ScanTrax

COLLABORATORS			
	TITLE : ScanTrax		
ACTION	*NAME*	*DATE*	*SIGNATURE*
WRITTEN BY		April 18, 2022	

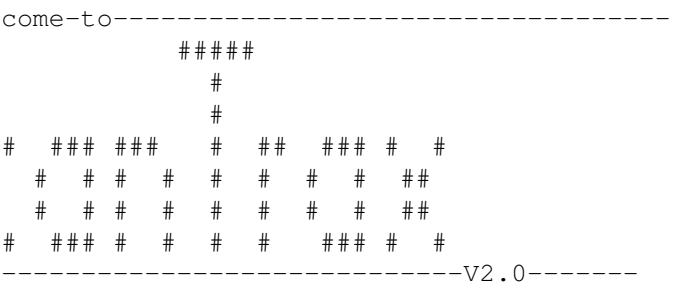
REVISION HISTORY			
NUMBER	DATE	DESCRIPTION	NAME

Contents

Chapter 1

ScanTrax

1.1 ScanTrax 2.0 ©1997/98 Klaus Krause.



Program Copyright ©1997/98 Klaus Krause.

ScanTrax is a scanner driver for the Amiga personal computer.

Send any suggestions and bug reports to ScanTrax@gmx.net

1.2 Copyright:

Copyright:

Shareware mean for this program:

If the user should be pleased with the program,
he pays the ShareWare-Charge to the author.

Please do understand that this version is only
a demonstration version even in the unregistered form,
cause most people don't register a full functional version.

The following is to be considered fundamentally:
It is not allowed to modify the program or the documentation.
To add other files into the original archive of ScanTrax is not allowed.

The author undertakes no liability for damages or mistakes that may be
caused by this program.

It is not guaranteed, that this program will work on all Amiga computers,
all scanners and SCSI adapters.

The author reserves the right for itself, to make basic changes to
the program and the documentation.

1.3 Features:

Features:

* Support for Hewlett-Packard flatbed scanners with SCSI-interface.

* Support for Epson flatbed scanners with SCSI-interface.

* Picturesize is independent from the amount of free memory.

* Supports five graphic formats...

```
    Format                                      Compression
    PNG       (Personal-Network-Graphics)       adjustable
    JPEG      (Joint Picture Experts Group)     adjustable
    TARGA                                       no
    IFF-DEEP  (DEEP pixels)                     no
    IFF-ILBM  (InterLeavedBitMap)               switchable

*   Color is stored in 24bit.
    Black/white or greyscale pictures can be stored in 8 or 24bit.

*   DPI information is stored in: PiNG, JPEG, IFF-DEEP and IFF-ILBM pictures.

*   ARexx port.

*   Commodity.

*   Preview in color or greyscale.

*   CyberGraphX support.

*   PPC support for Phase5 PowerUP boards.

*   Brightness, contrast, color saturation, gamma and sharpness are free  ↩
    adjustable.

*   Localized (english, german).

*   Programming language is 100% C.

*   Released under the terms of shareware. (Unregistered version creates black- ↩
    lines)
```

1.4 System requirements:

```
System requirements:



Scanner
 Hewlett-Packard ScanJet Series: IIc, IIcx, 3p, 4c, 3c, 4p, 5p, 6100C
 Epson Scanner GT Series: GT8500, GT9000, ...


SCSI Interface
 The program was tested with the following host adapters:
  GVP series II gvpscsi.device(Version 4.5)
  A3000/4000T scsi. device
  FastLaneZ3 z3scsi.device(Version 5.1034) Version 8.5 does not work!
  Blizzard 1230 IV 1230scsi.device(Version 8.2)
  PowerUP-board cybppc.device(Version 44.38)


Operating system
 Amiga OS3.0 or higher.
```

RAM
 2 MB of free memory.

Hard disk
 For a reasonable operation, at least 10 MB should be available.

CPU
 Motorola 68020 or higher.

Computer
 Every Amigas whom fill the upper criterias.

Graphic card
 For a reasonable operation, a graphic card with CyberGraphX is required!
 (ScanTrax can also be used without a graphic card,
 but with reduced preview image quality.)

1.5 ToolTypes:

ToolTypes:

1. Commodity
2. SCSI-Interface
3. Programspecific

1.6 ToolTypes/Commodity:

ToolTypes/Commodity:

CX_POPUP
 Example: CX_POPUP=YES/NO

 At the start of ScanTrax, this ToolType control whether ScanTrax remains in the background.
 The GUI of ScanTrax does not appear only if 'NO' is indicated as a argument.

CX_PRIORITY
 Example: CX_PRIORITY=0

```
 ScanTrax runs as a commodity with the priority you have defined here.
 If this ToolType was not defined the default value '0' is used.

CX_QUITKEY
 Example: CX_QUITKEY=ctrl q

 With this key you can quit ScanTrax.

CX_POPKEY
 Example: CX_POPKEY=ctrl s

 Press this key and ScanTrax will display his GUI.

CX_QUICKSCANKEY
 Example: CX_QUICKSCANKEY=F10

 Press this key and ScanTrax can execute the following actions:
  Make a preview scan; a final scan; a user confirmed normal scan; popup the GUI;
  Action as a result of this key can be defined in the
  program-preferences under 'QuickScan'.
 This key has the same functionality as the 'green pushbutton' on HP5p scanners.

DONOTWAIT
 Example: DONOTWAIT

 Commodities are placed normally in the startup-drawer on Workbench.
 From there, all placed programs where started during the boot-process.
 If the codeword 'DONOTWAIT' is indicated, the Workbench does not wait,
 until the program has ended.
```

1.7 ToolTypes/SCSI-Interface:

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ToolTypes/SCSI-Interface:




SCSI_DEVICE
 Example: SCSI_DEVICE=scsi.device

 Define the device name of your SCSI adapter here.
 FastLaneZ3   : z3scsi.device
 Blizzard1230 : 1230scsi.device
 GVP Series II: gvpscsi.device
 PowerUP board: cybppc.device


SCSI_UNIT
 Example: SCSI_UNIT=AUTO or a number between 0 and 7.

 Enter 'AUTO' for automatic scanner-unit search on your controller or
 enter your scanner-unit number direct. Valid numbers are 0 to 7.

SCSI_LUN
 Example: SCSI_LUN=0
```

```
 Since the scanner forms only always a logical-unit, the default value is '0'.
 (This ToolType is not urgently required.)

SCSI_BOARD
 Example: SCSI_BOARD=0

 If several SCSI adapters are fit in the system, the adapter can be selected here.
 (This ToolType is not urgently required.)



Special handshake ToolTypes
In case of trouble getting the scanner under control, these ToolTypes
can be helpful.

SCSI_LENGTH
 Example: SCSI_LENGTH=128

 Commands are formed in a buffer and varying in length. This command-length
 is hand over to the scsi-device.
 Some controllers need a special alignment of this length to work properly.

 Default value is '0' which means that this length is aligned to the same size
 as the formed command-length.
 Other values guarantees that the hand over length is not lower as the specified ↩
    value.

 Owner of a HiSoft Surf Squirrel SCSI-interface should set the value to '128'.

SCSI_EVEN
 Example: SCSI_EVEN=0

 If set to '1' command-length is aligned to even values.
 Default is '0'.

SCSI_SENSE
 Example: SCSI_SENSE=252

 Defines buffersize for sensedata. Default is '252'. '0' disables sensedata.
```

1.8 ToolTypes/Programspecific:

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ToolTypes/Programspecific:



BUFFER_SIZE
 Example: BUFFER_SIZE=1000000 (minimum value)

 The buffer for data of every kind is determined here.
 The program-internal minimum value is 1.000.000 bytes.
 Less values are ignored.
 Only if you scan more often greater pictures, it make sense to
```

```
 set the buffersize to values greater then 2MByte.

TEMPDIR_CONVERT
 Example: TEMPDIR_CONVERT=PROGDIR: (pathname)

 Here you can define, where temporary-files are to be placed.
 It recommends itself to place this directory onto the hard disk.

TEMPDIR_PREVIEW
 Example: TEMPDIR_PREVIEV=PROGDIR: (pathname)

 Here you can define, where preview-files are to be placed.
 On slow hard disks, this path should show onto RAM.
 If you the opinion, the time for preview display is to long,
 set this path onto RAM:

SUFFIX_JPEG
SUFFIX_PNG
SUFFIX_IFF_DEEP
SUFFIX_IFF_ILBM
SUFFIX_IFF_TARGA
 Example: SUFFIX_JPEG=.jpg

 A file identifier is defined here. In the case with activated picture format
 suffix is enabled in the program-preferences, this suffix is added to the end
 of every filename.
 The suffix-length is limited on 9-signs.

MODUL_NAME
 Example: MODUL_NAME=ScanJet (filename)

 This ToolType select the scanner module, which commands your scanner.
 You have to specify the real filename of the module.
 Enter 'ScanJet' for Hewlett-Packard scanner.
 Enter 'Epson' for Epson scanner.


SUPPORT_NAME
 Example: SUPPORT_NAME=Support (filename)

 This ToolType select the graphic support module for ScanTrax.
 You have to specify the real filename of the module.
 Enter 'Support' for 68k-CPU (without or with FPU, this depends on your chosen  ↩
    installation).
 Enter 'Support.elf' for PPC-CPU.
 The '.elf' extension in the filename, indicates ScanTrax that this
 file is to be load as an ELF-Object.


IMAGE_ICON_NAME
 Example: IMAGE_ICON_NAME=Reference_Icon.info

 If 'Create icon' was defined in the program-preferences 'files',
 ScanTrax will create an icon for every saved picture.
 Here you can define the name of the source-icon which is used for your pictures.
 The source-icon must be placed in the main program drawer.
```

1.9 AmigaRexxPort:

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                AmigaRexxPort:



   1.
                Introduction
                   2.
                Read commands
                   3.
                Write commands
                   4.
                Action commands
```

1.10 AmigaRexxPort/Introduction:

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AmigaRexxPort/Introduction:
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```
   The port name for ScanTrax is determined on the name 'SCANTRAX'.

   All ARexx functions give back a result in the variable 'RC'.

   RC = 0  OKAY      Function processed errorfree
   RC = 5  WARNING   Last command was not successful
                     (File can not be written or ScanTrax is busy)
   RC = 10 ARGUMENT  The number of arguments is not right
   RC = 15 PARAMETER Parameters are out of limit
```

1.11 AmigaRexxPort/Read commands:

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AmigaRexxPort/Read commands:
```

```
GET_REXX_VERSION
 Template: GET_REXX_VERSION

 To secure that your script will work properly with the
 ScanTrax ARexx-Port, a version number can now be requested.

 In the 'RESULT' variable, the version number is returned.
 ScanTrax V2.0 will report "2".


GET_STATUS
 Template: GET_STATUS
```

```
 After a 'SCAN' or 'SAVE_PICTURE' command, it is necessary that you examine
 the current program status.
 The following text keywords are returned in the 'RESULT' variable:

 "BUSY"  ScanTrax is currently in progress with your last command.
         The commands 'SCAN' and 'SAVE_PICTURE' are need examination with
         this command. Take a look into the ARexx example script for more details.

 "READY" ScanTrax is waiting for new commands.

 "ABORT" Your last command was aborted through a user or something else.
         This keyword will appear only once!


GET_WINDOW
 Template: GET_WINDOW keyword

 Depending on the keyword, the 'RESULT' variable can return different window  ↩
    values.
 The measureunit of the returned values is determined
 by the ARexx command 'SET_MEASUREUNIT'!

 Following keywords are defined:
 XMAX    Maximum horizontal windowsize (flatbed size)
 YMAX    Maximum vertical windowsize (flatbed size)
 XPOS    Scanwindow distance from left flatbed border
 YPOS    Scanwindow distance from top flatbed border
 XEXT    Scanwindow horizontal extension
 YEXT    Scanwindow vertical extension


GET_RESOLUTION
 Template: GET_RESOLUTION keyword

 Depending on the keyword, the 'RESULT' variable can return different
 DPI resolution values.

 Following keywords are defined:
 X       Current horizontal scan-resolution
 Y       Current vertical scan-resolution
 XMIN    Minimum available horizontal scan-resolution
 YMIN    Minimum available vertical scan-resolution
 XMAX    Maximum available horizontal scan-resolution
 YMAX    Maximum available vertical scan-resolution


GET_SCALE
 Template: GET_SCALE keyword

 Depending on the keyword, the 'RESULT' variable can return different
 percent scaling values.

 Following keywords are defined:
 X       Current horizontal scaling
 Y       Current vertical scaling
 XMIN    Minimum available horizontal scaling
```

```
 YMIN    Minimum available vertical scaling
 XMAX    Maximum available horizontal scaling
 YMAX    Maximum available vertical scaling

 Note: Scaling limits are depending from resolution values!
       If you change the resolution, scale limits will change!


GET_CONTRAST
 Template: GET_CONTRAST

 In the 'RESULT' variable, the contrast value is returned.


GET_INTENSITY
 Template: GET_INTENSITY

 In the 'RESULT' variable, the brightness value is returned.


GET_COLOR_RED
GET_COLOR_GREEN
GET_COLOR_BLUE
 Template: GET_COLOR_XXX

 In the 'RESULT' variable, the color saturation value is returned.


GET_GAMMA
 Template: GET_GAMMA

 In the 'RESULT' variable, the gamma value is returned.


GET_SHARPEN
 Template: GET_SHARPEN

 In the 'RESULT' variable, the sharpness value is returned.


GET_JPEG_QUALITY
 Template: GET_JPEG_QUALITY

 In the 'RESULT' variable, the JPEG-Quality value is returned.


GET_GFX_MODE
 Template: GET_GFX_MODE

 In the 'RESULT' variable, the graphic mode with that the picture was/will scanned
 is returned.


GET_SUFFIX_MODE
 Template: GET_SUFFIX_MODE

 In the 'RESULT' variable, a logical status is returned.
```

```
 Suffixes for filenames are to be create, if '1' was returned.


GET_ILBM_COMPRESSION
 Template: GET_ILBM_COMPRESSION

 In the 'RESULT' variable, a logical status is returned.
 ILBM-pictures will compressed, if '1' was returned.


GET_PNG_COMPRESSION
 Template: GET_PNG_COMPRESSION

 In the 'RESULT' variable, the compressionrate value is returned.

 Possible values are:
 0     ->No compression
 1-5   ->Fast compression
 6     ->Standard compression
 6-9   ->High compression


GET_ICON_MODE
 Template: GET_ICON_MODE

 In the 'RESULT' variable, a logical status is returned.
 ScanTrax will create an icon for every saved picture if '1' was returned.

 In the ToolType 'IMAGE_ICON_NAME' you can define the source-icon which
 is used for your pictures.
```

1.12 AmigaRexxPort/Write commands:

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AmigaRexxPort/Write commands:




SET_MEASUREUNIT
 Template: SET_MEASUREUNIT keyword

 This command determine with which measureunit the command SET_WINDOW / GET_WINDOW ↩
     works.

 The following keywords are defined:
 CM   -> Numbers are processed as centimeters (cm)
 INCH -> Numbers are processed as inches
 DOTS -> Numbers are processed as points (300 points = 1 inch)


SET_WINDOW
 Template: SET_WINDOW X-position Y-position X-width Y-height

 This command sets the position and size of the scan window.
```

```
 The parameters can certain through the command 'SET_MEASUREUNIT',
 are indicated in centimeters, inches or dpi.

 For a scan window of 10cm*8cm with an offset of X=12.3cm and Y=4.55cm
 the following must call: SET_WINDOW 12.3 4.55 10 8


SET_RESOLUTION
 Template: SET_RESOLUTION X-resolution Y-resolution

 This command determines the Scanresolution in dpi.


SET_SCALE
 Template: SET_SCALE X-Scale Y-Scale

 This command determines scaling which is carried out at the scan window.
 Nominal preset is 100(%).


SET_SUFFIX_MODE
 Template: SET_SUFFIX_MODE number

 This command turns creation of suffixes for filenames on, or off.
 'number' = 1 -> suffix turned on
 'number' = 0 -> suffix turned off


CUSTOM_PRESET
 Template: CUSTOM_PRESET

 The ARexxpart of the program uses own basic settings.
 This command retypes this with the current program settings.
 It is recommended that this command is only used for the ARexx script development ↩
    .


SET_CONTRAST
 Template: SET_CONTRAST number

 This command set the contrast value.
 'number' may take values of -100% to +100%.


SET_INTENSITY
 Template: SET_INTENSITY number

 This command set the brightness value.
 'number' may take values of -100% to +100%.


SET_COLOR_RED
SET_COLOR_GREEN
SET_COLOR_BLUE
 Template: SET_COLOR_XXX number

 These commands are setting the color saturation.
```

```
 'number' may take values of -100% to +100%.


SET_GAMMA
 Template: SET_GAMMA number

 This command sets the gamma value.
 'number' may take values of 0.01 to 4.99.


SET_SHARPEN
 Template: SET_SHARPEN number

 This command sets the sharpness.
 'number' may take values of 0% to 100%.


SET_GFX_MODE
 Example: SET_GFX_MODE COLOR

 This command sets the graphic mode with that the picture is scanned.

 As argument you must specify a keyword:
  COLOR      --> The picture will scanned with 24bit color.
  GREYSCALE  --> The picture will scanned with 8bit greyscales.
  BLACKWHITE --> The picture will scanned with black/white-threshold.

  NUMBER 0   --> This keyword needs a second parameter, a number.
                 The number specifies the scanmode which also appears
                 in the ScanProfile-window. In this example the '0'
                 selects the first scanmode which is always 24bit color.
                 Available Scanmodes are depending on the used scanner.


SET_PROGRESSBAR_MODE
 Template: SET_PROGESSBAR_MODE number

 This command turns the display of a progressbar window on, or off.
 'number' = 1 -> progressbar window will be displayed
 'number' = 0 -> progressbar windows will not be displayed


SET_JPEG_QUALITY
 Template: SET_JPEG_QUALITY number

 This command determines the quality of the JPEG picture to be made.
 Greater values make better pictures and bigger files.
 The default value for JPEG is 75!
 'number' may take values of 1 to 100.


SET_ILBM_COMPRESSION
 Template: SET_ILBM_COMPRESSION number

 This command determines whether ILBM-pictures are packed.

 'number' =1 -> on compressing
```

```
 'number' =0 -> off compressing


SET_PNG_COMPRESSION
 Template: SET_PNG_COMPRESSION number

 This command determines the PNG compression rate.

 Valid number values:
 0    :No compression
 1-5  :Fast compression rate
 6    :Standard compression rate
 6-9  :High compression rate


SET_FORCE_24BIT
 Template: SET_FORCE_24BIT number

 This command determines whether pictures are always stored with 24Bit.

 'number' = 1 -> all pictures become stored with 24bit
 'number' = 0 -> greyscale pictures are stored in 8bit, all others into 24bit


SET_ICON_MODE
 Template: SET_ICON_MODE number

 This command determines whether ScanTrax will create an icon for every saved
 picture or not.

 'number' = 1 -> Create icons.
 'number' = 0 -> No icons.

 In the ToolType 'IMAGE_ICON_NAME' you can define the source-icon which
 is used for your pictures.
```

1.13 AmigaRexxPort/Action commands:

```
AmigaRexxPort/Action commands:




DISPLAY_HIDE
 Template: DISPLAY_HIDE

 This command removes the Graphic-User-Interface from desktop.


DISPLAY_SHOW
 Template: DISPLAY_SHOW

 This command brings the Graphic-User-Interface on the desktop.
```

```
DISPLAY_LOCK
 Template: DISPLAY_LOCK

 This important command locks the Graphic-User-Interface.
 It is recommended that you take use of this command at start of your ARexx-Script ↩
    !


DISPLAY_UNLOCK
 Template: DISPLAY_UNLOCK

 This important command unlocks the Graphic-User-Interface.
 It is recommended that you take use of this command at end of your ARexx-Script!


SCAN
 Template: SCAN

 This command introduces the scan event.
 The scanned data are stored in a temporary file.

 NOTE: Watch the 'RC' variable after command call! If ScanTrax is busy while you  ↩
    call
       this command a 'REXX_WARN' condition will be returned in the 'RC' variable.
       In this case you must wait until ScanTrax is ready.


SAVE_PICTURE
 Template: SAVE_PICTURE formatkeyword filename

 This command stores a picture. Data for this picture where taken from the  ↩
    temporary file.
 The formatkeyword determines what kind of a graphic format should be made.
 Available keywords are: PNG, TARGA, JPEG, DEEP, ILBM

 NOTE: Watch the 'RC' variable after command call! If ScanTrax is busy while you  ↩
    call
       this command a 'REXX_WARN' condition will returned. In this case you must  ↩
          wait
       until ScanTrax is ready.


ABORT
 Template: ABORT

 This command, abort a running  'SCAN' or 'SAVE_PICTURE' command.


QUIT
 Template: QUIT

 This command ends ScanTrax.
```

1.14 Descriptions:

```
                Descriptions:



   1.
                Introduction
                   2.
                Start and End
                   3.
                User windows
                   4.
                Mouse pointer
```

1.15 Descriptions/Start and end:

```
Descriptions/Start and end:



Start ScanTrax:

 a) By double-click onto the program icon.
 b) Within a shell window.
    Because some important presettings are be determined in ToolTypes of the  ↩
       program icon,
    parameter specifications in the shell are not planned.


End ScanTrax:

 a) 'End' via the menu entry.
 b) With the program 'Exchange' from Amiga International.
 c) Through a CTRL_C or CTRL_E signal to the program task.
 d) Through a push of a selfdefined HotKey. (See ToolType: CX_QUITKEY)
 e) Through the ARexxcommand "QUIT".

 Note: At the end, ScanTrax is always writing some program configurations to ' ↩
    ENVARC:'!
       Therefore you must insure that the 'ENVARC:' directory is write enabled.
```

1.16 Descriptions/User windows:

```
                Descriptions/User windows:



   1.
                Main window
                   2.
                Area window
```

3.
Preferences window

1.17 Descriptions/Mouse pointer:

Descriptions/Mouse pointer:

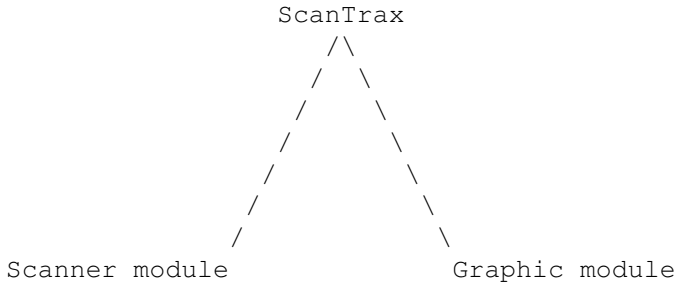
The frame announced in the preview window, can be modified through the mouse, in position and size. To recognize whether the frame can moved with the mouse, the appearance of the mouse pointer changes.

1.18 Descriptions/Introduction:

Descriptions/Introduction:

Purpose of ScanTrax is, to make the scan-patterns on a scanner available. Therefore, the scan-patterns become converted in useable pictureformats.

Since version 2.0, ScanTrax is build into three main parts.



ScanTrax (mainprogram) is supervisor of two modules.
The program itself, runs on a MC68020 CPU or higher.

The scanner module, is exchangeable for different scanner models.
The modules run on a MC68020 CPU or higher.

Graphic modules (called Support) are present for different CPU environments.
For a optimal speed, modules are compiled for three environments:

1) For MC68020 CPU or higher, with FPU
2) For MC68020 CPU or higher, without FPU
3) For PPC 603/604 CPU

1.19 Descriptions/User windows/Main window:

```
Descriptions/User windows/Main window:


  This window is always usually opened. In case, ScanTrax work in the background,
  the window can bring again to the display with the aid of the program "Exchange" ↩
      or
  over an own "HotKey", which is determined in the ToolType "CX_POPKEY".




Group 'Scanning'

 Button 'preview'
  The scanner samples the entire scanner bed.

 Button 'zoom'
  The section, determined through the frame, is sampled again and
  displays enlarged.

 Button 'again'
  a) The picture sampled before, is loaded from the temporary file.
     This is practical if the presentation was not yet modified and one would  ↩
        rapid
     start again from the beginning.

  b) If it should become necessary to close the preview window, with this button,
     the picture can be represented fast again.



Group 'window'

 Field 'X-pixels'
  This field announces the dimensions to be expected in image pixel.
  The announced value can deviate easily from the made picture.

 Field 'Y-pixels'
  This field announces the dimensions to be expected in image lines.
  The announced value can deviate easily from the made picture.

 Field 'width'
  The width of the scan window on the scanner bed is announced here.

 Field 'height'
  The height of the scan window on the scanner bed is announced here.

 Field 'Resolution'
  This field displays the real scan-resolution.

 Field 'Size'
  Since version 2.0, here are displayed three different kind of values:
   a) The size of source data that must be transferred from scanner to computer.
   b) The size of uncompressed picture data's.
```

```
   c) Estimated size of the picture file.
      ScanTrax is computing the approximate size of the picture file.
      Because this feature is more practical, it is the default setting.
      Depending on the picturecontents, greater deviations are possible!

Group 'basic resolution'

 Here you can adjust with which sampling resolution the scanner should work.
 It is possible to create profiles for different devices or projects.



Group 'picture'

 Slider 'brightness'
  Brightness can be adjusted from -100%(black) to +100%(white).

 Slider 'contrast'
  Contrast can be adjusted from -100%(grey) to +100%(black/white).

 Slider 'gamma'
  The gamma curve can be adjusted from 0.01 to 4.99.

 Slider 'red';'green';'blue'
  Color saturation can be adjusted from -100%(black/white) to +100%(colorful).
  If all three sliders are in the '0%' position, this functional group is
  disabled.

 Slider 'Sharpen'
  Sharpness is subdivided in a range from 0% to 100%.
  In the '0%' position, this function is disabled.
  Sharpness is computed by a 3x3 filter matrix.
  The '100%' position is adjusted to a even, just useful filter setting.



Group 'scaling'

 Slider 'X'
  The horizontal sampling resolution is changed.

 Slider 'Y'
  The vertical sampling resolution is changed.
```

1.20 Descriptions/User windows/Area window:

```
Descriptions/User windows/Area window:


  This window is achieved over the menu: "Windows->Area".

  Adjustments for precise positioning of the scan window on
  the scanner bed are made here.
```

```
Group 'position'

 Slider 'X';'Y'
  Adjustment for the scanwindow offset.
  (With scanner top view, in regard to the upper right corner on scanner flatbed.)



Group 'window size'

 Slider 'width';'height'
 With this, the size of the scan window is adjusted.
```

1.21 Descriptions/User windows/Preferences window:

```
Descriptions/User windows/Preferences window:


  This window is achieved over the menu: "Preferences->Change".

  All necessary adjustments for the program configuration are united here.


  You find three indexes here: Screen, Files and QuickScan


INDEX: Screen


Group 'screen mode'

 Switch 'Workbench'
  This switch determines whether the GUI from ScanTrax opens on the Workbench.

 Switch 'Public'
  Different programs offer the possibility to make their screen public.
  If this switch activated, ScanTrax opens itself on the screens of these programs ↩
      .

 Switch 'Custom'
  If this switch is activated, an own screen for ScanTrax can be determined.


Group 'preview mode'

 Selector switch 'window'
  The operating mode for the preview window is determined here.
  There are three option-settings:

   Greyscales (AGA), color (AGA) ->
    The number of the representable colors is limited to a maximum of 256 tints.
    Should be from an other program a part of the colors engaged, e.g. through a
    Screen background picture, in such a way, the number again decreases!
   Color (CyberGraphX) ->
```

The number of colors depends from the chosen CyberGraphX bitmap depth.

Group 'display'

Selector switch 'unit of measure'
Here it can be chosen between the three units of measure inch, centimeters and points per inch (dpi).

Selector switch 'File size'
Since version 2.0, you can select here three different kind of displaymodes for filesize display in the main window:

'Source data'
The size of source data that must be transferred from scanner to computer.

'Picture data uncompressed'
The size of uncompressed picture data's.

'Picture data compressed'
Estimated size of the picture file.
ScanTrax is computing the approximate size of the picture file.
Because this feature is more practical, it is the default setting.
Depending on the picturecontents, greater deviations are possible!

Group 'preview window'

Slider 'X-Aspekt';'Y-Aspekt'
The size of the preview window on the screen can hereby be adapted.
Too big windows affect service of the Zoom frame disturbingly.

Switch 'Sharpen on preview picture'
Sharpening the preview picture takes much CPU time in use.
On slow computers, shutdown of this function can be advantageous.

Switch 'Activate'
Activate the preview window when new data is to be displayed.

Switch 'Move to front'
The preview window is moving to front if new data is to be displayed.

Selector 'Placement'
Here you can adjust, where the window will be opened on the screen.

INDEX: Files

Group 'File format'

Selector switch 'Save'
Here you select your favored graphic file format.

```
  The formats PiNG, TARGA, JPEG, IFF-DEEP or IFF-ILBM can be chosed.

 Switch 'Store in 24bit unconditionally'
  When the scanner work in monochrome- or greyscalemodes a 8bit graphic-
  file is made. If this switch is active, always 24bit files are made.

 Switch 'Compress ILBM'
  This switch determines whether ILBM graphic format work with compression.

 Slider 'Compress PNG'
  You can adjust the compression rate for this graphic format.
  The PNG default value is '6'!

  If you set this value to '3',
  the compressed picture will be about 10% greater in size.
  But, the time used for compression is reduced about 50% :-).

 Slider 'JPEG-Quality'
  The JPEG graphic format offers the possibility to adjust the compression factor.
  The default value is 75.


Group 'File options'

 Switch 'File format suffix'
  This switch determines, whether to all filenames in accordance with the chosen  ↩
     graphic format,
  graphic format extensions are appended.
  According to own wishes, these may be pre-adjusted in the ToolTypes.

 Switch 'Delete temporary files'
  This switch determines whether temporary files are deleted at end of program.

 Switch 'Create Icon'
  Here you determine, whether a icon is to be created for every saved picture.
  In the ToolType 'IMAGE_ICON_NAME' you can define the source icon which
  is used for your pictures. This icon must be placed in the main program drawer.




INDEX: QuickScan

Group 'Action on external scan trigger'

 Selector 'Mode'
  Here you determine what happens when you push the QuickScanKey or scanner  ↩
     pushbutton.
  The QuickScanKey is specified in the 'CX_QUICKSCANKEY' program ToolType.
  The Scanner pushbutton is available only on the HP-5p scanner.

  Following choices are offered:
   a) No scan
   b) QuickScan
   c) Preview scan
   d) Normal scan
```

```
 Switch 'Display Program'
  If selected, the program GUI will popup to the screen if not always present.


Group 'File options'

 If QuickScan-mode is selected, filenames are modified and created under
 the following options:

 Switch 'Confirm filenames'
  If selected, all filenames will be confirmed by the user via a ASL-Filerequester ↩
      .

 Switch 'Overwrite files'
  If selected, all existing filenames will be overwritten without confirmation by  ↩
     the user.

 Switch 'File numbering'
  If selected, all filenames to be created will get append a filenumber.

 Switch 'File format suffix'
  If selected, all filenames to be created will get a format-suffix.

 Slider 'Digits'
  Filenumber to be append can have 1-8 digits.
  If the number to be create is '0':
  A '1' results in a '0'.
  A '8' results in 8 '00000000' zeros.

 Integer 'Startnumber'
  Here you can specify the startnumber.

 Pickup 'Directory'
  A ASL-Filerequester let you specify the location for QuickScan files.

 String 'Filename'
  Here you specify the base filename. The filename will be extended through
  the above options.


Group 'Parameter'

 Selector 'Use'
  You can use your own default parameter for the picture area you want to scan.

   a) 'Actual scanvalues'
      The scan area depends on the current preview window frame.

   b) 'Personal values'
      With the button 'Actualize personal scanvalues' you overwrite the
      the personal values with data from the current window frame settings.
```

1.22 History

History:

The standstill in the evolution of the Amiga's, allowed it me to develop this program.
Since 1994, i am working on this program during my leisure time.
This program was written at the beginning in Assembler.
The program becoming more and more complex forced me to change to 'C'.

Known program errors/special features:
Some systems can not represent the mouse pointers correctly!
If that should be the case, they must be removed from the program directory!

Some graphic functions do not work as wanted:
'Black/white Threshold' the Thresholdlevel can not be adjusted.

Improvement requests of the user:
No program is faultless. Error descriptions, new or corrected Catalog files are to be sent best to me by E-Mail.

How does it go on with ScanTrax?
If i have the time, i will improve this version.

Expression of thanks:
A 'thank you' goes to all registered users for ScanTrax!
And many thanks for the many positive responses.

About this english document:
This document was written by myself. It's probably littered with many grammatical and orthographically faults! If you have suggestions or corrections send it to me, so i can make it better the next time.
All in all i hope it's useful.

History

All programs of version 1.0 appertain to the first one beta- test series.

Version 1.1 (Mar 23 1997)
First publication

Version 1.2 (Jun 01 1997)
Error in the picturepath pre-adjuster fixed.
Preview pictures are now computed by a separate task.
Display failure in the case of 8Bit-CyberGraphX Screens fixed.
Error with inch- and dpi- window position specifiers in the ARexx- command SET_WINDOW fixed.
It should be possible to use the ScanJet 5p.

Version 1.2 (Jul 09 1997)
Fontproblem removed.
System hang up while moving the preview window fixed.

Version 2.0beta(Apr 18 1998)
ScanTrax is complete rewritten to support more scanner and the PowerUP board from Phase5.

```
 ScanJet 'Push button' support added.
 Improved GUI.
 Various bug fixes and changes...

Version 2.0beta(Apr 19 1998)
 Scale sliders do not show correct values after program-start, fixed.
 Resolution sliders were not updated by value changes, fixed.
 Pushbuttonfunction did not work as wanted, fixed.

Version 2.0 (Jun 10 1998)
 Second Aminet publication.
 ARexx port added and expanded.
 Various bug fixes and minor changes...
```

1.23 Registration:

```
               Registration:


 A T T E N T I O N:
 MAKE A TEST WITH SCANTRAX ON YOUR SYSTEM!
 REGISTER ONLY, IF YOU CAN SCAN AND SAVE A PICTURE WITH
 THE UNREGISTERED VERSION!


The registered user of ScanTrax receives a personalized key file.
The key file removes the restrictions of the unregistered version.

Restrictions of the unregistered version:
 All made pictures show horizontal black lines.

The charge for ScanTrax conducts 30 Deutsche-Mark or 20 US-dollars.

In order to register perform the registration procedure by a double click on the
registration icon, which can be found in the original installation archive.
The registration script produces a filled out form which can be printed out.
An empty registration form also exist in the installation archive.
If you use this one, fill out the form 'Registration.form' and print it out.

Sign the form and send it together with the ShareWare-Charge in cash by post.

The user then receives his personal key-file
by e-mail or/and a program-disk by air-mail.


The registered user agrees with the following licence agreement:

He may make one copy solely for backup purposes.

The files of the program-disk may only be fit on one computer.

Spread the key-file to other is forbidden!

The program is provided "AS IS" without any Warranty!
```

The user accepts the
Copyright
!

Please send your registration to my postal
contactaddress
.

1.24 Contactaddress

Address of the author:

POST:
Klaus Krause
Bergstedter Chaussee 233
D-22395 Hamburg
-GERMANY-

E-MAIL:
ScanTrax@gmx.net

1.25 Installation:

Installation:

Installation is performed by the installation program 'Installer'
from Amiga International.

A double-click onto the installation pictogram starts the installersript,
which carries out all necessary installation steps.

1.26 Tips and tricks:

Tips and tricks:

1.
Picture adjustments
2.
SCSI host adapter
3.
Filesystem

4.
Mousepointer
5.
Screen

1.27 Tips and tricks/Picture adjustments:

Tips and tricks/Picture adjustments:

The texts of this page are dependent on the employed
Hardware (graphic card, monitor, scanner) and can here
are used only for information!

In order to achieve useful results with ScanTrax some settings are
to carry out. First assumption for this is a graphic card!!!

The program was developed with a ScanJet IIcx & Epson GT-9000.
The following settings made useful results with the development devices:

Brightness	0%
Contrast	14%
Gamma	2.20
Red	0%
Green	0%
Blue	0%
Sharpness	50%

Compared with originalpicture to monitorpicture, you can recognize
greater color corruptions.
This lack can be in parts corrected with the RGB sliders.

It is hardly to judge whether ScanTrax makes good pictures.
I have compared the made pictures of ScanTrax with those, that i have made
on an IBM compatible PC.

The PC results are, what colour rendering concerns, approached no better to
the original as ScanTrax. Identical results are however not to be achieved.

However, I am finally satisfied with the results so far,
that I to receive good pictures, i must not scanning on the PC!

1.28 Tips and tricks/SCSI host adapter:

Tips and tricks/SCSI host adapter:

With some host adapters problems can occur while scanning.

These can be caused by wrong host adapter presettings.
Therefore, search in the documentation of the host adapter for adjustment of
"SCSI direct DMA / SCSI direct polling" as well as "Reselection".
The correct settings should be determined in the experiment.
Also you can Look at the SCSI ToolType section.

Settings for the host adapter FastLaneZ3: SCSI-Direct-DMA, Reselection ON

1.29 Tips and tricks/File system:

Tips and tricks/File system:

ScanTrax can make very big temporary files (>10 MB).
The delete of the files need a long time on some computers!
In order to speed up this, there are some possibilities:
a) Arrange the partition of the hard disk with a block size of >=1024 byte.
b) Change the file system.
c) Get a new & faster harddisk?

1.30 Tips and tricks/Mouse pointer:

Tips and tricks/Mouse pointer:

ScanTrax manages 5 mouse pointers for the preview window in the program directory ↩
.
The mouse pointers can be edited with the program "Pointer" which appertains
to every Workbench.

On some computers, there are problems during representation of the mouse pointers ↩
.
If this should be the case, these are to be removed from the program directory!

1.31 Tips and tricks/Screen:

Tips and tricks/Screen:

For a good preview picture, it is important to employ the correct screen!

8-Bit screens: (Amiga AGA-ChipSet and CyberGraphX)
At 8-Bit screen depths, ScanTrax reserves for itself so many free color pots from the screen as available. The reserved pots are now engaged with colors. The less available free color pots on the screen are, the less colors it can represented by ScanTrax. Therefore it is to be ensured, that the color pots from the Screen (e.g. the Workbench) are free! Is on the Workbench a background-picture represented, the preview picture deteriorates!

On an Amiga computer without AGA (e.g. A3000), the preview picture is very bad! Therefore, a graphic card should be employed here.

16- or 24-Bit screens: (CyberGraphX)
Since the colors to be represented are represented directly here, the preview picture is always optimally represented.
These screen depths should be employed for a reasonable operation!