

NEWS RELEASE

Introducing **Warp3D NOVA** for AmigaOS 4

Bringing the world of modern 2D/3D shader based graphics to life

Cardiff 22nd March, 2016

A-EON Technology is pleased to announce the upcoming release of *Warp3D Nova*, its advanced 2D/3D shader based graphics system for AmigaOS 4 supporting selected RadeonHD 7xxx and Radeon Rx graphics cards with Southern Island series GPUs.

Warp3D Nova delivers shader-based 3D graphics acceleration along with per-pixel lighting and fluid rendering of larger vertex arrays as well as many other advanced graphics features. The addition of programmable shaders gives AmigaOS 4 developers an exciting new world of graphics possibilities. *Warp3D Nova* is a huge leap forward over earlier Warp3D and MiniGL implementations.

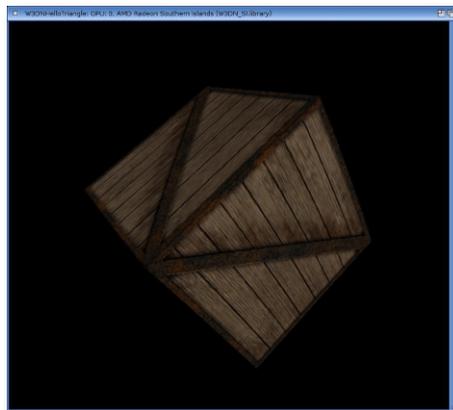
Warp3D Nova Features

- A modern shader-based 2D/3D graphics API for AmigaOS 4
- Supports vertex and fragment (pixel) shaders giving developers great freedom over lighting models, effects, vertex transformations, etc.
- Hardware accelerated Transformation, Clipping & Lighting (TCL) is implicitly supported (programmed via shaders)
- Uses the SPIR-V standard for shaders. A GLSL to SPIR-V compiler is included
- All rendering is done via Vertex Buffer Objects (VBOs) which can be stored in VRAM for high performance.
- Render state stored in Render State Objects (RSOs). Having no global state avoids state thrashing, and allows



multi-threaded rendering. Note: While there's no global state, a default RSO is allocated for convenience

- Includes an SDK with everything needed to start writing *Warp3D Nova* apps & games including examples ranging from querying hardware capabilities through to per-pixel lighting with normal mapping
- Can co-exist with earlier versions Warp3D-SI & MiniGL



We asked our developer, *Hans de Ruiter* to comment on *Warp3D Nova's* release. He said, "*Bringing shader based graphics to AmigaOS was the goal that I had in mind when I first started working on the*

2D RadeonHD driver back in 2008. Today, after many months working on Warp3D Nova, that dream has finally become a reality. Although there is still work to add compiler enhancements and many more features, I'm very much looking forward to seeing what developers create with it."

To complement *Warp3D Nova* we also commissioned *Daniel "Daytona675x" Mübener* of *GoldenCode.eu* to develop the *OpenGL ES 2* wrapper. *Daniel* is the talented coder behind the *Battle Squadron* remake and the *Tower 57 & Wings Remastered ports* for Next-Generation Amiga systems as well as many other excellent *Cherry-Darling* games.

Requirements

- AmigaOS 4.1 Final Edition or newer
 - A supported Southern Island* series graphics card with GDDR RAM
 - Radeon HD 7750-7970 series
 - Radeon R5 230/235/235X
 - Radeon R7 250X/265 series
 - Radeon R9 270/270X/280/280X
- (*Not compatible with HD7790 or Southern Island graphics cards with DDR3 RAM)

native shader based graphics for AmigaOS 4

