NAME

fmthard – populate VTOC on hard disks

SPARC SYNOPSIS

fmthard –**d** *data* | –**n** *volume_name* | –**s** *datafile* [–**i**] **/dev/rdsk/c?[t?]d?s2**

x86 SYNOPSIS

fmthard –**d** *data* | –**n** *volume_name* | –**s** *datafile* [–**i**][–**p** *pboot*][–**b** *bootblk*] **/dev/rdsk/c?[t?]d?s2**

AVAILABILITY

SUNWcsu

DESCRIPTION

The **fmthard** command updates the VTOC (Volume Table of Contents) on hard disks and, on x86 systems, adds boot information to the Solaris **fdisk** partition. One or more of the options –**s** *datafile*, –**d** *data*, or –**n** *volume_name*, must be used to request modifications to the disk label. To print disk label contents, see **prtvtoc**(1M). The **/dev/rdsk/c***?***[t***?***]d***?***s2** file must be the character special file of the device where the new VTOC is to be installed. On x86 systems, **fdisk**(1M) must be run on the drive before **fmthard**.

If you are using an x86 system, note that the term ''partition'' in this page refers to *slices* within the x86 **fdisk** partition on x86 machines. Do not confuse the partitions created by **fmthard** with the partitions created by **fdisk**.

OPTIONS

The following options apply to **fmthard**:

–**i** This option allows the command to create the desired VTOC table, but prints the information to standard output instead of modifying the VTOC on the disk.

–**d** *data* The *data* argument of this option is a string representing the information for a particular partition in the current VTOC. The string must be of the format *part:tag:flag:start:size* where *part* is the partition number, *tag* is the ID TAG of the partition, *flag* is the set of permission flags, *start* is the starting sector number of the partition, and *size* is the number of sectors in the partition. See the description of the *datafile* below for more information on these fields.

–**n** *volume_name* This option is used to give the disk a *volume_name* up to 8 characters long.

–**s** *datafile* This option is used to populate the VTOC according to a *datafile* created by the user. If the *datafile* is "–", **fmthard** reads from standard input. The *datafile* format is described below. This option causes all of the disk partition timestamp fields to be set to zero.

Every VTOC generated by **fmthard** will also have partition 2, by convention, that corresponds to the whole disk. If the input in *datafile* does not specify an entry for partition 2, a default partition 2 entry will be created automatically in VTOC with the tag **V_BACKUP** and size equal to the full size of the disk.

The *datafile* contains one specification line for each partition, starting with partition 0. Each line is delimited by a new-line character (**\n**). If the first character of a line is an asterisk (*), the line is treated as a comment.

Each line is composed of entries that are position-dependent, separated by "white space" and having the following format:

partition tag flag starting_sector size_in_sectors

where the entries have the following values.

partition The partition number: **0-15** decimal or **0x0-0xf** hexadecimal.

tag The partition tag: a two-digit hex number. The following are reserved codes: **0x00** (**V_UNASSIGNED**), **0x01** (**V_BOOT**), **0x02** (**V_ROOT**), **0x03** (**V_SWAP**), **0x04** (**V_USR**), **0x05** (**V_BACKUP**), **0x06** (**V_STAND**), **0x07** (**V_VAR**) and **0x08** (**V_HOME**).

flag The flag allows a partition to be flagged as unmountable or read only, the masks being: **V_UNMNT 0x01**, and **V_RONLY 0x10**. For mountable partitions use **0x00**.

starting sector The sector number (decimal) on which the partition starts.

size in sectors The number (decimal) of sectors occupied by the partition.

Note that you can save the output of a **prtvtoc** command to a file, edit the file, and use it as the *datafile* argument to the –**s** option.

x86 Options

The functionality provided by the following two x86 options is also provided by **installboot**(1M). Because the functionality described here may be removed in future versions of **fmthard**, you should use **installboot** to install boot records. The following options currently apply to **fmthard**:

–**p** *pboot* This option allows the user to override the default partition boot file, **/usr/platform/***platform-name***/lib/fs/ufs/pboot**. The partition boot file is platform dependent, where *platform-name* can be determined using the –**i** option to **uname**(1).

–**b** *bootblk* This option allows the user to override the default *bootblk* file, **/usr/platform/***platform-name***/lib/fs/ufs/bootblk**. The boot block file is platform dependent, where *platform-name* can be determined using the –**i** option to **uname**(1).

SEE ALSO

uname(1), **format**(1M), **prtvtoc**(1M)

x86 Only

fdisk(1M), **installboot**(1M)

NOTES

Special care should be exercised when overwriting an existing VTOC, as incorrect entries could result in current data being inaccessible. As a precaution, save the old VTOC.

fmthard cannot write a disk label on an unlabeled disk. Use **format**(1M) for this purpose.