GLG Toolkit

GLG Toolkit is an extremely flexible and robust graphical framework for building sophisticated visual interfaces that display real-time data. HMI displays built with the GLG Toolkit can be deployed in C/C++, C#/.NET and Java applications on a variety of Windows and Linux/Unix platforms. Deployment on Android, iPhone and other mobile devices is also supported via the GLG Graphics Server.

**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 new widgets and symbols, and add them to the Builder’s 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 mapping capabilities
- C/C++, Java and .NET libraries for a variety of Windows, Linux/Unix and embedded platforms, with MFC, Motif, 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 server-side GLG Graphics 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

**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 attach 2D and 3D dynamic animation, define object and resource hierarchies and setup 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. 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. The map server also supports selection of the GIS features with the mouse.

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 GLG Graphics Server.

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 build new 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 Class Library
- C# Class Library or an ActiveX Control for C# / .NET
- GLG Graphics Server for AJAX / JSP / ASP.NET Mobile Deployment
- Supported platforms: Windows (32 and 64 bit), Linux (32 and 64 bit), Solaris, AIX, HPUX, BeagleBone, Raspberry Pi and other platforms.

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.

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

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