
Subject: Spawning Unix commands from IDL under bash

Posted by [wlandsman](#) on Fri, 10 Jun 2016 18:20:02 GMT

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

I've recently succumbed to peer pressure to switch my (Mac and Linux) shell from tcsh to bash.

Everything is working fine except that I do not have access to the aliases defined in my .bash_profile (Mac) or .bashrc (linux) files when spawning from IDL. For example in my .bash_profile file I have

```
alias ll="ls -l"
```

I am able to use this alias at the system prompt but it is not recognized when spawning from the IDL prompt

```
IDL> $ll (or IDL> spawn,'ll' )  
bash: ll: command not found
```

Note that this is not a PATH problem and IDL> spawn,'ls' does work.

A google search revealed a user asking a similar question 10 years ago
<https://docs.astro.columbia.edu/ticket/160>

and the "solution" was to use tcsh instead of the bash shell. But there must be some way for bash users to get the same behavior issuing a command from SPAWN within IDL, that they do when issuing the command from the system prompt.

Thanks, --Wayne

Subject: Re: Spawning Unix commands from IDL under bash

Posted by [Craig Markwardt](#) on Fri, 10 Jun 2016 18:30:09 GMT

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

On Friday, June 10, 2016 at 2:20:05 PM UTC-4, wlandsman wrote:

> I've recently succumbed to peer pressure to switch my (Mac and Linux) shell from tcsh to bash.

>
> Everything is working fine except that I do not have access to the aliases defined in my .bash_profile (Mac) or .bashrc (linux) files when spawning from IDL. For example in my .bash_profile file I have

>
> alias ll="ls -l"

>
> I am able to use this alias at the system prompt but it is not recognized when spawning from the IDL prompt

>

> IDL> \$ll (or IDL> spawn,'ll')
> bash: ll: command not found
>
> Note that this is not a PATH problem and IDL> spawn,'ls' does work.

I think you are spawning an interactive non-login shell. See here...

https://www.gnu.org/software/bash/manual/html_node/Bash-Startup-Files.html

So it may depend whether your alias is defined in .bashrc or .bash_profile.

Craig

Subject: Re: Spawning Unix commands from IDL under bash
Posted by [wlandsman](#) on Sun, 12 Jun 2016 01:59:49 GMT
[View Forum Message](#) <> [Reply to Message](#)

Wow, bash turns out to be a lot more complicated than tcsh in this case.

Craig is correct (thanks!) that one creates a non-interactive shell when SPAWNING a bash command from IDL. But a non-interactive bash shell doesn't read .bashrc or .bash_profile or *any* file by default. Instead you have to set the environment variable BASH_ENV to point to the file with the alias commands.

But we are still not done because we need to tell bash to expand aliases. I have a vague idea why this is so, but I think my explanation would just come out as hand-waving. Anyway, one has to include the command

shopt -s expand_aliases

in the file containing the aliases.

Some of these tips come from the following post:

<http://stackoverflow.com/questions/1615877/why-aliases-in-a-non-interactive-bash-shell-do-not-work>

--Wayne

On Friday, June 10, 2016 at 2:30:12 PM UTC-4, Craig Markwardt wrote:

> On Friday, June 10, 2016 at 2:20:05 PM UTC-4, wlandsman wrote:
>> I've recently succumbed to peer pressure to switch my (Mac and Linux) shell from tcsh to bash.
>>
>> Everything is working fine except that I do not have access to the aliases defined in my .bash_profile (Mac) or .bashrc (linux) files when spawning from IDL. For example in my

.bash_profile file I have

>>

>> alias ll="ls -l"

>>

>> I am able to use this alias at the system prompt but it is not recognized when spawning from the IDL prompt

>>

>> IDL> \$ll (or IDL> spawn,'ll')

>> bash: ll: command not found

>>

>> Note that this is not a PATH problem and IDL> spawn,'ls' does work.

>

> I think you are spawning an interactive non-login shell. See here...

>

> https://www.gnu.org/software/bash/manual/html_node/Bash-Startup-Files.html

>

> So it may depend whether your alias is defined in .bashrc or .bash_profile.

>

> Craig
