Subject: Re: Passing function to function called by qromb etc.?
Posted by landsman on Wed, 16 Aug 2000 07:00:00 GMT
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In article <399ad505$1@cs.colorado.edu>,
  jwilson@shifty.cs.colorado.edu (John Wilson) wrote:
> I would like to numerically integrate f(x) * x in IDL. This is coming
> up within another function which takes the function f as one of its
> parameters. What I would like to do is define a function xfx which
> computes f(x) * x for a given x and call qromb with the function
> xfx with a parameter of the function f. However, I cannot figure out
> how to do this.
>
> I thought of
> function xfx,x,func=f
> return, call_function(func,x) * x
> end
>
> foo=qromb(xfx,a,b,func='bar')
>
> but that does not work. What I really need is a capability like the
> bind argument facility of the STL.
>

How about this ugly solution?

```
function xfx,x
common func
return,call_function(func,x)*x
end

common func
func = 'bar'
foo = qromb(xfx,a,b)
```

A while back in the "Top Ten IDL Requests" thread, I made a wish that
the IDL implementations of Numerical Recipes routines that call
user-supplied functions (QROMB, LMFIT) would allow vector calls to the
user functions. I should have also added that the user should have the
ability to pass keywords directly to the user-supplied function.

I haven't tried it but both these capabilities are available in Mati
Meron's procedure ROMBERG at ftp://cars3.uchicago.edu/midl/romberg.pro

I have similar capabilities for QSIMP and QTRAP at
http://idlastro.gsfc.nasa.gov/ftp/pro/math/

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