



*HMI, SCADA and GIS Solutions
Real-Time Control and Monitoring
Cross-Platform / Desktop / Web*

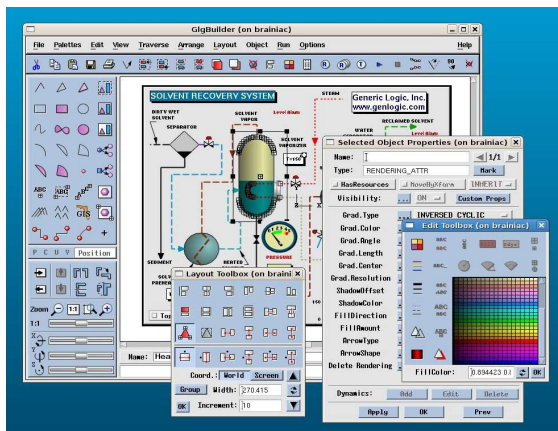
C/C++ / C# .NET / Java
HTML5 & JavaScript
Desktop / Web / Mobile
Linux / Windows

GLG Toolkit

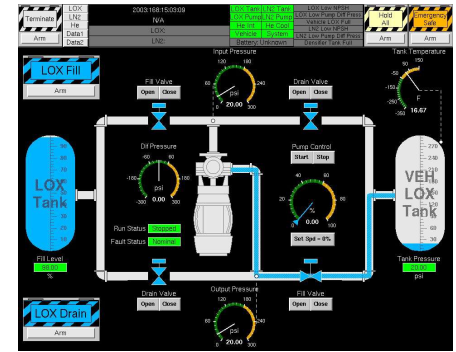
GLG Toolkit is an extremely flexible and robust graphical framework for building sophisticated HMI screens that display real-time data and control industrial automation and mission-critical processes. GLG HMI displays can be **deployed on any platform**, from **Windows** to **Linux**, from **desktop** to the **Web** and **Mobile** devices, in **C/C++**, **C# .NET**, **Java** or **HTML5 JavaScript**.

Highlights

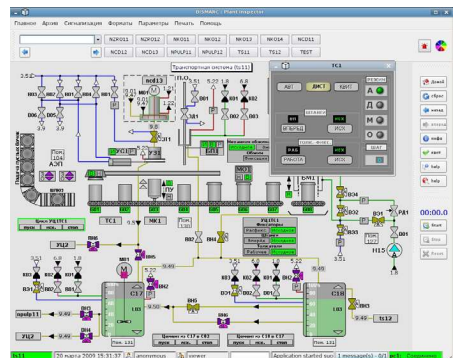
- Design elaborate HMI screens with a point-and-click **GLG Graphics Builder**
- Vast collection of **real-time charts**, graphs, **dials**, **meters**, process control symbols and other widgets
- Create **custom widgets and symbols** and add them to the editor palettes
- Interactively create dynamic objects with custom run-time behavior driven by dynamic data
- Easily connect object dynamics to live data variables using tag names
- Convenient programming access to all objects and their dynamic attributes via resources
- **Integrated GIS Object** with advanced interactive mapping capabilities
- **C/C++**, **Java** and **C# .NET** libraries for a variety of Windows, Linux/Unix and embedded platforms, with MFC, Qt and Gtk support.
- Cross-platform support for a run-time choice of a graphics driver: hardware-accelerated OpenGL or a native GDI.
- **Web deployment** via a **client-side HTML5** and **JavaScript**, or server-side GLG Graphics Logic Server (ASP.NET or JSP).
- Run-time creation of HMI screens from configuration data and custom diagramming capabilities using the GLG Extended API
- **Simplified HMI Configurator** for the end users



Editing HMI screens with an Interactive Graphics Builder



Mission Critical and Launch Control Systems



Process Control and Monitoring Systems



Flight Test and Ranch Control Systems

GLG Graphics Builder

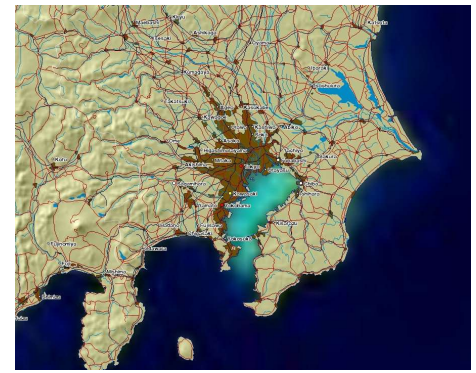
The GLG Graphics Builder uses a **point and click interface** and is geared towards application development. It allows the developer to not only draw graphical objects, but also **define dynamic behavior**, set up object and resource hierarchies and add constraints. The Builder also provides a way to **prototype the drawing** with dynamic data to test the drawing's run-time behavior.

The governing principle of the Toolkit is to allow developers to define as much of the graphical aspects of the application in the Builder as possible, freeing the code to handle only the application logic.

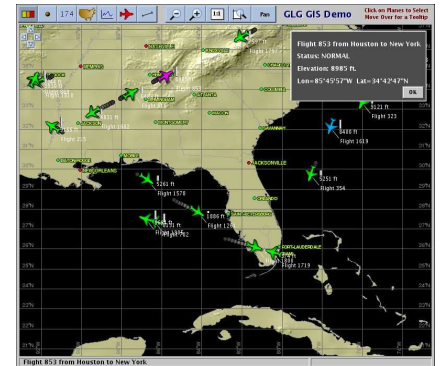
GLG GIS Map Server for Embedded or Web Use

The GLG Map Server component adds **dynamic mapping capabilities** to the GLG Toolkit and may be used with the Toolkit or as a stand-alone web-based map server. The GLG Map Server complies with the OpenGIS standard and supports optimized rendering of millions of points, both raster, vector and **elevation data**, rectangular and orthographic projections and unlimited layering, as well as **selecting GIS features with the mouse**. It is optimized to display either large or small regions, with support for hierarchical tiling, tile cache and automatic layer selection based on zoom thresholds. Various GIS datasets are available, including **OpenStreetMap**.

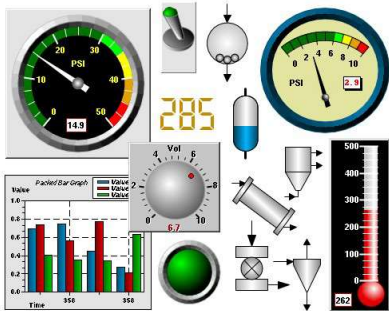
When used with the Toolkit, an **integrated GIS Object** renders a map in the background of a GLG drawing and takes care of zooming, panning and coordinate conversion, while the Toolkit handles rendering of **dynamic icons on top of the map** and updates them in real time. The integrated GIS Object is supported by all GLG libraries: C/C++, Java, C# / .NET, as well as the HTML5 JavaScript and the GLG Graphics Server.



GIS Map Server: Map Sample



GIS and Positon Monitoring Systems



Real-Time Charts, Dials, Meters, etc.

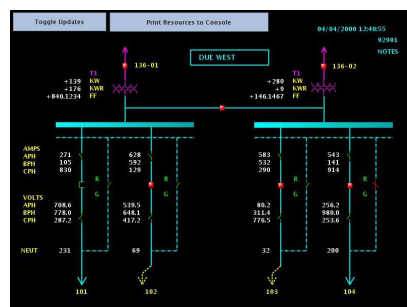
A vast collection of pre-built widgets - real-time charts, graphs, dials, meters, process control symbols and others - is provided with the Toolkit. The Graphics Builder may be used to modify widget drawings, **create dashboards** containing multiple widgets, as well as **design custom widgets** and add them to the Builder's palettes.

GLG Library Options

- **C/C++** Library (OpenGL or GDI, MFC, Motif, Qt and Gtk support)
- **Java** and **C# .NET** Class Libraries, as well as an **ActiveX** Control
- **HTML5 JavaScript** Library for Web and Mobile Deployment
- GLG Graphics Server (**ASP / JSP**) for an alternative Web deployment
- Supported platforms: **Windows, Linux, Solaris, AIX, HP-UX, embedded ARM** (BeagleBone, Raspberry Pi, Jetson Nano) and other platforms.



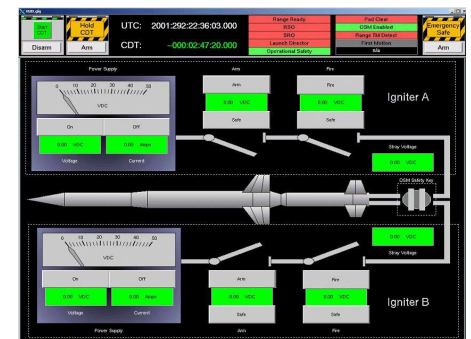
Avionics Dashboard



Plant and Circuit Monitoring Systems

Generic Logic, Inc.

Generic Logic was founded in 1994; it is a premier provider of Data Visualization, HMI and Real-Time Mapping Solutions for software developers around the world. Its products are used to visualize and control real-time and mission-critical processes in a variety of industries, from producing silicon wafers and controlling chemical plants to launching satellites into space and monitoring airport security.



Launch Control Systems



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Real-Time Dynamic Graphics and HMI Solutions for C/C++, C# / .NET, Java and Web / Mobile