

---

Subject: Re: Catalyst Library Going Open Source  
Posted by [edward.s.meinel@aero](mailto:edward.s.meinel@aero) on Tue, 14 Oct 2008 14:28:42 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

On Oct 14, 9:26 am, David Fanning <n...@dfanning.com> wrote:

> Folks,  
>  
> Later this week Mike Galloy and I will have my Catalyst  
> Library set up as an Open Source software project. I'm  
> still working on documentation issues, but I have the code  
> pretty much ready to go. This morning's discussion of  
> iTools has prompted me to give you an early look at what  
> is possible.  
>  
> I had occasion last week to be working with ilimage. I find  
> this program, like almost all the iTools, incomprehensible.  
> For God's sake, I just want to look at my image! But the  
> image jumps around in size so I have to scroll around all  
> the time, I can't get the damn thing to fill up the window,  
> etc. I loose patience quickly.  
>  
> So, I thought I would just build an ilimage-like tool in  
> Catalyst to show new users how it can be done. It took  
> me about five hours, start to finish.  
>  
> If you are interested in this, you can download the  
> preliminary Catalyst distribution here:  
>  
> <http://www.dfanning.com/misc/catalyst.zip>  
>  
> The file is about 1.5 MByte in size, and contains two  
> directories: catalyst and coyote. (You will need this  
> updated Coyote directory.) Add these two directories  
> to your path (please be sure your other Coyote directory  
> doesn't interfere. In fact, get rid of it). Be careful  
> to add the directories to your IDL path in such a way  
> that the sub-directories are searched, too.  
>  
> Once installed, to see this new ilimage-for-the-rest-of-us  
> miracle of easy programming, type this:  
>  
> IDL> ImgWin, image  
>  
> Where "image" is any 2D array or true-color image. (You will  
> have more functionality in the tool if the image is a 2D array.)  
>  
> I'd be curious to know if it works. :-)  
>

> If this Open Source project takes off like I hope it will,  
> I think it might be possible to have interactive tools that  
> work the way \*we\* do, and not the way some marketing  
> type \*thinks\* we 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.")

Whoa, buggy!!!

Linear 2% is broken -- everything is black  
'Load Color Table' widget moves around if you select the Brewer/IDL  
colors button  
If you select the 'maximize window' button, the information bar at the  
bottom disappears  
The information bar update is reeeeeeealy slow with color images  
Sometimes a drag-resize results in multiple resize events \*flash\*  
\*flash\* \*flash\*  
How can I see the image at full resolution?

Ed

---

Subject: Re: Catalyst Library Going Open Source  
Posted by [David Fanning](#) on Tue, 14 Oct 2008 15:19:01 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

edward.s.meinel@aero.org writes:

> Whoa, buggy!!!

Well, can you help me out here. Where, exactly, are you  
running this. :-)

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: Catalyst Library Going Open Source  
Posted by [edward.s.meinel@aero](#) on Tue, 14 Oct 2008 15:55:00 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

On Oct 14, 11:19 am, David Fanning <n...@dfanning.com> wrote:

> edward.s.mei...@aero.org writes:

>> Whoa, buggy!!!

>

> Well, can you help me out here. Where, exactly, are you

> running this. :-)

>

> 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.")

I'm running it right here at my desk. ;-)

Ed

P.S. Oh, you mean \*what\* am I running it on...

Mac OS X 10.4.11

2.33 GHz Intel core Duo

3 GB RAM

IDL 7.0

---

---

Subject: Re: Catalyst Library Going Open Source  
Posted by [David Fanning](#) on Tue, 14 Oct 2008 15:57:27 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

edward.s.meinel@aero.org writes:

> Whoa, buggy!!!

Humm. You may be right about this. :-)

I should have spent six hours on it, but it was 3AM.

> Linear 2% is broken -- everything is black

This is definitely broken. And I don't immediately see why. But it is using XSTRETCH, a pretty reliable routine, so that must be broken, too. I have my Gonzales and Woods out and I'm looking into it.

> 'Load Color Table' widget moves around if you select the Brewer/IDL  
> colors button

Whoa! That *\*definitely\** didn't happen the last time I looked at this, but it *\*is\** happening now. Weird. I tried to finesse a 2003 programming style into a 2008 program. I may have to go back and do this the right way. :-(

> If you select the 'maximize window' button, the information bar at the  
> bottom disappears

Well, it doesn't on my machine, but it may on yours. What is yours?

> The information bar update is reeeeeeealy slow with color images  
> Sometimes a drag-resize results in multiple resize events *\*flash\**  
> *\*flash\* \*flash\**

How big is your image? I haven't seen slow at all, but maybe I'm using images that are too small.

> How can I see the image at full resolution?

Bigger monitor?

My plan is to get someone excited about developing with this system and to get them started on making this little application into an ENVI-like thing with a full-size image, a zoom window, and a full-resolution image. But, alas, I have a job now. :-(

Thanks for the feedback. I'll see what I can 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: Catalyst Library Going Open Source  
Posted by [David Fanning](#) on Tue, 14 Oct 2008 15:58:51 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

edward.s.meinel@aero.org writes:

- > Mac OS X 10.4.11
- > 2.33 GHz Intel core Duo
- > 3 GB RAM
- > IDL 7.0

Oh, for God's sake, a Mac!! No wonder. :-(

Sheesh, maybe someone would like to buy this library  
so I can afford to get a testing machine. :-)

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: Catalyst Library Going Open Source  
Posted by [pgrigis](#) on Tue, 14 Oct 2008 16:01:19 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

David,

it works like a charm!

I have only been playing with it for 5 minutes, but I already love it!

Ciao,  
Paolo

David Fanning wrote:

- > Folks,
- >
- > Later this week Mike Galloy and I will have my Catalyst
- > Library set up as an Open Source software project. I'm
- > still working on documentation issues, but I have the code
- > pretty much ready to go. This morning's discussion of
- > iTools has prompted me to give you an early look at what
- > is possible.

>  
> I had occasion last week to be working with ilimage. I find  
> this program, like almost all the iTools, incomprehensible.  
> For God's sake, I just want to look at my image! But the  
> image jumps around in size so I have to scroll around all  
> the time, I can't get the damn thing to fill up the window,  
> etc. I loose patience quickly.  
>  
> So, I thought I would just build an ilimage-like tool in  
> Catalyst to show new users how it can be done. It took  
> me about five hours, start to finish.  
>  
> If you are interested in this, you can download the  
> preliminary Catalyst distribution here:  
>  
> <http://www.dfanning.com/misc/catalyst.zip>  
>  
> The file is about 1.5 MByte in size, and contains two  
> directories: catalyst and coyote. (You will need this  
> updated Coyote directory.) Add these two directories  
> to your path (please be sure your other Coyote directory  
> doesn't interfere. In fact, get rid of it). Be careful  
> to add the directories to your IDL path in such a way  
> that the sub-directories are searched, too.  
>  
> Once installed, to see this new ilimage-for-the-rest-of-us  
> miracle of easy programming, type this:  
>  
> IDL> ImgWin, image  
>  
> Where "image" is any 2D array or true-color image. (You will  
> have more functionality in the tool if the image is a 2D array.)  
>  
> I'd be curious to know if it works. :-)  
>  
> If this Open Source project takes off like I hope it will,  
> I think it might be possible to have interactive tools that  
> work the way *\*we\** do, and not the way some marketing  
> type *\*thinks\** we 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: Catalyst Library Going Open Source  
Posted by [edward.s.meinel@aero](mailto:edward.s.meinel@aero) on Tue, 14 Oct 2008 16:15:32 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

On Oct 14, 11:57 am, David Fanning <n...@dfanning.com> wrote:

>  
> How big is your image? I haven't seen slow at all, but maybe  
> I'm using images that are too small.

3x2560x2560

>> How can I see the image at full resolution?  
>  
> Bigger monitor?

OK, so 30" isn't big enough. Hey, Apple, could you make a 60" monitor?

Ed

---

---

Subject: Re: Catalyst Library Going Open Source  
Posted by [David Fanning](mailto:David Fanning) on Tue, 14 Oct 2008 16:46:20 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

edward.s.meinel@aero.org writes:

> OK, so 30" isn't big enough. Hey, Apple, could you make a 60" monitor?

I'll tell you what, you send me half the price of that 30" monitor, and I'll have you looking at a full-sized image by the end of business today! :-)

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: Catalyst Library Going Open Source

Posted by [edward.s.meinel@aero](mailto:edward.s.meinel@aero) on Tue, 14 Oct 2008 17:42:12 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

On Oct 14, 12:46 pm, David Fanning <n...@dfanning.com> wrote:

> edward.s.mei...@aero.org writes:

>> OK, so 30" isn't big enough. Hey, Apple, could you make a 60" monitor?

>

> I'll tell you what, you send me half the price of that 30"

> monitor, and I'll have you looking at a full-sized image

> by the end of business today! :-)

>

> 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.")

Alas, that is above my pay grade.

Ed "I only work here" Meinel

---

---

Subject: Re: Catalyst Library Going Open Source

Posted by [David Fanning](#) on Tue, 14 Oct 2008 20:24:09 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

David Fanning writes:

>> Whoa, buggy!!!

>

> Humm. You may be right about this. :-)

>

> I should have spent six hours on it, but it was 3AM.

>

>> Linear 2% is broken -- everything is black

>

> This is definitely broken. And I don't immediately see

> why. But it is using XSTRETCH, a pretty reliable routine,

> so that must be broken, too. I have my Gonzales and Woods

> out and I'm looking into it.

>

>> 'Load Color Table' widget moves around if you select the Brewer/IDL

>> colors button

>

> Whoa! That \*definitely\* didn't happen the last time I looked



> at this, but it \*is\* happening now. Weird. I tried to finesse  
> a 2003 programming style into a 2008 program. I may have to go  
> back and do this the right way. :-(

OK, at least the obvious bugs are fixed. It is still not perfect, but I'm content to wave my hands at the rest of the darn things for the time being. I \*really\* have better things to do today.

I haven't yet tried this with massive images, but I do know the part of the code that selects the image value was written in 2003 and I do things \*much\* differently with the combination of TVImage and TVInfo (similar functionality). So it is possible I can speed up that algorithm considerably. I just don't have time to work on it anymore today, though.

The part that concerns me the most is the "flashing" while dragging complaint. I've had reported problems with this on Macs, but haven't been able to snag a Mac yet to see what the problem might be. My youngest is going on a road trip next week. Maybe I'll see if he can drop off his Mac before he leaves. I'm guessing I'll have to delete about 10000 movies to get that IDL workbench installed. :-(

Updated programs here:

<http://www.fanning.com/misc/catalyst.zip>

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: Catalyst Library Going Open Source  
Posted by [Robbie](#) on Tue, 14 Oct 2008 21:10:10 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

I really wish I had have bought the Catalyst library. At the very least, it would have given me ideas on how to churn out at least half useful applications. It's great that you are making it open source. It seems very difficult to be able to \*sell\* any piece of library software nowadays. The most common strategy seems to be to give it away for free (open source or not) and then charge large amounts for a value-added service or feature.

Maybe if people like me had have bought it then you would have been able to afford a mac?

I'm looking forward to see if coyote is willing to take an adventure to Java.

Robbie

---

---

Subject: Re: Catalyst Library Going Open Source  
Posted by [David Fanning](#) on Tue, 14 Oct 2008 21:21:39 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Robbie writes:

> I really wish I had have bought the Catalyst library. At the very  
> least, it would have given me ideas on how to churn out at least half  
> useful applications.

Oh, it's an idea generator, all right! Ask ITTVIS, if you don't believe me, but the main problem with objects is that you think of so *\*many\** neat ideas that if you are not *\*extremely\** careful the complexity just gets completely out of hand.

The idea, it seems to me, is to be boring, boring, boring as a programmer. Restrict yourself to one great idea a day. That way, you see steady progress, but the programs don't become so hopeless you throw up your hands in exasperation. You can see the consequence of having too many great ideas if you look at the code for any of the iTools. :-)

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: Catalyst Library Going Open Source  
Posted by [Robbie](#) on Wed, 15 Oct 2008 04:27:20 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

- > The idea, it seems to me, is to be boring, boring, boring
- > as a programmer. Restrict yourself to one great idea a day.

This reminds me of some advice I was given: Programming is a statement of intent to the computer. If you're stating something \*other\* than the task you want to complete, then there is something wrong.

My problem is that I frequently find myself in a situation where I need to solve problem A to solve problem B. For example today I just found that SAVE can't handle COM references anywhere in the object heap which is being serialised. So now I have to proxy all COM objects to a hidden place where SAVE can't get to them (I used a common block).

I really thankful that having someone else understand my code is a secondary priority.

Thanks for the tip,

Robbie

---

Subject: Re: Catalyst Library Going Open Source  
Posted by [David Fanning](#) on Wed, 15 Oct 2008 14:38:55 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Edward Meinel writes:

- > Whoa, buggy!!!

He is referring to my IMGWIN program. OK, here it is.

- > Linear 2% is broken -- everything is black

Fixed. Required updates to XSTRETCH, too.

- > 'Load Color Table' widget moves around if you select the Brewer/IDL
- > colors button

Whoops, typo. Fixed.

- > If you select the 'maximize window' button, the information bar at the
- > bottom disappears

I've fixed this for Windows machines, but I suspect this is one of those things that needs to be tweaked for each OS. If you want to tell me what the numbers are on \*your\* machine, I can cobble something together. Go to lines 237 to 248. My fudge numbers are

95 and 8. Let me know what yours need to be to make this resize correctly for you.

> The information bar update is reeeeeeealy slow with color images

I've changed the algorithm that calculates the image value. I tried it with a [3, 2270, 1490] image array, and it is slick as snot on my (aging) machine. I'd be curious to see how it performs on your machine.

> Sometimes a drag-resize results in multiple resize events \*flash\*  
> \*flash\* \*flash\*

If I saw this on my Windows machine, I would assume the "Show Window Contents on Drag" button was on. I would right-click on my desktop, go to Properties -> Appearance -> Effects and turn it off. I don't know anything about the Macs, but I presume there is something similar. It can be \*most\* annoying on Windows machines!

> How can I see the image at full resolution?

Set the FULL\_RESOLUTION keyword when you start the program.  
No charge. :-)

The updated files are here:

<http://www.dfanning.com/misc/catalyst.zip>

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.")

---