

OUTLINE

GETTING CURRENT WITH DELPHI 2010

This course is designed for the Delphi professional who has not had the opportunity to explore the enormous wealth of features that have been added to Delphi in recent years. During this time, the Delphi IDE (integrated development environment), the debugger, the compiler, and especially the Delphi language have all undergone a radical transformation. Delphi has become a truly a modern development tool.

This course focuses on bring Delphi developers up-to-date with Delphi's rich assortment of new features. In particular, features added in Delphi 2005 through Delphi 2010 are explored. Although this course is intended for experienced Delphi developers, we can also customize this course for developers who have less experience with Delphi.

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COURSE INCLUDES A COURSE BOOK PLUS ALL CODE EXAMPLES PRESENTED ALONG WITH ADDITIONAL CODE EXAMPLES.

GETTING CURRENT WITH DELPHI 2010

THE DELPHI 2010 INTEGRATED DEVELOPMENT ENVIRONMENT (IDE)

THE WELCOME PAGE

IDE INSIGHT

THE PANES OF THE IDE

THE TOOL PALETTE

Enhanced Tool Palette Behavior

Configuring the Tool Palette Display

The Component Palette: It's Back

THE STRUCTURE PANE

THE VCL FLOATING DESIGNER

THE PROJECT MANAGER

THE OBJECT INSPECTOR

MODEL VIEW

Data Explorer

Configuring the Panes of the IDE

Debug Layout

THE DIALOGS OF THE IDE

The Options Dialog

Getting Current with Delphi 2010

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The Project Options Dialog

Setting Default Options

The Object Repository

IDE Error Reporting

THE IMPROVED VCL FORM DESIGNER

DYNAMIC ALIGNMENT GUIDES

DESIGN GUIDELINES

FORM POSITIONER

THE CODE EDITOR

CODE FOLDING

REFACTORING

Symbol Renaming

Variable and Field Declarations

Resource Refactoring

Extract Method Refactoring

Change Parameter Refactoring

REFACTORING EXAMPLE

Creating the Project

Declare Variable and Extract Method

SYNCEDIT

ERROR INSIGHT

HELP INSIGHT

Adding Help Insight Support for Your Code

Adding Help Insight Support for Your Code

SOURCE CODE FORMATTING

RECENT PROJECT MANAGEMENT

LIVE TEMPLATES

Invoking Live Templates

Custom Live Templates

Surround Templates

BLOCK COMPLETION

THE ENHANCED CODE EDITOR GUTTER

IMPROVED METHOD NAVIGATION

IMPROVED PAGE MANAGEMENT

THE HISTORY MANAGER

The Content Pane

The Info Pane

The Diff Pane

Configuring the History Manager

MODELING SUPPORT

Adding Modeling Support

Generating Documentation

CONFIGURING AND GENERATING AUDITS

CONFIGURING AND GENERATING METRICS

DEBUGGER IMPROVEMENTS

ERROR INSIGHT

DRILL-DOWN TOOLTIPS

BREAKPOINT INFO IN THE STACK FRAME WINDOW

LOG CALL STACK TO EVENT LOG

ENHANCED BREAKPOINTS DIALOG BOX

ATTACH/DETACH DEBUGGER

CALL STACK NAVIGATION IN LOCAL VARIABLES PANE

EXPANDABLE WATCHES, LOCAL VARIABLES, AND TOOLTIPS

GROUPING OF WATCHES

CHANGING THE EXECUTION POINT

DELPHI 2010 LANGUAGE ENHANCEMENTS (from Delphi 7 onwards):

DELPHI'S NEW CLASS DECLARATIONS

STRICT PRIVATE

STRICT PROTECTED

CLASS VARIABLES

CLASS PROPERTIES

CLASS CONSTANTS

CLASS CONSTRUCTORS

NESTED TYPES AND CLASSES

ABSTRACT CLASSES WITH CLASS ABSTRACT DECLARATION

SEALED CLASSES

FINAL METHODS

SEALED METHODS

STATIC CLASS METHODS

GENERIC CLASSES

CLASS HELPERS

LANGUAGE UPDATES

GENERIC AND DELPHI

Understanding Generic Parameters

Using Delphi's Generic Methods

Declaring Generic Methods

ANONYMOUS METHODS

Creating Anonymous Methods

UPDATED RECORDS

Why Use the New Record Types

Records with Methods

Record Constructors

Overloading Record Operators

Forward Declared Record Types

SCOPED ENUMERATORS

FOR IN LOOPS

PARALLEL LOOPS

FUNCTION INLINING

OBJECTS FROM INTERFACE REFERENCES

DELAYED LOADING OF DLLs

COMPILER UPDATES

FASTMM MEMORY MANAGER

MSBUILD

BUILD EVENTS

PRE-BUILD EVENTS

POST-BUILD EVENTS

VCL UPDATES

NEW COMPONENTS

GridPanel

FlowPanel

TTrayIcon

GESTURES

Using Gestures

Creating Custom Gestures

TOUCH KEYBOARD

INTELLIMOUSE SUPPORT

THEME SUPPORT

VISTA AND WINDOWS 7 SUPPORT

Glass

Vista Dialogs

RUN TIME LIBRARY (RTL) UPDATES

STRINGBUILDER

NEW INPUT/OUTPUT CLASSES
TMONITOR
NEW UNITS AND RTL FUNCTIONS

RTTI AND ATTRIBUTES

UNDERSTANDING RTTI
USING RTTI
DELPHI'S NEW RTTI UNIT
PRIVATE AND PROTECTED MEMBERS
RTTI AND REFLECTION
UNDERSTANDING ATTRIBUTES
CREATING ATTRIBUTES
USING ATTRIBUTES

MIGRATING LEGACY APPLICATIONS TO UNICODE-ENABLED DELPHI

WHAT IS UNICODE?
UNICODE MIGRATION AND DELPHI APPLICATIONS
STRINGS, CHARS, AND PCHARS
THE SIZE OF STRINGS AND CHARACTERS
FALLING BACK TO ANSISTRING
STRING CONVERSIONS
CODE PAGES
STRING CONVERSIONS AND DATA LOSS
RAWBYTESTRING
EXPLICIT CONVERSIONS
SETS OF CHAR
POINTER OPERATIONS AND BUFFERS
READING AND WRITING EXTERNAL DATA
FILE IO AND TEXT ENCODING
THE BYTE ORDER MARK
THE BOM IS OPTIONAL
USING EXTERNAL LIBRARIES AND THIRD-PARTY COMPONENTS
WINDOWS API
THIRD-PARTY TOOLS
NON-COMMERCIAL EXTERNAL LIBRARIES
DATABASE-RELATED ISSUES