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YOUR COURSE, YOUR WAY - MORE EFFECTIVE IT TRAINING

Windows Presentation Foundation for .NET Developers

Duration: 5 days

Overview:

Aspect Training's Windows Presentation Foundation for .NET Developers shows you how WPF really works.

It provides you with the no-nonsense, practical advice that you need in order to build high-quality WPF applications quickly and easily.

Prerequisites:

Previous Knowledge and experience of developing applications with .NET.

Topics:

1 - Introducing WPF

The Evolution of Windows Graphics

WPF: A Higher-Level API

Resolution Independence

The Architecture of WPF

2 - XAML

Understanding XAML

XAML Basics

Properties and Events in XAML

Using Types from Other Namespaces

Loading and Compiling XAML

3 - Layout

Understanding Layout in WPF

Simple Layout with the StackPanel

The WrapPanel and DockPanel

The Grid

Coordinate-Based Layout with the Canvas

4 - Dependency Properties

Understanding Dependency Properties

Property Validation

5 - Routed Events

Understanding Routed Events

Event Routing

WPF Events

Keyboard Input

Mouse Input

Multitouch Input

6 - Controls

The Control Class

Content Controls

Specialized Containers

Headered Content Controls

Text Controls

List Controls

Range-Based Controls

Date Controls

7 - The Application

The Application Life Cycle

Application Tasks

Assembly Resources

Localization

8 - Element Binding

Binding Elements Together

Binding to Objects That Aren't Elements

9 - Commands

Understanding Commands

The WPF Command Model

Executing Commands

Advanced Commands

10 - Resources

Resource Basics

Resource Dictionaries

11 - Styles and Behaviors

Style Basics

Triggers

Behaviors

12 - Shapes, Brushes, and Transforms

Understanding Shapes

Brushes

Transforms

Transparency

13 - Geometries and Drawings

Paths and Geometries

Drawings

Effects and Visuals

Visuals

Effects

The WriteableBitmap Class

14 - Animation Basics

Understanding WPF Animation

Basic Animation

Storyboards

Animation Easing

Animation Performance

15 - Advanced Animation

Animation Types Revisited

Key Frame Animation

Path-Based Animation

Frame-Based Animation

Storyboards in Code

16 - Control Templates

Understanding Logical Trees and Visual Trees

Understanding Templates

Creating Control Templates

Organizing Template Resources

Building More Complex Templates

Visual States

View Sample

17 - Custom Elements

Understanding Custom Elements in WPF

Building a Basic User Control

Creating a Lookless Control

Supporting Visual States

Custom Panels

Custom-Drawn Elements

18 - Data Binding

Binding to a Database with Custom Objects

Binding to a Collection of Objects

Improving Performance in Large Lists

Validation

Data Providers

Formatting Bound Data

Data Binding Redux

Data Conversion

List Controls

List Styles

Data Templates

The ComboBox

19 - Data Views

The View Object

Filtering, Sorting, and Grouping

20 - Lists, Grids, and Trees

The ListView

The TreeView

The DataGrid

21 - Windows

The Window Class

Window Interaction

Nonrectangular Windows

The Aero Glass Effect

Programming the Windows Taskbar

22 - Pages and Navigation

Understanding Page-Based Navigation

Page-Based Interfaces

The Page History

The Navigation Service

XAML Browser Applications

The WebBrowser Control

23 - Menus, Toolbars, and Ribbons

Menus

Toolbars and Status Bars

Ribbons

24 - Sound and Video

Playing WAV Audio

The MediaPlayer

The MediaElement

Speech

25 - 3-D Drawing

3-D Drawing Basics

Deeper into 3-D

Interactivity and Animations

26 - Documents

Understanding Documents

Flow Documents

Read-Only Flow Document Containers

Fixed Documents

Annotations

27 - Printing

Basic Printing

Custom Printing

Print Settings and Management

Printing Through XPS

28 - Interacting with Windows Forms

Assessing Interoperability

Mixing Windows and Forms

Creating Windows with Mixed Content

The Last Word

29 - Multithreading

Multithreading

30 - The Add-in Model

Choosing Between MAF and MEF

The Add-in Pipeline

An Application That Uses Add-Ins

Interacting with the Host

Visual Add-Ins

31 - ClickOnce Deployment

Understanding Application Deployment

A Simple ClickOnce Publication

Additional ClickOnce Options

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