NAME

pfi – convert and modify PFI flux images

SYNOPSIS

pfi *[options] [input-file] [options] [output-file]*

DESCRIPTION

pfi(1) is used to modify and convert PFI flux image files.

OPTIONS

-c, --cylinder *cyl1[-cyl2]*
Select a range of cylinders. To select all cylinders, specify **all** as parameter.

-f, --info
Print information about the current image or the next image loaded.

-h, --head *head1[-head2]*
Select a range of heads. To select all heads, specify **all** as parameter.

-i, --input *filename*
Load an image from *filename*.

-I, --input-format *format*
Set the file format for the next input file. If this option is not used, the file format is detected automatically.

Valid formats are:

a2r Applesauce flux image

pfi The native PFI format

scp Supercard Pro flux image

raw Kryoflux raw stream

-l, --list-short
List all tracks in the current image, one line per track.

-L, --list-long
List all tracks in the current image, one line per revolution.

-o, --output *filename*
Set the output file name. Before exiting, the current image will be written to this file.

-O, --output-format *format*
Set the output file format. If this option is not used, the file format is determined by the output file name.

Valid formats are:

a2r AppleSauce flux image

pfi The native PFI format

scp Supercard Pro flux image

-p, --operation *name [arg...]*
Perform an operation on the current image. Valid operations are:

comment-add *text*
Add *text* to the image comment.

comment-load *filename*
Load the image comment from file *filename*.

comment-print
Print the current image comment.

comment-save *filename*
Save the current image comment to *filename*.

comment-set *text*
Set the image comment to *text*.

decode *type filename*
Decode the image and save it to *filename*.

Valid decode types are:

pri Save the decoded image as a PRI image.

pri-mac
This is synonymous with **pri-mac-500**.

pri-mac-490
Save the decoded image as a PRI image. This decode type also overrides the bitrate set with the **-r** option with the apporpriate variable bitrates used by Macintosh double density disk drives at 489.6 kbit/s.

pri-mac-500
Save the decoded image as a PRI image. This decode type also overrides the bitrate set with the **-r** option with the apporpriate variable bitrates used by Macintosh double density disk drives at 500 kbit/s.

text Save the decoded image in textual form.

delete Delete the selected tracks.

double-step
Remove odd numbered tracks.

double-step-even
Remove even numbered tracks.

encode *type filename*
Load an image from *filename* and encode it.

Valid encode types are:

pri Encode a PRI image

text Encode a textual representation of the image produced by decode text.

info Print information about the image.

rectify *rate*
Adjust all pulse widths to even multiples of *rate*. This may change the track lengths.

revolutions *rev1[-rev2]*
Extract revolutions *rev1* to *rev2* on all selected tracks. Revolutions not within the selected range are deleted.

scale *factor*
Multiply the pulse widths on all selected tracks by *factor*. This has the same effect as dividing the rotational speed by *factor*.

set-clock *clock*
Set the clock rate to *clock*.

set-rpm *rpm*
Adjust the rotational speed of all selected tracks to *rpm* revolutions per minute by scaling the pulse widths by a constant factor.

set-rpm-mac
This is synonymous with **set-rpm-mac-500**.

set-rpm-mac-490
Adjust the rotational speed of all selected tracks to match a Macintosh variable speed drive at 489.6 kbit/s.

set-rpm-mac-500
Adjust the rotational speed of all selected tracks to match a Macintosh variable speed drive at 500 kbit/s.

shift-index *offset*
Add *offset* clock cycles to all index positions, thereby rotating the track data relative to the index.

shift-index-us *us*
Add *us* microseconds to all index positions.

slack *percentage*
Limit the slack data before the first and after the last index to at most *percentage* percent of a full revolution.

wpcom Simulate write precompensation.

-r, --data-rate *rate*
Set the bit rate that is used to decode the image. The default is 500000 bits per second.

-R, --revolution *rev*
Use revolution number *rev* when decoding. The first revolution is number 1.

-s, --set *par val*
Set parameter *par* to *val*.

clock-tolerance *val*
Set the clock tolerance in tenth of a percent. The default is 40. If during decoding the data rate changes by more than the tolerance, a clock event is recorded in the PRI file.

fold-max *bits*
When folding tracks, compare at most *bits* bits. The default is 16384.

fold-mode *mode*
Set the track fold mode to *mode*. Valid modes are:

none Fold the track at the index pulse.

maxrun
Fold the track at the bit position that results in the longest run of identical bits at the beginning of the two revolutions. This is the default mode.

mindiff
Fold the track at the bit position that results in the fewest differences between the two revolutions.

pfi-clock
Set the clock rate that is used to encode images. The default is 24027428.

slack1 When extracting revolutions using the **revolutions** operation include this much slack space before the first index. The value specifies a percentage of a complete revolution. The default is 10.

slack2 The amount of slack space after the last index. The default is 10.

slack Set **slack1** and **slack2** to the same value.

weak-bits *val*
If *val* is non-zero enable weak bit detection when decoding to PRI.

-t, --track *c h*
Select a range of tracks. This is equivalent to "**-c** *c* **-h** *h*".

-v, --verbose
Enable verbose operation.

-x, --invert
Invert the track selection.

-z, --clear
Clear the track selection.

--help Print usage information.

--version
Print version information.

SEE ALSO

pce-img(1), **pri**(1), **psi**(1)

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