Course goal

The goal of this course is to learn the engineering of a control project based on OGP REUSE Solutions using the Extended Automation System 800xA with AC 800M controllers and Control Builder and/or Function Designer as the engineering tool.

Learning objectives

Upon completion of this course, the participants will be able to:

* Understand the scope of the REUSE solution
* Install REUSE libraries and system extensions
* Navigate the REUSE documentation
* Structure REUSE applications based on SCD and C/E diagrams
* Configure controllers, applications, programs, IOs and variables according to typical project guidelines (OGP Norway)
* Configure Basic Process Control System applications with REUSE in CMD editor
* Configure PSD/ESD/F&G applications with REUSE in CMD editor (Non-SIL applications are used. T309 course must be attended for safety training)
* Setup MMS and IAC communication using REUSE
* Setup REUSE GDS Add-On in Operator Workplace

Participant profile

This training is targeted to system and application engineers, commissioning and maintenance personnel, service engineers and system integrators.

Prerequisites

Students shall know the fundamentals of 800xA Engineering with AC800M. Skill level shall be similar to completed T315C/F and T315H courses.



Topics

* REUSE introduction and overview
* REUSE documentation
* REUSE installation
* Commonly used blocks and common properties
* Typical structuring of projects and applications
* Introduction to System Control Diagram (SCD)
* PSD/ESD applications using REUSE blocks
* PCS applications using REUSE blocks
* Sequence programming with REUSE blocks
* Fire and Gas applications with REUSE blocks
* MMS/IAC communication with REUSE blocks
* REUSE GDS in Operator Workplace

Course type and methods

This is an instructor led course with interactive classroom discussions and associated lab exercises. Approximately 60% of the course is hands-on lab activities.

Duration

The duration is 5 days.

Course outline

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| --- | --- | --- | --- | --- |
| Day 1 | Day 2 | Day 3 | Day 4 | Day 5 |
| * Course overview * REUSE introduction * REUSE Installation * REUSE documentation * SCD and project structuring * Alarm Philosophy and Common Functions | * Commonly used blocks and properties * PSD/ESD applications with CMD editor * PCS applications with Function Designer/CMD | * PCS applications with Function Designer/CMD * Sequence programming in Function Designer/CBM | * Sequence programming in Function Designer/CBM * Fire and Gas applications with CMD editor | * MMS/IAC communication * GDS and Operator Workplace |