
Subject: Re: Pass-By-Reference question.
Posted by [Chris Lee](#) on Wed, 10 Mar 2004 09:37:35 GMT
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In article <405594fa.0403100119.34769176@posting.google.com>, "Tim Robishaw" <timrobishaw@yahoo.com> wrote:

```
> Hi there,  
> I've been using _REF_EXTRA for a long time now and have come to  
> appreciate that values of keywords sent to a module with the _REF_EXTRA  
> mechanism will override any keywords that are set inside the module.  
> Here is a great example: pro whaddup, _REF_EXTRA=_extra  
> plot, [0], [0], /NODATA, XRANGE=[-5,5], YRANGE=[-5,5], PSYM=4,  
> _EXTRA=_extra  
> end  
> IDL> whaddup  
> I see what the module asked for: axes from -5 to 5 with no datum  
> plotted.  
> Now I can override the XRANGE and YRANGE keyword values by passing them  
> by reference...  
> IDL> whaddup, XRANGE=[-1,1], YRANGE=[-1,1] I see what I asked for: axes  
> from -1 to 1. However, if I send NODATA set to ZERO, i.e., I'd really  
> like to see my datum this time...  
> IDL> whaddup, XRANGE=[-1,1], YRANGE=[-1,1], NODATA=0 I don't get what I  
> asked for. The value for NODATA sent by reference does not override the  
> value set inside the module. This is also true for the /NOERASE  
> keyword.  
> IDL newsgroup: whaddup?
```

Hi,

```
IDL> plot, findgen(10), nodata=1  
IDL> plot, findgen(10), nodata=1,nodata=0  
% Duplicate keyword NODATA in call to: PLOT  
% Execution halted at: $MAIN$  
IDL> e={nodata:0}  
IDL> plot, findgen(10), nodata=1,_EXTRA=e
```

Duplicate keywords give IDL no chance of knowing what to do, hence it complains, and it only looks in the _EXTRA struct if it doesn't find what it wants elsewhere. If you want an option of overriding the nodata keyword, you need to look for it first, hence

```
pro whaddup, nodata=nodata,_REF_EXTRA=_extra  
  
nodata_internal = 0
```

```
if(arg_present(nodata)) then nodata_internal=nodata > 0 < 1
```

```
plot, [0], [0], NODATA=nodata_internal, XRANGE=[-5,5], YRANGE=[-5,5], PSYM=4,  
_EXTRA=_extra
```

```
end
```

This works for any boolean keyword, for multi valued /array keywords you need N_ELEMENTS and IF..THEN..ELSE, depending on the default conditions you want for the variable.

Chris.
