



## Key Data

**Course number:** 8339A

**Number of Days:** 3

**Available:** September 2004

**Languages:**

- US English

**Format:**

- Instructor-Led Training (lecture and labs)

**Student Materials:**

- Student Courseware

**Certification Exam:** None

**Certification Track:** None

**This course syllabus should be used to determine whether the course is appropriate for the students, based on their current skills and technical training needs.**

**Course content, prices, and availability are subject to change without notice.**

**Key Related Courses:**

- Axapta Development II:  
Introduction to X++

## Course Syllabus

### Microsoft® Business Solutions – Axapta® Development I: MorphX

*Elements of this syllabus are subject to change.*

#### Introduction

This 3 day course introduces the student to Microsoft® Business Solutions – Axapta® MorphX® development environment. This course develops your understanding of the integrated development environment of Microsoft Axapta MorphX Development Suite. By learning the basics of MorphX, you will understand the building blocks of the Microsoft Axapta solution. These are necessary towards building customizations to add to a customer's final solution.

The course will cover an introduction to developing in the MorphX development environment. Topics include Microsoft Axapta Architecture, data objects, user interfaces in Microsoft Axapta, reporting, and a case study to incorporate all the tools. This course provides a solid foundation for development in Microsoft Axapta and will allow the student to be successful in more advanced development courses.

#### Audience

This course is intended for individuals who will be developing and customizing Microsoft Axapta applications. This audience typically includes application consultants who are tasked with creating a customized application based on specific client requirements. Additionally, consultants who are responsible for training or supporting the customer will benefit from the course.

#### At Course Completion

After completing this course, students will be able to:

- Understand the architecture of Microsoft Axapta
- Understand the main elements of Microsoft Axapta development
- Understand the MorphX development environment and the AOT
- Design and create tables, forms, reports, and menus
- Modify objects within each major Data Dictionary category
- Create a customized user interface
- Understand and use the Microsoft Axapta Help documentation
- Create report and section templates
- Build a customized application based on specific requirements

#### Prerequisites

Before attending this course, students must have:

- Some working knowledge of Microsoft® Windows® 2000 or Microsoft® Windows® XP.

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## Chapter 1: Microsoft Axapta Architecture

This chapter explains the driving concepts behind the Microsoft Axapta architecture. The student will also be introduced to the main elements of the Axapta MorphX development environment.

Sections
<ul style="list-style-type: none"><li>▪ Introduction to Microsoft Axapta Development</li><li>▪ Microsoft Axapta Application Essentials</li><li>▪ Microsoft Axapta Layered Architecture</li><li>▪ Tools for Customization</li><li>▪ Working with Companies</li><li>▪ Security</li><li>▪ Inquiry and Reports</li><li>▪ Best Practices</li></ul>
Exercises
<ul style="list-style-type: none"><li>▪ Exercise 1.1 Creating a new record in the Customer table</li><li>▪ Exercise 1.2 Sorting records</li><li>▪ Exercise 1.3 Filtering records on the Customer form</li><li>▪ Exercise 1.4 Finding records</li><li>▪ Exercise 1.5 Using the Label File Wizard</li><li>▪ Exercise 1.6 Using Intellimorph</li><li>▪ Exercise 1.7 Create a new company and a virtual company</li><li>▪ Exercise 1.8 Using virtual companies</li><li>▪ Exercise 1.9 Creating a new User group</li><li>▪ Exercise 1.10 Creating a simple query on an Auto report</li><li>▪ Exercise 1.11 Adding a table in an advanced query</li><li>▪ Test Your Knowledge questions</li></ul>

After completing this chapter, students will be able to:

- Understand the advantages of using Microsoft Axapta
- Understand the main elements of Microsoft Axapta development
- Effectively navigate throughout Microsoft Axapta
- Understand the layered architecture of Microsoft Axapta
- Understand the basic security architecture
- Know how Microsoft Axapta uses Companies
- Become familiar with Microsoft Axapta reporting
- Understand how Microsoft Axapta integrates with other products

## Chapter 2: Data Dictionary

This chapter explores the MorphX development environment. By the end of this chapter, the student will be able to create and modify objects within each major Data Dictionary category.

Sections
<ul style="list-style-type: none"> <li>▪ MorphX and the Application Object Tree</li> <li>▪ Tables</li> <li>▪ Relations</li> <li>▪ Data Types – Extended and Primitive</li> <li>▪ Base Enumerations</li> <li>▪ Maps</li> <li>▪ Views</li> <li>▪ Indexes</li> </ul>
Exercises
<ul style="list-style-type: none"> <li>▪ Exercise 2.1 Creating a table</li> <li>▪ Exercise 2.2 Creating a relation on a table</li> <li>▪ Exercise 2.3 Creating an Extended Data Type</li> <li>▪ Exercise 2.4 Assigning an Extended Data Type to a field</li> <li>▪ Exercise 2.5 Creating Base Enums</li> <li>▪ Exercise 2.6 Creating an Extended Data Type using Base Enums</li> <li>▪ Exercise 2.7 Creating Views</li> <li>▪ Exercise 2.8 Creating an Index</li> <li>▪ Test Your Skills</li> </ul>

After completing this chapter, students will be able to:

- Understand the MorphX development environment and the Application Object Tree (AOT)
- Design and create tables using MorphX
- Understand relations on Microsoft Axapta tables
- Understand the different data types within Microsoft Axapta
- Learn how to create and modify objects within each major Data Dictionary category

## Chapter 3: User Interfaces

This chapter focuses on graphical interfaces in Microsoft Axapta such as forms and menus. The student will have the opportunity to customize and build both of these objects. Microsoft Axapta Non Graphical objects will also be discussed.

Sections
<ul style="list-style-type: none"> <li>▪ Projects</li> <li>▪ Forms</li> <li>▪ Menu items in MorphX</li> <li>▪ Microsoft Axapta Non Graphical Objects</li> <li>▪</li> </ul>

**Exercises**

- Exercise 3.1 Create a project
- Exercise 3.2 Build a form
- Exercise 3.3 Create the form design
- Exercise 3.4 Creating a Display menu item
- Exercise 3.5 Adding a menu item to a menu
- Exercise 3.6 Create a menu and add a menu reference
- Exercise 3.7 Create a query
- Test Your Skills

After completing this chapter, students will be able to:

- Understand the role of projects in Microsoft Axapta
- Understand Microsoft Axapta graphical interfaces
- Design and build Forms in Microsoft Axapta
- Create customized menus and menu items
- Understand non-graphical objects in Microsoft Axapta
- Become familiar with the Microsoft Axapta Help Documentation

**Chapter 4: Report Adjustments**

This chapter focuses on report elements. The student will design reports using different methods as well as create report and section templates.

**Sections**

- Introduction to Report Adjustments
- Working with Report Design
- Report Templates

**Exercises**

- Exercise 4.1 Working with the Visual Report Designer
- Exercise 4.2 Modifying Report Properties
- Exercise 4.3 Using the Auto Design Specs
- Exercise 4.4 Create a custom report design
- Exercise 4.5 Building a custom generated report
- Exercise 4.6 Create and attach a report template
- Exercise 4.7 Create and attach a section template
- Test Your Knowledge questions
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After completing this chapter, students will be able to:

- Understand the visual report designer in Microsoft Axapta
- Work effectively with report elements
- Design reports using different methods
- Create report and section templates
- Understand how best practices are used when creating reports

## Chapter 5: Case Study

This chapter serves as a case study using MorphX and its components. Elements discussed in previous chapters will be used to build a functional application based on a client's requirements.

Sections
<ul style="list-style-type: none"> <li>▪ Scenario</li> <li>▪ Part 1: Metadata Design</li> <li>▪ Part 2: Creating the Basic Data Objects</li> <li>▪ Part 3: Creating the Graphical Components</li> </ul>
Exercises
<ul style="list-style-type: none"> <li>▪ Use the tools and utilities you have learned in the previous chapters to design and customize an application.</li> </ul>

This chapter gives you the opportunity to build:

- Tables
- Relations
- Base enumerations
- Extended data types
- Basic forms
- Reports
- Menus
- Menu items

## Appendix: Solutions

This Appendix contains all the answers to the Test Your Knowledge and Test Your Skills sections.