
Subject: Re: Where to put (unix) DLMs?

Posted by [Martin Schultz](#) on Tue, 08 May 2001 07:30:47 GMT

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Craig Markwardt <craigmnet@cow.physics.wisc.edu> writes:

> Let's say that I am distributing a package with a DLM. Of course the
> problem with DLMs is they can be both IDL version-dependent, and
> architecture dependent. At least mine is. :-) Let's say for the
> moment can make a big library of binary DLM files for all the
> architectures and IDL versions I know about.
>
> The question is, where should the DLMs? The nicest place would be the
> IDL binary directory. Of course that assumes that users have
> permission to put things there.
>
> Another thought is to have a separate "site" DLM directory. That
> requires the user to set their IDL_DLM_PATH environment variable
> before running IDL. This works, unless users are in heterogeneous
> environment (ie, like my lab's), in which case they won't know *which*
> directory to set it to ahead of time. Sadly, the IDL system variable
> !DLM_PATH cannot be set at runtime, so there is no way to discover it
> on the fly.
>
> Has anybody else run into this issue? Should I just assume that users

> directory?
>
> Thanks,
> Craig
>
>
> --
> -----
> Craig B. Markwardt, Ph.D. EMAIL: craigmnet@cow.physics.wisc.edu
> Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response
> -----

Hi Craig,

I've never worked with DLMs, so I can't say if they are also found in IDL's normal !PATH. If so, you could use a somewhat more elaborate startup file which would set the !PATH according to the !VERSION variable. Please find attached my startup file which collects some user information etc. then sets up a search path including (1) the individual user's routines, (2) institute wide libraries, (3) IDL's library.

The second solution if you are only dealing with different Unix flavors (e.g. SOLarix and Linux), is to use `uname` in your `.cshrc` or whatever shell you use. Example:

```
if ( `uname` == 'SunOS' ) then
  # echo Sun Workstation
...
  # IDL settings
  setenv LM_LICENSE_FILE /usr/local/rsi/license/license.dat
  source /usr/local/bin/idl_setup
  setenv IDL_STARTUP ~/IDL/idl_startup.pro
...
endif

if ( `uname` == 'Linux' ) then
...
endif
```

Cheers,

Martin

```
idlexedir = !DIR + dl
```

```
; 3. Set default directory for MPI library
```

```
idlmpilib='~m218003/home/IDL/lib/' ; Assume Unix as default  
IF !VERSION.OS_FAMILY EQ 'Windows' THEN idlmpilib="  
IF !VERSION.OS_FAMILY EQ 'Mac' THEN idlmpilib="
```

```
; 4. Get user name, login ID and home directory  
; (name can be overwritten in users .idlrc file)
```

```
name = 'nobody'  
cmd='finger $USER | head -1 | cut -d ":" -f 3'  
IF !Version.OS_Family EQ 'unix' THEN spawn, cmd, r  
IF N_Elements(r) GT 0 THEN name=StrTrim(r,2)
```

```
user = strtrim(getenv("USER"),2)
```

```
homedir = strtrim(getenv("HOME"),2)
```

```
; 4. Set defaults for other user settings
```

```
initials = '..' ; The user initials  
email = 'nobody@dkrz.de' ; The user email address  
idlusrdir = homedir + dl + 'IDL' + dl ; The user IDL home directory  
idlusrlib = idlusrdir + 'lib' + dl ; The IDL user's personal library directory  
USE_OBSOLETE = 0 ; Use obsolete system library routines  
QUIET = 0 ; Don't display settings  
!PATH = "
```

```
; 5. Define system variable with user information
```

```
defsysv, 'USER', { NAME:name, $  
INITIALS:initials, $  
USERID:user, $  
EMAIL:email, $  
HOMEDIR:homedir, $  
IDLUSRDIR:idlusrdir, $  
IDLUSRLIB:idlusrlib, $  
IDLMPILIB:idlmpilib }
```

```
; 6. Try to locate user's .idlrc file and execute it. If not there, issue warning
```

```
usrfile = ( Findfile(homedir+dl+'.idlrc') )[0]  
IF usrfile EQ " THEN print,'%% No .idlrc file found in '+homedir  
IF usrfile EQ " THEN print,'%% Some settings in !USER may not be correct'  
cd, current=curdir
```

```
cd, homedir
@.idlrc
cd, curdir
```

```
QUIET = Keyword_Set(QUIET)
```

```
; 7. Build IDL search path
; Normally, users will have defined their own directories in .idlrc so we
; have to append the common libraries to the !PATH variable
```

```
; 7.1 remember user path settings for status report
UPATH = !PATH
```

```
; 7.2 MPIfM wide libraries
```

```
XPATH = $
    !USER.IDLMPILIB +'martin_schultz:' + $
    !USER.IDLMPILIB +'mgs_objects:' + $
    !USER.IDLMPILIB +'david_fanning:' + $
    !USER.IDLMPILIB +'mark_hadfield:' + $
    !USER.IDLMPILIB +'esrg:' + $
    !USER.IDLMPILIB +'liam_gumley:' + $
    !USER.IDLMPILIB +'jhuapls1r:' + $
    !USER.IDLMPILIB +'craig_markwardt:' + $
    !USER.IDLMPILIB +'tex2idl:'
```

```
; Other procedures, no longer in PATH
```

```
; idlusrdir +'objects:' + $
; idlusrdir +'hiphop:' + $
; idlusrdir +'gamap:'
; idlusrdir +'grib:' + $
; idlusrdir +'grib/gribidl:' + $
```

```
; 7.3 Build path for system routines manually to prevent obsolete coming before lib
; Omit all example files
```

```
SPATH = idlexedir + 'lib:' + $
    idlexedir + 'lib/hook:' + $
    idlexedir + 'lib/utilities:' + $
    idlexedir + 'lib/macros:' ; this is only needed for IDLDE!
```

```
IF Keyword_Set(USE_OBSOLETE) THEN SPATH = SPATH + idlexedir + 'lib/obsolete:'
```

```
; 7.4 Compose !PATH system variable
```

```
!PATH = !PATH + XPATH + SPATH
```

; 8. Report status

```
print,'Welcome ' + !USER.NAME  
print  
IF NOT QUIET THEN print,'The following personal libraries are included in the search path:'  
IF NOT QUIET THEN print,UPATH  
IF NOT QUIET THEN print,'The following MPI wide libraries are included in the search path:'  
IF NOT QUIET THEN print,XPATH
```

; 9. Delete local variables

```
DELVAR, name, initials, user, email, homedir  
DELVAR, idlusrdir, idlusrlib, idlmpilib, idlexedir, spath, upath, xpath  
DELVAR, curdir, dl, r, use_obsolete
```

; 10. Increase length of input buffer
!EDIT_INPUT=50

; 11. Call Liam Gumley's COLORSET routine to ensure
; working colors
COLORSET,decomposed=0, quiet=QUIET

; 12. Goodbye
IF NOT QUIET THEN print,'Startupfile for user ',!USER.USERID,' processed.'
