Exaquantum/SER is an integrated Sequence of Events and Trip Reporting System combined with a powerful trip detection configuration tool, incorporated into a web-based user interface. Exaquantum/SER integrates data from multiple systems to provide a holistic view of event analysis within a single system. It acquires Alarm & Event messages and process data from plant monitoring and control systems and then stores the information in a single system, making the data available for display in standard web pages through any PC that can access the Exaquantum/SER Web Server.
Integrated Alarm & Event Analysis

When a plant trip occurs, operations and engineering staff need to quickly locate the cause of the problem. Exaquantum/SER provides users with trip and sequence information based upon a plant wide view of all relevant data in the crucial period before and after the event.

Exaquantum/SER facilitates the investigation and identification of the root causes of repeated trips so that further occurrences can be eliminated or minimized.

Benefits

Integrated data collection
Using OPC A&E, Exaquantum/SER can access key data from all OPC enabled process connected systems providing a single environment for analysis and reporting.

Problem identification
Exaquantum/SER provides a chronological record of all events across the site. This enables the user to know the sequence of events across shifts and how staff reacted, leading to an understanding of how to avoid similar problems in the future. Associated units can also be viewed in order to identify inter-unit dependencies.

Integrated analysis of A&E and process data
Exaquantum/SER has full access to all process data gathered in Exaquantum’s historian database. This provides an additional dimension over and above the events providing a better understanding of plant behavior and the associated interactions.

Access your information where and when you want it
Exaquantum/SER can be securely accessed from an Internet Explorer enabled computer on the company intranet. For further analysis and manipulation, the information can be exported to Excel.

Key Features

Data protection
Following a plant incident all relevant A&E messages and process data are stored in Exaquantum/SER’s own relational database, which is maintained separately from the Exaquantum historian database. This enables the data to be archived independently of the source data.

Integrated plant-wide systems
Provides plant-wide acquisition, analysis and storage of A&E & Event messages and process data from different systems (DCS, PLC, ESD, etc.) into a single system. This enables true plant-wide event viewing and analysis.

Web-based HMI
Client interaction through Web-based tools (IE) providing browsing, analysis, querying and reporting tools.

Sequence of Events reports
Sequence of Events reports providing users with a listing of alarms and events that occurred during a user specified period. All Alarms & Events collected from all sources by Exaquantum/SER are available for inclusion in the report.

Configured reports for specific users
Trip can be configured for specific users. For example, within a configured trip report to show the data of all unit valves for a particular event, such as increased pressure or temperature above a maximum value. It is then possible to quickly identify the cause.

Reports can be configured with:
- A unique name and description for the report
- Up to eight conditions for event attributes
- A pre and post event time span for which messages and plant data are included in the report.

Multiple sub-system interfaces
- Via OPC, Exaquantum/SER connects to virtually any major sub-system, including:
  - DCS's: Yokogawa, Honeywell, Emerson, etc
  - Historian
  - Inforway
  - ABB
  - Schneider
  - Siemens PLC
  - DCS/PLC

Top 10 trip report/ most recent alarms