The PowerVR Control Panel enables you to turn PowerVR Direct3D acceleration on and off, and to control specific aspects of PowerVR behavior in your system.

Enable PowerVR HAL is used to turn on the PowerVR Hardware Abstraction Layer (HAL). The HAL provides the interface between the PowerVR hardware, and the Direct3D software it is running. Turning off the PowerVR HAL effectively removes the Direct3D acceleration from your system, allowing you to run Direct3D applications or games through software, or use another 3D accelerator.

This switches between maximising PowerVR acceleration, which you would use for most modern systems, and ensuring that the card works with older 2D accelerators. If you want to play games to the best of PowerVR's abilities, select Maximum Performance.

The advanced settings page enables you to switch on or off certain features of the PowerVR Hardware Abstraction Layer (HAL).

Hint settings enables you to switch on or off certain features of the PowerVR Hardware Abstraction Layer (HAL).

Performance settings are used to affect the speed at which the PowerVR HAL renders 3D. Some systems or applications may not be able to support all of the PowerVR performance features, so you can turn them on and off in Performance settings.

If you run into problems with your settings, you can reset to the default settings by clicking the Reset button.

Render overlap controls the way in which the hardware and software interact when rendering 3D. Normally, the hardware and software render at different times, the hardware waiting for the software to finish before it starts rendering, and the software then waiting for the hardware to finish. With Render overlap selected, the hardware can begin rendering before the software starts, and vice versa.

Turn Render Overlap off if your screen is updating slowly, with symptoms such as menus or dialog boxes not appearing, otherwise leave it on for performance enhancement.

Allow Quads enables PowerVR to process sets of triangles as single, four-sided objects.

Turn Allow Quads off if there are distorted objects on the screen, otherwise leave it on for performance enhancement.

Render Timeout defines the maximum time, in seconds, that the software waits for the hardware to complete 3D rendering.

Increase the Render Timeout time if the display shows incomplete rendering of scenes or objects. Decrease the time if there are pauses between frames.

Quality settings are used to affect the quality of image that PowerVR renders. Some systems or applications may not be able to support all of the PowerVR quality features, so you can turn them on and off in Quality settings.

If you run into problems with your settings, you can reset to the default settings by clicking the Reset button.

Need 3D on 2D enables you to turn 2D/3D compositing on or off. 2D/3D compositing is used when a 3D object is moving on a complex 2D background.

You would turn 2D/3D compositing on if an application displayed a halo of solid color around objects, such as in the example below:



MIP mapping takes place when a texture is in the distance, and has become very small. It averages the attributes of the pixels within the texture, so that the small texture has a uniform appearance. Automatic MIP mapping increases PowerVR performance.

The PowerVR Control Panel

The PowerVR Control Panel enables you to turn PowerVR Direct3D acceleration on and off, and to control specific aspects of PowerVR behavior in your system.

Enable PowerVR HAL

Enable PowerVR HAL is used to turn on the PowerVR Hardware Abstraction Layer (HAL). The HAL provides the interface between the PowerVR hardware, and the Direct3D software it is running. Turning off the PowerVR HAL effectively removes the Direct3D acceleration from your system, allowing you to run Direct3D applications or games through software, or use another 3D accelerator.

Maximum Performance and Maximum Compatibility

This switches between maximising PowerVR acceleration, which you would use for most modern systems, and ensuring that the card works with older 2D accelerators. If you want to play games to the best of PowerVR's abilities, select Maximum Performance.

Advanced Settings

The advanced settings page enables you to switch on or off certain features of the PowerVR Hardware Abstraction Layer (HAL).

Hint Settings

Hint settings enables you to switch on or off certain features of the PowerVR Hardware Abstraction Layer (HAL).

Selecting an Application

Performance Settings

Performance settings are used to affect the speed at which the PowerVR HAL renders 3D. Some systems or applications may not be able to support all of the PowerVR performance features, so you can turn them on and off in Performance settings.

Render Overlap

Render overlap controls the way in which the hardware and software interact when rendering 3D. Normally, the hardware and software render at different times, the hardware waiting for the software to finish before it starts rendering, and the software then waiting for the hardware to finish. With Render overlap selected, the hardware can begin rendering before the software starts, and vice versa.

Turn Render Overlap off if your screen is updating slowly, with symptoms such as menus or dialog boxes not appearing, otherwise leave it on for performance enhancement.

Allow Quads

Allow Quads enables PowerVR to process sets of triangles as single, four-sided objects.

Turn Allow Quads off if there are distorted objects on the screen, otherwise leave it on for performance enhancement.

Render Timeout

Render Timeout defines the maximum time, in seconds, that the software waits for the hardware to complete 3D rendering.

Increase the Render Timeout time if the display shows incomplete rendering of scenes or objects. Decrease the time if there are pauses between frames.

Quality Settings

Quality settings are used to affect the quality of image that PowerVR renders. Some systems or applications may not be able to support all of the PowerVR quality features, so you can turn them on and off in Quality settings.

If you run into problems with your settings, you can reset to the default settings by clicking the Reset button.

Need 3D on 2D

Need 3D on 2D enables you to turn 2D/3D compositing on or off. 2D/3D compositing is used when a 3D object is moving on a complex 2D background.

You would turn 2D/3D compositing on if an application displayed a halo of solid color around objects, such as in the example below:



Automatic MIP Mapping

Automatic MIP Mapping takes place when a texture is in the distance, and has become very small. It averages the attributes of the pixels within the texture, so that the small texture has a uniform appearance. Automatic MIP mapping increases PowerVR performance.

If your game crashes or textures are missing or corrupted, turn Automatic MIP Mapping off, otherwise leave it on for performance enhancement.