

NAME

hardcopy – HP 7550A plotter spooler

SYNOPSIS

hardcopy [**-l**] [**-A** | **-B** | **-A3** | **-A4**] [file] ...

DESCRIPTION

Hardcopy reads HPGL graph drawing commands from the specified files, or the standard input if no files are specified, and produces a plot on the HP 7550A plotter. The plotting is performed in the background, by invoking *lp*(1), with the destination name **plotter**. This destination is currently set up with an interface for the HP 7550A plotter with sheet feeder. The environment variable **PLOTTER** can be set to select a different destination name, provided the destination's interface supports HPGL, if "plotter" is not the destination you want.

Each time *hardcopy* is invoked, a separate *plotter job* is created. Normally, each job is plotted on its own sheet of paper. If several files are specified in one invocation of *hardcopy*, they are plotted together as one job on one sheet of paper. The jobs are plotted in the order they were submitted. After each job, a **PG** command is sent to the plotter, to load a new sheet of paper.

It is also possible to have several jobs plotted on a single page. The *layout*(1) program allows you to divide a page into several *panels*. The next several plotter jobs you submit will not be queued for plotting immediately. Instead, they will be collected until there are enough to fill all panels in the layout, and then all plotted on the same sheet of paper, each job in its own panel. The **PG** command will only be sent after the last panel is plotted. *Hardcopy* then reverts to its normal mode of operation (one plotter job per page). Several layouts can be in effect simultaneously, one for each combination of user name and tty; all jobs that are to be part of a layout must be submitted by the user and from the tty for which the layout is in effect. The **-l** option can be specified to force *hardcopy* to ignore any layout in effect, and immediately spool the current job.

Before invoking *hardcopy*, make sure the plotter is powered up and on-line, and make sure that a clean sheet of paper has been loaded. Also make sure the *autoload* option is enabled, otherwise a clean sheet will not be loaded when requested.

Hardcopy is automatically invoked to handle plotting when you select the *Plot/Plotter* or *Hardcopy/Plotter* option in the data analysis programs *qm*, *analysis*, *peel*, *raster*, and *wtsum*, as well as in the *layout* program.

Because *hardcopy* reinitialises the plotter for each job, and before plotting each panel in a layout, any instructions you send to the plotter beforehand to set various plotting parameters (like **VS**, **FS**, or **AS**) will have no effect. To get around this problem, you can set the environment variable **HPGLINIT** to the string of HPGL commands you want performed after an **IN** instruction. This string will be sent to the plotter for each plotter job, and for each panel plotted in a layout.

The environment variable **VFONT** is passed along as a local option to the *lp* interface for the plotter. For interfaces that emulate HPGL in software (see *emuhpgl*(1)), and for the HP 7475 interface, this will determine the Hershey font used for plotting text. For the interface to plotters fully compatible to the HP 7550A, if **VFONT** is set to one of the ISO fonts with the Latin 1 extensions, all non-ASCII characters to be sent to the plotter are assumed to be Latin 1 extended characters, and are translated to the equivalent HP Roman 8 characters.

For interfaces that emulate HPGL in software, and for the HP 7475 interface, the output graphics are of a size and aspect ratio equivalent to what would be produced by an HP 7550A plotter on A-size (8.5×11") paper. The page size options, **-A**, **-B**, **-A3**, and **-A4**, adjust the coordinate system and aspect ratio to correspond to the plotter's defaults for that page size. The default page size can also be changed by setting the environment variable **HPGLPAGE** to one of the above page sizes.

For the HP 7475 plotter, you must set the A3/A4 and US/MET switches to the proper positions for the paper you are using, and specify the page size to the software, using the above options or environment variable. The *layout*(1) program will automatically pass the page size option to *hardcopy*, based on the

page size set for the current layout file, when you select *Plot/Plotter*. If you use anything other than A-size paper when plotting from other programs, you should set the **HPGLPAGE** environment variable accordingly.

FILES

/usr/neuro/spool directory for layout spool files
/usr/neuro/spool/L* current panel layout files

SEE ALSO

lp(1), layout(1), fixhpsp(1), emuhpgl(1), qm(1), analysis(1), peel(1), raster(1), wtsum(1)