Information for SCO OpenServer Users

J. Kean Johnston (jkj@sco.com)

14 February 2003

1. Requirements

Before you can either compile or execute a binary distribution of XFree86, the following conditions must be met:

- Ensure that you are running Release 5.0.4 or later. This is required because OSS646 is only supported on those platforms. There are no plans to support XFree86 on earlier releases of OpenServer.
- Ensure that OSS646, the ''Execution Environment Update'' package is installed, if appropriate. Check the release notes for that update to see whether or not your current operating system requires this update. At least version OSS646B is required. If you are running SCO OpenServer Release 5.0.7, you must have Maintenance Pack 1 installed.
- Ensure that the "Graphics, Web and X11 Libraries" package is installed. At least version 1.3.2Ag is required. You should always install the latest possible version of this supplement that is valid for your operating system release. From time to time this release is bundled with Maintenance Packs, so if you are running 5.0.7 or later, the latest version may be in the latest Maintenance Pack. Always check the release notes for GWXLIBS to see if your platform requires the update. The latest version can always be found at the SCO FTP site <URL:ftp://ftp.sco.com/pub/openserver5/opensrc>.
- To compile XFree86, you must use the SCO-supported version of the GNU C Compiler. It is possible that Skunkware versions of the compiler will work too, but this has not been tested. The ''GNU Development System'' is available for all releases from (and including) SCO OpenServer Release 5.0.5. It is provided with the operating system in all versions from Release 5.0.7, although you need to run ''custom'' to install it from the media. You can always download the latest latest version of the GNU Development System from the SCO FTP site <URL:ftp://ftp.sco.com/pub/openserver5/opensrc>.
- If you are not using OSR 5.0.7 or later, you need to get an updated console driver. See <URL:http://www.sco.com> for details on OpenServer supplements. If you can't or don't want to upgrade your console driver, XFree86 will still compile, but you may run into problems with some cards such as the Riva TNT and ATI Rage cards. The problem with the console driver in 5.0.6A and earlier is that when the X server sets graphics mode, the driver does not set a status bit, so any text that is sent directly to `/dev/console`, such as kernel warning or notice messages when you access tape drives or NFS notices, will be sent to the console video memory. This just happens to be slap bang in the middle of palette data for the Riva TNT, so you get color map corruption. The updated console driver also has an improved mechanism for allocating video memory that XFree86 detects at compile time, and it will use it if it exists. It is STRONGLY recommended that you get the console driver update.

2. Compiling XFree86

Using the GNU Development System, compiling XFree86 should be fairly straightforward. Before attempting to compile the system though, you should make sure that you have met all of the requirements above. To actually start the compilation, perform the following steps:

- Copy the unmodified `xf86site.def` in `xc/config/cf` to `host.def`. Edit `host.def` and make any changes you think you need. The most useful options to change are `HasTcl`, `HasTk`, `HasXdmAuth` if you have the file `WrapHelp.c` and `GccWarningOptions`. Due to the nature of OpenServer's header files, the default options for this last setting are a bit aggressive, and I recommend you set this option to `-Wpointer-arith`.
- Make sure that the official version of the GNU Development System is first in your `PATH`. The official version lives in `/usr/gnu/bin`, and the Skunkware version (if any) lives in `/usr/local/bin`. You must ensure that `/usr/gnu/bin` appears first in your `PATH`.
- Go to the top level of the source tree and execute the command `CC=gcc make World BOOTSTRAPCFLAGS=-DSCO5 2>&1 | tee world.log`. This will do a full build, and send all of the build results to the file `world.log`.
- If the build succeeded, install the new server by executing the command `make install 2>&1 | tee install.log` as root. This will send the install results to the file `install.log`.
- If you want to install the manual pages, execute the command `make install.man 2>&1 | tee -a install.log` as root.

3. Before Running XFree86

The SCO `xterm` terminfo description is not compatible with the `xterm` in the R5 distribution.

To use a Bus/Keyboard or PS2 mouse you should configure the mouse drivers using '`mkdev mouse`'. You may then use the `OsMouse` option in your `XF86Config` to specify that XFree86 should use the SCO mouse drivers. To do this, set the `Protocol` to "`OsMouse`" in the `Pointer` section of your `XF86Config` file. You can also use "`OsMouse`" for your serial mouse, especially if you are having trouble getting your mouse to work using the XFree86 mouse drivers.

4. Switching Consoles

XFree86 uses similar console switching keys as the SCO R4 and R5 servers. That is, `Ctrl-PrntScr` takes you to the next console along from the one X is running on. If this is the last console it will take you to console 1. `Ctrl-Alt-FXX`, where `XX` is a function key between `F1` and `F12` will switch you to the console number assigned to that function key. `F1` corresponds to `tty01` (or console 1), `F2` corresponds to `tty02` (or console 2) etc.

Unlike the SCO X server, the "kill me now" key is `Alt+Ctrl+Backspace`. This does not ask for confirmation, it simply kills the X server as immediately as possible. Use with extreme caution. This may cause applications to terminate in an unpredictable way. You can set the `DontZap` option in the `ServerFlags` section of your `XF86Config` file to disable this.

5. Setting up Man Pages

After compiling the tree, or after installing the binary distribution you can get `man` to recognise the XFree86 man pages by adding `/usr/X11R6/man` to the `MANPATH` in `/etc/default/man`. The line should look similar to:

```
MANPATH=/usr/man:/usr/gnu/man:/usr/X11R6/man:/usr/local/man
```

This allows all users to view the X man pages. You may change your own `MANPATH` environment variable if you do not want everyone to access the man pages.

By default the man pages are compressed using “`compress`” to conserve space. If you do not want to compress the man pages change `CompressManPages` to `NO` in your “`host.def`” file. Those using the binary distribution can use “`uncompress`” to uncompress the man pages. Binary distributions contain pre-formatted versions of all man pages. If you are compiling the server yourself, you need to have the GNU Tools package installed to get groff, the GNU nroff replacement, to format the man pages. Use the `manroff` script to format the manual pages yourself.

6. Using SCO binaries/servers.

XFree86 will accept connections from SCO binaries (R3 upwards) and the SCO R5 server will also accept connections from XFree86 binaries. This means you may mix and match the two if you have ODT. For example you may still use the Panning Motif window manager (pmwm) if you prefer.

CONTENTS

`$XFree86: xc/programs/Xserver/hw/xfree86/doc/sgml/SCO.sgml,v 3.23 2003/12/18 16:38:38 dawes Exp $`