LESSON PLAN

Course 80435A:

Duration : 40 Hrs

Application Setup in Microsoft Dynamics NAV 2013

Overview

About this Course

This two-day course provides students with the tools to implement and maintain cross-application setup data after the system components are installed. The focus is on the application-oriented work involved in setting up and maintaining company-wide rules, data, and users.

Audience Profile

This course is intended to a partner that sells and implements the Finance module to customers. The typical partner has an ERP background and has a basic understanding of accounting principles.

At Course Completion

After completing this course, students will be able to:

- Explain the dependencies between RapidStart Services and manual setup work.
- Describe the different components and processes of RapidStart Services.
- Explain and demonstrate all tasks in a RapidStart Services process.
- Create a configuration worksheet.
- Create a configuration package.
- Create a configuration questionnaire.
- Create a configuration template.
- Initialize a new company with a configuration package.
- Migrate customer data.
- Transfer opening balances.

- Explain how authentication works in Microsoft Dynamics NAV.
- Manage security for Windows client users.
- Set up a new user.
- Explain the concepts of permission sets and permissions.
- Create a new permission set, and assign permissions to it.
- Apply security filters in Microsoft Dynamics NAV.
- Perform user-specific setup.
- Create, assign, and work with user profiles.
- Explain the purpose of company-wide number series.
- Set up number series.
- Create number series relations.
- Explain and set up trail codes, source codes, and reason codes.
- Explain the purpose and organization of journal templates and journal batches.
- Create general journal templates and general journal batches.
- Explain and set up specific posting groups.
- Explain and set up general posting groups.
- Create a General posting setup.
- Create an Inventory posting setup.
- Explain and set up VAT posting groups.
- Create a VAT posting setup.
- Describe posting setups based on the chart of accounts.
- Demonstrate how posting groups direct a sales transaction.

- Explain and set up dimensions and dimension values.
- Explain and set up global and shortcut dimensions.
- Explain and show how dimension combinations are set up.
- Explain and show how single and multiple default dimensions are set up.
- Explain and show how account type default dimensions are set up.
- Explain and show how default dimension priorities are set up.
- Explain the possibility and resolution of conflicting default dimensions.
- Show how to use dimension and dimension values in journals and documents under different dimension setup scenarios.
- Set up the general features of the document approval system.
- Set up approval templates.
- Set up user logons for use with document approvals.
- Set up approval users in a hierarchy.
- Set up the notification system for approvals.
- Send an approval request.
- Approve a sales or purchase document.
- Maintain substitute approvers.
- Manage overdue notifications.

Course Details

Course OutlineModule 1: Set Up a Company by Using RapidStart Services This module explains the RapidStart Services for the application setup.**Lessons**

- Manual Setup vs. RapidStart Services
- Rapid Start Services Process Flow

- Create and Export a Configuration Package
- Configure a New Company by Using RapidStart Services
- Data Migration by Using Rapid Start Services
- Transfer Opening Balances by Using RapidStart Services

After completing this module, students will be able to:

- Explain the dependencies between RapidStart Services and manual setup work.
- Describe the different components and processes of RapidStart Services.
- Explain and demonstrate all tasks in a RapidStart Services process.
- Create a configuration worksheet.
- Create a configuration package.
- Create a configuration questionnaire.
- Create a configuration template.
- Initialize a new company with a configuration package.
- Migrate customer data.
- Transfer opening balances.

Module 2: Manage User Rights and Profiles This module explains the different level of security in Microsoft Dynamics NAV 2013.**Lessons**

- Authentication
- Set Up User Rights
- Create a New Permission Set
- Apply Security Filters
- User-Specific Setup

- User Profile Setup
- Best Practices

Lab : Set Up New Users

- Susan
- Alicia
- Cassie

After completing this module, students will be able to:

- Explain how authentication works in Microsoft Dynamics NAV.
- Manage security for Windows client users.
- Set up a new user.
- Explain the concepts of permission sets and permissions.
- Create a new permission set, and assign permissions to it.
- Apply security filters in Microsoft Dynamics NAV.
- Perform user-specific setup.
- Create, assign, and work with user profiles.

Module 3: Set Up Number Series This module explains the purpose of company-wide number series.**Lessons**

- Number Series

Lab : Create a Number Series

After completing this module, students will be able to:

- Explain the purpose of company-wide number series.
- Set up number series.
- Create number series relations.

Module 4: Set Up Trail Codes This module explains what trail codes are used for.**Lessons**

- Lessons 1 to 3: Source Code and Reason Codes
- Navigate the Audit Trail

After completing this module, students will be able to:

- Explain and set up trail codes, source codes, and reason codes.

Module 5: Set Up General Journals Templates and Batches This module explains the purpose of journal templates and journal batches set up.**Lessons**

- Journal Templates, Batches, and Lines
- Create Journal Templates and Batches

Lab : Create a Journal Batch

After completing this module, students will be able to:

- Explain the purpose and organization of journal templates and journal batches.
- Create general journal templates and general journal batches.

Module 6: Set Up Posting Groups This module explains the purpose of posting groups.**Lessons**

- Specific Posting Groups
- General Posting Groups
- General Posting Setup
- VAT Posting Groups
- VAT Posting Setup
- Best Practices
- Post and Review a Sales Transaction

Lab : Set Up and Assign a Vendor Posting GroupLab : Set Up and Assign a Product Posting GroupLab : Copy a General Posting Setup LineLab : Create and Assign a VAT Product Posting GroupLab : Copy a VAT

Posting SetupLab : Post and Review a Purchase Transaction

After completing this module, students will be able to:

- Explain and set up specific posting groups.
- Explain and set up general posting groups.
- Create a General posting setup.
- Create an Inventory posting setup.
- Explain and set up VAT posting groups.
- Create a VAT posting setup.
- Describe posting setups based on the chart of accounts.
- Demonstrate how posting groups direct a sales transaction.

Module 7: Set Up Dimensions This module explains the benefits and purposes in using dimensions.**Lessons**

- Dimensions and Dimension Values
- Setting Up Dimensions in General Ledger Setup
- Dimension Combinations
- Lessons 4 to 5: Default Dimensions and Account Type Default Dimensions
- Default Dimension Priority
- Conflicting Default Dimensions

Lab : Set Up a Dimension with Dimension ValuesLab : Set Up a Dimension CombinationLab : Assign Default Dimensions to a Single AccountLab : Assign Default Dimensions to Multiple AccountsLab : Assign Vendor Account Type Default Dimensions

After completing this module, students will be able to:

- Explain and set up dimensions and dimension values.
- Explain and set up global and shortcut dimensions.

- Explain and show how dimension combinations are set up.
- Explain and show how single and multiple default dimensions are set up.
- Explain and show how account type default dimensions are set up.
- Explain and show how default dimension priorities are set up.
- Explain the possibility and resolution of conflicting default dimensions.
- Show how to use dimension and dimension values in journals and documents under different dimension setup scenarios.

Module 8: Set Up and Manage Document Approvals This module explains the basic Document Approval set up tasks.**Lessons**

- Set Up Document Approvals
- Set Up the Notification System
- Set Up a Sales Document Approvals System
- Use the Document Approval System

Lab : Set Up a Purchase Document Approvals System

After completing this module, students will be able to:

- Set up the general features of the document approval system.
- Set up approval templates.
- Set up user logons for use with document approvals.
- Set up approval users in a hierarchy.
- Set up the notification system for approvals.
- Send an approval request.
- Approve a sales or purchase document.
- Maintain substitute approvers.

- Manage overdue notifications.

Course 80436A:

C/Side Introduction in Microsoft Dynamics NAV 2013

Length:	5 Days
Published:	December 13, 2012
Language(s):	English
Audience(s):	Information Workers,IT Professionals,Developers
Level:	200
Technology:	Microsoft Dynamics NAV 2013
Type:	Course
Delivery Method:	Instructor-led (classroom)

Show all items

Overview

About this Course

This five-day instructor-led course focuses on the capabilities and features of the Microsoft Dynamics NAV 2013 Development Environment. It explains the basic development concepts in Microsoft Dynamics NAV 2013, and provides an overview of the C/AL programming language and various object types. It also introduces new development capabilities, including reporting, queries, and .NET Framework interoperability.

Audience Profile

This course is intended for a partner that sells and implements the C/SIDE Introduction module to customers. The typical partner has an ERP background.

At Course Completion

After completing this course, students will be able to:

- Present the basic object types in Microsoft Dynamics NAV 2013.
- Describe fundamental aspects of Microsoft Dynamics NAV Development Environment. This includes the UI, application objects, and basic metadata concepts.
- Explain the physical and logical database structure.
- Explain the features for multi-developer environments.
- Explain the concepts of tables and table components.
- Examine the concept behind primary and secondary keys, and explain how to set them.
- Create a simple table with primary and secondary keys, and add data to the table.
- Review the concept of table relations.
- Set table relations with a filter and condition.
- Describe special table fields.
- Use special table fields to improve table features.
- Explain the concepts of pages and page components.
- Describe Page Designer and Action Designer.
- Create a simple page and add basic controls to the page.
- Provide an overview of different page types and their characteristics.
- Discuss best practices in designing pages.
- Create a **Card** page, add a container, FastTabs, and fields.

- Create a **List** page and link it to the **Card** page.
- Create a main page and a **Part** page, and link the two pages.
- Describe the concepts and basic use of C/AL code elements.
- Describe the concepts of data types, simple data types, and complex data types.
- Explain the concepts of identifiers, variables, and syntax.
- Explain the syntax of identifiers.
- Explain the scope of variables.
- Explain the initialization of variables.
- Create a simple codeunit to show how to define variables, assign data types, and investigate several default values that are initialized for several data types.
- Explain the concepts of assignment, statement, and assignment statements.
- Describe the syntax of statements and introduce the statement separator.
- Describe automatic type conversions for string, numeric, and other data types.
- Use assignment statements and the **Symbol** Menu.
- Understand the concepts of expressions, terms, and operators.
- Describe the syntax of an expression.
- Describe the string operator.
- Use the string operator.
- Describe the **MAXSTRLEN** and the **COPYSTR** functions.
- Use the **MAXSTRLEN** and the **COPYSTR** functions in an expression.
- Define numeric expressions, arithmetic operators, and operator precedence.
- Describe the arithmetic operators, and provide examples.
- Use the arithmetic operators and examine the operator precedence.

- Define relational and logical operators and expressions.
- Describe how to use relational expressions for comparison.
- Describe how to use relational expressions for set inclusion.
- Describe how to use logical expressions.
- Use logical and relational expressions in a page.
- Define conditional statements and Boolean expressions.
- Describe the IF statement, the IF-THEN, and IF-THEN-ELSE syntax.
- Describe the EXIT statement and code indentation.
- Describe the CASE statement and the syntax of the CASE statement.
- Define compound statements and comments.
- Describe the syntax of compound statements with BEGIN and END.
- Understand the concepts of nested IF statements and the rule of correct indentation.
- Describe the syntax of comments.
- Use the IF, EXIT, CASE, and compound statements in a page.
- Test knowledge about C/AL statements.
- Define arrays and describe the components of arrays.
- Describe the syntax of arrays.
- Explain the power of arrays.
- Describe how to use strings as arrays of characters.
- Introduce repetitive statements that are available in C/AL.
- Use arrays and repetitive statements in a page.
- Describe the WITH statement, record variables, and the syntax of the WITH statement.

- Explain the concepts of functions and parameters.
- Explain the **C/AL Symbol** Menu.
- Describe the use and syntax of data access, filtering, and manipulation functions.
- Describe the use and syntax of user interaction functions.
- Describe the use and syntax of string functions.
- Describe the use and syntax of system functions.
- Describe the use and syntax of date functions.
- Describe the use and syntax of number functions.
- Describe the use and syntax of array functions.
- Describe the use and syntax of several other important functions.
- Provide an overview of the benefits of creating custom functions.
- Explain the concepts of local functions and local variables.
- Create custom functions in a page and call the functions from Actions.
- Explain the concepts of reports and report components.
- Provide an overview of different report types and their characteristics.
- Describe the difference between the logical and the visual design of reports and introduce Report Designer.
- Describe the logical design of a report.
- Create the data model for a new report by defining data items in the Report Dataset Designer.
- Describe the visual design of a report and introduce Microsoft Visual Studio Report Designer.
- Design the report layout.
- Introduce Request Page Designer.
- Design the **Request Options** page.

- Explain the concepts of grouping and totaling in a report.
- Create a grouping and totaling for a report.
- Add advanced features to a report.
- Describe the fundamentals of an XMLport and its components.
- Review how to design XMLports.
- Explain the **Request** page functionality.
- Describe how to use XMLports from C/AL code.
- Create XMLports for export and import with XML format.
- Create XMLports for export and import with a fixed and a variable text format.
- Explain the concepts of codeunits.
- Provide an overview of designing codeunits.
- Provide an overview by using codeunits.
- Define variables and functions in a codeunit.
- Use the SMTP Mail codeunit.
- Explain the .NET Interoperability features.
- Describe the concept of constructors.
- Communicate between client-side and server-side objects.
- Describe how to respond to events that are raised by .NET objects.
- Examine mapping between C/AL and .NET data types.
- Review the most important C/AL functions for managing .NET objects.
- Use arrays, collections, and enumerations.
- Explain how to stream data between C/AL and .NET objects.

- Present the Query Designer and its features
- Explain the principles of the query design process
- Show how to select, join, filter, aggregate, and order data
- Demonstrate how to access queries from C/AL code
- Explain how to export data from queries.

Course Details

Course OutlineModule 1: Microsoft Dynamics NAV Development Environment This module explains fundamental aspects of Microsoft Dynamics NAV Development Environment.**Lessons**

- Basic Objects in Microsoft Dynamics NAV 2013
- Object Designer Fundamentals
- Team Development Features
- The Physical and Logical Database

Lab : Designing and Running an Object

- Accessing the Object Designer
- Creating an object

After completing this module, students will be able to:

- Present the basic object types in Microsoft Dynamics NAV 2013.
- Describe fundamental aspects of Microsoft Dynamics NAV Development Environment. This includes the UI, application objects, and basic metadata concepts.
- Explain the physical and logical database structure.
- Explain the features for multi-developer environments.

Module 2: Tables This module explains the concepts and the use of tables and table components.**Lessons**

- Tables Fundamentals
- Primary and Secondary Keys
- Table Relationships
- Special Table Fields

Lab : Create a Table

After completing this module, students will be able to:

- Explain the concepts of tables and table components.
- Examine the concept behind primary and secondary keys, and explain how to set them.
- Create a simple table with primary and secondary keys, and add data to the table.
- Review the concept of table relation.
- Set table relations with a filter and condition.
- Describe the special table fields.
- Use special table fields to improve table features.

Module 3: Pages This module explains the concepts of pages and page components.**Lessons**

- Page Fundamentals
- Page Designer
- Page Types and Characteristics

Lab : Create a Card and a List Page

- Create a Card page for the Course table
- Create a List page for the Course table

After completing this module, students will be able to:

- Explain the concepts of pages and page components.
- Describe Page Designer and Action Designer.
- Create a simple page and add basic controls to the page.
- Provide an overview of different page types and their characteristics.
- Discuss best practices in designing pages.
- Create a Card page, add a container, FastTabs, and fields.
- Create a List page and link it to the Card page.
- Create a main page, a Part page, and link the two pages.

Module 4: Introduction to C/AL Programming This module explains the concepts and use of C/AL code elements.**Lessons**

- C/AL Programming
- Intrinsic Data Types
- Identifiers, Variables and Syntax
- Variable Scope

Lab : Investigate Data Types

- Data Types
- Display the Variables

After completing this module, students will be able to:

- Describe the concepts and basic use of C/AL code elements.
- Describe the concepts of data types, simple data types and complex data types.
- Explain the concepts of identifiers, variables, and syntax.
- Explain the syntax of identifiers.

- Explain the scope of variables.
- Explain the initialization of variables.
- Create a simple codeunit to demonstrate how to define variables, assign data types, and investigate several default values that are initialized for several data types.

Module 5: Assignment Statements and Expressions This module explains the concepts of assignments, statements, and assignment statements.**Lessons**

- Assignment Statements
- The Syntax of Statements
- Automatic Type Conversions
- Use Assignment Statements and the Symbol Menu
- Expressions, Evaluations, Terms, and Operators
- The String Operator
- Function Calls in Expressions
- Numeric Expressions
- Arithmetic Operators
- Relational and Logical Expressions
- Relational Expressions for Comparison
- Relational Expressions for Set Inclusion
- Logical Expressions

Lab : Use Logical and Relational Expressions in a Page

- Create a New Page

After completing this module, students will be able to:

- Explain the concepts of assignment, statement, and assignment statement.

- Describe the syntax of statements and introduce the statement separator.
- Describe automatic type conversions for string, numeric, and other data types.
- Use assignment statements and the Symbol Menu.
- Explain the concepts of expressions, terms, and operators.
- Describe the syntax of an expression.
- Describe the string operator.
- Use the string operator.
- Describe the MAXSTRLEN and the COPYSTR functions.
- Use the MAXSTRLEN and the COPYSTR functions in an expression.
- Define numeric expressions, arithmetic operators, and operator precedence.
- Describe the arithmetic operators, and provide examples.
- Use the arithmetic operators and examine the operator precedence.
- Define relational and logical operators and expressions.
- Describe the use of relational expressions for comparison.
- Describe the use of relational expressions for set inclusion.
- Describe the use of logical expressions.
- Use logical and relational expressions in a page.

Module 6: C/AL Statements This module explains concepts of conditional statement and the Boolean expression.**Lessons**

- Conditional Statement and Boolean Expressions
- The IF Statement
- The EXIT Statement

- The CASE Statement
- Compound Statements and Comments
- The Syntax of Compound Statements
- Compound Statements by Using Nested IF Statements
- The Syntax of Comments
- Practice: Nested IF
- Arrays
- The Syntax of Arrays
- The Power of Arrays
- Strings as Arrays of Characters
- Repetitive Statements
- The WITH Statement

Lab : Use Conditional and Compound Statements

After completing this module, students will be able to:

- Define conditional statements and Boolean expressions.
- Describe the IF statement, the IF-THEN, and IF-THEN-ELSE syntax.
- Describe the EXIT statement and code indentation.
- Describe the CASE statement and the syntax of the CASE statement.
- Define compound statements and comments.
- Describe the syntax of compound statements with BEGIN and END.
- Understand the concepts of nested IF statements and the rule of correct indentation.
- Describe the syntax of comments.

- Use the IF, EXIT, CASE, and compound statements in a page.
- Test knowledge about C/AL statements.
- Define arrays and describe the components of arrays.
- Describe the syntax of arrays.
- Explain the power of arrays.
- Describe how to use strings as arrays of characters.
- Introduce repetitive statements that are available in C/AL.
- Use arrays and repetitive statements in a page.
- Describe the WITH statement, record variables, and the syntax of the WITH statement.

Module 7: C/AL Functions This module explains C/AL functions.**Lessons**

- Functions and Parameters
- Review Built-in Functions
- Data Access Functions
- Sorting and Filtering Functions
- Data Manipulation Functions
- Working with Fields
- Using Interaction Functions
- Other Common C/AL Functions
- Create Custom Functions
- Local Functions, Variables and the EXIT Statement

Lab : Create Custom Functions

- Create Functions
- Add Action to Page
- Add Code to Functions

After completing this module, students will be able to:

- Explain the concepts of functions and parameters.
- Explain the C/AL Symbol Menu.
- Describe the use and syntax of data access, filtering, and manipulation functions.
- Describe the use and syntax of user interaction functions.
- Describe the use and syntax of string functions.
- Describe the use and syntax of system functions.
- Describe the use and syntax of date functions.
- Describe the use and syntax of number functions.
- Describe the use and syntax of array functions.
- Describe the use and syntax of several other important functions.
- Provide an overview of the benefits of creating custom functions.
- Explain the concepts of local functions and local variables.
- Create custom functions in a page and call the functions from Actions.

Module 8: Reports This module explains the concept of reports and report components.**Lessons**

- Report Fundamentals
- Report Design Process
- Design the Data Model
- Create a Data Model

- Design the Layout
- The Request Page Designer
- Design the Request Options Page
- Grouping and Totaling
- Add Advanced Features

Lab : Create a Basic Report

- Build the report

After completing this module, students will be able to:

- Explain the concepts of reports and report components.
- Provide an overview of different report types and their characteristics.
- Describe the difference between the logical and the visual design of reports and introduce Report Designer.
- Describe the logical design of a report.
- Create the data model for a new report by defining data items in the Report Dataset Designer.
- Describe the visual design of a report and introduce Microsoft Visual Studio Report Designer.
- Design the report layout.
- Introduce Request Page Designer.
- Design the **Request Options** page.
- Explain the concepts of grouping and totaling in a report.
- Create a grouping and totaling for a report.
- Add advanced features to a report.

Module 9: XMLports This module explains the fundamentals of XMLports and its components.**Lessons**

- XMLport Fundamentals

- Design XMLports
- Importing and Exporting Plain Text
- Using XMLports in C/AL Code

Lab : Create an XMLport to Export XML Data

- Create an XMLport for export to the XML document

Lab : Create an XMLport to Export Variable Text

- Create an XMLport for Export to the Variable Text Document

After completing this module, students will be able to:

- Describe the fundamentals of an XMLport and its components.
- Review how to design XMLports.
- Explain the Request Page functionality.
- Describe the process of using XMLports from C/AL code.
- Create XMLports for export and import with XML format.
- Create XMLports for export and import with fixed and a variable text format.

Module 10: Codeunits This module explains the concepts of codeunits.**Lessons**

- Codeunit Fundamentals
- Design Codeunits
- Use Codeunits
- SMTP

After completing this module, students will be able to:

- Explain the concepts of codeunits.
- Provide an overview of designing codeunits.

- Provide an overview by using codeunits.
- Define variables and functions in a codeunit.
- Use the **SMTP Mail** codeunit.

Module 11: Microsoft .NET Framework Interoperability This module explains the .NET Interoperability features.**Lessons**

- The DotNetDataType
- Datatype Mapping and Assignment
- .NET Framework Interoperability C/AL functions
- Streaming

Lab : Use a Dictionary Object

- Declare and Instantiate a Dictionary
- Populate the dictionary

After completing this module, students will be able to:

- Explain the .NET Interoperability features.
- Describe the concept of constructors.
- Communicate between client-side and server-side objects.
- Describe how to respond to events that are raised by .NET objects.
- Examine mapping between C/AL and .NET data types.
- Review the most important C/AL functions for managing .NET objects.
- Use arrays, collections, and enumerations.
- Explain how to stream data between C/AL and .NET objects

Module 12: Queries This module introduces the query object type by explaining various use cases for queries: using queries in charts, in OData web services, and accessing them programmatically from C/AL.**Lessons**

- Query Design
- Accessing Queries from C/AL
- Advanced Query Concepts

Lab : Using a Query from a Chart

- Creating a query
- Creating a chart
- Adding the chart to the Role Center

Lab : Using Queries in C/AL

- Create a codeunit which uses a query

After completing this module, students will be able to:

- Present the Query Designer and its features.
- Explain the principles of the query design process.
- Show how to select, join, filter, aggregate, and order data.
- Show how to access queries from C/AL code.
- Explain how to export data from queries.