Subject: Is a Class diagram of catalyst avaliable ?
Posted by Jie Zhou on Thu, 17 Oct 2013 08:37:24 GMT

Lately, I begin to try catalyst library. I find the objects make widget graphic more simple. But there are so many different object define code (CLASS). Maybe a Class diagram can make things more convenient.

Subject: Re: Is a Class diagram of catalyst avaliable ?
Posted by David Fanning on Thu, 17 Oct 2013 11:47:59 GMT

Jie Zhou writes:

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There is no class diagram available. There is a Document method built
into every object created in the library. If called on the top-level
base object, it will produce HTML documentation of all of the objects
used in the application. This is how the HTML documentation in the docs
directory of the Catalyst Library were created.

There are many objects, but the object hierarchy is, by virtue of the
way IDL implements objects, pretty shallow. In the case of widgets, most
common widget functionality (i.e., functionality belong to all widgets)
is built into the WidgetAtom object. Then, the specifics of each type of
object is built into each individual object (e.g., ListWidget,
TextWidget, etc.). Each widget object also inherits the CatAtom object,
which is the fundamental object *all* objects inherit. This has all the
communication infrastructure for the Catalyst Library built into it.

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.idlcoyote.com/
Sepore ma de ni thue. ("Perhaps thou speakest truth.")

Subject: Re: Is a Class diagram of catalyst avaliable ?

Posted by Fabzi on Thu, 17 Oct 2013 12:02:50 GMT

Hi,

On 10/17/2013 01:47 PM, David Fanning wrote:
> the object hierarchy is, by virtue of the
> way IDL implements objects, pretty shallow

What do you mean with that?

Speaking of Class diagrams... I remember the old java days when I could click one button and it would generate a class diagram in Eclipse automatically. IT never worked perfectly but it was a great basis to start with.

I assume nobody ever tried to generate class diagrams automatically from IDL code? That could be a cool thing to have ;-)

Subject: Re: Is a Class diagram of catalyst avaliable ?
Posted by David Fanning on Thu, 17 Oct 2013 12:23:22 GMT

Fabien writes:

>> the object hierarchy is, by virtue of the
>> way IDL implements objects, pretty shallow
>
> What do you mean with that?

I mean that because IDL objects are implemented as named structures, which require UNIQUELY named fields, you can't inherit too many objects before you run into name conflicts. (There are only so many good names for an "image", for example.) This tends to keep object hierarchies extremely shallow in practice, unless the programmer has incredible and extraordinary foresight. :-)

Cheers,

David

--
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Subject: Re: Is a Class diagram of catalyst avaliable ?
Posted by Doug Edmundson on Thu, 17 Oct 2013 22:33:58 GMT

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On 10/17/13 2:37 AM, Jie Zhou wrote:
> Lately, I begin to try catalyst library. I find the objects make
widget graphic more simple. But there are so many different object define
code (CLASS). Maybe a Class diagram can make things more convenient.
>

The IDL workbench has a "class hierarchy" window that lets one navigate
up, down and within a class. One can examine sub and super-classes and
jump around in the code.

To show the window, go to the Windows menu and select "Class Hierarchy".
  Here are some docs on it:

    http://www.exelisvis.com/docs/ClassHierarchy.html

Cheers,
Doug

Subject: Re: Is a Class diagram of catalyst avaliable ?
Posted by Jie Zhou on Fri, 18 Oct 2013 08:50:09 GMT

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On Thursday, October 17, 2013 2:02:50 PM UTC+2, Fabien wrote:
> Hi,
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>
>
> On 10/17/2013 01:47 PM, David Fanning wrote:
>
>> the object hierarchy is, by virtue of the
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> start with.
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> I assume nobody ever tried to generate class diagrams automatically from
>
> IDL code? That could be a cool thing to have ;-)

What I mean is a Hierarchy Chart like MFC Hierarchy Chart given by Microsoft, you can link to:
http://msdn.microsoft.com/en-us/library/ws8s10w4.aspx
I think it make things more clear, especially for a new learner.
Thanks.

Subject: Re: Is a Class diagram of catalyst avaliable ?
Posted by Jie Zhou on Fri, 18 Oct 2013 08:54:13 GMT

On Friday, October 18, 2013 12:33:58 AM UTC+2, Doug Edmundson wrote:
> On 10/17/13 2:37 AM, Jie Zhou wrote:
>
>> Lately, I begin to try catalyst library. I find the objects make
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>   Here are some docs on it:

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>
>   http://www.exelisvis.com/docs/ClassHierarchy.html
>
>
>
> Cheers,
>
> Doug

Wow, it's a good tool. But the tool only available after version 8.2, so I don't know about it before. And in fact what I need is a Hierarchy Chart like this:
http://msdn.microsoft.com/en-us/library/ws8s10w4.aspx
Thanks.
Jie

Subject: Re: Is a Class diagram of catalyst avaliable ?
Posted by Jie Zhou on Thu, 24 Oct 2013 18:23:33 GMT

On Thursday, October 17, 2013 1:47:59 PM UTC+2, David Fanning wrote:
> Jie Zhou writes:
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>> Lately, I begin to try catalyst library. I find the objects make widget graphic more simple. But there are so many different object define code (CLASS). Maybe a Class diagram can make things more convenient.
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> --
>
> David Fanning, Ph.D.
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>
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>
> Sepore ma de ni thue. ("Perhaps thou speakest truth.")

Here I list a class structure of CATALYST library (it's what i mean the class diagram):
IDL_CONTAINER
 CATCONTAINER
 (IDLitComponent)
 CATATOM
  CATCOLORS
  COLORTOOL
  CATLAYER
  IMAGECONTAINER
  CatToolList
  SELECTINTERACTION
  IMGAXES
  MAP_GRID

MAP_OUTLINE
MAP_PLOTS
MAP_VECTOR
CATOBJECTVIEW
 CATSURFACE
WIDGETATOM
 LABELWIDGET
 STATUSBAR
 buttonWidget
 MENUBARWIDGET
 PROPERTYSHEETWIDGET
 sliderWidget
 TABWIDGET
 TextWidget
 TREEWIDGET
 DrawWidget
  ODrawWidget
  SelectableDrawWidget
 BASEWIDGET
  CONTEXTMENUBASE
  COMBOBOXWIDGET
  CT_STRETCH
  CW_HISTOSTRETCH
  DrawButtonWidget
  DROPLISTWIDGET
  FIELDWIDGET
  IMAGESTRIP
  LISTWIDGET
  SPINNER
  CatControlPanel
  TopLevelBase
   CatGraphicsWindow
   PixmapWidget
   PROPERTYPANEL
   VIEWCONTENTS
CATDATAATOM
 SELECTABLEOBJECT
  ANGLETOOL
  BOX
  CAT_ARROW
  CAT_ELLIPSE
  CAT_POLYGON
  CATCOLORBAR
  RULER
  SELECTABLEGROUP
  TAPEMEASURE
  TEXTLINE
 CatImage

```
   SCALEIMAGE
   CATIMAGE2D
   CatImageData
    CATTRUECOLORIMAGE
   ImageFrame
   IMAGESTACK
  CATTOOL
   CATGRAPHICSCMDTOOL
   CATIPTOOL
  INTERACTION
   RUBBERBANDBOX
   MOVEABLEBOX
    CONTRASTBOX
   ELLIPSE_ROI
   FREEHAND_ROI
    POLYGON_ROI
   MEASUREINTERACTION
   ANNOTATEINTERACTION
  CatList
  CatListValue
cat_trackball
```

Subject: Re: Is a Class diagram of catalyst avaliable ?
Posted by David Fanning on Thu, 24 Oct 2013 18:25:21 GMT

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Jie Zhou writes:

> Here I list a class structure of CATALYST library (it's what i mean the class diagram):

Ah! Did you write this as a method for the CatAtom object? :-)

Cheers,

David

--
David Fanning, Ph.D.
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Subject: Re: Is a Class diagram of catalyst avaliable ?

Posted by Jie Zhou on Thu, 24 Oct 2013 18:49:23 GMT

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On Thursday, October 24, 2013 8:25:21 PM UTC+2, David Fanning wrote:

> Jie Zhou writes:

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>> Here I list a class structure of CATALYST library (it's what i mean the class diagram):

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> Ah! Did you write this as a method for the CatAtom object? :-)

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> Cheers,

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> David

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> David Fanning, Ph.D.

>

> Fanning Software Consulting, Inc.

>

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

>

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

No, lately I try to use the lab. So I check may code of the lib. Then I just explore all the class definition file.

Subject: Re: Is a Class diagram of catalyst avaliable ?
Posted by Jie Zhou on Mon, 03 Mar 2014 15:21:10 GMT

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On Thursday, October 24, 2013 8:23:33 PM UTC+2, Jie Zhou wrote:
> On Thursday, October 17, 2013 1:47:59 PM UTC+2, David Fanning wrote:

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>> Jie Zhou writes:
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>>> Lately, I begin to try catalyst library. I find the objects make widget graphic more simple. But there are so many different object define code (CLASS). Maybe a Class diagram can make things more convenient.
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>   COLORTOOL
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>   CATLAYER
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>   IMAGECONTAINER
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>   CatToolList
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>   SELECTINTERACTION
>
>   IMGAXES
>
>   MAP_GRID

>

> MAP_OUTLINE

>

> MAP_PLOTS

>

> MAP_VECTOR

>

> CATOBJECTVIEW

>

> CATSURFACE

>

> WIDGETATOM

>

> LABELWIDGET

>

> STATUSBAR

>

> buttonWidget

>

> MENUBARWIDGET

>

> PROPERTYSHEETWIDGET

>

> sliderWidget

>

> TABWIDGET

>

> TextWidget

>

> TREEWIDGET

>

> DrawWidget

>

> ODrawWidget

>

> SelectableDrawWidget

>

> BASEWIDGET

>

> CONTEXTMENUBASE

>

> COMBOBOXWIDGET

>

> CT_STRETCH

>

> CW_HISTOSTRETCH

>

> DrawButtonWidget

>
>   DROPLISTWIDGET
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>   POLYGON_ROI
>
>   MEASUREINTERACTION
>
>   ANNOTATEINTERACTION
>
>   CatList
>
>   CatListValue
>
> cat_trackball

I miss two objects: CATCOORD and MAPCOORD.
The updated one should be:
IDL_CONTAINER
      CATCONTAINER
      (IDLitComponent)

CATATOM
    CATCOLORS
    COLORTOOL
    CATLAYER
    IMAGECONTAINER
    CatToolList
    SELECTINTERACTION
    IMGAXES
CATCOORD
MAPCOORD
    MAP_GRID
    MAP_OUTLINE
    MAP_PLOTS
    MAP_VECTOR
    CATOBJECTVIEW
        CATSURFACE
    WIDGETATOM
        LABELWIDGET
        STATUSBAR
        buttonWidget
        MENUBARWIDGET
        PROPERTYSHEETWIDGET
        sliderWidget
        TABWIDGET
        TextWidget
        TREEWIDGET
        DrawWidget
            ODrawWidget
            SelectableDrawWidget
        BASEWIDGET
            CONTEXTMENUBASE
            COMBOBOXWIDGET
            CT_STRETCH
            CW_HISTOSTRETCH
            DrawButtonWidget
            DROPLISTWIDGET
            FIELDWIDGET
            IMAGESTRIP
            LISTWIDGET
            SPINNER
            CatControlPanel
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    CATDATAATOM
        SELECTABLEOBJECT

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