Subject: Re: signal processing package for IDL
Posted by kevin on Wed, 29 Jul 1992 22:10:48 GMT
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>> I am interested in finding procedures for signal processing (design of
>> filters, filtering, etc), similar to the signal processing toolbox for
>> matlab), for IDL. Is there something like that in existence? Is
>> there such package available for pvwave? Any pointer will be
>> appreciated.
>>

I have noticed that there has been a lot of interest from matlab-ites
in doing matlab-like things under PV wave CL. About half a year ago
I wrote an interface which connects matlab to PV wave via a server
running in PV wave. The result is that a user in matlab can call PV
wave functions directly from matlab without ever knowing PV wave even
exists. I emulated all of the matlab graphics in PV wave (ie plot
becomes wplot, mesh becomes wmesh, etc), as well as wrote many functions
which take advantage of PV waves superior graphics. For example, I just
finished a routine (wscroll) which takes as input a vector and displays
two plots in 1 window. The top plot is the whole vector, and the bottom plot
is a section of the vector (the section is marked by a rectangle on the top
plot). The user can scroll the bottom plot left and right using the
mouse buttons while the rectangle on the top plot tracks the position.
The user can also change the scale of the bottom plot by using the mouse
to change the size of the rectangle on the upper plot. There are some
other things it does, but you get the picture. The function wscroll
returns to matlab the section of the vector which was displayed in the
lower plot upon exiting.

Basically, anything you can do in PV wave CL, you can do directly
from matlab using the interface. The result is probably
the most powerful mathmatics/graphics package available. I talked to
someone at matlab about the interface, but they weren't interested in
it because their major thrust in future versions of matlab is to
improve their own graphics. We have a beta version of the next release
of matlab over here, and while they obviously have spent a great deal
of time improving their graphics, they still don't come close to looking
as nice or being as complete as PV wave. One problem with the new release
is that, if anything, their graphics are even slower than the old version!
Anyone who plots large vectors/matrices knows what a pain it is to sit there
and wait matlab to finish doing a plot or a mesh. PV wave is at least an
order of magnitude faster.

I also talked to a couple of sales reps at Precison Visuals about the
interface. They showed genuine interest in it, but they either forgot
about me or are dragging their feet. I know that there would be a lot
of interest in this interface, but the PV people aren't doing anything

about it. I'm not trying to sell it to them, rather I'd give it to them (if Lockheed will let me) if they would show some interest. The ironic thing is that they (the PV people) already talked to the Mathworks people about doing exactly what I've already done, but the Mathworks deep sixed the idea (probably for the reason above).

If anyone out there is interested in helping me get this interface distributed via P.V., contact your local PV sales rep and tell them about the interface. If enough of their reps hear about it, I'm sure that I'll be getting a phone call from them sooner or later. Again, I'm not making any money off of this. I'm trying to give it away.

Kevin Anderson
kevin@dipl.rdd.lmsc.lockheed.com
