

**NAME**

**pri** – convert and modify PCE raw image files

**SYNOPSIS**

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

**DESCRIPTION**

**pri**(1) is used to modify and convert PCE raw image files.

**OPTIONS**

**-c, --cylinder** *cyl1*[-*cyl2*]

Select a range of cylinders.

**-e, --edit** *what val*

For all selected tracks, set track attribute *what* to *val*. For boolean attributes, a value of 0 disables the attribute and any other value enables it. Recognized attributes are:

**clock** The bit clock rate.

**data** Initialize the track using *val*.

**readonly**

Set the read-only attribute for the image.

**size** Set the track size in bits.

**woz-cleaned**

Set the cleaned attribute for WOZ images.

**woz-track-sync**

Set the track sync attribute for WOZ images.

**-f, --info**

Print information about the current image or the next image loaded.

**-h, --head** *head1*[-*head2*]

Select a range of heads.

**-i, --input** *filename*

Load an image from *filename*.

**-I, --input-format** *format*

Set the input file format to *format*. Valid formats are:

**pbit** The PBIT file format. This has been superseded by PRI.

**pri** The native PCE raw image file format.

**tc** Transcopy dump format. Support for this format is highly experimental.

**woz** The Applesauce WOZ disk image format.

**-l, --list-short**

List all tracks in the current image or in the next image loaded. Using this options prints one line per track.

**-L, --list-long**

List all tracks in the current image or in the next image loaded.

**-m, --merge** *filename*

Load an image from *filename* and copy all tracks that are not in the current image into the current image.

**-M --merge-overwrite** *filename*

Load an image from *filename* and copy all tracks into the current image. Tracks that exist in both images will be overwritten in the current image.

**-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 to *format*. See the *-I* option for a list of valid formats.

**-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 as a psi sector image to *filename*. Valid decode types are:

**auto** Try to decode each track as ibm-mfm, ibm-fm and mac-gcr.

**ibm-fm**

IBM FM

**mac-gcr**

Apple Macintosh GCR

**ibm-mfm**

IBM MFM

**delete** Delete all selected tracks.

**double-step**

Remove odd numbered tracks.

**double-step-even**

Remove even numbered tracks.

**event-add** *type position value*

Add a new event of type *type* at bit position *position* with value *value* on all selected tracks. The event type can be specified as a numerical value or as a type name.

**event-clear**

Clear all events of all types from the selected tracks.

**event-del** *type ( @index1[-index2] | offset1[-offset2] | all)*

Delete events from the selected tracks. The type can be specified as a numerical value, as a type name or as **all**. The range specifies a range of event indices as reported by **event-list**, a range of bit offsets, or **all**.

**event-list** *type ( @index1[-index2] | offset1[-offset2] | all)*

List events from the selected tracks. The type can be specified as a numerical value, as a type name or as **all**. The range specifies a range of event indices, a range of bit offsets, or **all**.

**encode** *type filename*

Load a psi sector image from *filename* and encode it. Valid encode types are:

**auto** Automatically determine the encoding for each track.

**ibm-fm**

IBM FM

**mac-gcr**

Apple Macintosh GCR

**ibm-mfm**

IBM MFM

**half-rate**

Remove all odd-numbered bits to create a new track with half the data rate.

**half-step**

Duplicate all tracks. This is the reverse of double-step.

**info** Print information about the current image (same as **-f**).

**mac-align**

This a synonym for **mac-align-sector**.

**mac-align-sector**

Align the lowest numbered sector with the index.

**mac-align-sync**

Align the longest sync sequence with the index.

**mfm-align-am** *what pos*

Rotate the track such that the first address mark of type *what* on the track is at bit position *pos*. Possible values for *what* are:

**all** All address mark types

**iam** Index address marks

**idam** ID address marks

**dam** Data address marks

Multiple types can be combined by joining them with a '+' or a '-' sign. For example, the type **all-iam** specifies all address mark types except index address marks.

**new** Create new tracks.

**rotate** *cnt*

Rotate all selected tracks left by *cnt* bits. If *cnt* is negative, the track is rotated right.

**rotate-angle** *angle*

Rotate all selected tracks left by *angle* degrees. If *angle* is negative, the track is rotated right.

**save** *filename*

Save all selected tracks to *filename*. The contents of the tracks are written sequentially to the file.

**weak-clean**

Clean up the weak bit events on all selected tracks.

**weak-close** *max*

If two weak bits are separated by up to *max* non-weak bits, turn all non-weak bits in between into weak bits.

**weak-detect** *max*

Detect weak bits. All zero bits that are preceded by at least *max* zero bits are mared as weak.

**weak-expand** *left right*

Expand runs of weak bits by adding *left* weak bits before every weak bit and *right* weak bits after every weak bit.

**weak-load** *filename*

Load the weak bit mask of all selected tracks from *filename*. The weak bit masks are of the same size as the track data.

**weak-open** *max*

Remove all runs of up to *max* weak bits.

**weak-save** *filename*

Save the weak bit mask of all selected tracks to *filename*. The weak bit masks are of the same size as the track data.

**weak-set** *val*

Set bits that are marked as weak to *val* which can be one of the following:

**0**        Set bits to 0

**1**        Set bits to 1

**flip**     Invert bits

**random**

Set bits to a random value

**-r, --data-rate** *rate*

Set the default data rate. The default is 500000. If *rate* is greater than 1000 it is assumed to be in bits per second, otherwise it is assumed to be in kbits per seconds.

**-s, --set** *parameter value*

Set a parameter value. Recognized parameters are:

**mfm-auto-gap3** *boolean*

Automatically set the GAP3 length. The default is true.

**mfm-clock** *integer*

Set the MFM clock rate (this is twice the data rate). The default is 500000, suitable for double density disks.

**mfm-iam** *boolean*

If false, skip the index address mark. The default is false.

**mfm-gap1** *integer*

Set the GAP1 length in bytes. The default is 0.

**mfm-gap3** *integer*

Set the GAP3 length in bytes. The default is 80.

**mfm-gap4a** *integer*

Set the GAP4A length in bytes. The default is 96.

**mfm-min-size** *integer*

Set the minimal sector size when decoding MFM.

**mfm-nopos** *integer*

If set to a non-zero value, ignore the PSI sector positions when encoding MFM tracks.

**mfm-track-size** *integer*

Set the track size in bits.

**fm-auto-gap3** *boolean*

Automatically set the GAP3 length. The default is true.

**fm-clock** *integer*

Set the FM clock rate (this is twice the data rate). The default is 250000, suitable for single density disks.

**fm-iam** *boolean*

If false, skip the index address mark. The default is false.

**fm-gap1** *integer*

Set the GAP1 length in bytes. The default is 26.

**fm-gap3** *integer*

Set the GAP3 length in bytes. The default is 27.

**fm-gap4a** *integer*

Set the GAP4A length in bytes. The default is 40.

**fm-track-size** *integer*

Set the track size in bits.

**text-align** *boolean*

If true, bit-align the text output to the first address mark on a track. The default is true.

**-t, --track** *c h*

Select tracks. This is the same as using the **-c** and **-h** options.

**-v, --verbose**

Enable verbose operation.

**-x, --invert**

Invert the selection.

**-z, --clear**

Clear the selection.

**--help** Print usage information.**--version**

Print version information.

**SEE ALSO**

**pce-ibmpc(1)**, **pce-macplus(1)**, **pce-img(1)**, **psi(1)**

**AUTHOR**

Hampa Hug <hampa@hampa.ch>