GL Studio® Mixed-Criticality™ Workflow

Develop QM and ASIL content in the same GL Studio Design

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.

Key Features and Benefits:

1. Rapid Iteration
   - Both GL Studio Safety-Critical (ASIL) and Embedded Systems (QM) content in the same design.

2. One Touch Deployment™
   - One Touch Deployment™ for single button rapid generation, compilation, content transfer, and application launch.

3. Hardware Target
   - Visualize User Interface content on hardware target without the need for complex programming.
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.

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.

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.

### One UI Design, Two Approaches

<table>
<thead>
<tr>
<th>Software</th>
<th>Dev time</th>
<th>FPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>GL Studio</td>
<td>10 Hrs</td>
<td>278 Hz</td>
</tr>
<tr>
<td>QT</td>
<td>2 Wks</td>
<td>50 Hz</td>
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*metrics based on independent industry studies

### Features
- **Faster** iteration time
- **Prototype directly** on the hardware target
- **Automated** partition of SC and ES content
- **Convenient**, automated OneTouch Deployment™
- **Workflow** source code available for customization throughout project lifecycle

### 60 Seconds or Less - Iteration on Target

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### Why Engineers Prefer GL Studio

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