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Subject: Re: xmanager to call object methods?

Posted by [David Fanning](#) on Wed, 21 Apr 2004 13:31:44 GMT

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Oliver Thilmann writes:

- > is there any generic way to handle events via objects, i.e.
- > make xmanager (or something like it) call an object method
- > instead of a function or procedure?

In simple widget/object systems I often write a single `EVENT_DISPATCHER` procedure for the widget program. The purpose of this program is to input all widget events generated by the program and dispatch them to the appropriate object handler method. The "appropriate" method is determined by reading the user value of the widget generating the event. I have either stored an object reference there, or (more often) I have stored an object reference and the name of a particular object method to be called for that object. I use `CALL_METHOD` to pass the widget event information on to the object method.

This makes the `EVENT_DISPATCHER` easy to write, just a couple of lines, and it means I can write object handler methods in exactly the same way I previously wrote event handler procedures and functions. All I have to remember to do is fill out the user value of each widget in my program that is going to generate an event with the appropriate information.

This is basically what I do in more complex systems like my Catalyst Object Library, too. Although there, since every widget is itself an object, the process of assigning an event handler method, etc. is automated and completely transparent to the end user. Event handler methods (other than the default one) can be assigned by means of an `EVENT_HANDLER` keyword, in exactly the same way widgets use `EVENT_PRO` and `EVENT_FUNC`.

Even nicer, in this system, the `EVENT_DISPATCHER` has replaced the `ID`, `TOP`, and `HANDLER` widget identifier fields of the event structure with object references to the `ID`, `TOP`, and `HANDLER` objects. This means that once a widget event has been dispatched, I don't ever have to be concerned with widget identifiers. All interaction proceeds by means of consistent object calls. In some ways, this makes the system

easier to use than straight widget programming.

Cheers,

David

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

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