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Subject: Re: Interrupting widget applications  
Posted by [davidf](#) on Thu, 23 Jan 1997 08:00:00 GMT  
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M Hegde <hegde@news.gsfc.nasa.gov> writes:

- > What is the best way to interrupt a loop in widget applications?.
- > According to my IDL knowledge, IDL doesn't support concurrency; so I can't
- > have a button/widget to do that. Ctrl-C is not a smart way as it exits the
- > application. Any suggestions?.

Here is the most important suggestion: Don't write loops in widget event handlers! Instead, take advantage of the fact that a widget program *is itself* a loop. I have several examples of what I mean on my web page. Take a look at the programs XMOVIE and ZIMAGE for two ways to take advantage of the widget program as a loop.

Alright, so sometimes there just isn't any other way. What then?

Then, you have a button that can "cancel" the loop. I have a "show progress" widget example that you can download from my anonymous ftp site. The idea is that something that takes a lot of time is going on. (In this example, a BIG calculation.) I want to allow the user to see the progress of the calculation and I want them to be able to cancel the calculation if they don't want to wait.

Here is the relevant section of the code that is inside the big calculation loop. The variable info.cancel is the ID of the CANCEL CALCULATION button. Notice that I am using WIDGET\_EVENT to look for an event directly. This is about the *only* time I manage events myself. The rest of the time I use XMANAGER.

```
; Did the "Cancel Operation" button get clicked?  
; Look for an event. Don't turn off the hourglass cursor!
```

```
progressEvent = Widget_Event(info.cancel, /NoWait)
```

```
; Is this a button event?
```

```
eventName = Tag_Names(progressEvent, /Structure_Name)  
IF eventName EQ 'WIDGET_BUTTON' THEN BEGIN
```

```
; If it IS a button event, destroy the show progress widget and  
; issue an informational message to the user to alert him or her.
```

```
Widget_Control, info.top, /Destroy  
result = Widget_Message('Operation Canceled!!', /Information)
```

; Escape from the loop. Interrupt code would go here.

GoTo, outSideLoop

You can download the "show progress" example program via anonymous ftp from ftp.frii.com. It is in the directory:

/pub/dfanning/outgoing/idl\_training/showprog.pro

Compile the program and type "test" to see it work:

```
IDL> .Compile showprog  
IDL> test
```

Let me know if you have questions.

Yours,

David

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David Fanning, Ph.D.  
Fanning Software Consulting  
2642 Bradbury Court, Fort Collins, CO 80521  
Phone: 970-221-0438 Fax: 970-221-4762  
E-Mail: davidf@dfanning.com  
Coyote's Guide to IDL Programming: <http://www.dfanning.com>  
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