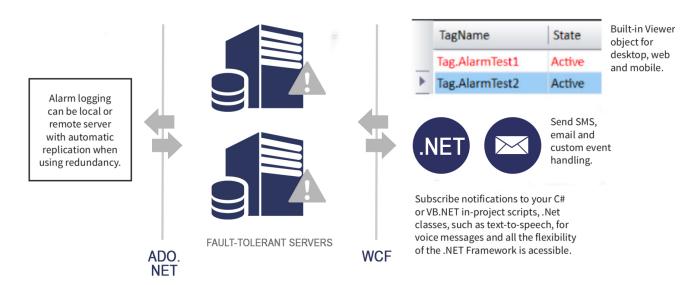
Alarms and Notification



Real-time Alarm Processing

For maximum performance and reliability, the Alarm module was created, with multi-threading and exception control, on pure .NET managed code. Combining the Alarm, Dataset and Script Modules, you can log and bookmark process execution events, like downtime, startup, shutdown, batch control, and continuous process analysis.

Storage and Replication

Alarm Historian data can be saved in any local or remote SQL database. When using redundancy, automatic synchronization of the database is provided. Replication guarantees the accuracy of the exact same data on both servers, even when they are using different providers.

OSIsoftTM PI EFTM Event Frames

The system also has a seamless, SDK level, connectivity with PI BatchTM and PI EFTM for data presentation, charts, and custom data management.

Universal Time and Daylight Saving

FactoryStudio leverages Coordinated Universal Time (UTC) on all logging and online date time objects. This means that all Alarms, Events, and Historical data are accurately time stamped when they happen, no matter where they are located or if there are any daylight-saving settings.

Audit Trail and Alarm Areas

One-click configuration is all that is needed to enable an audit trail on Operator Actions, Databases and Reports Events, User logons and logoffs, and System events and custom tags events. Data is archived in SQL tables with project defined encryption.

Alarm Visualization Component

A built-in graphical visualizer for alarms is provided for any PC, web browser, or iPad

Some of the built-in features included are filtering, SQL queries, grouping, printing, saving, acknowledging, and exporting

Notification Subscription

Project scripts, with access to the entire **Microsoft .NET Framework**, can subscribe to alarm events to implement custom actions, such as notification and calculation methods.

Store and Forward

When using remote databases, a store and forward option is provided. When a connection is not available, a local cache is created and forwards the data after the database connection is reestablished.

Localization

Online messages and query results from the Alarm Historian database can be translated immediately to local languages based on automated dictionaries.



An unlimited number of alarm conditions are allowed for each tag. $% \label{eq:condition}%$

(II)

See "Alarms and Audit Trail" for more information.