Subject: Re: Hello again, and iTools
Posted by David Fanning on Thu, 08 Mar 2007 14:50:35 GMT
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Struan writes:

> It's been a while, but I have recently started programming in IDL
> again. Great to see some old names still posting here, and the new
> ones too.

Hi Struan, nice to see you back here again. :-)

> Naturally I wish to save time, effort and frustration...
> but now I feel the siren call of iTools and I am wondering if I should
> swim to land or stuff my ears with parsley?

Programming iTools is generally not included in the same
thought process that considers saving time, effort, and
frustration as a goal, in my humble experience. :-)

Rather, for me, programming iTools is about the most
complicated, complex, and maddening endeavor I've ever
encountered with IDL. I've mostly given it up as a lost
cause because I've come to the conclusion it is not possible
to learn this system from the current documentation. A direct
connection to someone at ITTVIS is also required, it seems to me.
But, of course, I've been known to get things wrong and maybe
complicated systems are beyond my abilities now. Who knows? I
offer as contrary evidence the fact that my tennis game is still
improving, and that's a pretty complicated system.

> In short: are the iTools stable, usable and extendable enough to make
> it worth my while to learn the whole application framework?

Oddly enough I was having this conversation just yesterday
with someone in a position to know something about iTools.
I was curious about possibly writing a book about the darn
things, mostly motivated by two observations: ITTVIS seems
committed to them and no one I know uses them. I thought there
might be an entrepreneurial opportunity lurking somewhere in there.

But I've put the idea on the back shelf. It seems a great deal
is changing with IDL, mostly to accommodate an anticipated move
to a new IDLDE sometime in the future. And iTools, which even
ITTVIS recognizes are too complicated for most customers, are
receiving extra scrutiny. In short, no one currently knows what
the landscape is going to look like a year or two from now.
That's too much risk for me.

I think with the amount of time and money that has been spent
on them that iTools, or something very like them, will exist
for a long time. But exactly what form they will take is WAY
beyond my ability to predict. Presumably software written today
will work well into the future. That has always been ITTVIS's
commitment and I don't doubt it will be true of iTools, too.

And on the bright side, if you start today it's possible
you might be able to explain iTools to me when I finally get
around to writing that book. ;-)

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: Hello again, and iTools
Posted by Paul Van Delst[1] on Thu, 08 Mar 2007 16:03:59 GMT
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David Fanning wrote:

> But I've put the idea on the back shelf. It seems a great deal
> is changing with IDL, mostly to accommodate an anticipated move
> to a new IDLDE sometime in the future. And iTools, which even
> ITTVIS recognizes are too complicated for most customers, are
> receiving extra scrutiny. In short, no one currently knows what
> the landscape is going to look like a year or two from now.
> That's too much risk for me.

Interesting. Doesn't iTools' ancestry derive from LiveTools and Insight?

Apologies for the baseball analogy, but that's three swings of the bat by my count.

paulv

--
Paul van Delst   Ride lots.
CIMSS @ NOAA/NCEP/EMC   Eddy Merckx

Subject: Re: Hello again, and iTools
Posted by David Fanning on Thu, 08 Mar 2007 16:10:24 GMT

Paul van Delst writes:

> Apologies for the baseball analogy, but that's three swings of the bat by my count.

And I had the impression you were an Aussie! Isn't there
a cricket analogy that applies? :-)

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: Hello again, and iTools
Posted by David Fanning on Thu, 08 Mar 2007 16:12:45 GMT

Paul van Delst writes:

>> But I've put the idea on the back shelf. It seems a great deal
>> is changing with IDL, mostly to accommodate an anticipated move
>> to a new IDLDE sometime in the future. And iTools, which even
>> ITTVIS recognizes are too complicated for most customers, are
>> receiving extra scrutiny. In short, no one currently knows what
>> the landscape is going to look like a year or two from now.
>> That's too much risk for me.

And by the way, before I get too many angry e-mails,
I am specifically talking about *programming* iTools,
not *using* them. Most people can figure out how to
use them, after a while anyway. But programming them
is something else again.

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: Hello again, and iTools
Posted by Kenneth Bowman on Thu, 08 Mar 2007 17:14:35 GMT
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In article <1173356728.109425.13470@q40g2000cwq.googlegroups.com>,
 struangray@cantab.net wrote:

> In short: are the iTools stable, usable and extendable enough to make
> it worth my while to learn the whole application framework? Are there
> any bugs or gotchas that will bite me if I try to build an application
> more substantial than simple data viewers on top of the iTools base
> layer? I like the provided viewers, but have found a few bugs down
> among the details, and I am not yet convinced they are worth the
> commitment. I can bang together a basic program from my old widgets
> in short order, but most of what I am currently writing will be used
> by non-programmers later, and it seems as if a program built around
> iTools will be safer in the long run.

The iTools can be very frustrating (David has pointed out some of the
problems), but I have to say that I can do things with iTools that I
would not be able to do otherwise. A couple of examples:

1. With very high-resolution time series data, I can interactively
zoom in on the data to subjectively identify points of interest. This
saved me a good deal of time.

2. I can can make rather complex 3-D visualizations and view them interactively.

   http://csrp.tamu.edu/hiaper/archive/goes_o3.png

I can also make movies of rotating 3-D graphics.

   http://csrp.tamu.edu/hiaper/archive/PV1_surface_b.mov.zip

These were not trivial to make using iTools, but I think it would have
been virtually impossible using direct graphics.

3. I can easily save a visualization and send it to colleague so that they
can play around with it interactively.

The main issue that I have with iTools at present is that I have been
completely unable to make any Postscript out. Fortunately, I have a
really large monitor and can capture big bitmaps.

The documentation is very obscure, which leads to a lot of frustrating trial and error.

Ken Bowman

Subject: Re: Hello again, and iTools
Posted by Paul Van Delst[1] on Thu, 08 Mar 2007 18:35:42 GMT
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David Fanning wrote:
> Paul van Delst writes:
>
>> Apologies for the baseball analogy, but that's three swings of the bat by my count.
>
> And I had the impression you were an Aussie! Isn't there
> a cricket analogy that applies? :-)

(Hanging head in shame about making any remark involving baseball...)

In terms of the number three? I don't think so. There are three stumps. But you only have to hit one and if the bails come off, you're out. You can have three slips... but you can also have less, more, or none.

Maybe some sort of analogy that involve the silly mid off position diving for a catch after the bowler tossed down a particular nasty googly that the batsman totally misread?

There are three breaks (morning, afternoon, and "regular" tea) in a test match. At least there used to. I think.

Ah, cricket. sigh.....

cheers,

paulv

--
Paul van Delst   Ride lots.
CIMSS @ NOAA/NCEP/EMC   Eddy Merckx

Subject: Re: Hello again, and iTools
Posted by David Fanning on Thu, 08 Mar 2007 18:43:06 GMT
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Paul van Delst writes:

> Maybe some sort of analogy that involve the silly mid off position diving for a catch
> after the bowler tossed down a particular nasty googly that the batsman totally misread?

Whenever I'm feeling down I dig out my old copy of
the "ABCs of Cricket" that I found in a used bookstore
in Sydney. That usually cheers me right up! :-)

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: Hello again, and iTools
Posted by Michael Galloy on Thu, 08 Mar 2007 22:52:05 GMT

struang...@cantab.net wrote:
> In short: are the iTools stable, usable and extendable enough to make
> it worth my while to learn the whole application framework? Are there
> any bugs or gotchas that will bite me if I try to build an application
> more substantial than simple data viewers on top of the iTools base
> layer? I like the provided viewers, but have found a few bugs down
> among the details, and I am not yet convinced they are worth the
> commitment. I can bang together a basic program from my old widgets
> in short order, but most of what I am currently writing will be used
> by non-programmers later, and it seems as if a program built around
> iTools will be safer in the long run.

I think I'm slightly more optimistic about the iTools than most
responses so far. (Full disclosure: I used to teach people how to
program the iTools when I worked for RSI. So I have spent plenty of
time trying to figure out how to do things with the iTools.)

But I still don't think it's for the faint of heart. Programming using
them takes a commitment to learning their system. And even though it
addresses many of the problems with LiveTools and Insight, in my
opinion, it is not a "complete system" for application development
yet. What is present right now, has been stable for me. I think the
API is consistent and usable (if not complete or completely
documented).

Besides writing examples, I have "upgraded" one real application from

direct graphics to the iTools and it wasn't too bad. I got a lot of
functionality very quickly. The result looks pretty nice, but is
definitely slower. All the functionality that I wanted from the iTools
was not there. In some cases, I used undocumented features (you get
the source code for the iTools) and in other cases I used workarounds
that were more or less unpleasant. I won't be looking forward to
updating IDL.

In general, if your application is "like iPlot except for..." then
programming with the iTools is probably a really fast way to get what
you want. If it's not, then the answer is much more complicated.

If that didn't scare you off, I have a few (pretty simple) iTools
examples on my website:

  http://michaelgalloy.com/category/idl/itools/

Mike
--
www.michaelgalloy.com

Subject: Re: Hello again, and iTools
Posted by David Fanning on Fri, 09 Mar 2007 00:20:37 GMT
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mgalloy@gmail.com writes:

> In some cases, I used undocumented features (you get
> the source code for the iTools) and in other cases I used workarounds
> that were more or less unpleasant.

This is kind of what I mean. And if you *do* find one of
those undocumented features BE SURE TO WRITE IT DOWN,
because the next time you want to use the feature
it is almost surely going to take you as long to discover
the feature again as it did the first time! The code is,
uh, non-centrally distributed. Take plenty of bread
crumbs and leave a trail!

Cheers,

David

P.S. My middle son is into neurobiology, and trying to
(as I did recently) unravel how iMap registered an image
with a continental outline is similar to unraveling how
the brain stores that memory of your first girl friend

in the soft sweater and the Chanel No 5 perfume. It's
pleasant when you get to the end of it, but my God it
was a lot of work! :-)

--
David Fanning, Ph.D.
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Sepore ma de ni thui. ("Perhaps thou speakest truth.")