Computer Integrated Manufacturing (CIM) 1

Catalog No.	88-3015-0000
Category	Production Processes
Duration	15 Hours
Software	OpenCIM

Activity 1: Introduction to CIM

Automation

Computer Integrated Manufacturing

Why CIM?

CIM Training

Main Components of CIM

Basic CIM System

Activity 2: Introducing OpenCIM Software

OpenCIM© Software

OpenCIM Project Manager

OpenCIM Manager Window

Software Viewing Features

Task: Accessing Working Cells from the Project Manager

Task: Rotating and Zooming in the Graphic Display

Task: Redirecting the Camera

CIM Production

Task: Observing a CIM Production Cycle

Activity 3: Parts and Production Flow

Parts and Production

Important Production Components

CIM Production Workflow

Task: Running a Basic Production Cycle

Industrial Safety

Activity 4: Storage Setup

- Storage and Stock Management
- Alternative Storage Options
- Task: Identifying the Location of a Part in Storage
- Storage Definition
- Task: Setting the Storage Stock
- Task: Setting the Storage Stock and Part Location
- Task: Observing the ASRS Contents After Production
- Task: Setting Default Storage

Activity 5: Production Planning

- Defining the Production Plan
- MRP
- Viewing Customer Order Details
- Task: Editing a Customer Order
- Viewing Manufacturing Order Details
- Task: Updating a Manufacturing Order
- Task: Tracking Production Following MRP Modification
- Task: Editing the Customers List
- Task: Ordering Parts for the New Customer

Activity 6: Processes and Machine Definition

- Processes in CIM
- OpenCIM Machine Definition
- Viewing Machine Definition Details
- Process Definition and System Behavior
- Adding a New Process in CIM
- Task: Adding a New Process to an Existing Machine
- Designing a Part

Activity 7: Part Definition

- Considerations in CIM Cell Design
- CIM Definitions
- The Product in the Basic CIM Cell
- Part Definition
- Task: Viewing Supplied Part Information
- Task: Viewing Product Part Information
- Task: Interpreting the Part Definition Window

Activity 8: Defining a Product Part

- Limitations on Part Production
- Limitations of Existing System Structure
- Milling Machine Limitations
- Task: Adding a New Supplied Part to the Basic CIM Cell
- Task: Adding and Defining a Product Part

Activity 9: Producing a New Part

- Simulation as a Tool in Predicting On-line System Behavior
- Preparing to Run Production of a New Part
- Task: Updating Storage
- Task: Placing an Order for the New Product Part
- Task: Tracking Production of WOOD PROD

Activity 10: Timing and Optimization

- Reducing Manufacturing Cycle Time
- Time Synchronization
- System Optimization
- Time Axes
- OpenCIM Scheduling Tool - Scheduler Gantt
- Task: Preparing to Observe Production Timing
- The CIM Scheduler Window
- Task: Observing Production Timing with the Scheduler Gantt

Activity 11: Viewing Production Details in the Device View

- OpenCIM Manager Viewing Areas
- Viewing Production Details Per Device
- Task: Viewing Device Activity at Station 1
- Task: Viewing Device Activity at the CNC Station

Activity 12: Viewing Production Details in the Storage View

- Identifying Part Location During Production
- The Storage View
- Task: Viewing Production Details in the Storage View

Activity 13: Defining Part Production in the Lathe

- Part Production in the Lathe
- Task: Defining a New Process for the Lathe
- Task: Adding a New Part

Activity 14: Integrated Production

- Integrated Production
- Task: Setting the MRP Manufacturing Order
- Task: Updating Storage

Activity 15: Tracking Integrated Production

- Determining the Sequence of Production
- Task: Tracking the Sequence of Production
- Bottlenecks and System Optimization
- Task: Tracking the Updated Production Sequence