
Subject: Re: Multi Planar Viewer

Posted by [David Fanning](#) on Thu, 05 Oct 2006 01:40:35 GMT

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Robbie writes:

> Speaking of messaging. Which would you think is faster?

>

> IDLitIMessaging::DoOnNotify

>

> or

>

> IDLitData::NotifyDataChange

I haven't the faintest idea. I didn't even know they existed. Too old to learn about them, probably. :-)

> IDLitIMessaging is more particular and makes a single method call to
> IDLitTool, but iTools must search for the matching identifier to call
> ::OnNotify. There are a lot of string comparisons in IDLitIMessaging
> which makes me feel very uncomfortable. I also don't know the etiquette
> of defining new IDLitIMessaging "Message Strings". IDLitIMessaging
> feels like spaghetti but I guess it gets the job done.

I implemented messaging the way JD recommended (I think it was him, there were a lot of ideas swirling around at the time). Every object has the ability to "register" interest in a message with every other object. When an object does something that could potentially justify a message, it looks in its "objects to notify" bin and notifies those objects who have registered for a particular "message".

For example, a colorbar object sends a "COLORS_CHANGED" message whenever it modifies the color vectors. Images that are interested in knowing about such a change (so they can re-draw themselves with the new colors, for example) register this interest with the colorbar object. Perhaps four images are interested, then the colorbar object sends this "COLORS_CHANGED" message to four image objects, and four draw widgets are updated when the images draw themselves.

The message sending is very fast. The image re-draw is relatively slow. If you have 50 mri images on the display at once, it can take a second or so to see all the images update themselves. This is primarily because we have to resize them to display them, since we don't know ahead of time what size image we are going to need. This depends on what the user wants to see in each window, etc.

Cheers,

David

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

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