

# PGPLOT PNG Driver Patch

Here you will find my [PNG driver patch](#) to PGPLOT.

## Important Note

As of PGPLOT version 5.2.1, this PNG driver is included in the normal distribution. So you do not need the patch here for newer versions of PGPLOT. However, if you have 5.2.1 or 5.2.2, there is a change to the *makemake* in the distribution that will be required. Line 1028 of *makemake* (in 5.2.2, at least) is the following:

```
pndriv.o : ./png.h ./pngconf.h ./zlib.h ./zconf.h
```

This line should be commented out before running the *makemake* script. Additionally, if you're using the GNU compiler and linker, you may want to change the output *makefile* so that the following values are set:

```
PGPLOT_LIB=-L`pwd` -lpgplot
CPGPLOT_LIB=-L`pwd` -lcpgplot -lpgplot
SHARED_LIB_LIBS= -Wl,-Bstatic -L/usr/X11R6/lib -lX11 -lpng -lz -lg2c -Wl,-Bdynamic
```

This will cause libpng, libz and libg2c to be statically linked into libcpgplot, and makes linking of subsequent programs much simpler.

## Features

- Normal (/PNG) and transparent-background (/TPNG) PNG devices available.
- Caller may have as many simultaneous devices open as PGPLOT (eight as of PGPLOT 5.2.0) will allow. This is in contrast to other PGPLOT drivers such as Postscript and GIF which allow only one open device at a time.

## Instructions

1. Download the PNG driver patch to PGPLOT 5.2.0 [here](#).
2. After unpacking the PGPLOT sources, change into the resulting PGPLOT directory.
3. Apply the patch:

```
$ patch -p1 < ../pgplot-png.diff.3
```

4. While selecting drivers from the `drivers.list` file, uncomment /PNG and /TPNG.
5. After makemake creates the build `makefile`, manually edit it to include the following:

- Add `-lz -lpng` to `LIBS`. For example,

```
#
# Loader library-flags
#
LIBS=-L/usr/X11R6/lib -lX11 -lz -lpng
```

- Add `pndriv.o` to `DRIVERS`. For example,

```
DRIVERS=gidriv.o nudriv.o ppdriv.o psdriv.o pndriv.o wddriv.o xwdriv.o
```

- Add a target rule for `pndriv.o`. For example,

```
psdriv.o: $(DRVDIR)/psdriv.f
    $(FCOMPL) -c $(FFLAGC) $(DRVDIR)/psdriv.f
pndriv.o: $(DRVDIR)/pndriv.c
    $(CCOMPL) -c $(CFLAGC) $(DRVDIR)/pndriv.c
```

6. Build PGPLOT as usual.

## Notes

- Both [zlib](#) and [libpng](#) must be installed to use this driver. Likewise, all applications using PGPLOT must be linked with `-lz -lpng`.

## Contact

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