
Subject: Re: Is a Class diagram of catalyst available ?
Posted by [Jie Zhou](#) on Mon, 03 Mar 2014 15:21:10 GMT
[View Forum Message](#) <> [Reply to Message](#)

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:

>

>> Jie Zhou writes:

>

>>

>

>>

>

>>

>

>>> 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.

>

>>

>

>>

>

>>

>

>> 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.")
>
>
>
> 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

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
      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
