
Subject: Re: Optional parameters

Posted by [David Fanning](#) on Tue, 24 Feb 2004 17:08:16 GMT

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David Fanning writes:

```
> Here is the same program with an optional keyword parameter
> named "junk":
>
> PRO TEST, JUNK=junk
>   On_Error, 1
>   IF N_Elements(junk) EQ 0 THEN junk = 3
>   Print, junk
> END
```

An alert reader, who wishes to remain anonymous, but who is well-known in the IDL programming community, points out that there is one possible gotcha in this formulation.

Namely, that an input variable that was previously undefined is now defined by my example. In other words:

```
IDL> Help, junk
      JUNK      UNDEFINED = <Undefined>
IDL> Test, JUNK=junk
IDL> Help, junk
      JUNK      INT      =      3
```

If the user were counting on the variable junk to remain undefined for some reason, there would be a nasty surprise in store here.

This is, of course, a consequence of parameters being input or output (or both) according to usage. I guess strictly speaking, you would need two different variables to represent parameters that are strictly input variables. The reader suggests this:

```
PRO TEST, JUNK=junk_local
  On_Error, 1
  junk = n_elements(junk_local) eq 0 ? 3 : junk_local
  Print, junk
END
```

While I absolutely agree with the logic, I find this to be a royal pain in the neck in practice. Do you read Whinnie the Pooh? I am one of those "bears of little brain" and having two names for the same variable sends me into fits of confusion every time. Lord knows I have enough problems just keeping up with defining the same keywords

over and over again for INIT, SetProperty, and GetProperty methods. Double names sounds like double work to me. I guess I'd rather track down the very rare "defined when I didn't want it to be" error than be frustrated with all the damn typos! :-)

Cheers,

David

P.S. Let's just say I admire the good folks at RSI who are going to all the trouble to make input keywords strictly input. :-)

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Coyote's Guide to IDL Programming: <http://www.dfanning.com/>
