Subject: digitize a curve from an image
Posted by Kristian Kjaer on Fri, 18 Aug 2000 07:00:00 GMT

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I have a gif file (B/W only, no greys or colours) showing a line graph.
Now I would like to get hold of the x,y arrays represented by the curve.
Has anyone written something to do that already?
The coordinate axes are a little skewed in the image (originally
scanned).

Thanks for any help, Kristian

Kristian Kjær, Physics Dept., Risø Natl. Laboratory, Denmark

Subject: Re: digitize a curve from an image
Posted by Kristian Kjaer on Fri, 18 Aug 2000 07:00:00 GMT

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> Kristian Kjær wrote:
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Med Bennett wrote:
> Here is a link to the program I was thinking of -
> http://www.nikhef.nl/user/keeshu/datathief/

Thanks a lot. Looks good; but for some reason it won't display my
images. (3288x2412x2 gif and 8520x6392x2 gif).
Also, I realize, the curve is not a continuous line of pixes (rendered
with dots or dashes, I think), so the program's trace function wouldn't
work. I probably have to use the mouse to define the curve.
So I'm still interested in any pointers.

- Kristian
Kristian Kjær, Physics Dept., Risø Natl. Laboratory, Denmark

Subject: Re: digitize a curve from an image
Posted by John D. Sample on Fri, 18 Aug 2000 07:00:00 GMT

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Yes and there is another called "Digigraf" (freeware) by W.S. Tortike in
Alberta. It works by clicking on the origin then clicking the ends of the x
and y axes, entering the scale, and then clicking on points of the graph.

Again, its a Mac application...I don't know if a PC version exists.

Chip

In article <399D552E.F1297818@indra.com>, Med Bennett <mbennett@indra.com>
wrote:

> Here is a link to the program I was thinking of - ominously named
> "Datathief".
>
> http://www.nikhef.nl/user/keeshu/datathief/
>
> Kristian Kjï¿½r wrote:
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>> Kristian Kjï¿½r, Physics Dept., Risï¿½ Natl. Laboratory, Denmark

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> Kristian Kjï¿½r, Physics Dept., Risï¿½ Natl. Laboratory, Denmark

Subject: Re: digitize a curve from an image
Posted by mchinand on Fri, 18 Aug 2000 07:00:00 GMT

It's not any IDL program, but check out g3data at:

http://www.physics.helsinki.fi/~frantz/software/g3data.html

It should do what you want. It looks like it was mainly written for Linux
but it will probably compile under most Unix platforms if you have gtk
installed. I have compiled it for IRIX 6.5

Hope that helps,

--Mike

In article <399D1679.CE7E5633@Risoe.DK>,

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> Thanks for any help, Kristian
> -------------------------

--
--
Michael Chinander   University of Chicago
m-chinander@uchicago.edu   (773)834-5101 (Voice)   (773)702-0371 (Fax)

Subject: Re: digitize a curve from an image
Posted by Med Bennett on Fri, 18 Aug 2000 07:00:00 GMT

I know that there is at least one standalone program that is supposed to
do this, I think it's a Mac thing. Failing that, I guess I would
digitize it in device coordinates, and then use POLYWARP to try to
recover the data coordinates. I'll see if I can find the name of that
program. Good luck,

Med

Kristian Kjï¿½r wrote:

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> -------------------------
> Kristian Kjï¿½r, Physics Dept., Risï¿½ Natl. Laboratory, Denmark

---

Subject: Re: digitize a curve from an image
Posted by promashkin on Tue, 22 Aug 2000 07:00:00 GMT
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I am beginning to wonder, maybe it is worth contacting the authors of
the figure and get the data from them in the digital form? No matter
what you do with the image, digitizing will be limited in precision.
Just tried to be helpful.
Cheers,
Pavel

Subject: Re: digitize a curve from an image
Posted by Kristian Kjaer on Tue, 22 Aug 2000 07:00:00 GMT
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Thanks for your replies.

One problem I had was that in all the programs the screen resolution was
a limiting factor; my scanned images had many more pixels than would fit
on the screen.
I thought of hacking something in IDL with

tvscl,image
while ... do cursor,x,y ; click to get the coord frame
while ... do cursor,x,y ; click to get the curve
polywarp, ...   ; to get the coord. transformation (as
suggested).

but then I realized that again the screen resolution would limit the
result. Apparently, what I'd need is a rowing zoom window for exploring
the image.

In the end I decided to settle for screen resolution.

- Kristian

Kristian Kjær, Physics Dept., Risø Natl. Laboratory, Denmark

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Subject: Re: digitize a curve from an image
Posted by Kristian Kjaer on Wed, 23 Aug 2000 07:00:00 GMT
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David Fanning wrote:
> I wouldn't be at all surprised to hear that Kristian *himself*
> is the author of the figure. That's how it usually works,
> in my experience, anyway. :-)
>
> Cheers, David

Pretty close! - Kristian

Subject: Re: digitize a curve from an image
Posted by davidf on Wed, 23 Aug 2000 07:00:00 GMT
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Pavel Romashkin (promashkin@cmdl.noaa.gov) writes:

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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

Subject: Re: digitize a curve from an image
Posted by Kristian Kjaer on Wed, 23 Aug 2000 07:00:00 GMT
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> what you do with the image, digitizing will be limited in precision.
> Just tried to be helpful.
> Cheers, Pavel

Of course. Morten who calculated the curves had a crash of his harddisk.
He has to reconfigure before he can recalculate the curve from raw data
backed-up on tape. He also left for holidays. We're talking several
weeks here. I wanted to move quicker than that, even at some loss of
precision.

Best regards, Kristian

Subject: Re: digitize a curve from an image
Posted by Martin Schultz on Wed, 23 Aug 2000 07:00:00 GMT
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Kristian Kjaer wrote:
>
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Two possible solutions (aside from a request for the digital
data):
1. get a bigger monitor
2. scan the image in a lower resolution so it fits onto your
screen (or use photoshop or the likes to resample the image into
a lower resolution)

Martin

--
[[[[[[[[[[
[[Dr. Martin Schultz   Max-Planck-Institut fuer Meteorologie
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[[Bundesstr. 55, 20146 Hamburg
[[
[[phone: +49 40 41173-308
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[[fax: +49 40 41173-298
[[
[[martin.schultz@dkrz.de
[[
[[[[[[[[[[

Subject: Re: digitize a curve from an image

Posted by marc schellens[1] on Fri, 25 Aug 2000 07:52:36 GMT

>
> Two possible solutions (aside from a request for the digital
> data):
> 1. get a bigger monitor
> 2. scan the image in a lower resolution so it fits onto your
> screen (or use photoshop or the likes to resample the image into
> a lower resolution)
>
Or 3. use a scrolling base around your draw widget.
cheers,
:-) marc