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Red Hat Enterprise Linux Release 9.2 Manual Pages on 'sane-mustek_pp.5' command

$ man sane-mustek_pp.5

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NAME

sane-mustek_pp - SANE backend for Mustek parallel port flatbed scanners

DESCRIPTION

The sane-mustek_pp library implements a SANE (Scanner Access Now Easy) backend that provides access to Mustek parallel port flatbed scanners and OEM versions.

There are 2 classes of Mustek parallel port scanners: regular CCD (cold cathode device) scanners and CIS (contact image sensor) scanners.

The current version of this backend supports both CCD type scanners and CIS type scanners.

The following scanners might work with this backend:

CCD scanners

Model:	ASIC ID:	CCD Type:	works:
SE 6000 P	1013	00	yes
SM 4800 P	1013/1015	04/01	yes
SE 1200 ED Plus	1015	01	no
SM 1200 ED Plus	1015	01	no
SE 12000 P	1505	05	no
600 III EP Plus	1013/1015	00/01	yes
SE 600 SEP	1013	??	yes
600 II EP	????	??	no

MD9848 1015 00 yes

Gallery 4800 ???? ?? yes

Viviscan Compact II 1013 00 yes

CIS scanners

Model: ASIC ID: works:

Mustek 600 CP & 96 CP 1015 yes (*)

Mustek 1200 CP 1015 yes

Mustek 1200 CP+ 1015 yes

OEM versions Original works

Medion/LifeTec/Tevion

MD/LT 9350/9351 1200 CP yes

MD/LT 9850/9851 1200 CP maybe (**)

MD/LT 9858 1200 CP probably

MD/LT 9890/9891 1200 CP yes

Targa

Funline TS12EP 1200 CP yes

Funline TS6EP 600 CP yes

Trust

Easy Connect 9600+ 600 CP yes

Cybercom

9352 1200 CP yes (***)

(*) Calibration problems existed with earlier version of this driver. They seem to be solved now.

(**) Problems have been reported in the past for the MD/LT9850 type (striped scans, head moving in wrong direction at some resolu? tions). It is not known whether the current version of the driver still has these problems.

IF YOU HEAR LOUD CLICKING NOISES, IMMEDIATELY UNPLUG THE SCANNER !

(This holds for any type of scanner).

(***) Possibly, the engine_delay parameter has to be set to 1 ms for accurate engine movements.

Please note that this backend is still under construction. Certain mod?
els are currently not supported and some may never be because the com?
munication protocol is still unknown (eg., SE 12000 P).

Some scanners work faster when EPP/ECP is enabled in the BIOS. EPP mode however may lead to hard-locks on some Linux systems. If that is the case for you, you can either disable ECP/EPP in your BIOS or disable it in the backend itself (see GLOBAL OPTIONS).

Note that the backend needs to run as root or has to have appropriate access rights to /dev/parport* if libieee1284 support is compiled in.

To allow user access to the scanner run the backend through the network interface (See saned(8) and sane-net(5)). Note also that the backend does not support parport sharing, i.e. if you try printing while scan?
ning, your computer may crash. To enable parport sharing, you have to enable libieee1284 at compile time. This backend also conflicts with the sane-musteka4s2(5) backend. You can only enable one of them in your dll.conf. However, you have to enable the backend explicitly in your dll.conf, just remove the hash mark in the line "mustek_pp".

DEVICE DEFINITION

This backend allows multiple devices being defined and configured via the mustek_pp.conf file (even simultaneously, provided that they are connected to different parallel ports). Please make sure to edit this file before you use the backend.

A device can be defined as follows:

scanner <name> <port name> <driver>

where

<name> is an arbitrary name for the device, optionally enclosed by dou?
ble quotes, for instance "LifeTec 9350".

<port name> is the name of the parallel port to which the device is connected. In case libieee1284 is used for communication with the port (default setup), valid port names are parport0, par?
port1, and parport2.

In case the backend is configured for raw IO (old setup), port ad?
dresses have to be used instead of port names: 0x378, 0x278, or 0x3BC.

The mapping of parallel ports (lp0, lp1, and lp2) to these addresses can be different for different Linux kernel versions. For instance, if you are using a Kernel 2.2.x or better and you have only one parallel port, this port is named lp0 regardless of the base address. However, this backend requires the base address of your port. If you are not sure which port your scanner is connected to, have a look at your /etc/conf.modules, /etc/modules.conf and/or /proc/ioports.

If you are unsure which port to use, you can use the magic value * to probe for your scanner.

<driver> is the driver to use for this device. Currently available drivers are:

cis600 : for 600 CP, 96 CP & OEM versions

cis1200 : for 1200 CP & OEM versions

cis1200+ : for 1200 CP+ & OEM versions

ccd300 : for 600 IIIE P & OEM version

Choosing the wrong driver can damage your scanner!

Especially, using the 1200CP settings on a 600CP can be harmful.

If the scanner starts making a loud noise, turn it off immedi?ately !!!

Using the cis600 driver on a 1200CP or a 1200CP+ is probably not dan?gerous. The cis1200+ driver also works for the 1200CP, and using the cis1200 driver on a 1200CP+ will typically result in scans that cover only half of the width of the scan area (also not dangerous).

If unsure about the exact model of your OEM version, check the optical resolution in the manual or on the box: the 600CP has a maximum optical resolution of 300x600 DPI, whereas the 1200CP and 1200CP+ have a maxi?mum optical resolution of 600x1200 DPI.

Examples:

scanner "LifeTec 9350" 0x378 cis1200

scanner Mustek_600CP 0x378 cis600

scanner Mustek_600IIIEP * ccd300

If in doubt which port you have to use, or whether your scanner is de?tected at all, you can use sane-find-scanner -p to probe all configured

ports.

CONFIGURATION

The contents of the mustek_pp.conf file is a list of device definitions and device options that correspond to Mustek scanners. Empty lines and lines starting with a hash mark (#) are ignored. Options have the fol? lowing format:

option <name> [<value>]

Depending on the nature of the option, a value may or may not be present. Options always apply to the scanner definition that precedes them. There are no global options. Options are also driver-specific: not all drivers support all possible options.

Common options

bw <value>

Black/white discrimination value to be used during lineart scan? ning. Pixel values below this value are assumed to be black, values above are assumed to be white.

Default value: 127

Minimum: 0

Maximum: 255

Example: option bw 150

CIS driver options

top_adjust <value>

Vertical adjustment of the origin, expressed in millimeter (floating point). This option can be used to calibrate the po? sition of the origin, within certain limits. Note that CIS scan? ners are probably temperature sensitive, and that a certain in? accuracy may be hard to avoid. Differences in offset between runs in the order of 1 to 2 mm are not unusual.

Default value: 0.0

Minimum: -5.0

Maximum: 5.0

Example: option top_adjust -2.5

slow_skip

Turns fast skipping to the start of the scan region off. When the region to scan does not start at the origin, the driver will try to move the scanhead to the start of the scan area at the fastest possible speed. On some models, this may not work, re? sulting in large inaccuracies (up to centimeters). By setting this option, the driver is forced to use normal speed during skipping, which can circumvent the accuracy problems. Currently, there are no models for which these inaccuracy problems are known to occur.

By default, fast skipping is used.

Example: option slow_skip

engine_delay <value>

Under normal circumstances, it is sufficient for the driver to wait for the scanner signaling that the engine is stable, before a new engine command can be transmitted. In rare cases, certain scanners and/or parallel port chipsets appear to prevent reli? able detection of the engine state. As a result, engine commands are transmitted too soon and the movement of the scanner head becomes unreliable. Inaccuracies ranging up to 10 cm over the whole vertical scan range have been reported. To work around this problem, the engine_delay option can be set. If it is set, the driver waits an additional amount of time after every engine command, equal to the engine_delay parameter, expressed in mil? liseconds. It practice an engine_delay of 1 ms is usually suffi? cient. The maximum delay is 100 ms.

Note that every additional ms of delay can add up to 14 seconds to the total scanning time (highest resolution), so an as small as possible value is preferred.

Default value: 0

Minimum: 0

Maximum: 100

Example: option engine_delay 1

top <value>

Number of scanlines to skip to the start of the scan area. The number can be any positive integer. Values known to me are 47 and 56.

Default value: 47

Minimum: 0

Maximum: none

Example: option top 56

waitbank <value>

The number of usecs to wait for a bank change. You should not touch this value actually. May be any positive integer

Default value: 700

Minimum: 0

Maximum: none

Example: option waitbank 700

A sample configuration file is shown below:

```
#
# LifeTec/Medion 9350 on port 0x378
#
scanner "LifeTec 9350" 0x378 cis1200
# Some calibration options (examples!).
option bw 127
option top_skip -0.8
#
# A Mustek 600CP on port 0x3BC
#
scanner "Mustek 600CP" 0x3BC cis600
# Some calibration options (examples!).
option bw 120
option top_skip 1.2
#
# A Mustek 1200CP+ on port 0x278
#
```

scanner "Mustek 1200CP plus" 0x278 cis1200+

Some calibration options (examples!).

option bw 130

option top_skip 0.2

#

A Mustek 600 III EPP on port parport0

#

scanner "Mustek 600 III EPP" parport0 ccd300

Some calibration options (examples!).

option bw 130

option top 56

GLOBAL OPTIONS

You can control the overall behaviour of the sane-stek_pp backend by global options which precede any scanner definition in the mustek_pp.conf file.

Currently, there is only one global option:

Global options

no_epp Disable parallel port mode EPP: works around a known bug in the Linux parport code. Enable this option, if the backend hangs when trying to access the parallel port in EPP mode.

Default value: use EPP

Example: option no_epp

FILES

/etc/sane.d/mustek_pp.conf

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

/usr/lib64/sane/libsane-mustek_pp.a

The static library implementing this backend.

/usr/lib64/sane/libsane-mustek_pp.so

The shared library implementing this backend (present on systems that support dynamic loading).

ENVIRONMENT

SANE_CONFIG_DIR

This environment variable specifies the list of directories that may contain the configuration file. Under UNIX, the directories are separated by a colon (`:'), under OS/2, they are separated by a semi-colon (`;'). If this variable is not set, the config? uration file is searched in two default directories: first, the current working directory (".") and then in /etc/sane.d. If the value of the environment variable ends with the directory sepa? rator character, then the default directories 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_PP

If the library was compiled with debug support enabled, this en? vironment variable controls the debug level for this backend. E.g., a value of 128 requests all debug output to be printed. Smaller levels reduce verbosity.

level debug output

---

0 nothing

1 errors

2 warnings & minor errors

3 additional information

4 debug information

5 code flow (not supported yet)

6 special debug information

SANE_DEBUG_SANEI_PA4S2

This variable sets the debug level for the SANE interface for the Mustek chipset A4S2. Note that enabling this will spam your terminal with some million lines of debug output.

level debug output

---

0 nothing

1 errors

2 warnings

3 things nice to know

4 code flow

5 detailed code flow

6 everything

SEE ALSO

sane(7), sane-mustek(5), sane-net(5), saned(8), sane-find-scanner(1),

scanimage(1)

For latest bug fixes and information see

http://www.penguin-breeder.org/sane/mustek_pp/

For additional information on the CIS driver, see

http://home.scarlet.be/eddy_de_greef/

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BUGS

Too many... please send bug reports to sane-devel@alioth-lists.de?

bian.net (note that you have to subscribe first to the list before you

can send emails... see http://www.sane-project.org/mailing-lists.html).

BUG REPORTS

If something doesn't work, please contact us (Jochen for the CCD scan?

ners, Eddy for the CIS scanners). But we need some information about

your scanner to be able to help you...

SANE version

Run scanimage -V to determine this.

the backend version and your scanner hardware

Run SANE_DEBUG_MUSTEK_PP=128 scanimage -L as root. If you don't

get any output from the sane-mustek_pp backend, make sure a line

"mustek_pp" is included into your /etc/sane.d/dll.conf. If your

scanner isn't detected, make sure you've defined the right port

address in your mustek_pp.conf.

the name of your scanner/vendor also a worthy information. Please also include the

optical resolution and lamp type of your scanner, both can be found in the manual of your scanner.

any further comments

if you have comments about the documentation (what could be done better), or you think I should know something, please include it.