

With the HP650C plotter you can create very impressive graphic displays. Over the past few months there have been some frequently asked questions on the setup of the plotter, and customizing the plots. This Technote will address those questions.

Procedure:

Are there specific settings on the plotter that need to be set?

There are three settings on the plotter that should be set, all others are user preference.

- Pen Setting: Palette = Software
- Page Format: Size = Inked area
- Plotter Setup: Lang = HPGL2
- Plot mgmt: Nest = Optimal, In order

Setting the *Palette = Software* will allow the TECHBASE colors.map to be used as the color palette and allow you to control the line width desired. *Size = Inked area* will cut a plot off at the inked area, which will save paper on smaller plots. *Language = HPGL2* will use the Hewlett Packard Graphics Language 2. *Nest = Optimal, In order* places small plots next to each other to conserve paper.

An example mftr command to send a plot after these settings are done is:

```
mftr -whpgl2 -dlpt1 -m my_plot.met
```

My lines are too thick (or thin.) How do I change their width?

The line width can be set for those lines in a metafile that have not had an explicit width requested. The line command will be ignored on any line style that has already been assigned a specific width. This parameter is very subjective, therefore it may take a couple of tries to get the width that best fits your needs. An example line width option would be:

```
mftr -whpgl2 -dlpt1 -l.0003 -m my_plot.met
```

The.0003 represent.3 millimeters. Remember, the *-l* option will only work if *Palette = Software* is selected on the plotter.

The colors on the plot are not what I expected - what happened?

The Pen setting was not set as *Software* (see plotter settings above) or you do not have a color map in your TBHOM directory. The colors.map should exist in the TBHOM directory. If it doesn't, a sample colors.map (called colors.msl or colors.spl) can be copied into colors.map and edit as desired.

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My plot has a black background - what happened?

The colors.map has the background as BLACK (absence of all colors) instead of WHITE (presence of all colors), simply switch line one and two. To get a white background, the first few lines of the color map would look like the following:

```
1.0000 1.0000 1.0000 1 WHITE (Background)
0.0000 0.0000 0.0000 0 BLACK
0.9375 0.0000 0.0000 2 RED
0.1875 0.7500 0.0000 3 GREEN
0.0000 0.0000 0.9375 4 BLUE
```

Where the first three numbers are the amount of RED, GREEN, and BLUE (respectively) needed to produce the color and all following information is used only as annotation to help the reader know what color is being produced. Remember, the *colors.map* will only be used if *Palette = Software* is selected on the plotter.

My plot gets cut-off - what do I do?

When a plot is larger than 35.4" in length, a larger paper size must be specified using the *-h* option. If a paper size is not selected, the plot may be cut off. The *Size = Inked area* must also be set, or the *-h* option will be ignored.

A paper size should be added to your paper.map to handle the biggest plot you plan on sending. For example the paper.map file would look like the following:

```
A 8.5 11.0 e
B 11.0 17.0 e
C 17.0 22.0 e
D 22.0 34.0 e
E 34.0 44.0 e
A0 84.1 118.9 m
A1 59.4 84.1 m
A2 42.0 59.4 m
A3 29.7 42.0 m
A4 21.0 29.7 m
HUGE 36.0 90.0 e
```

This new paper size will be used when sending a plot larger than the plotter default size (35.4" x 35.4"). An example of the mftr command is:

```
mftr -whpgl2 -dlpt1 -l.0003 -hHUGE -m my_plot.met
```

For more information on *MFTR* consult the **MFTR(1gr)** section of the TECHBASE Reference Manual, the **May, 1993** Technote entitled, **Special purpose metafile translation options** and the **June, 1993** Technote entitled **Plot Rotation**.

For more information on *colors.map* or *paper.map* consult the ["Colors.map" on page appendix-54](#). and ["Formats" on page appendix-53](#) sections.