YOKOGAWA

# CS3000 Batch Training

## Objectives

The batch training course is intended for DCS configuration engineers who have a little knowledge of SEBOL blocks (_SFCSW) and SFC's. It aims to give an understanding of the concept of batch recipe control using Unit Instruments and SFC operation blocks (OPSFC's). Simulation and sequence testing will also be studied.

## Who should attend?

Engineers involved in software generation or modifications of the CS3000 system.

## Prerequisite knowledge

Participants must have completed the CS3000 Engineering course or have in-depth working knowledge of CS3000.

## Programme

**Day 1:**

- § Introduction to batch recipe operation S88 model v Yokogawa model
- § Unit operations, train and path
- § Unit operations (OPSFC's) – steps, interrupt processing – aborts
- § Unit instruments, generic sequences and tags, unit instrument data (display and modify from graphics display), resident and non-resident
- § Importance of generic tag names and operation names
- § Relationship of generic sequences and stand-alone sequences (OPSFC, SFCSW)
- § Common block definition & Relation of formula to common block definitions
- § Display recipe formula data
- § Changing recipe formula data

**Day 2:**

- § Flow charts – understanding, using to create sequences
- § Unit Operations – creating a new sequence
- § Recipe editor, header, formula, operations
- § Recipe create copy and edit
- § Batch scheduling, formula display
- § Batch simulation – running simulation batches
- § Abort / restart recipe
- § Abort / reset / unit instrument (abort batch)
- § Recipe jumps in suspend mode
- § Restart from suspend, precautions (restart sequence problems, bxd amounts etc)

**Day 3:**

- § Resident Unit Instrument UTSW_R
- § SEBOL blocks (_SFCSW's) – similarities, limitations why use them?
- § Introduction to simulation
- § Simulating failures
- § Test function, starting stopping – operations (fail valves etc)

**Day 4:**

- § Electronic documentation
- § Sequence walkthrough testing and results recording
- § Running and testing sequences
- § Sequence test procedure and test results recording
- § Journals
- § Validation

## Duration

2.5 days