Subject: Re: Outputting to E-sized Postscript files?
Posted by gpetty on Wed, 11 Jun 1997 07:00:00 GMT
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In article <339DEC87.785F@mda.ca>, William Young <wyoung@mda.ca> wrote:
> *sorry, the last post format got screwed up*
>
> Hello,
>
> Currently, I am trying to use IDL to generate postscript file reports
> for an E-size paper printer (24" or 36" accross). The problem is we
> don't have a E-size printer in house, and I will have to send out the
> file to be printed. This pretty much means I want to be sure it looks
> right before I send it off.
>
> So I guess my question is this: Has anyone ever had any problems of
> creating a 36" wide postscript file through IDL? Right now, when
> setting my device, I give XSIZE = 36.0, and YSIZE =36.0. I was hoping
> that I would be able to use ghostview and scroll this outputted image to
> see all 36" of it. However, it seems like ghostview is allowing me to
> view only 8.5 x 11.0 inches of the 36" image. Is this a ghostview
> problem, or is IDL not really capable of outputting a postscript file
> this large (in
>
> If ghostview simply can't view ps files this large, does anyone have
> any suggestions as to how I might preview this file before printing it
> out?
>

In my limited experience, the main things that control the final size
and placement of a PostScript image are the "scale", "translate", and
"rotate" commands. Usually you'll find these near the top of a
PostScript file (perhaps as aliases), and they can be edited with a
text editor to change the size and position of the output image.

I have never used IDL, but I often use other applications to initially
generate a PostScript image that will print on 8.5x11 paper. I have
then on occasion gone into the file with my text editor and changed
the "scale" and "translate" parameters so as to make the image bigger
or smaller or to place it differently on the page.

For example, if you find a line in the PS file that says

 0.8 0.8 scale

where the two numbers indicate x and y scaling, then changing it to

1.6 1.6 scale

will make the image twice as large. Because the assumed coordinate system does not usually have its origin at the center of the page, changing the scale will also usually have the side effect of shifting the image horizontally and/or vertically. You can fix this by adding a "translate" command (or adjusting the arguments to an existing one), such as

100 300 translate

which shifts the subsequent image code 100 units to the right and 300 units up. Unfortunately, I have found that determining the correct offsets is usually a matter of trial and error. This is especially true if you add a "rotate" command, e.g.,

90 rotate

which rotates the image 90 degrees, so as to take a landscape mode image and turn it into portrait mode

Using the above tricks, you can easily take an 8.5x11 image and magnify or reduce it by an arbitrary amount. And then you can even print that image in stages on an 8.5x11 printer by manually adjusting the "translate" parameters so as to shift different parts of the image onto the page (of course you have to tape everything together at the end).

In your case, to verify the integrity of your 36" image, I would simply try inserting a line like

0.1 0.1 scale

immediately after the preamble part of the PS file. That should convert it to a 3.6x3.6 image which will print on an ordinary sized sheet of paper.

These kinds of manipulations can be tricky with some PS files, but it's the only way I know of to exercise positive control over the output. It's especially handy if you want to take multiple independent PS files and merge them into a single PS image (e.g., one with four panels), using translate and scale commands to adjust their placement.

If you're working with Encapsulated PostScript, you have to remember to adjust the BoundingBox appropriately, or else any applications that load the files will place the images incorrectly.

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