
Subject: Re: Passing Keyword Parameters
Posted by [davidf](#) on Mon, 31 May 1999 07:00:00 GMT
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Kristjan Onu (konu@tuli.dhs.org) writes:

> I want to write a procedure with the following prototype:
>
> PRO easy_hist, file, hist_min = hist_min_val, hist_max = hist_max_val
>
> Because I want hist_min_val and hist_max_val to be optional keyword
> parameters, I use the following in easy_hist:
>
> if (keyword_set(hist_min_val) eq 0) then hist_min_val = 1
> if (keyword_set(hist_max_val) eq 0) then hist_max_val = 255
>
> The procedure has a bug in the sense that, if it is called with
> hist_min_val = 0, keyword_set(hist_min_val) returns zero and so
> hist_min_val is set to its default value of 1. Clearly the user
> intended to set hist_min_val equal to 0.
>
> Is there a simple way fix this bug in my procedure?

This is not a bug. It is a common misunderstanding of the purpose of the KEYWORD_SET function.

KEYWORD_SET returns a 0 if the argument is 0 or undefined. It returns a 1 if the argument is anything else at all. It should be used ONLY with those keywords that are going to be set to a boolean value. That is, those keywords are are true or false, yes or no, on or off, etc.

You should be using N_ELEMENTS to check if your keywords are undefined or not. Your code should look like this:

```
if n_elements(hist_min_val) eq 0 then hist_min_val = 1  
if n_elements(hist_max_val) eq 0 then hist_max_val = 255
```

Cheers,

David

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