

Performance Software SOFTWARE GPU

Hardware-independent OpenGL rasterizer with memory management and 2D API interface

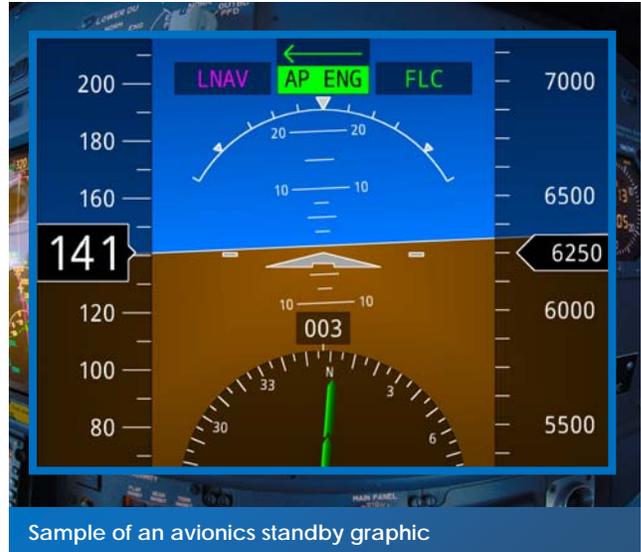
Rendering HW obsolescence obsolete

Performance Software is ushering in the next era of graphics rendering by eliminating the need for hardware GPUs altogether.

Performance Software's **Software GPU** is a customized OpenGL software rendering library for embedded applications in commercial and military displays, medical devices and automotive systems.

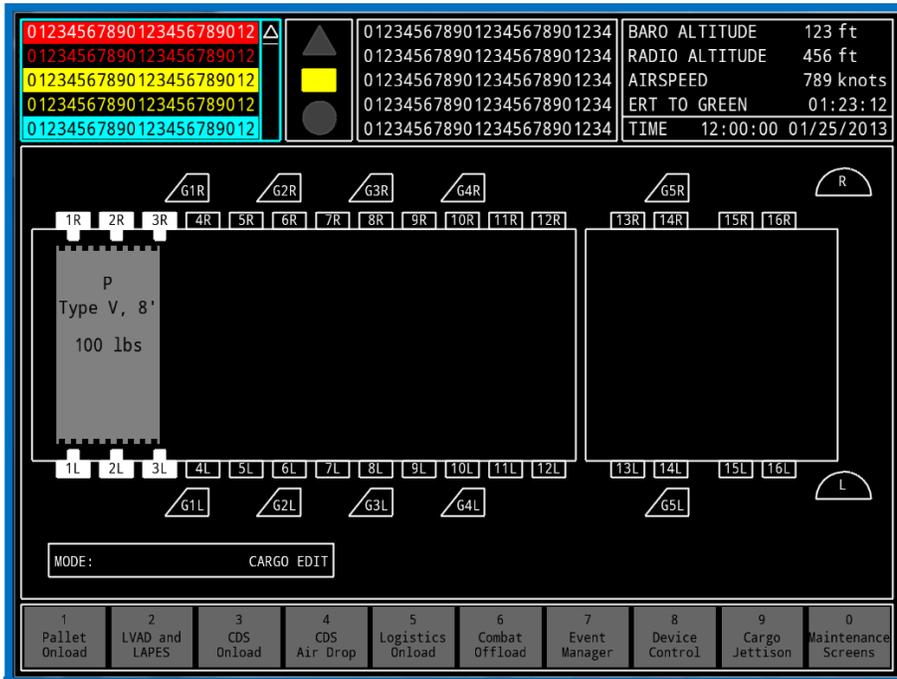
PSW satisfies market-driven needs with real software solutions.

By eliminating dependence upon static, bulky hardware components, PSW's Software GPU sets the standard in the next generation of avionics and medical device displays. Dedicated hardware Graphics Processor Units are quickly outdated and made obsolete by subsequent product and technology releases. Our Software GPU removes the headache of hardware obsolescence by removing hardware from the graphics processing equation.



Portable, low cost custom solutions

Performance Software's software GPU provides a means to render graphics through software rather than a dedicated hardware Graphics Processor Unit (GPU). Our Software GPU is an OpenGL rasterizer with built in memory management and an interface to the most commonly utilized 2D OpenGL SC 1.0 APIs. It is ANSI C compliant and hardware independent. Additionally, PSW offers off-the-shelf safety critical certification kits designed to reduce time, risk, and costs.



Sample of a cargo handling synoptic

Portable

Meeting **ANSI C standard** (compiled with any ANSI C compiler)

Certifiable

Certified Software GPU meeting **DO178C** level C.

Automated test scripts provided for on-target structural coverage credit.

Available **certification kits** include all DO178C artifacts, software, test, and PSW support.

HW independent

Enables OpenGL rendering without HW GPU, eliminating HW obsolescence.

Eliminating the need for a HW GPU gives you the flexibility to process display graphics without hardware limitations.

Customizable

PSW can provide customized solutions to meet specific customer proprietary rendering interfaces.

Why a software GPU?

Display technology is diverse and advances so rapidly that by the time a system can be designed, certified and released into the market it is often obsolete in consumer electronics terms. Performance Software has developed a better way. Rather than investing in lifetime buys of unique components, you can now get a low cost virtual graphics processor unit designed for easy portability across platforms.

With an existing displays application there are two simple steps to integration:

- Compile the software GPU for target platform
- Use the software GPU memory manager to set up frame buffer

Our Software GPU is an OpenGL rasterizer with built in memory management and an interface to the most commonly utilized 2D OpenGL SC 1.0 APIs. It is a hardware independent solution that will save our customers the headaches and costs associated with hardware GPUs in display systems.

About Performance Software Corporation

Performance Software (PSW) is a software and systems engineering firm specializing in embedded avionics and full life-cycle solutions certifiable to **DO-178B Level A**. PSW develops software and other innovative technologies for avionics, energy, and medical device markets. Headquartered in Phoenix, Arizona, PSW operates additional offices in Seattle, Clearwater, Grand Rapids, Waukesha, and New Orleans. PSW is an **AS9100 registered** organization.



PERFORMANCE SOFTWARE

Why is PSW's Software GPU the best obsolescence solution for you?

- Most cost effective solution in the market
- Optimized for runtime performance — ask us about benchmarking
- Compact footprint improves efficiency
- Interfaces are flexible and customizable
- Low impact growth path
- Support for large frame buffers
- **Fully supported by PSW**