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

$ man sane-hp.5

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

NAME

    sane-hp - SANE backend for HP ScanJet scanners

DESCRIPTION

    The sane-hp library implements a SANE (Scanner Access Now Easy) backend

    that provides access to HP ScanJet scanners which support SCL (Scanner

    Control Language by HP). The following scanners are known positively

    to work with this backend:

        Model: Product id: Interface:

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        ScanJet Plus   C9195A   HP Parallel Interface Card

        ScanJet IIc   C1750A 3226   SCSI

        ScanJet IIcx   C2500A 3332   SCSI

        ScanJet IIp   C1790A   SCSI

        ScanJet 3C   C2520A 3503   SCSI

        ScanJet 3P   C2570A 3406   SCSI

        ScanJet 4C   C2520A   SCSI

        ScanJet 4P   C1130A 3540   SCSI

ScanJet 4100C C6290A   USB

ScanJet 5P   C5110A   SCSI

ScanJet 5100C C5190A   parallel port

ScanJet 5200C C7190A 3846   parallel port/USB

ScanJet 6100C C2520A 3644   SCSI

ScanJet 6200C C6270A 3828   SCSI/USB

ScanJet 6250C C6270A 3828   SCSI/USB

ScanJet 6300C C7670A   SCSI/USB

ScanJet 6350C C7670A   SCSI/USB

ScanJet 6390C C7670A   SCSI/USB

PhotoSmart   C5100A R029,R030,R032   SCSI

Support for models 5100C/5200C connected to the parallel port requires

the ppSCSI driver available at http://cyberelk.net/tim/parport/pp?

scsi.html and http://penguin-breeder.org/kernel/download/.

Support for models 5200C/62X0C/63X0C connected to the USB require the

kernel scanner driver or libusb. See sane-usb(5) for more details.

The sane-hp backend no longer supports OfficeJet multi-function periph?

erals. For these devices use the external "hpoj" backend in version

0.90 and later of the "HP OfficeJet Linux driver", available at

http://hpoj.sourceforge.net

Because Hewlett-Packard does no longer produce scanners that support

SCL (beside the OfficeJets), the above list of supported scanners is

complete.   Other HP scanners are not supported by the sane-hp backend,

but   might   be   supported   by   another   one.   See

http://www.sane-project.org/.   You can also watch the sane-devel mail?

ing list at http://www.sane-project.org/mailing-lists.html.

More details about the hp backend can be found on its homepage

http://www.kirchgessner.net/sane.html.

DEVICE NAMES

This backend expects device names of the form:

special

Where special is the UNIX path-name for the special device that corre?

sponds to the scanner. For SCSI scanners the special device name must

be a generic SCSI device or a symlink to such a device. Under Linux, such a device name could be /dev/sga or /dev/sg2, for example. If the special device name contains "usb", "uscanner" or "ugen", it is assumed that the scanner is connected by USB. For the HP ScanJet Plus the spe?
cial device name must be the device that corresponds to the parallel interface card that was shipped with the scanner. That is /dev/hpscan.
A special driver is required for this card. See ftp://rvs.ctrl-c.liu.se/pub/wingel/hpscan for details. If the link does not work, try ftp://sunsite.unc.edu/pub/Linux/kernel/patches/scanners.

CONFIGURATION

The contents of the hp.conf file is a list of options and device names that correspond to HP ScanJet scanners. Empty lines and lines starting with a hash mark (#) are ignored. See sane-scsi(5) and sane-usb(5) on details of what constitutes a valid device name.

Options specified in front of the first line that contains a device name are defaults for all devices. Options specified below a line that contains a device name apply just to the most recently mentioned de?
vice.

Supported options are connect-scsi, connect-device, enable-im?
age-buffering, and dumb-read.

Option connect-scsi specifies that the scanner is connected to the sys?
tem by SCSI. Input/output is performed using SCSI-commands. This is the default. But if your SCSI device name contains "usb", "uscanner" or "ugen", option connect-scsi must be specified. Otherwise it is as?
sumed that the scanner is connected by USB.

Option connect-device specifies that the scanner is connected to the system by a special device. Input/output is performed by read()/write()-operations on the device. This option must be used for HP ScanJet Plus or scanners connected to USB which are accessed through a named device (e.g. /dev/usb/scanner0). For device names that con?
tain "usb", "uscanner" or "ugen", it is not necessary to specify option connect-device.

Option enable-image-buffering stores the scanned image in memory before

passing it to the frontend. Could be used in case of forward/backward
moving scanner lamp.

Option dumb-read can be used to work around problems with "Error during
device I/O". These problems may occur with certain SCSI-to-USB convert?
ers or Buslogic SCSI cards. The option should not be used for SCSI de?
vices which are working correctly. Otherwise startup of frontends and
changing parameters might be slower.

A sample configuration file is shown below:

/dev/scanner

this is a comment

/dev/hpscan

option connect-device

/dev/scanner is typically a symlink to the actual SCSI scanner device.

FILES

/etc/sane.d/hp.conf

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

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

The static library implementing this backend.

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

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

$HOME/.sane/calib-hp:<device>.dat

Calibration data for HP PhotoSmart PhotoScanner that is re?
trieved from the scanner after calibration. The data is uploaded
to the scanner at start of the backend if it is in media mode
'print media' or if the media mode is changed to 'print media'.

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_HP

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.

SANE_HOME_HP

Only used for OS/2 and along with use of HP PhotoSmart Photo‐ Scanner. Must be set to the directory where the directory .sane is located. Is used to save and read the calibration file.

SANE_HP_KEEPOPEN_SCSI

SANE_HP_KEEPOPEN_USB

SANE_HP_KEEPOPEN_DEVICE

For each type of connection (connect-scsi, connect-usb, con‐ nect-device) it can be specified if the connection to the device should be kept open ("1") or not ("0"). Usually the connections are closed after an operation is performed. Keeping connection open to SCSI-devices can result in errors during device IO when the scanner has not been used for some time. By default, USB- connections are kept open. Other connections are closed.

SANE_HP_RDREDO

Specifies number of retries for read operation before returning an EOF error. Only supported for non-SCSI devices. Default: 1 retry. Time between retries is 0.1 seconds.

BUGS

HP PhotoSmart PhotoScanner

In media mode 'slide' and 'negative', scan resolutions are

rounded to multiple of 300 dpi. The scanner does not scale the data correctly on other resolutions. Some newer models (firmware code R030 and later) do not support adjustment of contrast/in?tensity level and tone map. The backend will simulate this by software, but only for gray and 24 bit color.

Automatic Document Feeder (ADF)

For use of the ADF with xscanimage(1), first place paper in the ADF and then change option scan source to 'ADF'. Press 'change document' to load a sheet. Then press 'scan' to start a scan. Maybe it is sufficient to press 'scan' without 'change document' for repeated scans. The use of the preview window is not recom?mended when working with the ADF. Setting a window to scan from ADF is not supported with xscanimage(1). Try xsane(1).

Immediate actions

Some actions in xscanimage(1) (i.e. unload, select media, cali?brate) have an immediate effect on the scanner without starting a scan. These options can not be used with scanimage(1).

TODO

HP PhotoSmart PhotoScanner

PhotoScanners with firmware release R030 and up have no firmware support for contrast/brightness/gamma table. In the current backend this is simulated by software on 24 bits data. Simula?tion on 30 bits should give better results.

Data widths greater than 8 bits

Custom gamma table does not work.

Parallel scanner support

Beside the ScanJet Plus which came with its own parallel inter?face card, currently only the HP ScanJet 5100C/5200C are sup?ported. These scanners are using an internal parallel-to-SCSI converter which is supported by the ppSCSI-driver (see above).

SEE ALSO

sane(7), sane-scsi(5), sane-usb(5) scanimage(1), xscanimage(1), scanim?age(1)

AUTHOR

The sane-hp backend was written by Geoffrey T. Dairiki.

HP PhotoSmart PhotoScanner support by Peter Kirchgessner.

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