Subject: Recovery from PostScript file
Posted by Chris Roberts on Wed, 12 Jan 2000 08:00:00 GMT
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I have a user who generated a PostScript file of his IDL data as a graph,
and has now lost his data file. Is there anything sensible I can do to help
him recover some of the data from the PostScript file?

Thanks.

Subject: Re: Recovery from PostScript file
Posted by raouldukey on Wed, 12 Jan 2000 08:00:00 GMT
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"Liam E. Gumley" <Liam.Gumley@ssec.wisc.edu> wrote:

>
> An indirect method is to scan the printed graph into a high
resolution bitmap,
> and then use a program like QuickTrace to digitize the data points:
> http://servermac.geologie.uni-frankfurt.de/QuickTrace.html
>

I have used similar software on a PC called WinDIG that worked
in the same manner and it worked quite well. I don't have a
URL, but it shouldn't be too difficult to find.

>
> However I think it would be best if you just tell your user that he
blew it, and
> that he should learn to make backups. This will serve him better in
the long run
> than trying to extract data points from plots.

Agreed!

Subject: Re: Recovery from PostScript file
Posted by William Daffer on Thu, 13 Jan 2000 08:00:00 GMT
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davidf@dfanning.com (David Fanning) writes:

> Chris Roberts (c.roberts1@ic.ac.uk) writes:
>
>> I have a user who generated a PostScript file of his IDL data as a graph,
>> and has now lost his data file. Is there anything sensible I can do to help
>> him recover some of the data from the PostScript file?
>
> With the exception of providing him with a good ruler with lots of
> gradations, no. :-(
>
> The PostScript file has as much relationship to the data as a
> picture of your user has with your user.
>
> Cheers,
>
> David
>
> --
> David Fanning, Ph.D.
> Fanning Software Consulting
> Phone: 970-221-0438 E-Mail: davidf@dfanning.com
> Coyote's Guide to IDL Programming: http://www.dfanning.com/
> Toll-Free IDL Book Orders: 1-888-461-0155

Oh, I don't know about that!

I know someone that did this. Postscript is an interpreted language. Once you learn the language, and provided that the data is vector graphics, you should be able to retrieve that data to some level of significance. Maybe even alot. The language just says things like, "go to this location on the page and draw a line from here to this other location," where 'location' is specified in some completely determined local coordinate system. You have the coordinate system. You know the origin and the scale. You should be able to convert it back to 'real' data just as you can go from 'device' coordinates on an X window to 'data' coordinates. You wouldn't have to learn all that much, just the statements that define the coordinate system of the page and those that have to do with drawing polygonal line segments. But, it would be more in the way of a long term solution, and it wouldn't work on bitmaps.

However, the sentiment is that it isn't worth it for one graph. Unless it's a real! important one, best to just scan it and convert it using a high res tiff or something like that. Otherwise, tell 'em they blew it.

William

--
Outside of a dog, a book is man's best friend.
Inside of a dog, it's too dark to read.
Groucho Marx.
Public Key: http://home.earthlink.net/~whdaffer/#PGP-public-key

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Subject: Re: Recovery from PostScript file
Posted by roy.hansen on Fri, 14 Jan 2000 08:00:00 GMT
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In article <85ib48$h5n$1@jura.cc.ic.ac.uk>, "Chris Roberts" <c.roberts1@ic.ac.uk> wrote:
> I have a user who generated a PostScript file of his IDL data as a graph,
> and has now lost his data file. Is there anything sensible I can do to help
> him recover some of the data from the PostScript file?

Yes, provided that you have the appropriate software.

Rule of thumb:
1) If your PostScript file contains bitmaps then use a scanner (as described in earlier replies).
2) If your PostScript file contains curves, do the following:
- Open the PostScript file in a program that has a PostScript Interpreter.
CorelDraw 9 is such a program.
- Then select the curve (data) you are after, copy and paste into a new document.
- Save the new document in Adobe Illustrator format (.ai) without preview and fonts.
- Open the .ai file in IDL 5.3 with the ascii-read button. Here you can easily cut away
the file header and specify which columns you want.
- Voila! You now have the geometrical positions of the data points in your PostScript
plot in a struct with the same name as the filename.

Of course, you do have to scale and offset both the x and y data....
But, then again, you must pay something for loosing the data file :-)

This method is for the novice user. If you consider yourself a hairy user, then fire up
your favorite editor, write a simple perl-script that extracts the curve-data directly from the
postscript file. Shouldn't be that difficult.

--RoyH
