

# TG-GALLIUM3D

Enabling Graphics Innovation

## POSITIONING DOCUMENT

### Overall Problem

- **For Hardware Manufacturers:** we don't have the development bandwidth to develop 3D graphics drivers for all operating systems and target hardware that my embedded customers require.
- **For Operating System Vendors:** we don't have the development bandwidth to create 3D graphics drivers to support all the hardware that my customers require.
- **Platform and Solution Providers (TG Customers like Astronautics, Raymarine)**
  - Big, expensive graphics drivers
    - Require too much memory
    - Have high development costs
    - Takes too long to create the drivers
  - Need to support modern/programmable graphics hardware

### Overall Solution

- Shorten product development cycle and gain faster time to market than the competition.
- Increase overall profit margins by reduction in the cost of 3D graphics driver development (or through managing the profit squeeze)
- Achieve greater flexibility in the selection of operating system, hardware GPU and APIs for end user products.
- Accelerate 3D graphics to deliver compelling and rich multimedia graphical user experiences.
- Manufacturers need flexibility to port operating systems onto different platforms.

### Positioning

#### Key Positioning Messages

Tungsten Graphics is:

- A company with core expertise in 3D graphics driver development
- Structured to manage and implement low-volume graphics driver customization projects
- Tungsten Graphics is a solution provider founded by a group of graphics experts with an unrelenting desire to pursue state-of-the-art graphics technology.
- Tungsten Graphics' team members have the depth and breadth to effectively integrate diverse technologies and make innovative developments.

TG-Gallium3D is:

- A modular graphics driver architecture that:
  - Enables a reduction in time to market through re-using portions of the driver stack.
  - Increases product reliability through re-using portions of the driver stack that have been tested and previously deployed.
- A driver model that enables operating system portability
- A new approach to the problem of hardware accelerating 3D graphics.
- An improved driver infrastructure that finds the optimal cost/performance balance.

- A driver model that has the ability to accelerate multiple graphics APIs through the same infrastructure.

## Product/Solution Features

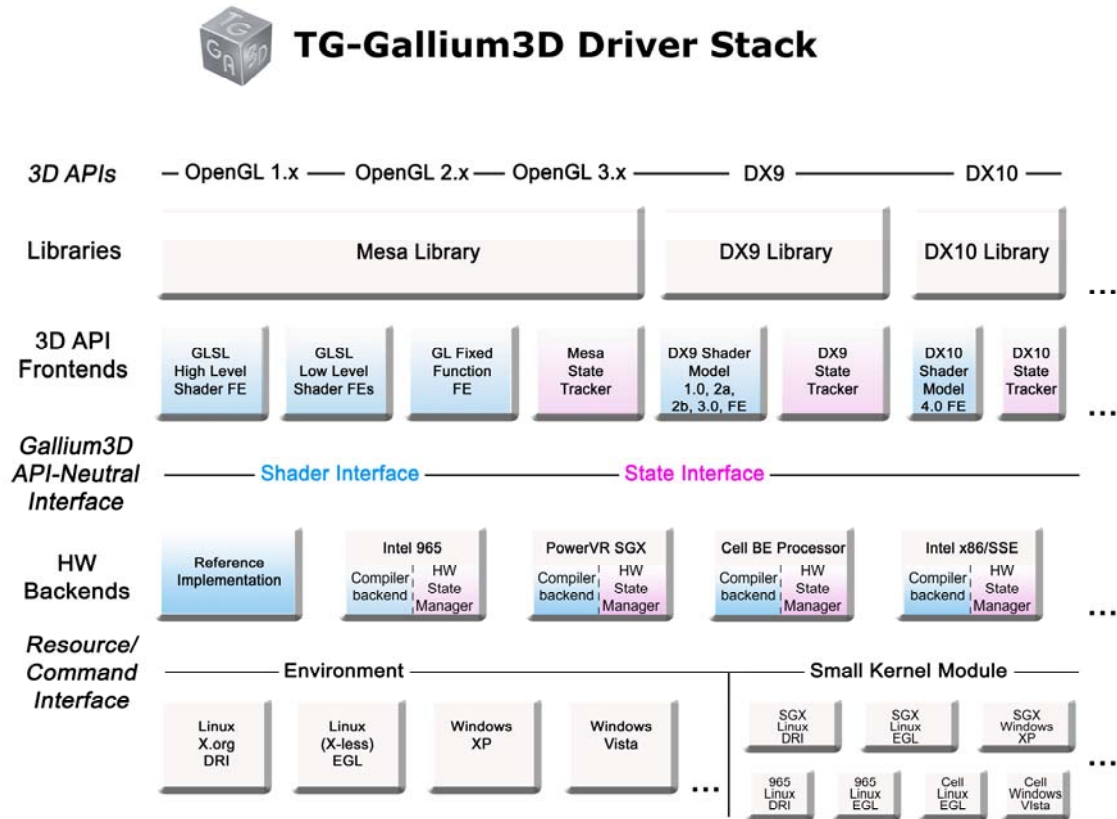
- TG-Gallium3D supports a variety of modern 3D APIs (e.g. OpenGL and D3D)
- TG-Gallium3D supports a variety of hardware platforms (e.g. Intel's 965, PowerVR SGX)

## Product Images

TG-Gallium3D logo:



TG-Gallium3D model diagram:



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