
Subject: Re: How to specify which exact version of a subroutine to use....

Posted by [David Fanning](#) on Thu, 17 Mar 2011 16:40:17 GMT

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George Millward writes:

- > I frequently encounter the problem where I am running a program that
- > utilizes a number of IDL libraries
- > (ie, coyote, solarsoft - etc.) . The problem that crops up constantly
- > is with the program addressing the wrong
- > version of a given subroutine. ie, right now I am trying to use a
- > certain coyote routine and my code is crashing because it is picking
- > up an older version of the routine that is attached to the solarsoft
- > library - rather than the new version that is located locally on my
- > own machine.
- >
- > Can I specify the exact version of the routine that I want the code to
- > use - by providing the full path or something ?

I spent a couple of days trying to get my software compatible with older versions in SolarSoft. The problem is that SolarSoft used a number of my programs, then fixed bugs and added features to the programs without notifying me about it. So the programs drifted apart.

This is a real problem, and the same thing is likely to happen now with the Astronomy Library routines, which also contain most of the Coyote Graphics routines from the Coyote Library.

Several things can help. First, better communication! (And, by the way, Wayne Landsman is terrific to work with.) I don't mind people fixing bugs and adding features to my programs, but please let me know about it. I'm all for writing better programs!

Second, we REALLY need a standard repository for all these libraries, so we can work together on this. Or, at least, when we build programs we can get the right dependencies.

I don't know, it's a hard problem. But at least half of the problems people report to me are caused by old programs somewhere in their path.

Sigh... OK, had to get that out. ;-)

The program that is compiled is going to get used. Normally,

the "program that is compiled" is the first one found on the IDL path. You can affect this by choosing your IDL path order. In the case of Coyote and Solarsoft, you would be better off with the Coyote directory listed first, since I have at least *tried* to make my routines compatible with the older Solarsoft routines. (If you report the problems, I'll try to fix them. Please don't suggest firearms as a solution, because I would take you seriously.)

This is a pain-in-the-kiester solution, of course. So, maybe you need something better. You could create a list of the conflicting routines and write a program that compiled one set or the other. Maybe I should write this myself and add it to the Coyote library. You could use RESOLVE_ROUTINE to do the compilation for you. I envision something that works like this:

```
IDL> Resolve_Conflicts, /Coyote
IDL> Resolve_Conflicts, /SolarSoft
```

If you want to use Coyote Graphics routines in conjunction with SolarSoft routines, I'm not sure what you do. Maybe hand-compile a routine just before you use it.

```
IDL> .compile /usr/lib/coyote/linkedList__define.pro
IDL> cgContour, ....., /Window
```

Tough, situation. Maybe a letter to the SolarSoft people will help. :-)

Cheers,

David

--

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

Subject: Re: How to specify which exact version of a subroutine to use....
Posted by [David Fanning](#) on Thu, 17 Mar 2011 16:44:46 GMT

David Fanning writes:

- > Several things can help. First, better communication!
- > (And, by the way, Wayne Landsman is terrific to work with.)
- > I don't mind people fixing bugs and adding features to my
- > programs, but please let me know about it. I'm all for
- > writing better programs!

And if you DO make changes to someone else's library programs and choose not to tell them about it, at least give the programs a different name. Otherwise chaos will reign supreme. :-(

Cheers,

David

--

David Fanning, Ph.D.

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Subject: Re: How to specify which exact version of a subroutine to use....

Posted by [pgrigis](#) on Thu, 17 Mar 2011 17:39:45 GMT

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On Mar 17, 12:44 pm, David Fanning <n...@idlcoyote.com> wrote:

- > David Fanning writes:
- >> Several things can help. First, better communication!
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- > And if you DO make changes to someone else's library
- > programs and choose not to tell them about it, at least
- > give the programs a different name. Otherwise chaos will
- > reign supreme. :-(

Right - and solarsoft is quite guilty of that due to the fact that there are a large number of contributors that are not necessarily aware of each other's work - so

sometimes I have encountered inconsistencies even between different branches of solarsoft (though that wasn't very often).

As a lesson learned, everyone should write all their future software with a 2- (or better 3-) letter unique identifier in the program names - especially when they edit existing routines and change them.

For the future, maybe some better namespace management tools should be added to IDL...

Ciao,
Paolo

>
> Cheers,
>
> David
>
> --
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Subject: Re: How to specify which exact version of a subroutine to use....
Posted by [George Millward](#) on Thu, 17 Mar 2011 19:26:33 GMT
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On Mar 17, 11:39 am, Paolo <pgri...@gmail.com> wrote:
> On Mar 17, 12:44 pm, David Fanning <n...@idlcoyote.com> wrote:
>
>> David Fanning writes:
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>

Agreed that it's all a right pain. For now I think the solution for me will be just to do a specific .compile and go with that. Incidentally, the coyote library is really a victim of it's own success in this regard.... whenever I get given an idl project to work on it almost always has it's own built in copy of coyote, so I can end up with half a dozen coyote directories - and that's before any links into solarsoft or anything.

Anyhow, thanks for the help,

George.

Subject: Re: How to specify which exact version of a subroutine to use....

Posted by [David Fanning](#) on Thu, 17 Mar 2011 19:42:43 GMT

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George Millward writes:

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- > of it's own success in this regard.... whenever I
- > get given an idl project to work on it almost always has it's own
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- > coyote directories - and that's before any links into solarsoft or
- > anything.

This is my experience, too. Almost any time I deal with a UNIX user, they have at least 4-5 versions of the Coyote Library on their path. Apparently, I'm not giving the right sort of directions to people. :-(

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

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Subject: Re: How to specify which exact version of a subroutine to use....

Posted by [penteado](#) on Thu, 17 Mar 2011 20:26:24 GMT

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On Mar 17, 1:44 pm, David Fanning <n...@idlcoyote.com> wrote:

- > And if you DO make changes to someone else's library
- > programs and choose not to tell them about it, at least
- > give the programs a different name. Otherwise chaos will
- > reign supreme. :-(

Anytime I change someone else's code I add a _pp suffix to the name. Besides making it a different name, it is also not the same identifier to the routines I write (for those I use a pp_ prefix), and it makes the edited routine follow the original alphabetically.

Subject: Re: How to specify which exact version of a subroutine to use....

Posted by [penteado](#) on Thu, 17 Mar 2011 20:30:11 GMT

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On Mar 17, 4:42 pm, David Fanning <n...@idlcoyote.com> wrote:

> George Millward writes:

>> Incidentally, the coyote library is really a victim
>> of it's own success in this regard.... whenever I
>> get given an idl project to work on it almost always has it's own
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> with a UNIX user, they have at least 4-5 versions
> of the Coyote Library on their path. Apparently,
> I'm not giving the right sort of directions
> to people. :-(

I never included Catalyst or Coyote in my programs that use them, I only put a link the website. And still some users end up with multiple copies, just as they end up with multiple copies of my libraries.

For that reason, in some of my programs I found it useful to put a version identifier, either showing in the GUI, or as a property in the object. That way the version can be read from running the code, avoiding the issue of the user looking at a version in the source code (which shows the latest number) which is not the same being executed.
