

The Open Graphics Project is announcing today the completion of their first graphics card development platform, OGD1.

About the Open Graphics Project

The Open Graphics Project (OGP) was founded by Timothy Normand Miller in October of 2004. Frustrated by the lack of support for Free Software from existing graphics card vendors, Tim, an experienced graphics chip designer himself, decided that it was long over-due to correct the problem. Rather than try to beg existing vendors to release specifications on their hardware, the goal of the OGP is to develop new graphics hardware, completely out in the open, with openly published specifications, specifically with Free Software in mind. With open specifications, users will always have support for their hardware.

Since the OGP was started, it has grown to over 500 members. Full specifications for a 3D graphics engine have been developed (conforming to OpenGL 1.3), and work has begun on designing the hardware. So far, logic (in the form of Verilog code) has been developed for PCI, memory, video, and PROM interfaces. In addition, OGD1 has been completed.

About OGD1

OGD1 is the Open Graphics Development platform series 1. It is an FPGA-based development platform that the OGP will use primarily to develop, test, and prove logic that will ultimately be incorporated into a fixed-function, high-performance integrated circuit. Being reprogrammable, OGD1 is suitable for many applications besides just graphics, and the free-design hardware community will find it to be a valuable platform for the development of many free hardware designs in the future.

As an FPGA prototyping board, OGD1 is priced competitively with other FPGA boards on the market. For the same price, OGD1 has a much larger and faster FPGA and much more on-board memory. OGD1 comes with a Xilinx Spartan 3 4000 FPGA, a Lattice XP10 FPGA, 256 MiB of memory, four DVI transmitters (configured as two dual-link channels), a 330MHz DAC for analog video, a Conexant TV chip for S-Video out, a 64-bit 66MHz PCI card edge (PCI Express in the planning stages), and a large number of user-configurable I/O headers.

Pricing

The list price of OGD1 is \$1500, but discounts are available. Discounts are available through bulk purchases and via developer discounts. The Open Hardware Foundation (see below) is responsible for deciding who may get developer pricing and who may receive subsidies from donations.

Organization of the OGP

Given the high cost of hardware development, the OGP cannot function as many loose-knit Free Software projects. They have developed legal frameworks to assist in the legal and financial aspects of the project. Traversal Technology, LLC has been formed as a for-profit corporation to manage the hardware fabrication and act as an interface between the OGP community and regular business concerns. The Open Hardware Foundation has been formed as a non-profit corporation that will manage donations, organize free-design hardware projects, and act as a democratic representative of the needs of the community for the OGP and Traversal.

Licensing

As of this moment, all hardware and software designs associated with the OGP are released under Free Software licenses. All hardware and some software is licensed under the GPL, and the rest of the software is released under the X11 license.

Useful links

The Open Graphics Project main page:

<http://www.opengraphics.org>

Details about OGD1:

<http://wiki.duskglow.com/tiki-index.php?page=OGD1>

Traversal Technology, LLC home page:

<http://www.traversaltech.com>

The Wikipedia article on OGP:

http://en.wikipedia.org/wiki/Open_graphics