Rocky Enterprise Linux 9.2 Manual Pages on command 'sane-mustek.5'

$ man sane-mustek.5

sane-mustek(5)   SANE Scanner Access Now Easy   sane-mustek(5)

NAME

   sane-mustek - SANE backend for Mustek SCSI flatbed scanners (and some other devices)

DESCRIPTION

   The sane-mustek library implements a SANE (Scanner Access Now Easy) backend that provides

   access to Mustek (and some relabeled Trust and Primax) SCSI and parport flatbed scanners.

   At present, the following scanners are known to work more or less with this backend:

       Paragon MFS-6000CX

       Paragon MFS-12000CX

       Paragon MFC-600S, 600 II CD, ScanMagic 600 II SP

       Paragon MFC-800S, 800 II SP

       Paragon MFS-6000SP

       Paragon MFS-8000SP

       Paragon MFS-1200SP, MFS-12000SP

       ScanExpress 6000SP

       ScanExpress 12000SP, 12000SP Plus, Paragon 1200 III SP, ScanMagic 9636S, 9636S Plus

       Paragon 1200 LS

       ScanExpress A3 SP

       Paragon 1200 SP Pro

       Paragon 1200 A3 Pro

       Paragon 600 II EP

       Paragon 600 II N

       Trust Imagery 1200

Trust Imagery 1200 SP

Trust Imagery 4800 SP

Trust SCSI Connect 19200

Primax Compact 4800 SCSI

More details can be found on the Mustek SCSI backend homepage http://www.meier-geinitz.de/sane/mustek-backend/.

Don't mix up MFS (Paragon), Pro and ScanExpress models! They're completely different. Check the exact model name!

Note that most of the above scanners come with a SCSI interface. The only non-SCSI scan? ners that have some support at this point is the 600 II N and 600 II EP scanners. The for? mer one comes with its own parallel port adapter (i.e., it does not attach to the printer port). Both scanners use the SCSI protocol internally, too. More info on how to use these parallel port scanners can be found below in section PARALLEL PORT SCANNERS. Other paral? lel port scanners are not supported by this backend but you may be successful using the Mustek parallel port backend mustek_pp, see sane-mustek_pp(5). USB scanners are also not supported by this backend but the ma1509, mustek_usb, gt68xx, and plustek backends include support for some of them, see sane-ma1509(5), sane-mustek_usb(5), sane-gt68xx(5), and sane-plustek(5).

Mustek scanners have no protection against exceeding the physical scan area height. That is, if a scan is attempted with a height that exceeds the height of the scan surface, the scanner begins making loud noises and the scan mechanism may be damaged. Thus, if you hear such a noise, IMMEDIATELY turn off the scanner. This shouldn't happen if your scanner is in the list of known scanners. There is more information in the /usr/share/doc/lib? sane/PROBLEMS file.

If you own a Mustek (or Trust) scanner other than the ones listed above that works with this backend, please let us know by sending the scanner's exact model name (look at the front and back of the scanner) and a debug output to sane-devel@alioth-lists.debian.net. You can get the debug output by setting the environment variable SANE_DEBUG_MUSTEK to 5 and showing the list of available scanners with scanimage -L. Please send all of it to the mailing list. You must be subscribed to sane-devel before you can send mail to the list. See http://www.sane-project.org/mailing-lists.html for details.

DEVICE NAMES

This backend expects device names of the form:

special

Where special is either the path-name for the special device that corresponds to a SCSI

scanner or the port number at which the parallel port scanners can be found (see section

PARALLEL PORT SCANNERS below).   For SCSI scanners, the special device name must be a

generic SCSI device or a symlink to such a device. The program sane-find-scanner(1) helps

to find out the correct device. Under Linux, such a device name could be /dev/sg0 or

/dev/sg3, for example. See sane-scsi(5) for details.

CONFIGURATION

The contents of the mustek.conf file is a list of options and device names that correspond

to Mustek scanners. Empty lines and lines starting with a hash mark (#) are ignored. See

sane-scsi(5) on details of what constitutes a valid device name.

The supported options are linedistance-fix, lineart-fix, legal-size, buffersize, block?

size, strip-height, disable-double-buffering, disable-backtracking, and force-wait.

Options come in two flavors: global and positional ones. Global options apply to all de?

vices managed by the backend whereas positional options apply just to the most recently

mentioned device.   Note that this means that the order in which the options appear mat?

ters!

Option linedistance-fix is positional and works around a problem that occurs with some

SCSI controllers (notably the ncr810 controller under Linux). If color scans have hori?

zontal stripes and/or the colors are off, then it's likely that your controller suffers

from this problem. Turning on this option usually fixes the problem.

Option lineart-fix is positional and works around a timing problem that seems to exist

with certain MFS-12000SP scanners. The problem manifests itself in dropped lines when

scanning in lineart mode. Turning on this option should fix the problem but may slow down

scanning a bit.

Option legal-size is positional and sets the size of the scan area to Legal format. Set

this option if you own a Paragon 12000 LS. It can't be distinguished by software from a

ScanExpress 12000 SP (ISO A4 format).

Option buffersize is a positional option that overrides the default value set for the size

of the SCSI buffer. The buffer size is specified in kilobytes. The default value is 128.

Because of double buffering the buffer actually sent to the scanner is half the size of

this value. Try to increase this value to achieve higher scan speeds. Note that some

ScanExpress scanners don't like buffer sizes above 64 kb (buffersize = 128). If your sg

driver can't set SCSI buffer sizes at runtime you may have to change that value, too. See sane-scsi(5) for details.

Option blocksize is a positional option that overrides the default value set for the maxi? mum amount of data scanned in one block. The buffer size is specified in kilobytes. Some scanners freeze if this value is bigger than 2048. The default value is 1 GB (so effec? tively no limit) for most scanners. Don't change this value if you don't know exactly what you do.

Option strip-height is a global option that limits the maximum height of the strip scanned with a single SCSI read command. The height is specified in inches and may contain a fractional part (e.g., 1.5). Setting the strip-height to a small value (one inch, for ex? ample) reduces the likelihood of encountering problems with SCSI driver timeouts and/or timeouts with other devices on the same SCSI bus. Unfortunately, it also increases scan times. With current SCSI adapters and drivers this option shouldn't be needed any more.

Option disable-double-buffering is a global option. If set, the backend will only send one buffer at a time to the scanner. Try this option if you have trouble while scanning, e.g. SCSI errors, freezes, or the first few cm are repeated over and over again in your image.

Option disable-backtracking is a positional option. If set, the scanner will not move back its slider after each SCSI buffer is filled (`backtracking'). Setting this option will lead to faster scans but may also produce horizontal stripes. This option doesn't work with every scanner (only some of the paragon models can modify backtracking).

Finally, force-wait is a global option. If set, the backend will wait until the device is ready before sending the inquiry command. Further more the backend will force the scan slider to return to its starting position (not implemented for all scanners). This option may be necessary with the 600 II N or when scanimage(1) is used multiple times (e.g. in scripts). The default is off (not set).

A sample configuration file is shown below:

    # limit strip height of all scanners to 1.5 inches:

    option strip-height 1.5

    /dev/scanner   # first Mustek scanner

    # 1 MB buffer for /dev/scanner:

    option buffersize 1024

    /dev/sge   # second Mustek scanner

    # turn on fixes for /dev/sge:

option lineart-fix

option linedistance-fix

SCSI ADAPTER TIPS

You need a SCSI adapter for the SCSI scanners. Even if the connector is the same as that
of parallel port scanners, connecting it to the computers parallel port will NOT work.
Mustek SCSI scanners are typically delivered with an ISA SCSI adapter. Unfortunately,
that adapter is not worth much since it is not interrupt driven. It is (sometimes) possi?
ble to get the supplied card to work, but without interrupt line, scanning will be very
slow and put so much load on the system, that it becomes almost unusable for other tasks.
If you already have a working SCSI controller in your system, you should consider that
Mustek scanners do not support the SCSI-2 disconnect/reconnect protocol and hence tie up
the SCSI bus while a scan is in progress. This means that no other SCSI device on the
same bus can be accessed while a scan is in progress.

Because the Mustek-supplied adapter is not worth much and because Mustek scanners do not
support the SCSI-2 disconnect/reconnect protocol, it is recommended to install a separate
(cheap) SCSI controller for Mustek scanners. For example, ncr810 based cards are known to
work fine and cost as little as fifty US dollars.

For Mustek scanners, it is typically necessary to configure the low-level SCSI driver to
disable synchronous transfers (sync negotiation), tagged command queuing, and target dis?
connects. See sane-scsi(5) for driver- and platform-specific information.

The ScanExpress models have sometimes trouble with high resolution color mode. If you en?
counter sporadic corrupted images (parts duplicated or shifted horizontally) kill all
other applications before scanning and (if sufficient memory is available) disable swap?
ping.

Details on how to get the Mustek SCSI adapters and other cards running can be found at
http://www.meier-geinitz.de/sane/mustek-backend/#SCSI.

PARALLEL PORT SCANNERS

This backend has support for the Paragon 600 II EP and Paragon 600 II N parallel port
scanners. Note that the latter scanner comes with its own ISA card that implements a
funky parallel port (in other words, the scanner does not connected to the printer paral?
lel port).

These scanners can be configured by listing the port number of the adapter or the parallel
port in the mustek.conf file. Valid port numbers for the 600 II N are 0x26b, 0x2ab,

0x2eb, 0x22b, 0x32b, 0x36b, 0x3ab, 0x3eb. For the 600 II EP use one of these: parport0, parport1, parport2, 0x378, 0x278, 0x3bc. Pick one that doesn't conflict with the other hardware in your computer. Put only one number on a single line. Example:

0x3eb

Note that for these scanners usually root privileges are required to access the I/O ports. Thus, either make frontends such as scanimage(1) and xscanimage(1) setuid root (generally not recommended for safety reasons) or, alternatively, access this backend through the network daemon saned(8).

If the Mustek backend blocks while sending the inquiry command to the scanner, add the op? tion force-wait to mustek.conf.

Also note that after a while of no activity, some scanners themselves (not the SANE back? end) turns off their CCFL lamps. This shutdown is not always perfect with the result that the lamp sometimes continues to glow dimly at one end. This doesn't appear to be dangerous since as soon as you use the scanner again, the lamp turns back on to the normal high brightness. However, the first image scanned after such a shutdown may have stripes and appear to be over-exposed. When this happens, just take another scan, and the image will be fine.

FILES

/etc/sane.d/mustek.conf

The backend configuration file (see also description of SANE_CONFIG_DIR below).

/usr/lib/x86_64-linux-gnu/sane/libsane-mustek.a

The static library implementing this backend.

/usr/lib/x86_64-linux-gnu/sane/libsane-mustek.so

The shared library implementing this backend (present on systems that support dy? namic loading).

ENVIRONMENT

SANE_CONFIG_DIR

This environment variable specifies the list of directories that may contain the configuration file. On *NIX systems, the directories are separated by a colon (`:'), under OS/2, they are separated by a semi-colon (`;'). If this variable is not set, the configuration file is searched in two default directories: first, the current working directory (".") and then in /etc/sane.d. If the value of the envi? ronment variable ends with the directory separator character, then the default di?

rectories are searched after the explicitly specified directories.   For example,

setting SANE_CONFIG_DIR to "/tmp/config:" would result in directories tmp/config,

., and /etc/sane.d being searched (in this order).

SANE_DEBUG_MUSTEK

If the library was compiled with debug support enabled, this environment variable

controls the debug level for this backend. Higher debug levels increase the ver?

bosity of the output.

Value Description

0   no output

1   print fatal errors

2   print important messages

3   print non-fatal errors and less important messages

4   print all but debugging messages

5   print everything

Example: export SANE_DEBUG_MUSTEK=4

SEE ALSO

sane(7),   sane-find-scanner(1),   sane-scsi(5),   sane-mustek_usb(5),   sane-gt68xx(5),

sane-plustek(5), sane-mustek_pp(5), sane-ma1509(5), scanimage(1), xscanimage(1)

/usr/share/doc/libsane/mustek/mustek.CHANGES

http://www.meier-geinitz.de/sane/mustek-backend/

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BUGS

Scanning with the SCSI adapters supplied by Mustek is very slow at high resolutions and

wide scan areas.

Some scanners (e.g. Paragon 1200 A3 + Pro, SE A3) need more testing.

The gamma table supports only 256 colors, even if some scanners can do more.

More detailed bug information is available at the Mustek backend homepage:

http://www.meier-geinitz.de/sane/mustek-backend/.