

# X Window System support for Solaris™ & OpenSolaris™ from X.Org

**David Holland**  
XFree86 Project (<http://www.xfree86.org/>)

**Marc Aurele La France**  
XFree86 Project (<http://www.xfree86.org/>)

**Alan Coopersmith**  
Sun Microsystems, Inc. (<http://www.sun.com/>)

## 1. The VT-switching sub-system in Solaris

The original virtual terminal sub-system is a undocumented, and unsupported feature of Solaris x86 releases 2.1 through 7. It was removed in Solaris 8 and later releases, and was never present on Solaris SPARC. Support for this version of virtual terminals is only present in Xorg 1.6.x and earlier releases of Xorg, and has been removed in Xorg 1.7 and later. If you use this form of virtual terminals, you do so at *YOUR OWN RISK*.

A new virtual terminal sub-system has been introduced in OpenSolaris 2010.02 (currently available in pre-release development builds). This version is supported on both SPARC and x86 platforms, though SPARC support is limited to devices with "Coherent Console" support in the kernel frame buffer driver. Support for it is found only in Xorg 1.7 and later releases.

When available, the virtual terminals of Solaris work basically the same way as most other VT sub-systems.

## 2. Notes for building X11R7.5 on Solaris

1. Both GCC, and the Sun Studio compilers are supported by X11R7.5. The minimum recommended GCC release is 3.4. Some earlier GCC's are known to not work and should be avoided.

You should also make certain your version of GCC predefines 'sun'. If needed edit `/usr/local/lib/gcc-lib/*/*/specs`, and modify the `*predefines:` line.

2. To build X11R7.5 with GCC you need gcc and (optionally) c++filt from GNU binutils. Don't install gas or ld from GNU binutils, use the one provided by Sun.
3. If you are using Sun compilers to compile the X11R7.5 distribution, you need to modify your PATH appropriately so the Sun compiler tools are available. Normally, they should be in  
`/opt/SUNWspro/bin`
4. You *MUST* put `/usr/ccs/bin` at the front of your PATH. There are known problems with some GNU replacements for the utilities found there, so the `/usr/ccs/bin` versions of these programs must be found before any possible GNU versions. (Most notably GNU 'ar' does not work during the build).

### 3. Notes for running Xorg on Solaris

1. Depending on the release or architecture of Solaris you are running, you might need to install an OS driver for an aperture device.

Under Solaris x86 2.5 and later, there's a system driver (`/dev/xsvc`) that provides this functionality. It will be detected automatically by the server, so you don't need to install the aperture driver.

For older Solaris x86 and for Solaris SPARC releases, the source for this driver is included in `hw/xfree86/os-support/solaris/apSolaris.shar` in the xserver source distribution. Building, and installing the driver is relatively straight forward. Please read its accompanying README file.

2. Xqueue is *NOT* supported under Solaris.

### 4. Bug Notification

Bug reports should be reported at <http://bugs.freedesktop.org/> using the xorg product or sent to `<xorg@lists.freedesktop.org>`.