OpreX™ Asset Operations and Optimization

Exaquantum/Batch

Batch Information System for Analysis and Reporting

Exaquantum/Batch is an intelligent S88 based Batch Information System. It provides analysis and reporting facilities that collect, store and display current and historical data from batch production, equipment and recipe viewpoints.

This enables easy user access to batch information for decision support, production planning, production scheduling, analysis, process improvement, quality and legislative compliance purposes.

Business Benefits

Faster time to market for new products

Reduced material costs

Increased productivity and plant utilisation

Better information for improved decision-making

Powerful data analysis and reporting capabilities leading to quicker batch approval

Supports Six Sigma programs

Operational Benefits

Strong batch reporting platform where batch, master recipe and equipment data for each batch is available for any report

Automatic data collection is used to minimise set up time and engineering with Yokogawa Batch control systems

Batch record keeping, reporting, monitoring and data analysis for improving batch production

High performance and value

Industry standards compliance: Based upon S88 standards and OPC Batch specification

Support for use in applications subject to FDA 21 CFR Part 11

Exaquantum/Batch is a valuable tool in batch-orientated industries, allowing users to focus on Key Process Performance Indicators. It provides a web browser based, analysis and reporting user interface, to deliver valuable batch-based information in support of process improvement initiatives.

Interface with OPC Enabled Control Systems

Many field proven interfaces are available for S88 and non-S88 based control systems using OPC.

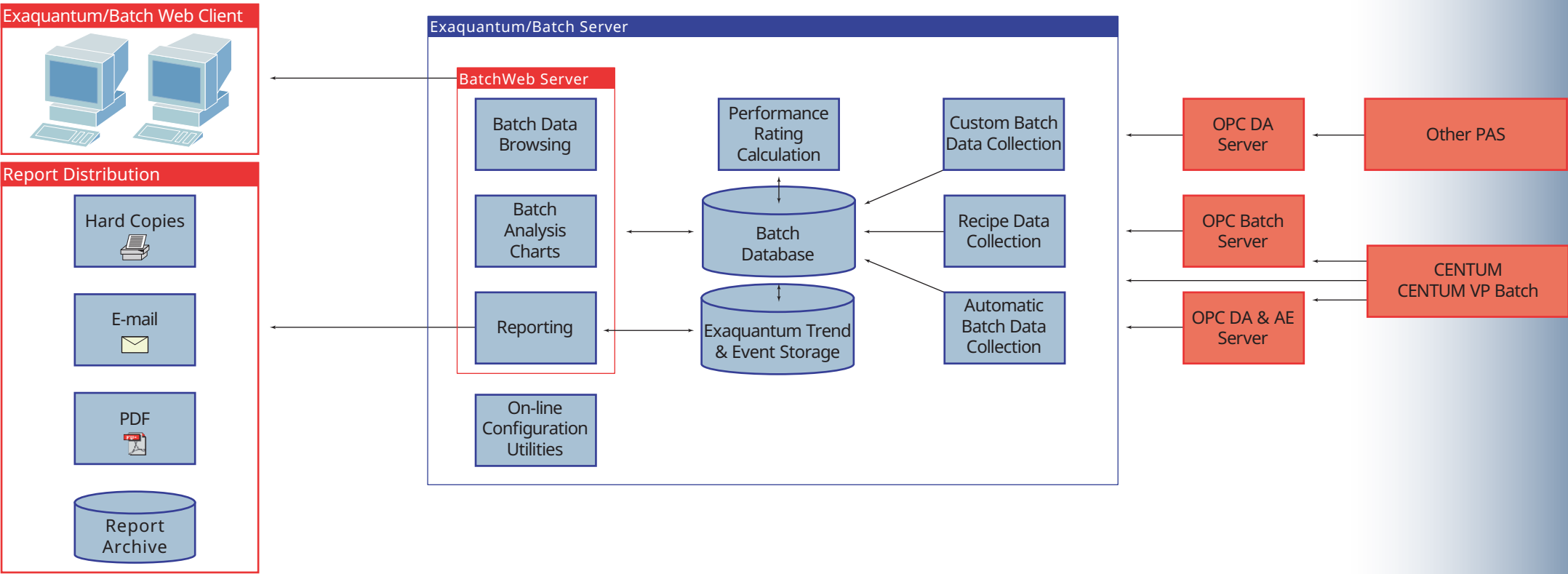### Production improvement by Six Sigma Analysis

Analyses cycle time variance and quality as batch Key Performance Indicators to identify problems in the production processes, allowing improvements to be made.

Comprehensive Reporting Tool

The comprehensive Exaquantum/Batch reporting package provides Excel-based flexible reporting which incorporates data from batches, equipment, master recipes and trend values along with the associated alarms and events.

FDA 21 CFR Part 11

21 CFR Part 11 option is also available if required. To provide Electronic Record/ Electronic Signature functionality.

Exaquantum/Batch Web Client

Report Distribution
- Hard Copies
- E-mail
- PDF
- Report Archive

Exaquantum/Batch Server

BatchWeb Server
- Batch Data Browsing
- Batch Analysis Charts
- Reporting
- On-line Configuration Utilities

- Performance Rating Calculation
- Batch Database
- Exaquantum Trend & Event Storage
- Custom Batch Data Collection
- Recipe Data Collection
- Automatic Batch Data Collection

- OPC DA Server
- OPC Batch Server
- OPC DA & AE Server

- Other PAS
- CENTUM CENTUM VP Batch

Functional Overview

BatchWeb

BatchWeb is a web-based user interface similar to a web portal. On-screen menu selections allow viewing and analysis of different sets of continuously updated batch, equipment and master recipe data, from both Exaquantum/PIMS and Exaquantum/Batch databases, using standard charts and tables. There are a number of related views which may be selected:

Production View: A table of useful plant information covering the recent batches

Batch View: A list of batch records. Using filters, batch records may be displayed for any time period

Equipment View: A list of units available in the Exaquantum/Batch database

Master Recipe View: A list of the master recipes archived in the Exaquantum/Batch database

Report View: A list of reports that may be run. A Report Archive view is also available that provides a list of the Exaquantum/Batch reports that have been generated

Key Features

The key features of Exaquantum/Batch are:

'Out of the box' integration with Yokogawa's CENTUM VP Batch control systems, providing immediate usability and benefits, based on the S88 standard, without complex engineering and database configuration

Standard analysis of data providing:
Automatic calculation and charting of cycle times for each batch
Automatically generated charts showing unit utilisation
Comparison of batches to peer groups
Automatically calculated performance ratings for each batch
A powerful tool for sorting and comparing batch history data
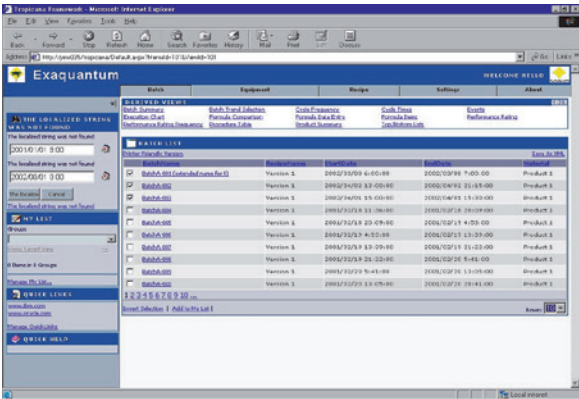
Exaquantum/Web in Run Time
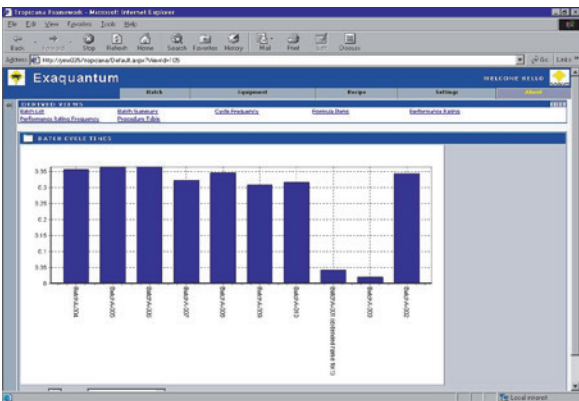
Exaquantum/Web Chart in Run Time

A customisable web-based user interface providing:
Batch, master recipe and equipment data accessible via BatchWeb
Ad-hoc web access to data without custom display generation
Secure data storage with minimal client administration

Optional 21 CFR Part 11 compliant functionality through the use of electronic records and signatures.
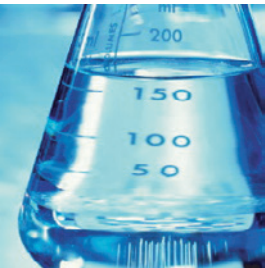
Exaquantum Family

Exaquantum/Batch is an extension of the Exaquantum Plant Information Management System (PIMS), which allows long term, time-lined collection and analysis of data from automated control systems.

Exaquantum facilitates user-contextual presentation and management of operational information, providing a link from production level information systems into Enterprise Resource Planning (ERP) systems and Manufacturing Resource Planning (MRP) systems to create truly 'enterprise-wide' solutions.

OpreX™ Through the comprehensive OpreX portfolio of products, services, and solutions, Yokogawa enables operational excellence across the enterprise.

Visit our website at:

https://www.yokogawa.com/solutions/solutions/asset-operations-and-optimization/
data-historian/batch-data-historian-exaquantum-batch/

Represented by:

Printed in Japan, 403(KP) [Ed : 08/b]

YOKOGAWA ◆ *Co-innovating tomorrow*™