

Release Notes for HP Common 3D Graphics for HP-UX 11.11 (June 2004)  
on PA-RISC Based Systems (HP-UX 11.i version 1)

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## 1. ANNOUNCEMENTS

These Release Notes contain information that is common to the Xlib and the following 3D graphics APIs: HP OpenGL, Starbase, HP-PHIGS, and HP PEX. For specific information on each API, see their respective Release Notes. The on-line Release Notes for the 3D graphics APIs are:

Common:

/opt/graphics/common/11.00\_Rel\_Notes

HP PEX:

/opt/graphics/PEX5/11.00\_Rel\_Notes

/opt/graphics/PEX5/newconfig/opt/graphics/PEX5/11.00\_Rel\_Notes

Starbase:

/opt/graphics/starbase/11.00\_Rel\_Notes

/opt/graphics/starbase/newconfig/opt/graphics/starbase/11.00\_Rel\_Notes

HP-PHIGS:

/opt/graphics/phigs/11.00\_Rel\_Notes

/opt/graphics/phigs/newconfig/opt/graphics/phigs/11.00\_Rel\_Notes

HP OpenGL:

/opt/graphics/OpenGL/11.00\_Rel\_Notes

For additional information on each API, see the "Graphics Administration Guide" which can be viewed at [http://www.hp.com/support/workstation\\_manuals](http://www.hp.com/support/workstation_manuals).

## 2. WHAT'S IN THIS VERSION?

The 3D graphics software released with the HP-UX 11.11 Operating Environment June 2004 release is supported on B, C, and J-class workstations. The following features are included with this release:

\* Support for New Devices: ATI FireGL™ X1 and ATI FireGL T2 (supported on C8000 workstation only)

See the following documentation for more information:

- \* The "Addenda -- Additional Graphics Information" section of this document
- \* The Release Notes for your particular 3D graphics API

These documents can be viewed at [http://www.hp.com/support/workstation\\_manuals](http://www.hp.com/support/workstation_manuals).

## 3. KNOWN PROBLEMS AND WORKAROUNDS

N/A

## 4. COMPATIBILITY AND INSTALLATION REQUIREMENTS

Software Requirements

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None.

#### Hardware Requirements

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With this release, Hewlett-Packard 3D graphics APIs are supported with the following new bit-mapped graphics devices:

- \* ATI FireGL X1 (3D API support is limited to OpenGL only)
- \* ATI FireGL T2 (3D API support is limited to OpenGL only)

For detailed information about supported graphics configurations - HP-UX computers combined with bit-mapped graphics devices - consult the "Graphics Administration Guide".

#### For Graphics Information

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Use the "graphinfo" command to obtain information about the bit-mapped graphics device(s) attached to your B, C, and J-class workstations. It reports the following types of information:

- \* name of device (for example: HP VISUALIZE-FXE, ATI Fire GL T2)
- \* device driver (for use with 3D APIs)
- \* frame buffer configuration
- \* hardware features (acceleration, hardware Z-buffer)
- \* additional information related to HP's 3D graphics APIs

For additional information about programming applications for these devices, consult the documentation for the 3D graphics API that you are using.

#### Operating System Platform Requirements

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None.

#### Disk Space Requirements

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Use swinstall to determine necessary and available disk space for the 3D graphics API you wish to install.

#### 5. PATCHES AND FIXES IN THIS VERSION

N/A

#### 6. SOFTWARE AVAILABILITY IN NATIVE LANGUAGES

Localization is not planned for any 3D graphics API or the corresponding documentation with this release.

#### 7. TRADEMARKS

N/A

#### 8. ADDENDA -- ADDITIONAL GRAPHICS INFORMATION

#### Graphics APIs

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Hewlett-Packard supports the following 3D graphics application programming interface (API) libraries for use with the HP-UX 11.11 (June, 2004) release: HP OpenGL, HP PEXlib, HP-PHIGS, and Starbase. Note that the HP PEXlib, HP-PHIGS, and Starbase APIs are not supported on the ATI FireGL X1 and ATI FireGL T2. For information about enhancements and changes to the current version of each API, consult the separate Release Notes document(s) as described in the ANNOUNCEMENTS section of this document (the Release Notes file(s) for a particular API will not be present if the associated optional product has not been installed on your system).

#### ATI FireGL X1 and ATI FireGL T2 Information =====

The ATI FireGL X1 graphics device is HP's high end 3D graphics product. The ATI FireGL T2 graphics device is HP's mid-range 3D graphics product. These devices are supported on the following HP workstations:

- \* C8000

For more information on these devices (including supported visuals and other device attributes), refer to the following documentation which can be found by visiting HP's website at [http://www.hp.com/support/workstation\\_manuals](http://www.hp.com/support/workstation_manuals):

- \* "Graphics Administration Guide"
- \* "OpenGL Implementation Guide"

#### Discontinuance Information =====

Hewlett-Packard evaluates the capabilities and device support of HP-UX on an ongoing basis. There are no graphics devices being discontinued with this release.

#### Threads Information =====

HP's 3D graphics APIs (HP OpenGL, HP PEX, HP-PHIGS, and Starbase) all support Level 1b threads for this release. This means HP's 3D graphics APIs can be used in a threaded application, but all 3D graphics calls must reside in a single thread. Other threads can be used for computations, etc.

Note that using OpenGL graphics in a Kernel threaded application requires that the application link with `libpthread.sl` (not the archived version, `libpthread.a`). Also note that OpenGL libraries are not cancel safe or fork safe.

For more information on using threads, see the following documentation:

- \* The [devresource.hp.com](http://devresource.hp.com) web site (see "Threads and Multiprocessing")
- \* The "OpenGL Programming Guide"
- \* The "OpenGL Reference Manual"
- \* "Threadtime" by S. Norton and M. Dipasquale

#### Additions to X11 Support =====

HP's Xfree86-based Xserver supports the ATI FireGL X1 and ATI FireGL T2 graphics devices. For more details on the features and capabilities of this Xserver, please refer to the "Graphics Administration Guide" document.