



# RealWorld Benchmarks

Industry Standard 3D Graphics Performance Evaluation Tool Set

D A T A S H E E T

## OVERVIEW

Quantum3D's RealWorld 3D Benchmarks (RWB), an industry standard test suite, allow end users to compare the relative performance of realtime 3D graphics systems across multiple platforms and operating systems. RWB aids users in understanding the suitability of particular 3D graphics subsystems for realtime roles such as visual simulation and training. The latest V2.3 release is free from Quantum3D, in both download format and on CD.

Benchmarks are implemented with Quantum3D's OpenGVS, so the test suite is available on platforms including Microsoft Windows 98, Windows NT, Linux, SGI IRIX and others. Only RWB allows the user to compare the relative performance of 3D hardware with support for all industry standard rendering APIs, including OpenGL, Microsoft Direct3D, and 3dfx Glide.

## REALWORLD BENCHMARKS...

- Provide performance ratings on system level competition via 3D graphics pipeline versus itemized rendering aspects
- Are the only benchmarks that use typical application databases and flight paths for visual simulation and out-of-home entertainment applications
- Allow testing across a variety of systems from a variety of manufacturers
- Allow testing at a variety of configurable screen resolutions
- Supports composite score comparisons on application specific testing including flight, low altitude flight and driving

## SPECIFICATIONS

- Benchmarks are available free-of-charge on CD-ROM or by download from [www.quantum3d.com/rwb](http://www.quantum3d.com/rwb)
- OpenGVS is supported on Intel-based Windows 95, Windows 98, Windows NT, SGI IRIX, Linux systems and Sun Solaris for SPARC microprocessors



## BENCHMARK FEATURES and COMPONENTS

The benchmark test suite produces an individual and a composite "score" based upon six different tests:

**gvb:** A helicopter nap-of-the-earth setting. Includes moderate pixel depth complexity and emphasis on measuring performance with low to moderate numbers of moving objects and special effects (missile trails, explosions, etc.)

**gvf:** A simple flight simulation environment. Includes moderate pixel depth complexity and emphasis on flight through a relatively simple terrain database.

**gvr:** Simple ground vehicle simulation setting. Includes moderate pixel depth complexity in a realistic race car scene.

**gvm:** A moderately complex flight simulation environment. Includes moderate pixel depth complexity and an emphasis on airport lighting systems and more complex terrain.

**gvn:** Texture management in a flight simulation environment. Includes moderate pixel depth complexity and an emphasis on understanding how the underlying test hardware performs with approximately 50 MB of imagery derived from satellite data.

**gvt:** Transformation and lighting oriented test. Includes low pixel depth complexity and an emphasis on understanding how the test hardware performs with high triangle rates.