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## COURSE DESCRIPTION

# CHH653 – System 800xA Applications for Minerals Configuration and Operation Utilizing BMI Library

### Course goal

The goal of this course is to learn the operation and configuration of the Extended Automation System 800xA with AC800M controllers and the Control Builder M tool utilizing the Minerals Library.

### Main learning objectives

The participants will be able to:

- Monitor and control the BMI minerals process objects
- Navigate in the system and create new objects and aspects using Plant Explorer
- Use the standard libraries and the Minerals Library as well as create project specific libraries
- Design and configure applications using Control Diagram Editor (CDE) within CBM utilizing BMI Library
- Customize and use the operator's workplace and its functions and operate the Minerals Library objects
- Configure process graphic displays and define navigation links
- Manage and configure events and alarms
- Use the import/export tool
- Backup and restore the System 800xA

### Participant profile

This training is targeted to engineering, planning, advanced operating, commissioning, maintenance and service personnel working in the field of minerals applications.

### Prerequisites

Participants should know the fundamentals of working with control systems and have basic knowledge of the Windows XP or Windows 7 operating system, 800xA configuration and programming and technical English.

### Topics

- Operating minerals process objects
- Overview of BMI Library
- Data types in BMI Library
- Application and system structures utilizing BMI structure
- Using Control Diagram Editor (CDE) for programming applications with functions, function blocks and control modules utilizing BMI Library
- Monitoring and testing applications
- Minerals Library and minerals applications
- Task assignment and memory (optional)
- IAC communication
- Operator workplace (based on tabbed workplace)
- Process graphics
- Import/export tool (optional)
- Backup and restore of the System 800xA (optional)
- Workshop engineering

### Course type and methods

This is an instructor-led course with lectures, demonstrations, interactive discussions and practical exercises. At the end of the course a workshop is done. This workshop covers larger exercises consolidating the most important items from the training which the students will need for their future work.

### Duration

The duration is 5 days.

## Course map

|               | DAY 1  | DAY 2  | DAY 3  | DAY 4  | DAY 5   |
|---------------|--|--|--|--|---|
| <b>Topics</b> | Welcome,<br>personnel<br>introduction<br>Course overview<br>To get started –<br>operating of<br>minerals<br>applications<br>Overview of BMI<br>Library<br>Datatypes in BMI<br>Library<br>Object grouping<br>in BMI Library | Review day 1<br>Variables and<br>data types<br>Control Builder M<br>and<br>Control Diagram<br>Editor (CDE) | Review day 2<br>Programing<br>utilizing PCC<br>interlocking<br>More programing<br>utilizing BMI<br>function block<br>and control<br>module type<br>Operator<br>workplace (based<br>on tabbed<br>workplace) | Review day 3<br>Workshop:<br>Application<br>building<br>utilizing BMI<br>Library (PCC link<br>and PCC<br>interlocking) | Review day 4<br>Workshop<br>(continue):<br>Application<br>building<br>utilizing BMI<br>Library (PCC link<br>and PCC<br>interlocking)<br>Summary<br>Questions and<br>asnwers<br>Evaluation<br>Course close |
| <b>Time</b>   | 9:00 am – 5:00 pm  | 9:00 am – 5:00 pm  | 9:00 am – 5:00 pm  | 9:00 am – 5:00 pm  | 9:00 am – 5:00 pm   |

Typical course layout (time or sequence may change)