

## M408

# DCI System Six Standard Controlware II, Composer CTK, and Basic 800xA for DCI Console Configuration



#### **Course type and methods**

This is an instructor led workshop with short presentations and demonstrations, extended exercises, and hands-on sessions and discussion.

#### **Student Profile**

This course is targeted to DCI System Six support personnel responsible for DCI system software database maintenance and/or responsible for DCI system logic configuration.

#### **Prerequisites**

Students should have basic control system experience.

#### **Course objectives**

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

- Identify major components of DCI System Six
- Configure the Harmony DCU3200 On-Line
- Configure the Harmony DCU3200 Off-Line using the Configuration Tool Kit (CTK)
- Identify major components of System 800xA
- Navigate the 800xA Process Portal Console
- Create 800xA Graphics and Graphical Elements
- Set up 800xA historical data collection and configure trend displays
- Backup and restore the DCI and 800xA system

Learn to configure and program the DCI System Six Harmony DCU3200 controller and 800xA Process Portal Console.

#### **Main Topics**

- Configuring the Harmony DCU3200 for continuous type process control using Controlware II modules
- Programming the Harmony DCU3200 using CCL (Controlware Command Language) for special continuous control applications
- Configuring the Harmony DCU3200 for batch type process control using Controlware II modules (introduction)
- Saving and reloading Harmony DCU3200 databases
- Maintaining a Harmony DCU3200 Database offline using relational database forms and tools.
- Using CTK: Easily copy, modify, delete, and manage Controlware II module configuration and control logic
- Using CTK: Using the Tag Manager and list all tags meeting user-defined criteria
- Using CTK: Reducing system downtime by off-line database logic configuration
- Navigating 800xA console
- Configuring 800xA graphics
- Configuring 800xA historical database and trending
- Understanding 800xA alarm and event presentation and features

#### **Duration**

The duration is 10 days

## Course Outline

Day 1	Day 2	Day 3	Day 4	Day 5
<ul style="list-style-type: none"><li>• DCU3200 Overview</li><li>• I/O Modules<ul style="list-style-type: none"><li>- Input Output Board</li><li>- Analog Input/ Analog Output</li><li>- Discrete Input/ Discrete Output<ul style="list-style-type: none"><li>- CIO/PBUS</li></ul></li></ul></li></ul>	<ul style="list-style-type: none"><li>• Continuous Control Modules<ul style="list-style-type: none"><li>- Calculation</li><li>- Control</li><li>- Totalizer</li></ul></li><li>• Discrete Modules<ul style="list-style-type: none"><li>- Discrete Control Device</li><li>- MultiState Device Control</li><li>- Timer</li><li>- State</li></ul></li></ul>	<ul style="list-style-type: none"><li>• Miscellaneous Modules<ul style="list-style-type: none"><li>- Boolean Logic Module</li><li>- Parameter</li><li>- Pointer Table Block</li></ul></li><li>• Custom Control Modules<ul style="list-style-type: none"><li>- CCM</li><li>- Phase</li></ul></li><li>• Controlware II Command Language</li></ul>	<ul style="list-style-type: none"><li>• Controlware II Command Language (Continued)</li><li>• Data Dictionary<ul style="list-style-type: none"><li>- Module Mix</li><li>- Atom Properties</li></ul></li></ul>	<ul style="list-style-type: none"><li>• Introduction to batch modules<ul style="list-style-type: none"><li>- Module SET</li><li>- Sequence</li><li>- Mini Sequence</li><li>- Pseudo Devices</li><li>- Security</li><li>- Device Test Module</li></ul></li></ul>
Day 6	Day 7	Day 8	Day 9	Day 10
<ul style="list-style-type: none"><li>• CTK Features<ul style="list-style-type: none"><li>- Security</li><li>- Creating Projects</li></ul></li><li>• Hardware Configuration<ul style="list-style-type: none"><li>- Harmony</li><li>- Profibus Network</li><li>- S800 I/O</li></ul></li><li>• Visual Module Configuration</li><li>• Tag Manager</li><li>• Importing and Exporting<ul style="list-style-type: none"><li>- ALD files</li><li>- CSV files</li></ul></li></ul>	<ul style="list-style-type: none"><li>• Building ALD Files</li><li>• Loading ALD Files</li><li>• Starting the DCU</li><li>• CCL Editor</li><li>• On-line Configuration</li><li>• Data Dictionary</li><li>• Backup/Restore</li><li>• DCU Manager<ul style="list-style-type: none"><li>- Network Status</li><li>- DCU Resident Configuration</li></ul></li></ul>	<ul style="list-style-type: none"><li>• Individual module and/or function block downloading</li><li>• On-line Monitoring</li><li>• DCU Diagnostics and Troubleshooting<ul style="list-style-type: none"><li>- System Level</li><li>- Board Level</li></ul></li><li>• Console Overview<ul style="list-style-type: none"><li>- User Interface</li></ul></li></ul>	<ul style="list-style-type: none"><li>• System 800xA Architecture<ul style="list-style-type: none"><li>- Graphic Displays</li><li>- Trend Displays</li><li>- Faceplates</li></ul></li><li>• 800xA Process Portal</li><li>• Features and Navigation<ul style="list-style-type: none"><li>- Display types</li><li>- Alarm/Event/Message</li></ul></li></ul>	<ul style="list-style-type: none"><li>• Console Configuration</li><li>• Logging in/out</li><li>• Alarm Organization</li><li>• Historical Data</li><li>• Trending</li><li>• Quick and Context keys</li><li>• PG2 Graphics Display Editor</li></ul>

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