NAME

xy, xyc – disk driver for Xylogics 450 and 451 SMD Disk Controllers

SYNOPSIS

xyc@2d,ee40/xy@*slave***,0:***partition*
xyc@2d,ee48/xy@*slave***,0:***partition*

AVAILABILITY

SPARC

Only available on Sun-4/200, Sun-4/300, and Sun-4/400 series systems.

DESCRIPTION

The driver for Xylogics 450/451 devices consists of several components: a controller driver module (**xyc**) and a slave device driver module (**xy**). Each driver module has an associated configuration file, which lives in the same directory as the driver module. See **driver.conf**(4) and **vme**(4) for the interpretation of the contents of these files.

The block files access the disk using the system's normal buffering mechanism and may be read and written without regard to physical disk records. There is also a *raw* interface that provides for direct transmission between the disk and the user's read or write buffer. A single read or write call usually results in only one I/O operation; therefore raw I/O is considerably more efficient when many words are transmitted. The physical names of the raw files conventionally have '**,raw**' appended to them. The logical names for the raw files live in the **/dev/rdsk** directory, as usual.

When using raw I/O, transfer counts should be multiples of 512 bytes (the size of a disk sector). Likewise, when using **lseek**(2) to specify block offsets from which to perform raw I/O, the logical offset should also be a multiple of 512 bytes.

Partition **0** is normally used for the root file system on a disk, partition **1** as a paging area (for example, **swap**), and partition **2** for backing up the entire disk. Partition **2** normally maps the entire disk and may also be used as the mount point for secondary disks in the system. The rest of the disk is normally partition **6**. For the primary disk, the user file system is located here.

Due to word ordering differences between the disk controller and Sun computers, user buffers that are used for raw I/O must not begin on odd byte boundaries.

DISK SUPPORT

This driver handles all SMD drives by reading a label from sector 0 of the drive which describes the disk geometry and partitioning.

FILES

/kernel/drv/xyc	driver module
/kernel/drv/xy	driver module
/kernel/drv/xyc.conf	driver configuration file
/kernel/drv/xy.conf	driver configuration file
/dev/dsk/c*X***d***Y***s***Z*	block device, controller *X*, unit *Y*, slice *Z*
/dev/rdsk/c*X***d***Y***s***Z*	raw device, controller *X*, unit *Y*, slice *Z*

SEE ALSO

lseek(2), **read**(2), **write**(2), **driver.conf**(4), **vme**(4), **dkio**(7I), **hdio**(7I)

NOTES

In raw I/O **read**(2) and **write**(2) truncate file offsets to 512-byte block boundaries, and **write**(2) scribbles on the tail of incomplete blocks. Thus, in programs that are likely to access raw devices, **read**(2), **write**(2), and **lseek**(2) should always deal in 512-byte multiples.