Subject: Re: Can this be done using CALL FUNCTION? Posted by Martin Schultz on Tue, 07 Mar 2000 08:00:00 GMT

View Forum Message <> Reply to Message

```
edward.s.meinel@aero.org wrote:
```

```
> OK, here's one for the IDL gurus (since I'm only a little guru would
> that make me a gu-gu?)...
> I am working with spectral images. Unfortunately, IDL is geared toward
> multidimensional data in which all of the dimensions are the same type
> (i.e. spatial, spectral, frequency...) but it doesn't like to operate on
> data with mixed dimensions, such as a multispectral image (unless I'm
> missing something really obvious).
Rather than having to rewrite every bloody function/procedure for
> spectral imagery. I was hoping it would be possible to write a generic
> wrapper function along the lines of:
> FUNCTION spatial_function, name, image, other_stuff
> im size = SIZE(image)
> CASE im size OF
```

> [... rest of code snipped][/color]

Ed,

in a perfect world you could do this, although you should add EXTRA=e to your wrapper to allow for keywords. Unfortunately, several of the built-in (or library) functions are not forgiving when it comes to the wrong number of parameters and keywords. Therefore, you will probably not get around doing something (ugly) like:

function spatial_function, name, image, arg1, arg2, arg3, arg4, _EXTRA=e

```
im_size = SIZE(image)
CASE im size OF
CASE n params() OF
 2 : CALL FUNCTION(name,image)
 3 : CALL FUNCTION(name,image,arg1)
 4 : CALL FUNCTION(name,image,arg1,arg2)
 ENDCASE
```

A way around this? Well, you could rewrite all the functions you would potentially call from such a wrapper and give them extra arguments which

```
are simply ignored if they are not needed.
Example:
change
FUNCTION Correlate, X, Y, Covariance = Covariance, Double = Double
into
FUNCTION Correlate, X, Y, DUM1, DUM2, DUM3, DUM4, DUM5, DUM6, $
Covariance = Covariance, Double = Double
And if the function doesn't have keywords, add _EXTRA=e to it.
Good luck,
Martin
[[ Dr. Martin Schultz Max-Planck-Institut fuer Meteorologie
            Bundesstr. 55, 20146 Hamburg
                                             [[
[[
            phone: +49 40 41173-308
                                          [[
            fax: +49 40 41173-298
\prod
                                         [[
[[ martin.schultz@dkrz.de
                                         [[
```