



Solution Brief



Introduction

Industry leaders seeking HMI development software tools that will give them a true advantage over their competition rely on The DiSTI Corporation's **GL Studio®**.

Our software makes it possible to upscale the user experience with high-quality design and high performance while simultaneously reducing production costs.

Simplicity

- » OneTouch Deployment™
- » Drag and Drop Assets with Built-In Behaviors
- » Instantly preview and test UI
- » Maintain external asset linkage

Productivity

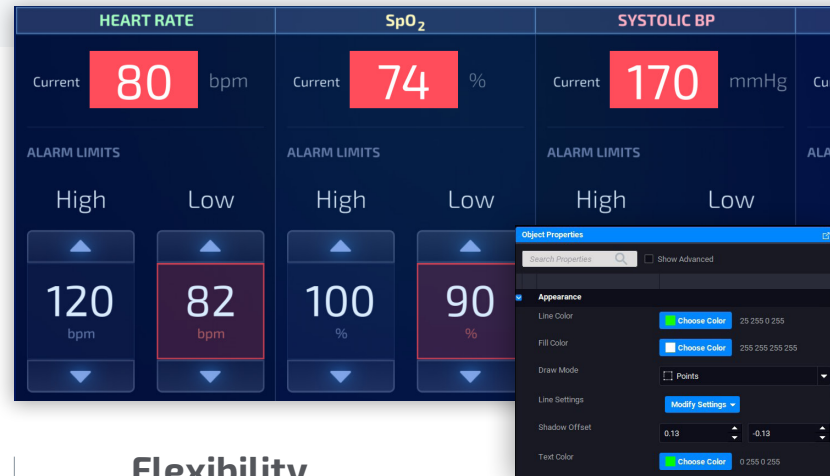
- » Code-free UI Designer workflow
- » Reusable package based system
- » Built-in animation system
- » Work with most any graphics tools
- » Automatic interfaces from Photoshop

Conceptualize, Develop, and Deploy

Deliver a full 3D user experience without compromising flexibility and performance. **GL Studio®** natively supports numerous file formats, including 3ds Max, Photoshop, and .svg, delivering 100% correlation between concept and reality.

GL Studio® versus the Competition

- » 80% faster time to market
- » 60% less Central Processing Unit (CPU) utilization
- » 67% faster target deployment time
- » Ten Times better runtime performance
- » 500 milliseconds or less UI startup time
- » First UI tool to achieve ISO-26262 ASIL D
- » Highest code reliability
- » Lower lifetime program costs.



Flexibility

- » Access to source code
- » Full control of generated code
- » Develop custom behaviors and features
- » Easily interface to third-party software

Performance

- » Native C++ code
- » Fast application start time
- » Eliminate UI lag
- » Highly efficient and reliable runtime code base



Safety-Critical Focus

Organizations seeking the highest possible functional safety need to look no further than **GL Studio®**. With close to 20 years of avionics safety-critical expertise, our software is currently flying in spacecraft and aircraft around the world, used in life critical medical devices and agriculture and automotive displays that demand high reliability.

GL Studio® also offers the automotive industry's first ISO 26262 ASIL D pre-certified runtimes to integrate out-of-the box functional safety features into your UI, sooner than your competitor and at minimal investment costs.

Designed for:

Avionics: FAA safety-critical Avionics in Aerospace, Defense and Space

- » DO-178C certifiable up to DAL A
- » Certifiable and flying in aircraft and spacecraft

Automotive: Instrument Clusters and HUDs

- » ISO 26262 ASIL D

Nuclear: Facilities Controls

- » NQA-1 / IEC 60880
- » Nuclear HMI

Medical: FDA approved for medical devices

- » IEC 62304
- » Approved and in production for Class II Medical Devices



10x Runtime Performance

*metrics based on independent industry studies

Take Advantage of the GL Studio® Mixed-Criticality™ Workflow

The DiSTI Corporation's **GL Studio®** Mixed-Criticality™ Workflow facilitates both Safe and Non-Safe User Interface content in the same design file with a unified development workflow process.

One Design, Two Approaches

As a C++ code generator and runtime library, the **GL Studio®** HMI/UI software development tool provides for both Safety-Critical (SC) and Embedded Systems (ES) content in the same design. This is made possible by our Mixed-Criticality™ Workflow.

At code generation time, when **GL Studio®** encounters ASIL content, it uses the SC code generator and runtime library for that code. In the next step, **GL Studio®** checks for all non-ASIL content and uses the ES code generator and runtime library for that content. All of this content is then transferred to the hardware target and composited together at runtime.



60 Seconds or Less – Iteration on Target

This process uses **GL Studio's** OneTouch Deployment™ to handle the generation, content transfer, and application launch that takes less than 60 seconds to iterate. This feature allows for a very rapid iteration cycle. It lets UI design teams visualize their content on the hardware target without the need for complex programming and gives a common platform for implementation engineers to work seamlessly with UI designers.

Why Engineers Prefer GL Studio®

Independent industry studies have proven that the **GL Studio®** development workflow yields up to 80% faster development time. **GL Studio's** C++ code generation and runtime library method of development boasts up to 10x runtime performance and 60% less central processing unit (CPU) utilization. **GL Studio®** application sizes out of the box are already highly optimized, showing just 10% of the application footprint compared to the leading competitor tools.