ROGUE WAVE SERVER

High performance C++ and Java framework for supervision applications

Supervision centers for complex systems, such as telecommunications, transportation, or gas distribution networks, must share information among scores of operators responsible for reacting within seconds to malfunctions or other unexpected events. Linking their graphical user interfaces (GUIs) to a system and its data flow requires a scalable high performance middle-tier mediation server. Rogue Wave Server is the ideal product for this job.

Rogue Wave Server can synchronize dozens of GUIs and connect them to the data flow of a network. It can send an alarm to an operator, and when the operator responds, notify all the other network operators of any changes. Rogue Wave Server shortens the delay between alarm acquisition and display, even when dozens of events per second must be processed and the system contains thousands of elements.

Rogue Wave Server can efficiently map a physical description of a system to one or more graphical displays used by a GUI. By providing the high performance synchronization services needed for supervision applications, Server frees system integrators to concentrate on incorporating their expertise into the system.

Highly scalable modeling framework

Rogue Wave Server is a highly scalable, C++ object framework that provides powerful business modeling facilities for representing the elements and topology of a supervised system as shared in-memory services. Its modeling abstractions match those offered by object-oriented design notations like UML, and bridges the gap between business model design and implementation. Objects stored in the Rogue Wave Server-based mediation server are active, meaning that all business events, such as object modifications and structural changes, are registered and buffered for forwarding to subscribing clients.

Synchronize hundreds of remote C++ or Java GUIs

Rogue Wave Server allows developers to define one or more mappings from the physical system's object model to the graphical model. It provides ready-to-use graphical models for the Rogue Wave Views Data Access. GUI clients subscribe to a view of the system. They are notified when the system is modified, and can send modification requests to the server. The GUI can be connected using the fast communication layer provided with Rogue Wave Server.

Features

- Synchronization of hundreds of C++ or Java GUIs
- High performance notification engine
- Rapid prototyping
- Web-enabled supervision
- Backed by comprehensive Visualization portfolio
Rapid prototyping

System integrators often need to rapidly demonstrate a prototype of their solution for scalability or functionality tests. Rogue Wave Server provides powerful services for developing customized prototypes in record time. The business object model corresponding to the supervised system can be defined using the XML format, enabling communication with production specification environments. In addition, Rogue Wave Server features an implementation of the well-known JavaScript language, which enables code to be added to the server without the need for C++ compilation. Rogue Wave Server Studio enables developers to rapidly create a GUI through drag-and-drop editing, and connect it directly to the business object model.

High performance notification engine

Rogue Wave Server implements sophisticated optimization to provide the high performance required by supervision applications. This allows hundreds of clients to be connected to a single server managing thousands of objects and hundreds of events per second. Rogue Wave Server uses parallel threads for client notification to ensure a fast event cycle.

The event-driven architecture eliminates the need for polling to capture changes in the business logic of the application. Dynamic Views selectively and incrementally push data and events to client applications, reducing network traffic and bandwidth consumption.

For supervising very large systems, like countrywide telecommunications networks with millions of monitored elements, Rogue Wave Server supports a pyramid architecture in which low-level servers receive events for part of the network and report to a higher-level server that aggregates the events for a wider part of the network.

Web-enabled supervision

Control room managers often need to have a synthetic view of a system and see the status of the problems requiring attention. Rogue Wave Server provides a specific client, based on Java Servlet technology, which can generate reports for the web. By providing both Java integration and thin-client capabilities, Rogue Wave Server has proven to be ideal for creating web-enabled supervision applications.