
Subject: DISPLAY environment on Mac OS-X

Posted by [Dietrich Onnasch](#) on Thu, 21 Oct 2004 08:41:52 GMT

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We are using IDL 6.1 on an Apple Dual G5 under Mac OS 10.3.5.

I am reporting on a problem we had, and a solution. May be someone else has similar problems or a better solution.

The Mac OS X system allows several Users to be logged in at the same time. To facilitate the use of IDL, the X11 application is started already during startup for each user (System Preferences -> Accounts -> Startup Items).

We like to launch IDL from the normal terminal window, not from the X11/xterm window. The Terminal application is better integrated and paste & copy and drag & drop works better. During program development it is easy to drag a file(name) from the finder into the terminal or to paste some code from the editor window to the terminal window and vice versa. As long as X11 is running in the background, the only prerequisite is that the environment variable DISPLAY is set correctly, before IDL is started from the terminal, e.g. by the commands

```
setenv DISPLAY ":0.0" # tcsh shell
or
export DISPLAY=":0.0" # bash
```

However, DISPLAY can be different from ":0.0" (e.g. = ":1.0") when another user has been logged in earlier.

The problem is to set DISPLAY to the correct value automatically.

Our solution is to look for the files in the folder /tmp/.X11-unix.

You may find

```
ls -l /tmp/.X11-unix
total 0
srwxrwxrwx  1 UserA  wheel  0 19 Oct 12:55 X0
srwxrwxrwx  1 UserB  wheel  0 21 Oct 09:34 X1
```

For each user who is running X11 there is one line.

The owner of X0 is UserA and he has to set DISPLAY=":0.0".

UserB must set DISPLAY=":1.0".

We wrote a small shell script that looks for the current user name and greps the corresponding line.

Here are the essential lines from the bash script:

```
#!/bin/bash
X11_FOLDER=/tmp/.X11-unix
currentUser=`(set `whoami`; echo $1)`
bb=`ls -l $X11_FOLDER | grep $currentUser`
bbb=${bb/*X/:}
usedDISPLAY=$bbb.0
export DISPLAY=$usedDISPLAY
```

exit 0

Thanks for comments,
Dietrich
