
Subject: 3D plot of set of curves
Posted by [Timm Weitkamp](#) on Mon, 24 May 2004 14:44:41 GMT
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Dear people,

I have a set of curves -- say, the values are in a 2D array "Z" -- and would like to make a nice-looking graph something like this hand-drawn sketch:

<http://tinyurl.com/36frg>

(NB: On Sat-Sun 29-30 May it's probably useless trying this link -- they tell me our web server will be down. Sorry about that.)

In what way exactly the "walls" are shaded is not crucial, but I definitely want the "base lines" (i.e., the lines at $z=0$) drawn, with hidden lines removed, as in the sketch figure referenced above.

I looked into the help for SURFACE and SHADE_SURF, but did not find what I need. The HORIZONTAL keyword to SURFACE goes in the right direction, but does only does a disappointingly small part of the job.

Is there a not-too-cumbersome way in IDL to do what I want?

Timm

--
Timm Weitkamp <<http://people.web.psi.ch/weitkamp>>

Subject: Re: 3D plot of set of curves
Posted by [David Fanning](#) on Tue, 25 May 2004 16:58:40 GMT
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Timm Weitkamp writes:

> It finally turned out not to be so hard, yet without any object graphics.

Oh, very nice! And at under 20 lines, it qualifies for the IEPA Small, But Damn Powerful Code Contest. :-)

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.

Subject: Re: 3D plot of set of curves

Posted by [Paul Van Delst\[1\]](#) on Tue, 25 May 2004 19:46:33 GMT

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Timm Weitkamp wrote:

> On 24.05.04 at 17:33 -0600, David Fanning wrote:

>

>

>> Timm Weitkamp writes:

>>

>>

>>> I have a set of curves -- say, the values are in a 2D array "Z" -- and

>>> would like to make a nice-looking graph something like this hand-drawn

>>> sketch:

>>>

>>> <http://tinyurl.com/36frg>

>>>

>>> [...]

>

>

>> Is there a built-in IDL routine to do it? I don't

>> think so. I've never seen one. Can I imagine writing such

>> a routine? Yes. I'd definitely do it in object graphics,

>> because the 3D part of it will be much easier, and you

>> will be able to rotate it, which will make it easier for

>> the user to see different parts of it.

>

>

> It finally turned out not to be so hard, yet without any object graphics.

> The T3D mechanism provides enough rotation functionality for my purposes.

>

> Below is the code I am now using. Poorly documented, unreliable, no

> _EXTRAS, etc. But it does what I want. And there is an example at the end,

> for whoever may want to look at it :-)

Oh my! Well done. That's a direct graphics tool that's going into my /user_contrib directory. (I have a crontab script to purge any object graphics code that may inadvertently sneak in :o)

paulv
