

MOC 80314 A Discrete Manufacturing Basics in Microsoft Dynamics AX 2012

Course Summary

Description

This two-day instructor-led course, Discrete Manufacturing Basics in Microsoft Dynamics AX 2012, provides students with the necessary tools and resources to perform basic tasks in the discrete manufacturing flow in Microsoft Dynamics AX 2012.

Objectives

At the end of this course, students will be able to:

- Describe the Production control module's main conceptual building blocks
- Describe the interconnectivity between the Production control module and other modules in Microsoft Dynamics AX 2012
- Define production orders and name the status changes as it passes through the production life cycle
- Define the main elements that are setup and used when a legal entity legal entity works with a variety of production sites distributed over different geographic locations
- Describe three companies in which production sites, conditions, and processes vary by multisite functionality
- Provide a brief description of general improvements to the Production control module, including filtering and the Gantt Chart
- Describe the main types of Bill of materials (BOM) and define BOM levels, components and lines
- Define the creation of BOM versions and describe BOM version control methods
- Describe the overall process of creating BOMs in Microsoft Dynamics AX 2012
- Describe how to create BOMs not yet associated with an item
- Describe how to create BOMs so that the BOM and the item can be set up or changed at the same time
- Explain how to work with configurable BOMs, including the setup of configuration routes and configuration rules
- Provide an overall explanation of the BOM calculation process
- Describe how to create and use BOM scrap types and explain how a scrap calculation for a BOM is run
- Describe the use of BOM measurements as a type of configuration and explain how this pertains to consumption and measurements that relate to BOM items
- List and explain the ways of the standard BOM reports use
- Define working time templates and describe how they are set up
- Create working time calendars
- Using Resource capabilities form.
- Create resources and distinguish between resource types
- Set up resource groups
- Define how to set up and configure production operations and relations
- Describe the use and setup of cost categories in production routes
- Describe the use and setup of cost groups in production routes
- Describe how to create route groups and attach them to operations in the route
- Describe how to create and maintain routes and operations on the routes
- Describe how scrap is managed in production routes
- Configure the route network parameter and identify route networks in complex routing
- Discuss the impact of production parameters at the legal entity and the site level
- Describe the different ways production orders can be created
- Describe how to create a production order manually
- Explain the main activities that occur in the life cycle of a production order
- Explain how the production order status is used in working with production orders
- Describe the estimation process
- Configure advanced settings including production groups and production pools
- Distinguish between the various scheduling options
- Explain the main characteristics of operations scheduling
- Explain the main characteristics of job scheduling and describe how to use the Gantt chart

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Course Summary (cont'd)

- Discuss how to perform resource scheduling and describe the basic resource allocation principles.
- Describe how master planning interacts with the Production module
- Describe how to lock production orders
- Describe how to dispatch scheduled jobs to a specific resource
- Review how subcontracting is used for outsourcing
- Adjust BOMs in connection with subcontractor work
- Set up operations and routes to be performed by a vendor
- Describe how to set up automatic updates
- Describe the settings you must define to release a production order to the shop floor
- Explain the main considerations and the settings used to start production orders
- Explain the use of production journals in recording consumption
- Describe the report as finished stage of the production life cycle
- Describe the main element of the end production stage in the production
- Name the types of standard inquiries that can be conducted in the Production control module on items in production
- Describe the process of working with standards reports
- Describe how base data reports can be used to analyze the productions process
- List the three kinds of transaction reports and describe how they are used
- Describe how Journal and Costing reports are used to view information on productions
- Name the types of Balance reports and briefly describe how they can be used in deciphering production conditions
- Describe how to use the analysis reports to view or print information on productions
- Describe how route reports can be used to analyze the routes and operations in the different productions
- Name the kinds of reports that can be generated on the resources in production and define how each is used
- Describe how production papers are used in production
- Explain how the update log reports can be used to identify information on the orders in each stage in the production process

Topics

- Introduction to Discrete Manufacturing Basics
- Bill of Materials
- Calendars and Resources
- Operations and Routes
- Parameters, Production Orders, and Production Order Life Cycle
- Production Scheduling and Subcontracting
- Control and End Production
- Inquiries and Reports

Audience

The intended audience includes customers that want to learn the basic features and develop a working knowledge of the typical daily procedures required to effectively use Microsoft Dynamics AX 2012 Discrete Manufacturing Basics functionality. The class is intended for purchase managers, purchasers, and other people in organizations responsible for the setup and administration of production control and inventory management functionality.

Prerequisites

Before attending this course, students must have: General knowledge of Microsoft Windows; Completed the Introduction to Microsoft DynamicsAX 2012 course, The ability to use Microsoft Dynamics AX 2012 for basic processing and Basic knowledge of manufacturing, trade and logistics, and inventory management concepts.

Duration

Two days

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Course Outline

I. Introduction to Discrete Manufacturing Basics

This chapter provides a general overview of Discrete Manufacturing in Microsoft Dynamics AX 2012.

- A. Introduction
- B. Core Concepts in Production
- C. Setup and Interconnectivity
- D. Overview of Production Process
- E. Production at Multiple Sites
- F. Example Multisite Production Scenarios
- G. Overview of Additional Production Enhancements
- H. Lean Manufacturing

II. Bill of Materials

This chapter concentrates on how to create and set up BOMs.

- A. Introduction
- B. Understanding BOMs
- C. BOM Versions
- D. Overview of Creating BOMs
- E. Creating BOMs in the BOM Form
- F. Creating BOMs in BOM lines Form
- G. BOM and Item Configurations
- H. BOM Calculation
- I. BOM Scrap
- J. BOM Measurements
- K. BOM Reports

Lab : 2.1: Create a BOM

- Create and approve a new BOM.

Lab : 2.2: Change a BOM

- Review a list of BOMs in which the specific item 5017 is being used.

III. Calendars and Resources

This chapter concentrates on creating and managing calendars and resources.

- A. Introduction
- B. Working Time Template
- C. Calendars
- D. Resource Capabilities
- E. Resources
- F. Resource Groups
- G. Operation Scheduling Percentage, Efficiency and Exclusivity
- H. Capacity Planning and Finite Capacity

Lab : 3.1: Create and manage Resources

- Create and reassign resources to perform work.

IV. Operations and Routes

This chapter concentrates on creating and managing operations and routes.

- A. Introduction
- B. Operations
- C. Cost Categories
- D. Cost Groups
- E. Route Groups
- F. Routes
- G. Scrap
- H. Route Networks

V. Parameters, Production Orders, and Production Order Life Cycle

This chapter explains the setup of the production parameters. Steps for creating of the production order are reviewed. Additionally, the production order life cycle is reviewed.

- A. Introduction
- B. Production Parameters and Journal Names
- C. Production Orders
- D. Production Process Overview
- E. Production Status
- F. Estimation
- G. Optional Advanced Settings

Lab : 5.1: Manually Create a Production Order

- Create a new production order.

VI. Production Scheduling and Subcontracting

This chapter focuses on how to manage the scheduling and subcontracting parameters in production. Also, the types of scheduling are reviewed.

- A. Introduction
- B. Scheduling Options
- C. Operations Scheduling
- D. Job Scheduling
- E. Resource Scheduling
- F. Master Planning and Planned Production Orders
- G. Subcontracting

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Course Outline (cont'd)

Lab : 6.1: Run a Resource Schedule

- Set up the resource scheduling.

VII. Control and End Production

This chapter reviews the stages of the production order lifecycle.

- Introduction
- Estimation and Scheduling
- Release Production Orders
- Start Production Orders
- Production Consumption
- Report Production Orders as Finished
- End Production Orders

Lab : 7.1: Start Production Order

- Start the production order

VIII. Inquiries and Reports

This chapter discusses how use the production inquiries and reports.

- Introduction
- Production Inquiries
- Standard Reports
- Transactions Reports
- Journal Balance Reports
- Analysis Reports

Lab : 8.1: Production Report (Current production jobs)

- Create a Current production jobs report.