
Subject: iTools ambiguity

Posted by [Robbie](#) on Wed, 14 Jan 2009 05:48:05 GMT

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The documentation for IDLitDataContainer says that its superclasses are IDLitContainer and IDLitData however I attempt the following

```
obj = obj_new('IDLitDataContainer')
obj -> IDLitContainer::Add, obj_new('IDLitComponent')
```

and I get an error. Instead I must do

```
obj -> _IDLitContainer::Add, obj_new('IDLitComponent')
```

Evidently the IDLitContainer behaviour has been implemented using _IDLitContainer (an abstract class).

This is a somewhat loaded question, but which superclass is correct? Is it _IDLitContainer or is it IDLitContainer?

Subject: Re: iTools ambiguity

Posted by [Michael Galloy](#) on Wed, 14 Jan 2009 15:46:50 GMT

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On Jan 13, 10:48 pm, Robbie <ret...@iinet.net.au> wrote:

> The documentation for IDLitDataContainer says that its superclasses
> are IDLitContainer and IDLitData however I attempt the following

```
>
> obj = obj_new('IDLitDataContainer')
> obj -> IDLitContainer::Add, obj_new('IDLitComponent')
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>
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> obj -> _IDLitContainer::Add, obj_new('IDLitComponent')
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>
> Evidently the IDLitContainer behaviour has been implemented using
> _IDLitContainer (an abstract class).
```

```
>
> This is a somewhat loaded question, but which superclass is correct?
> Is it _IDLitContainer or is it IDLitContainer?
```

Looking at the source code it appears that _IDLitContainer is the real superclass that implements the "add" method. IDLitContainer is just a thin wrapper around _IDLitContainer (and also subclassing IDLitComponent).

The reason for all those _ classes is multiple inheritance: classes

can't inherit from IDLitComponent twice (the dreaded diamond of death in the inheritance hierarchy). In this case, IDLitDataContainer inherits from IDLitData (a subclass of IDLitComponent) and _IDLitDataContainer. If it inherited from IDLitDataContainer directly then it would be an error, so an _IDLitContainer class is created which is all the functionality needed in IDLitContainer, but that doesn't inherit from IDLitComponent.

So the documentation is telling a "white lie" here, IDLitDataContainer doesn't inherit from IDLitContainer, but it has all the functionality as if it did. Of course, depending on what you are doing, this might really throw you off since it is not true.

There are many of the _ classes, I think generally they implement all the functionality and then are inherited by a class without the _ that also inherits from IDLitComponent.

This is what you get when you use multiple inheritance.

Mike

--

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Associate Research Scientist

Subject: Re: iTools ambiguity

Posted by [David Fanning](#) on Wed, 14 Jan 2009 16:10:22 GMT

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mgalloy@gmail.com writes:

- > There are many of the _ classes, I think generally they implement all
- > the functionality and then are inherited by a class without the _ that
- > also inherits from IDLitComponent.
- >
- > This is what you get when you use multiple inheritance.

Oh, for goodness sakes! I think I am just going to have to throw my hands up this week and find something else to do. :-(

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: iTools ambiguity
Posted by [Robbie](#) on Thu, 15 Jan 2009 04:28:36 GMT
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I find that IDL lets me do many things which are just plain confusing,
insane and weird.
I'd be lost if it weren't for IDLdoc to guide me through my own code.

<http://barnett.id.au/idl/nma/>

Thanks for the help.

Robbie

Subject: Re: iTools ambiguity
Posted by [Michael Galloy](#) on Thu, 15 Jan 2009 15:52:38 GMT
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On Jan 14, 9:28 pm, Robbie <ret...@iinet.net.au> wrote:
> I find that IDL lets me do many things which are just plain confusing,
> insane and weird.
> I'd be lost if it weren't for IDLdoc to guide me through my own code.

Thanks!

Yes, I ended up running IDLdoc on the iTools directory of the IDL
library to try to figure out what was going on.

By the way, a new version (IDLdoc 3.2) will be coming out soon. Make
sure you are on the mailing list if you want to participate in the
beta and be notified of the release:

<http://lists.idldev.com/listinfo.cgi/idldoc-idldev.com>

New features for this release will include:

- * ability to generate printed documentation i.e. LaTeX to PDF
- * generate documentation for DLMS

And of course, some bug fixes.

Mike

--

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Associate Research Scientist
