Subject: anonymous structure as member of named event structure
Posted by Benjamin Hornberger on Fri, 01 Oct 2004 19:50:11 GMT
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Hi all,

I want to send some info around between widgets and use widget_control, send_event = ... to do that. Since I want to use the name to identify the type of event, the event structure should be named. Now, the actual information I want to send is an anonymous structure (if absolutely necessary, I could make that named as well, but I would prefer anonymous).

It turns out that IDL doesn't like (or rather, doesn't allow) anonymous structures to be members of a named structure. At the moment I am using a pointer to the anonymous structure as a member of the named event structure. However, I don't like that solution too much since the event handler to which I send the event has to free the pointer. As long as I do all the programming, I will remember that, but if several people are working on the project, I'll have to say "Hey, don't forget to free that pointer I am sending to you!" all the time.

Any suggestions?

Thanks,
Benjamin

Subject: Re: anonymous structure as member of named event structure
Posted by R.Bauer on Sun, 03 Oct 2004 07:05:26 GMT
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Benjamin Hornberger wrote:

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> pointer I am sending to you!" all the time.
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> Any suggestions?
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> Thanks,
> Benjamin

Dear Ben,

this is a new idea to use send_event for me.

But its regular, the online help tells:

This keyword applies to all widgets. Set this keyword to a structure containing a valid widget event to be sent to the specified widget. The value of SEND_EVENT must be a structure and the first three fields must be ID, TOP, and HANDLER (all of LONG type). Additional fields can be of any type. To improve the efficiency of the data transfer, consider using the NO_COPY keyword with SEND_EVENT.

I always use UNAME to identify the widget element and it's UVALUE for data transport. If you use pointers this is quite easy to use.

Here is an example from our excercise:
http://www.fz-juelich.de/vislab/software/idl_samples/Widgets /Oberflaechen wid5.pro

cheers
Reimar

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Forschungszentrum Juelich
email: R.Bauer@fz-juelich.de
http://www.fz-juelich.de/icg/icg-i/
========== ======
a IDL library at ForschungsZentrum Juelich
http://www.fz-juelich.de/icg/icg-i/idl_icglib/idl_lib_intro. html

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Subject: Re: anonymous structure as member of named event structure
Posted by Benjamin Hornberger on Sun, 03 Oct 2004 13:54:23 GMT
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Reimar Bauer wrote:
> Benjamin Hornberger wrote:
>
>

>> Hi all,
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> http://www.fz-juelich.de/vislab/software/idl_samples/Widgets /Oberflaechen
> wid5.pro
>
>
> cheers
> Reimar
>

Well, actually my explanation was not completely correct. I don't want to send information from a widget to a widget (which I could do the way Reimar suggests), but I want to send information from a TCP/IP client to a widget program.

We have a scanning microscope run by C++ software, and an IDL widget program as user interface. They talk to each other via sockets (IDL client, C++ server). The method described above I want to use if the microscope has to send something (say, a motor position) to have a text field value updated in the GUI.

The server then sends the info to the client, who has the GUI's TLB's widget ID stored in its common block. The client procedure which watches the socket for messages from the server can then create an event structure which it sends to the GUI via widget_control, send_event ...

So, since the client is not a widget program, I can't use user values and user names. Any further comments or suggestions?

Thanks,
Benjamin

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Subject: Re: anonymous structure as member of named event structure
Posted by Benjamin Hornberger on Sun, 03 Oct 2004 14:35:54 GMT
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Benjamin Hornberger wrote:
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> So, since the client is not a widget program, I can't use user values
> and user names. Any further comments or suggestions?
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> Thanks,
> Benjamin

Ok, I realize that I could update the field values directly from the client if it knew their specific widget IDs. But I don't want to give the client direct control over the GUI, that's why I want to send an event, and the GUI can then decide what to do with the event.

Benjamin

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