

PowerVR Graphics Drivers and SDK

WinCE GFX-SGX 1.00.00

Release Notes November 04, 2010

Introduction

The PowerVR graphics Driver & SDK product release is supported on the platforms that contain a SGX530 Graphics processor. The drivers contained here, coupled with WinCE board support package, gives developers the ability to use the hardware and software capabilities of the SGX530 with Windows CE 6.0 R3. The SDK will give developers the ability to evaluate the programming environment and easily utilize the powerful hardware support of the PowerVR for different applications.

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Features

This release includes support for SGX530 with the following features and has been tested with WinCE ARM A8 Board Support Package:

- WinCE 6.0 R3 supported
- Catalog Selections for PowerVR Selections
- Automatic detection of the SGX Revision type at Run-Time to allow easy inter-platform development.
- Default Revision type selectable through Catalog to minimize image size and Kernel Boot-up times.

- Inclusion of the DDK1.5 for the SGX Drivers.

Documentation

- http://processors.wiki.ti.com/index.php/WinCE-TIBSP_3D_Graphics
- Online Document that contains the Graphics Framework in Windows CE, along Installation and Building Guidelines.

Package Contents

The PowerVR release contains the following components:

Graphics Driver 1.5	Contains the Binaries and dynamic libraries needed to have Graphics Support under WinCE
Graphics SDK 2.3	Development Kit that contains tools, demos and tutorials for the creation of Applications based on OGLES1.1, OGLES2 or OpenVG

A detailed Manifest with the different items is embedded in the Documentation of the Package

Installation and Usage

Please follow this site: http://processors.wiki.ti.com/index.php/WinCE-TIBSP_3D_Graphics for the latest and more recent detailed installation and usage instructions.

Upgrade and Compatibility Information

The PowerVR release is independently installable for the mentioned platforms.

Device Support

This release supports the Texas Instruments OMAP35x, DM37x and AM35x SoCs. It was verified on the OMAP3, DM37xx and Am35x EVMs from Mistral Solutions.

Validation Information

A sanity test of the WinCE GFX SGX 1.00.00 was performed before release to the system test team. The sanity test covered the following tests. The validation was done on Devices Supported:

- Validated the different Demos provided in the SDK for OGLES1.1 and OGLES2.
- Verified Support of the Silverlight applications when using the OpenGL plugin.

In addition, this release has gone through a complete QA cycle.

Exceptions and Known Issues

- SDOCM00074811: Dragging a window showing OpenGL content outside the display (to the left) causes garbled display

Features in WinCE GFX SGX 1.00.00

- Upgraded the drivers based on the DDK1.5 from Imagination.
- Modified the Binaries for the Demo Applications to Showcase the FPS (frames Per Second) based on Retail Messages; while making the *Swap Interval* (0) to use them for comparison purposes.
- Enhanced the Chameleon Man Demo to show the FPS on the screen.
- Automatic Detection of the SGX Revision by using the TI SOC type to appropriately use the right set of libraries when several set of processors are enabled in the Catalog. When only one entry is selected in the Catalog, only the necessary drivers and dynamic libraries is used into creating the final Image and the process will smartly bypass the selection at run-time to minimize the boot-up time.

Limitations

Special Notes

Technical Support and Product Updates

- For questions and support on the WinCE GFX SGX 1.00.00, please visit <http://support.ti.com/>.
- A developer wiki site is available here: http://wiki.davincisp.com/index.php?title=Main_Page. For information on Graphics for the TI platforms for WinCE, search for "WINCE SGX" in the google toolbar embedded in the page. User contributions are encouraged.