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Subject: widget\_table

Posted by [R.Bauer](#) on Mon, 26 Apr 1999 07:00:00 GMT

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Is it possible to switch off the column or row labels.  
Not at all both.

R.Bauer

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Subject: Re: widget\_table

Posted by [davidf](#) on Wed, 23 Feb 2000 08:00:00 GMT

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Brian Reardon (reardonb@my-deja.com) writes:

> The following code (compliments to David Fanning) is intended to  
> generate two tables.

Now, hold on there, Brian. I didn't write this code.  
Nor did I ever (to my recollection) recommend that you  
write it. If word got out that I was recommending the  
Table Widget my reputation and credibility would be shot. :-(

> The first is a column lable for the second which  
> is to be edited by the user. The problem is that when I run this code  
> on my Mac with IDL 5.3 there is what appears to be an extra column and  
> row on the right and bottom of each table. Adding /scroll does not  
> cover this space up. In fact, it makes it worse. What causes this extra  
> space and how can I get rid of it.

I don't know what causes it. I don't think you can  
get rid of it. I've heard of it before, but I dislike  
the Table Widget so much I don't even want the correspondence  
about it polluting my directory structure, so I don't even  
have a record of what has been said about it.

> Also, a search on this newsgroup indicates that everyone hates  
> widget\_table.

Really!? How can that be? I'm sure it doesn't have anything  
to do with the way the damn thing works. :-)

> How can I accomplish the same thing without using  
> widget\_table?

Well, I haven't really had need for a table widget before  
(thank Goodness!), but if I needed a decent table widget

here is what I would do.

1. I'd write a Cell object, which would be a text widget smart enough to know if it was editable or not, whether it contained a number or string, whether it should always be positive, etc. I'd probably steal a great deal of code out of my FSC\_InputField object to write this object.

2. Then I would write a Table object that was an array or grid of these Cell objects. It would have the ability to tell Cell objects what to do. For example: resize yourselves, change all your values to 0, reorganize yourself from a 6x2 grid to a 2x6 grid, tell me what your current value is, etc. Whatever it was that would be required for my particular application.

3. I'd offer it for sale for one month. Then, when I realized how futile it was to get somebody to pay me for it, I'd offer it for free on my web page and hope someone would buy the book I wrote to describe how the free software works.

That's what I would do. :-)

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting

Phone: 970-221-0438 E-Mail: [davidf@dfanning.com](mailto:davidf@dfanning.com)

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

Toll-Free IDL Book Orders: 1-888-461-0155

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Subject: Re: widget\_table

Posted by [davidf](#) on Wed, 23 Feb 2000 08:00:00 GMT

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Whoops, forgot the PS!

P.S. Let's just say there are three things that get me riled up, and two of them are not my wife. :-)

--

David Fanning, Ph.D.

Fanning Software Consulting

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Subject: Re: widget\_table  
Posted by [Ben Tupper](#) on Thu, 24 Feb 2000 08:00:00 GMT  
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reardonb@my-deja.com wrote:

> I find it hard to believe that no one as been in my situation.

I've been in your shoes. I tried to write a widget wrapper for the CONVOL function. I had hoped to permit the user to define the kernal (and other parameters) on the fly. The only thing that flew was me off the edge. I resorted to predefining about 10 kernals of various character and size and allowing the user to select one. So much for exploratory data analysis!

> What is the best way to go about doing this if widget\_table is not to be  
> used?

Perhaps you could nest the widgets such that ,after the user selects the number of parameters in Test\_Params, a second widget is realized with the correct number of editable fields for each parameter. Each parameter could then be assigned a name field, min field, max field, etc. using a series of CW\_Field (or better yet FSC\_InputField.)

Ben

--

Ben Tupper

Bigelow Laboratory for Ocean Science  
[tupper@seadas.bigelow.org](mailto:tupper@seadas.bigelow.org)

[pemaquidriver@tidewater.net](mailto:pemaquidriver@tidewater.net)

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Subject: Re: widget\_table  
Posted by [davidf](#) on Thu, 24 Feb 2000 08:00:00 GMT  
[View Forum Message](#) <> [Reply to Message](#)

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Brian Reardon ([reardonb@my-deja.com](mailto:reardonb@my-deja.com)) writes:

> I find it hard to believe that no one as been in my situation. Perhaps I  
 > need to explain the problem a bit more. Let's say that I am writing an  
 > IDL program called X\_Optimizer that  
 > optimizes a vector of parameters (Test\_Params) that are sent to a user  
 > defined function called FX and FX returns a vector of data called  
 > Calc\_Data that is then compared to a vector of experimental data call  
 > Exp\_data. Based on how that comparison goes, X\_optimizer adjusts  
 > Test\_Params accordingly and then calls FX again. Now, let's say that  
 > each element of Test\_Params is somehow selected from a user defined  
 > range of possible values. In otherwords, in X\_Optimizer, there is a  
 > widget that allows the user to enter in how many variables are used by  
 > FX and what the upper and lower bounds on those variables are allowed to  
 > be. Thus, I need a widget that allows the user to input:  
 > 1) the number of variables that will be optimized,  
 >  
 > and then in (some sort of) table form:  
 >  
 > 2) a vector that holds the names of each variable (Temperature,  
 > pressure, IQ, etc)  
 > 3) a vector that holds the lower bounds of each variable (0., 0., 80.,  
 > etc)  
 > 4) a vector that holds the upper bounds of each variable (1000., 100.,  
 > 140., etc.)  
 > 5) a vector that holds a measure of the resolution that is needed for  
 > each variable(1.0,0.1,1.0, etc)  
 >  
 > What is the best way to go about doing this if widget\_table is not to be  
 > used?

I really don't know about the "best way". There are all  
 kinds of ways to organize your graphical user interface.  
 I'm just saying that for me personally the table widget  
 option is usually far down the list of possibilities.  
 So far down, in fact, that I have never yet had to  
 implement one. But, as Pavel points out, it may be  
 just the thing for you. You shouldn't let my personal  
 taste in graphical user interface elements get in the  
 way of your design decisions. :-)

I will say, however, that when I am thinking  
 about bounding the value of a variable that one of the  
 first things that pops into my head is a slider widget,  
 since I think (depending upon the application, of course)  
 that this gives better feedback to the user and allows  
 more freedom to "play" with the data. It also cuts down  
 on a lot of the error checking I would have to do if  
 I allowed the user to "type" a value.

In your case, I would think, probably, of creating a pop-up modal dialog that described the user's choices and offered a number of different kinds of widgets to express the user's wishes. It's hard for me to say, exactly, what that would look like without knowing more about the problem. But I'm pretty sure my implementation of the solution would not have a table widget. :-)

Cheers,

David

--

David Fanning, Ph.D.

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Subject: Re: widget\_table

Posted by [Pavel Romashkin](#) on Thu, 24 Feb 2000 08:00:00 GMT

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I had some inconvenient data entry needs too. If all you need is have the job done, why not use widget\_table, even with an extra row and column? It still functions, even with extra cells around it. David's suggestion was aimed at a hard-core IDLer and would produce far-fetching results. But the effort you'd need to put in it (not having David's experience) would be inadequate. I suggest using widget\_table and you can then go on with the application. I suppose observing the table is not the purpose of it? If it is, Excel is better: coloring, shading and all those fancy borders :-)

Cheers,

Pavel

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Subject: Re: widget\_table

Posted by [reardonb](#) on Thu, 24 Feb 2000 08:00:00 GMT

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Dave,

I find it hard to believe that no one as been in my situation. Perhaps I need to explain the problem a bit more. Let's say that I am writing an IDL program called X\_Optimizer that optimizes a vector of parameters (Test\_Params) that are sent to a user

defined function called FX and FX returns a vector of data called Calc\_Data that is then compared to a vector of experimental data call Exp\_data. Based on how that comparison goes, X\_optimizer adjusts Test\_Params accordingly and then calls FX again. Now, let's say that each element of Test\_Params is somehow selected from a user defined range of possible values. In otherwords, in X\_Optimizer, there is a widget that allows the user to enter in how many variables are used by FX and what the upper and lower bounds on those variables are allowed to be. Thus, I need a widget that allows the user to input:

1) the number of variables that will be optimized,

and then in (some sort of) table form:

2) a vector that holds the names of each variable (Temperature, pressure, IQ, etc)

3) a vector that holds the lower bounds of each variable (0., 0., 80., etc)

4) a vector that holds the upper bounds of each variable (1000., 100., 140., etc.)

5) a vector that holds a measure of the resolution that is needed for each variable(1.0,0.1,1.0, etc)

What is the best way to go about doing this if widget\_table is not to be used?

-Brian

Sent via Deja.com <http://www.deja.com/>  
Before you buy.

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Subject: Re: widget\_table

Posted by [Jean H.](#) on Thu, 24 May 2007 16:01:08 GMT

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skymaxwell@gmail.com wrote:

> how i can get ALL values from widget table ?

>

WIDGET\_CONTROL, tableID, GET\_VALUE=table\_value

Jean

---

---

Subject: Re: widget\_table

Posted by [David Fanning](#) on Thu, 24 May 2007 16:03:05 GMT

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skymaxwell@gmail.com writes:

> how i can get ALL values from widget table ?

Presumably you have tried the GET\_VALUE keyword to WIDGET\_CONTROL with the USE\_TABLE\_SELECT keyword turned off. What happened?

Widget\_Control, tableID, Get\_Value=theValue, USE\_TABLE\_SELECT=0

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

Sepore ma de ni thui. ("Perhaps thou speakest truth.")

---

Subject: Re: widget\_table

Posted by [Jean H.](#) on Tue, 17 Jul 2007 21:21:17 GMT

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2d@onetel.com wrote:

> I want to create a widget\_table with default values and then change  
> the values from the widget and then transfer those values back to a  
> calling programme. A possible way of doing this is shown below, where  
> a calling routines calls the routine imager\_parameters transfers  
> default settings to the widget. The widget is editable so i can alter  
> the values. However, i dont seem to be able to read these values back  
> to the calling routine. Does anyone have a suggestion as to how i can  
> do this.  
>  
> many thanks, 2d  
>  
> PRO imager\_parameters\_quit\_event, ev  
> COMPILE\_OPT hidden  
> WIDGET\_CONTROL, ev.TOP, /DESTROY  
> END  
> PRO imager\_parameters, fov, freq, sensitivity  
> d0={fov:fov, freq:freq, sensitivity:sensitivity}  
> data = [d0]  
> labels = ['FOV[Deg]', 'Freq[GHz]', 'Sensitivity[K]']  
> maxwidth = 30  
> base = WIDGET\_BASE(/COLUMN)  
> table = WIDGET\_TABLE(base, VALUE=data, /EDITABLE, /COLUMN\_MAJOR, \$  
> ROW\_LABELS=labels, COLUMN\_LABELS=['Imager Value'], \$  
> COLUMN\_WIDTHS=maxwidths, /RESIZEABLE\_COLUMNS)

```
> b_quit = WIDGET_BUTTON(base, VALUE='Quit', $  
> EVENT_PRO='imager_parameters_quit_event')  
> WIDGET_CONTROL, base, /REALIZE  
> XMANAGER, 'imager_parameters', base  
> END  
>
```

Hi,

You must use WIDGET\_CONTROL, tableID, GET\_VALUE=table\_value ... it could be in your quit method or elsewhere. Store tableID either in your quit button uvalue (poor technique if you want to do something else), or save a pointer to a structure (or to a pointer array), which would contain, at least, the tableID.

Jean

---

---

Subject: Re: widget\_table

Posted by [David Fanning](#) on Tue, 17 Jul 2007 21:21:37 GMT

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---

2d@onetel.com writes:

```
> I want to create a widget_table with default values and then change  
> the values from the widget and then transfer those values back to a  
> calling programme. A possible way of doing this is shown below, where  
> a calling routines calls the routine imager_parameters transfers  
> default settings to the widget. The widget is editable so i can alter  
> the values. However, i dont seem to be able to read these values back  
> to the calling routine. Does anyone have a suggestion as to how i can  
> do this.
```

You want to create what I call a "Pop-up Dialog Widget":

[http://www.dfanning.com/widget\\_tips/popup.html](http://www.dfanning.com/widget_tips/popup.html)

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

Sepore ma de ni thui. ("Perhaps thou speakest truth.")

---

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Subject: Re: widget\_table



Posted by [2d](#) on Thu, 19 Jul 2007 19:24:37 GMT

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Thanks Dave and Jean for these comments.

I'd rather stick with the Widget\_Table as i have quite a few parameters to input, and sliders are no good for precise values.

Naively, as "table" is the WidgetID from above, in the PRO imager\_parameters\_quit\_event, routine i put:

WIDGET\_CONTROL, table, GET\_VALUE=table\_value

to which IDL responded by saying "Variable is undefined: TABLE", so i'm clearly doing something not right.

As I'm really a beginner with widgets could you indicate how i either "Store tableID either in your quit button uvalue" or "save a pointer to a structure".

As a beginner i do find the help in the IDL rather limited, it could do with more but really simple examples how how to do the things with widget that people want. Generally i find the examples to long and complicated you get lost in all the different things that are going on. Would you know any websites where i can find simple examples of table widget codes.

thank you, 2d

---

---

Subject: Re: widget\_table

Posted by [Michael Galloy](#) on Thu, 19 Jul 2007 23:12:38 GMT

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On Jul 19, 1:24 pm, 2...@onetel.com wrote:

> Naively, as "table" is the WidgetID from above, in the PRO  
> imager\_parameters\_quit\_event, routine i put:  
>  
> WIDGET\_CONTROL, table, GET\_VALUE=table\_value  
>  
> to which IDL responded by saying "Variable is undefined: TABLE", so  
> i'm clearly doing something not right.

Did you add that WIDGET\_CONTROL \*after\* you defined table?

> As I'm really a beginner with widgets could you indicate how i either  
> "Store tableID either in your quit button uvalue" or "save a pointer  
> to a structure".

Get David's book.

- > As a beginner i do find the help in the IDL rather limited, it could
- > do with more but really simple examples how how to do the things with
- > widget that people want. Generally i find the examples to long and
- > complicated you get lost in all the different things that are going
- > on.

The two examples programs I see for table widgets are 59 and 129 lines long. It's hard to write a widget program that actually does something in much shorter. Here are the example programs in case you haven't seen them:

[http://idlastro.gsfc.nasa.gov/idl\\_html\\_help/Example\\_Single\\_Data\\_Type\\_Data.html](http://idlastro.gsfc.nasa.gov/idl_html_help/Example_Single_Data_Type_Data.html)

[http://idlastro.gsfc.nasa.gov/idl\\_html\\_help/Example\\_Structure\\_Data.html](http://idlastro.gsfc.nasa.gov/idl_html_help/Example_Structure_Data.html)

- > Would you know any websites where i can find simple examples of
- > table widget codes.

Not specifically table widgets, but I think you should try to understand this problem more generally, then try to learn the specifics of table widgets. The article David originally referred you to would be a good start (better yet, his book).

Mike

--

[www.michaelgalloy.com](http://www.michaelgalloy.com)

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