+===========================
 Highscreen     | A4000 | oktagon 2008 V6.10 |
 flatbed IIs    |       |                    |
----------------|-------|--------------------|---------------------------
 Mustek         | A4000 | oktagon 2008 V6.10 | "Reselection" must be
 MFS 6000CX     |       |                    | switched off
----------------|-------|--------------------|---------------------------
 Mustek Paragon | A4000 | oktagon 2008 V6.10 | "Reselection" must be
 MFS 12000 SP   |       |                    | switched off
----------------|-------|--------------------|---------------------------
 Mustek         |       |                    |
 ScanExpress    | A4000 | oktagon 2008 V6.10 | restricted support
 MFS 1200 SP    |       |                    |
                |       |                    |
```

1.56   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.

· 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.



  · 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 .
```

1.57 Frequently Asked Questions

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Frequently Asked Questions
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1.58 Bug reports

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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.

1.59 Copyrights

Copyrights

The program ScanTek is © Copyright 1995/96/97 Waldemar Zöhner. The archive
may be freely distributed as long as it remains unchanged.

The keyfile for the registered user must be installed on one computer only
and it is not allowed to spread it to others. With your signature on the
orderform and/or the donation of the registration fee you accept these
conditions.

The user interface of the program was designed with GadToolsBox
© Copyright 1991–1993 Jaba Development.

Parts of the program are © Copyright 1991–1993 Jaba Development.

1.60 Credits

Credits

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their help and support.

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- Sven Loeb for Mustek ScanExpress 12000SP

- Philip A. Vedovatti for his MagicWB and NewIcon set for ScanTek

- Beate Kaspar (... wofür auch immer ...)

- All registered users

- Jaba Development for GadToolsBox

- »»»»~Several Icons by Martin Huttenloher ««««

- Microtek, Düsseldorf for the programmers reference

- SAS Institute for their C-Compiler 6.55 and at least no support

- HiSoft for Surf Squirrel SCSI host adapter

- Nova Design for ImageFX 2.6

- Haage & Partner for arteffect 2

- Troy Sun (Mustek Development) for support

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```
For faster access and faster response use email.
```

1.62 History

```
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

   – 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.

 V3.11 24 May 1998

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

1.63 Future

Future

 · Optimized performance speed
 · Localization for different languages

1.64 Miscellaneous

Miscellaneous

 · The ScanMaker E3 firmware (28-Feb-1996) reports the scanning frame
   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.