

**NAME**

vp - Versatec printer-plotter

**DESCRIPTION**

Vp0 is the interface to a Versatec D1200A printer-plotter with a Versatec C-PDP11(DMA) controller. Ordinarily bytes written on it are interpreted as ASCII characters and printed. As a printer, it writes 64 lines of 132 characters each on 11 by 8.5 inch paper. Only some of the ASCII control characters are interpreted.

NL performs the usual new-line function, i.e. spaces up the paper and resets to the left margin. It is ignored however following a CR which ends a non-empty line.

CR is ignored if the current line is empty but is otherwise like NL.

FF resets to the left margin and then to the top of the next page.

EOT resets to the left margin, advances 8 inches, and then performs a FF.

The *ioctl*(2) system call may be used to change the mode of the device as follows:

```
#include <sys/ioctl.h>
short  cmd = 0XXX;
      :
      :
      :
      ioctl(fd, VIOCSETD, &cmd); /* used to set the mode */
or
      ioctl(fd, VIOCGETD, &cmd); /* used to get the mode */
```

The bits (XXX) mean:

```
0400  Enter simultaneous print/plot mode.
0200  Enter plot mode.
0100  Enter print mode (default on open).
040   Send remote terminate.
020   Send remote form-feed.
010   Send remote EOT.
04    Send remote clear.
02    Send remote reset.
```

When opened, a reset, clear, and form-feed are performed automatically. Notice that the mode bits are not encoded, so that it is required that exactly one be set.

In plot mode each byte is interpreted as 8 bits of which the high-order is plotted to the left; a '1' leaves a visible dot. A full line of dots is produced by 264 bytes; lines are terminated only by count or by a remote terminate function. There are 200 dots per inch both vertically and horizontally.

When simultaneous print-plot mode is entered exactly one line of characters, terminated by NL, CR, or the remote terminate function, should be written. Then the device enters plot mode and at least 20 lines of plotting bytes should be sent. As the line of characters (which is 20 dots high) is printed, the plotting bytes overlay the characters. Notice that it is impossible to print characters on baselines that differ by fewer than 20 dot-lines.

In print mode lines may be terminated either with an appropriate ASCII character or by using the remote terminate function.

**FILES**

/dev/vp0