
Subject: Re: IDL procedure to test/cerify IDL routines
Posted by [David Fanning](#) on Mon, 18 Oct 2004 13:18:45 GMT
[View Forum Message](#) <> [Reply to Message](#)

Gianluca Li Causi writes:

> I'm collecting a group of people in order to make an IDL library out
> of our own routines,
> so that I'm wondering if there exists an IDL routine able to test our
> routines to be sure that they will work in any possible situation.

Yeah, you and me, both!

Cheers,

David

P.S. All I can tell you is LINUX is hell on IDL programs! :-(

--

David W. Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

Phone: 970-221-0438, IDL Book Orders: 1-888-461-0155

Subject: Re: IDL procedure to test/cerify IDL routines
Posted by [Ben Panter](#) on Mon, 18 Oct 2004 13:30:41 GMT
[View Forum Message](#) <> [Reply to Message](#)

David Fanning wrote:

> P.S. All I can tell you is LINUX is hell on IDL programs! :-(

Well, only if you want to make those pretty picture things work!

Now you see why astronomers only ever use direct graphics and postscript
output!!

Ben

--

Ben Panter, Garching, Germany

email via www.benpanter.co.uk

Subject: Re: IDL procedure to test/cerify IDL routines
Posted by [David Fanning](#) on Mon, 18 Oct 2004 13:36:50 GMT

Ben Panter writes:

> Now you see why astronomers only ever use direct graphics and postscript
> output!!

Indeed, my biggest challenge so far is to make astronomers
use IDL instead of Ghostview to see their output. :-)

Cheers,

David

--

David W. Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

Phone: 970-221-0438, IDL Book Orders: 1-888-461-0155

Subject: Re: IDL procedure to test/cerify IDL routines
Posted by [R.Bauer](#) on Mon, 18 Oct 2004 15:39:30 GMT

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

Gianluca Li Causi wrote:

> Hello guys,
> I'm collecting a group of people in order to make an IDL library out
> of our own routines,
> so that I'm wondering if there exists an IDL routine able to test our
> routines to be sure that they will work in any possible situation.
>
> Somebody in the area maybe knows a similar program or can suggest how
> to make it?
>
> Thank you so much
> Gianluca

Hm,

what is "any possible situation" for you.

We have a lot of CASE TOOLS. If you could better describe what you want
probably I could tell to use this one or this one.

Reimar

Subject: Re: IDL procedure to test/cerify IDL routines
Posted by [David Fanning](#) on Mon, 18 Oct 2004 16:12:37 GMT
[View Forum Message](#) <> [Reply to Message](#)

Reimar Bauer writes:

> what is "any possible situation" for you.

I think he wants to know if the RSI marketing hype about IDL code being "cross-platform" is really true. I think the honest answer is "Uh, not exactly. Better test like crazy."

Cheers,

David

P.S. Let's just say there are ways to write your programs so that they are *more* cross-platform compatible, but even careful coders get surprised more often than you might expect.

--

David W. Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>
Phone: 970-221-0438, IDL Book Orders: 1-888-461-0155

Subject: Re: IDL procedure to test/cerify IDL routines
Posted by [JD Smith](#) on Mon, 18 Oct 2004 17:16:58 GMT
[View Forum Message](#) <> [Reply to Message](#)

On Mon, 18 Oct 2004 10:12:37 -0600, David Fanning wrote:

> Reimar Bauer writes:

>

>> what is "any possible situation" for you.

>

> I think he wants to know if the RSI marketing hype about
> IDL code being "cross-platform" is really true. I think
> the honest answer is "Uh, not exactly. Better test like
> crazy."

>

> Cheers,

>

> David

>

- > P.S. Let's just say there are ways to write your programs
- > so that they are *more* cross-platform compatible, but
- > even careful coders get surprised more often than you might
- > expect.

It would be interesting to have a list of potential pitfalls for cross-platform compatibility... David? That said, from the obviously-biased point of view of someone who almost never runs anything under Windows (so take this with a grain of salt), I'd say about the only real cross platform issues anymore, assuming you are intelligent about filepaths, are problems with widget layout.

Smart use of things like:

```
files=file_search(filepath(ROOT=some_dir,SUBDIRECTORY='other s','*.txt'))
```

instead of

```
files=file_search(some_dir+'\\'+others+'\\*.txt')
```

will save you lots of trouble. When you need to decompose file strings yourself, use `PATH_SEP()` instead of `'\'`, or `'/'`. Stay away from calls to `SPAWN` (much easier now that IDL offers lots of cross-platform file status and directory listing/search commands internally). Even `DLMs` and `CALL_EXTERNAL` libraries can be automatically built cross-platform (with some amount of up-front effort) -- see `MAKE_DLL`.

Current IDL (V6.x) is much more homogenous than older versions, where VMS and other vestigial systems were supported. In fact, there are now only two windowing systems still supported: Motif (Linux, Solaris, AIX, IRIX, HP-UX, Mac OSX), and Windows. For the most part, widget layouts designed for any of the Motif systems will work well with any of the other Motif systems (assuming you don't make too many assumptions about font size). Windows is a bit of a separate world, and most layout issues you hear about come from crossing the boundary dividing Windows & Motif.

As a side note, I believe Motif is essentially dead, supported in-house for legacy applications or by proprietary software developers, but less and less deployed on the "frontline" of Unix development. The last widely used Motif application was probably Netscape 4.X, and that, thankfully, is gone the way of the dodo. Even Solaris is moving to GNOME/GTK. My personal view is that GTK+ would be a much more capable target widget set than Motif, and that, at some point, RSI is going to have to bite the bullet and re-target their widgets (or cut off half of their user base, drop cross-platform from their sales pitches, and become a Windows-only program). For this

effort they get a much more compelling toolkit, with many more native widget components, and better platform integration. But it's no small task.

JD

Subject: Re: IDL procedure to test/cerify IDL routines
Posted by [David Fanning](#) on Mon, 18 Oct 2004 20:14:15 GMT
[View Forum Message](#) <> [Reply to Message](#)

JD Smith writes:

> It would be interesting to have a list of potential pitfalls for
> cross-platform compatibility... David?

I'm always fixing them so fast I forget to write them down. :-(

It's usually in the middle of a class, since I don't spend too much time on UNIX machines, generally. And there, I usually just want the problem to go away. Later, I can't recall what the problem was, exactly.

Today, however, I happened to be setting the size of a text widget, so that the widgets would align themselves properly. They did, only on windows the text widget is about an inch long and on LINUX is was about 2 feet long. Just exactly the kind of problem I usually find.

I do agree that most of the problems are widget programs, IF you are careful, as JD suggests with new RSI tools. And most of the widget problems only show up if you are fairly anal about how things look. If you are just slopping it together, the default stuff works pretty well.

Cheers,

David

--

David W. Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>
Phone: 970-221-0438, IDL Book Orders: 1-888-461-0155

Subject: Re: IDL procedure to test/cerify IDL routines

Posted by [licausi](#) on Tue, 19 Oct 2004 15:57:18 GMT

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

David Fanning <david@dfanning.com> wrote in message
news:<MPG.1bdd70a5deacce809896a1@news.frii.com>...

> Gianluca Li Causi writes:

>

>> I'm collecting a group of people in order to make an IDL library out

>> of our own routines,

>> so that I'm wondering if there exists an IDL routine able to test our

>> routines to be sure that they will work in any possible situation.

>

> Yeah, you and me, both!

>

> Cheers,

>

> David

>

> P.S. All I can tell you is LINUX is hell on IDL programs! :-(

Thank you all for your discussion on my topic: really I was intending
"mathematical errors", but of course I also would need all the other
kind of testing as well...

Anyway, I don't know what LINUX is: could you tell me about?

It seems from one of the replies to this post that it makes hell just
with object graphics, which I'm not interested to (I'm an astronomer,
so...).

The question arises to me when I wrote a routine to compute
rototranslation between two images of stars: I've tested it with
various trial coordinate sets and all went ok, until a friend of mine
tried with an exact 45 degrees rotation and it doesn't work!
The reason was that I had a (sin(theta)-cos(theta)) within a matrix
and this made a singular matrix if theta=45 degrees, which was not
produced in my random tests!

So, I wonder if there is a routine able to parse the IDL program, find
that there is a sin(x)-cos(x) case and try it with an x=45 degrees
input automatically. And the same for any "special" case within the
program.

Thank you so much
Gianluca

Subject: Re: IDL procedure to test/cerify IDL routines
Posted by [David Fanning](#) on Tue, 19 Oct 2004 16:47:47 GMT

Gianluca Li Causi writes:

> Anyway, I don't know what LINUX is: could you tell me about?

Oh, I am so confused trying to speak three or four languages,
my spelling is gone all the hell. You probably know this
as LINUX. :-)

Cheers,

David

P.S. I know of no way to test mathematical procedures
except to, well, just test them. As bug reports come in,
you get better at anticipating where problems are likely
to occur.

--

David W. Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

Phone: 970-221-0438, IDL Book Orders: 1-888-461-0155
