

Graphic stack



Deprecation warning

The page has been migrated to <https://docs.openindiana.org/dev/graphics-stack/> . Avoid touching this wiki page.

Like most UNIX/Linux operating systems, OpenIndiana's GUI environment is based on the X Window System bundled with libraries and applications developed by the freedesktop.org community.

Therefore the **Graphic Stack** is comprised of:

- the opensource X11 display server Xorg, client libraries and utilities developed by the [X.org Project](https://www.x.org/),
- an OpenGL implementation in the form of the opensource [Mesa](https://mesa.sourceforge.io/) library,
- and illumos kernel drivers for different graphics adapters provided by the [gfx-drm](https://www.gfx-drm.org/) gate,
- together with the [libdrm](https://www.libdrm.org/) implementing communication between kernel drivers and user-space components through the Direct Rendering Infrastructure (DRI) protocol.

All these components can be installed using the unified build system [oi-userland](https://www.openindiana.org/wiki/oi-userland) or simply installed from the package repositories.

Instructions for building and/or installing the different components are provided:

Component	Scope
Xorg	Building the Xorg display server, protocol headers, client libraries and applications.
Mesa	Building the Mesa library and testing OpenGL capabilities.
Fonts	Packaging new fonts for OpenIndiana.
Kernel drivers	
Nvidia	Installation of Nvidia's proprietary graphics driver for Solaris.
gfx-drm	Building the illumos KMS drivers and libdrm from the gfx-drm gate.