



# C++Builder® 2007 for Win32 Application Development

Technical Training

## Accelerate Your Development

Course# RC11A10

### Price:

Please contact your regional Borland office

### Format:

5 days – 40 hours, 50% discussion / 50% hands-on lab

### Delivery Options:

Face –to-face instructor led and virtual instructor led

### Audience:

The course helps programmers, developers and architects to attain fundamental skills required to use C++Builder 2007 productively.

### Prerequisites:

- User-level knowledge of the Windows® operating systems
- Moderate C++ programming experience
- Familiarity with database concepts

### For More Information:

[www.codegear.com/education](http://www.codegear.com/education)

C++Builder® 2007 Application Development is a five-day course that introduces C++ developers to the fundamental skills of using C++Builder 2007 to efficiently develop applications targeting the Win32 and Vista platforms.

The goal of this course is to help you increase your productivity, using C++Builder 2007 in designing, prototyping, creating, and deploying applications to Win32 and Vista platforms.

### Course Description

This course introduces you to C++Builder® 2007 through an application lifecycle development simulation which helps re-enforce your understanding of C++Builder's features and how these features may be used to increase the quality and speed of your own development efforts.

Students learn how to leverage the fundamental technologies of C++Builder, including configuring the IDE, event handling, client server engineering, data-aware components, database migration, debugger, interface design, exceptions, general IDE features, and the use of many wizards to dramatically decrease development time.

In addition to "how to use" topics, discussions include general best practices on using C++Builder to architect, prototype and develop your applications. Extensive lab exercises reinforce the discussions through review questions and hands-on labs. The discussions and lab exercises simulate a typical lifecycle for developing an application, and culminate in a real-world deployable Win32 application.

Experienced instructors deliver this course via a classroom setting or on-line conferencing. Both delivery methods include discussions and lab exercises.

This course helps prepare students for the C++ Builder 2007 product certification exam.

### Course Concepts

#### Introduction

- Application Requirements

#### Prototyping

- Prototyping the application
- Application Forms
- Configuring the project

#### Configuring the Project

- Creating a Project
- Project Manager
- Project File
- Project Options
- Compiling and Linking
- Build Applications
- Build Events
- Using MSBuild to Build your Project

#### Object-Oriented Programming

- Abstraction
- Inheritance
- Encapsulation
- Polymorphism
- Visual Form Inheritance
- Business Code and Interface Code

#### Business Logic and Graphical User Interface

- Real World Problem
- Business Rules vs. Business Logic
- What is Interface Code?

#### UML(Unified Modeling Language)

- Introduction to UML
- Introduction to Together

Concepts continued on next page.

Concepts Continued.

## The Singleton Design Pattern

- What are Patterns?
- Singleton Pattern

## Basic Interface Elements

- VCL Architecture
- VCL Components
- Working with Components
- Developing the application user interface

## Visual Form Designer and Code Editor

- Visual Form Designer
- Creating Interfaces
- Code Editor

## Lifetime of Objects

- Object Ownership

## Exception Handling

- What is an Exception?
- Protected Blocks
- Handling Exceptions
- Resource Protection
- Raising and Re-raising Exceptions

## Debugger

- Debugger Environment
- Analyzing Data at Runtime
- Controlling Debug Flow

## Advanced Database Development

- C++ Database Architecture
- Database Access Technologies
- dbExpress and TClientDataset

## Deploying Applications

- General Process to Deploy Applications
- Deploying Database Applications

## Using Packages

- Package Structure
- Packages and Standard DLLs
- Static Linking and Dynamic Linking
- Creating, Compiling and Deploying a Package

## Model-View-Controller

- Introduction and Benefits of MVC

## Introduction to TeeChart

- TeeChart Components
- The TeeChart Editor

## Introduction to XML

- XML Overview
- XSL
- XML Parsers
- XML and VCL Components

## Introduction to IntraWeb

- IntraWeb Components
- Application Module vs. Page Module
- Database Development on the Web
- Frame usage
- Ajax Programming

## Introduction to Rave Reports

- Rave Reports Components
- The Rave Visual Designer
- Changing Reports Fields Manually
- Viewing Results
- Generating Reports under C++Builder
- Beyond Rave Reports

## Introduction to DataSnap

- DataSnap Components
- DataSnap in the Object Repository
- Creating a Three-Tier Application

## Building the Application

- Developing a real application using the concepts introduced during the class.

Actual course content may vary and is subject to modification without notice.