WEB-FAQtory -Server, Client, Monitor

The Ultimate Distributed SCADA Solution

WEB-FAQtory

WEB-FAQtory is the first and only Distributed SCADA System. All other SCADA applications are essentially standalone, at best only communicating with a database and require separate, expensive, licenses to run on different PCs. WEB-FAQtory, on the other hand, allows unlimited copies of the equivalent of other SCADA applications (the WEB-FAQtory Client) to run on unlimited PCs at unlimited sites/plants. All communicating with each other and the central Server.

WEB-FAQtory is designed to use the Internet as its communication medium and by utilizing the unique WEB-FAQtory TCP/IP based Network OS, the bandwidth requirements are at the absolute minimum. Coupled with the WEB-FAQtory DNS (Domain Name Service) and full buffering for network failures, allows the components of the WEB-FAQtory system to use cheap, readily available dial-up Internet accounts. No dedicated IP addressees are required. In addition to the above, WEB-FAQtory includes a full SDK (Software Development Kit), for the building of user defined applications based on the WEB-FAQtory suite. The SDK consists of a DLL for building ASP pages and several ActiveX controls for advanced standalone applications using virtually any development environment (VB, Delphi, VC++, Access, VFP, etc.).

WEB-FAQtory

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Server

The Server. The Server receives all data changes from all Clients and saves them in a RDBMS (SQL Server, Oracle, MySQL, Access and Foxpro). Each database type is fully optimized for minimum data size and maximum flexibility. Full use of Stored Procedures in the SQL Server and Oracle databases allow for the maximum possible database utilization (the MySQL database is still faster then SQL Server/Oracle and is the recommended database for WEB-FAQtory). Access and Foxpro are included for maximum compatibility with existing SCADA installations. Unique WEB-FAQtory database design allows for unlimited historical trending of any combination of tags (from any Client), irrespective of the frequency of individual tag updates. The Server is also an OPC Server, allowing the display, in an OPC Client, of all the tags connected to the Server irrespective of how the tags are connected to the originating Client. Full display and trending of all tags, grouped by Client. The Server is also the central security system for connections by Clients and Monitors with fully configurable groups for maximum flexibility in user access/privilages. Full SNMP node for integration with Network Monitoring applications. A WAP interface to the Server allows the display/update of any tag from a WAP enabled mobile phone

The WEB-FAQtory Server is the heart of the WEB-FAQtory Distributed SCADA System. Clients report all data changes, alarms, property changes, logon/logffs etc. back to the Server for central store in a database. The Server orchestrates all Monitor connections to Clients, provides central Security and a DNS service for the Clients and Monitors (as well as hundreds of other functions). Virtually unlimited Clients can connect, simultaneously to the Server.

Database: Microsoft SQLServer 2000. Oracle 8/9i, MySQL (any version), Access 2000, VFP.

Optimized for the smallest possible database file size (very important if you need to save several hundred readings per second, over a year or more).

Full real-time display of all client data with trending individually or by client(s). Trend/report on unlimited Servers

Instant display of Client alarms and network failures.

Locate anywhere. Central site serving Clients on a LAN, remotely over the Internet or a mix of both.

Internal monitoring of all controls for errors/inactivity with guaranteed recovery. This software is designed to run, 24/365 unattended in extremely hostile environments. As long as the OS is running, so is the Server. Should the server computer crash/power off, all Clients and Monitors display a warning and Clients buffer data. Normal shutdowns of the server for re-boots etc. are signaled to all Clients to begin buffering so the server computer can safely go down without any possible loss of data. How long the Server can be down depends on how many records the Clients can buffer but in most cases it would be several days. Of course if the Server suddenly goes on-line after a break of several days, expect 100% CPU utilization on the server computer for quite some time.

Maintains the client IP address/name lookup for Monitors to connect to Clients. This allows dial-up clients and monitors to use dynamically assigned IP addresses (cheapest, easiest connection and only one available in 3rd world). Works behind Proxys/Firewalls.

Clients can run on the same computer as the Server (Monitors also).

Full Access and Excel Database/Worksheet for customized analaysis/reporting.

Client

The Client. The Client is the equivalent of a conventional SCADA/HMI application but vastly more capable and advanced. The schematics/pages built by the Client are separate runtime applications and all building/changing is done in realtime. Unlike all other SCADA applications where the user has to constantly swap between the development and runtime environments, the Client is 100% runtime only. Everything is done in the runtime environment with just a few clicks of the mouse. This means that the Client is several orders of magnitude easier to use then any other SCADA application and no matter what changes are being made to the Client it is always communicating with the Server and the other Clients. No need to stop the plant to change the schematic. As all schematics are separate runtime applications, they are always live and saving data/checking for alarms irrespective of their being displayed or not. Each Client can connect to unlimited tags either via OPC,DDE or one of the several hundred included WEB-FAQtory drivers. Unlike all other SCADA applications, there is no tag limitation to WEB-FAQtory and unlimited PCs running unlimited copies of the Client can connect to the Server with no additional license requirements.

The WEB-FAQtory Client displays data in a 100% runtime configurable, highly graphical schematic/ HMI. Saves data to the WEB-FAQtory Server and serves any connected Monitors. Interfaces to PLCs. DCSs, etc. via OPC and DDE along with several hundred built in drivers.

Unique TCP/IP based network OS means ONLY THE DATA is transmitted to the server, utilizing the minimum possible bandwidth (this is not ODBC!). In a worst case real-world scenario with 16 tags saving twice a second, bandwidth requirements would be around 100 bytes per second.

Dial-up the Server, no dedicated IP address required. Connect 24, hourly, daily, weekly or whenever. Works behind Proxys/Firewalls. Multiple Clients/Monitors can share a single Internet connection. No dedicated (static) IP addresses required utalizing the unique WEB-FAQtory DNS Service.

If real time data isn't required, all data can be buffered on the client and scheduled to transmit once a day/week. If data is sent in real-time, option to send only the data to be saved with no server real-time display to conserve bandwidth.

No loss of data! If the network goes down or the Server goes off-line, the client will buffer the data and retransmit when the network/Server is available again.

Fully configurable data save options.

On Change. Save all data.
Snapshot: Value currently displayed every N seconds.
Average: Averages all data inputs over N seconds.
If Greater than, if Less than or Between values.

100% Runtime Drag and Drop interface with full control over Display type, fonts, colors, transparency etc.

Alarms/Events. Comprehensive Alarm and Event management.

Trending. The industries most advanced Trending engine.

Runs on one or many PCs (unlimited license) with unlimited tags. Clients can run on the same PC as the Server (Monitors also).

Monitor

The Monitor. The Monitor is basically a remote copy of the Client with exactly the same facilities (apart from making changes to the schematic). Unlimited Monitors can connect to a single Client. The WEB Monitor is the Monitor running in a Web Browser and for the first time for any application (SCADA or otherwise), allows for pixel perfect display of the original schematic with the full facilities of the Monitor.

The Monitor displays exactly the same schematic as the Client with minimum bandwidth requirements.

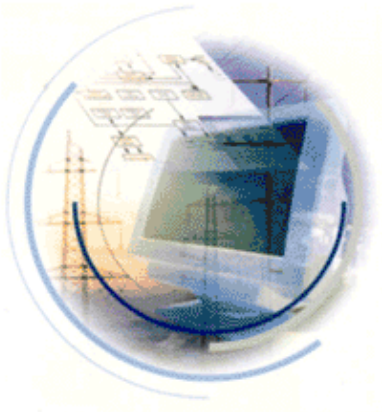
Same functionality as the Client. Read/Update, Trends, Alarms etc. (but no setting of object/symbol parameters).

Virtually unlimited Monitors can connect to each Client (limited by bandwidth, approx. 40 bytes per second per monitor)

Same security options as the Client for all types of connections.

As with the rest of the WEB-FAQtory suite. the Monitor can run on the same PC as any other WEB-FAQtory application.

NEW to Version 4. By popular request, the WEB-FAQtory Web Monitor. EXACTLY the same display and functions as the monitor, running in a Web Browser. Unique WEB-FAQtory browser integration technology enables a level of Browser interoperability, never before achieved by any application. This has to be seen to be believed.



Monitor

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