
Subject: Re: Getting generic routine to call function.

Posted by [black](#) on Fri, 19 Nov 1993 10:20:05 GMT

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Ooops, Sorry managed to somehow post a zero length message

OK that message again.

Here's the situation. I have a generic numerical routine such as a numerical integration routine, or a Newton-Raphson routine. Ideally I'd like to write them so that they can operate on any routine that evaluates a function. However IDL/WAVE doesn't seem to allow you to pass the name of the routine that evaluates a function into the generic routine, so that the generic routine can use it. This situation is obviously best if it can be achieved, because it means that you don't have to have multiple copies of the generic routine all called something different, but only differ in detail in that they call a different function evaluating routine

So has anyone come up with a way to do this or a way to structure code to get around this problem?

Thanks in advance,

Subject: Re: Getting generic routine to call function.

Posted by [saken](#) on Fri, 19 Nov 1993 14:09:37 GMT

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In article <2ci6klINnc52@freud.dra.hmg.gb>, black@signal.dra.hmg.gb (John Black) writes:

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|>

|> OK that message again.

|>

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|> integration routine, or a Newton-Raphson routine. Ideally I'd like to write

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|> routine all called something different, but only differ in detail in that they

|> call a different function evaluating routine

|>

|> So has anyone come up with a way to do this or a way to structure code to

|> get around this problem?

|>

|> Thanks in advance,

The CALL_FUNCTION command sounds like what you want. Something like this:

```
pro generic,p1,p2,p3,...,name=name
.  
.  
.  
result = call_function(name,p1,p2,p3)  
.  
.  
.
```

"name" would be the name of the evaluating function and "result" would be the value returned. Is this what you wanted?

jon saken

Subject: Re: Getting generic routine to call function.
Posted by [thompson](#) on Fri, 19 Nov 1993 15:13:26 GMT
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black@signal.dra.hmg.gb (John Black) writes:

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> OK that message again.

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> integration routine, or a Newton-Raphson routine. Ideally I'd like to write
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> routine all called something different, but only differ in detail in that they
> call a different function evaluating routine

> So has anyone come up with a way to do this or a way to structure code to
> get around this problem?

> Thanks in advance,

Yeah, that's easy. :^) Simply pass the name of the function as a character string to the routine and then use EXECUTE to evaluate the function. Here are the relevant lines from one of my own routines that uses this technique:

```
PRO LSTSQR,X,Y,FNAME,PARAM,PERR
```

```
.  
.   
.
```

```
TEST = EXECUTE('F = ' + FNAME + '(X,PARAM,FDER)')
```

```
.  
.   
.
```

Bill Thompson
