

# Nick Grattan Consultancy Ltd

we demistify SharePoint expert-led training proven consulting custom software

## Training Specification: Developing using Windows Workflow Foundation (WWF) with Visual Studio

[www.nickgrattan.net](http://www.nickgrattan.net)



### Overview

This **three day** training course teaches developers how to build workflows in WinForm, ASP.NET, Web Service and other Microsoft .NET applications using Windows Workflow Foundation (WWF) and Visual Studio 2008.

### Pre-requisites

Course participants should be familiar with Microsoft .NET coding techniques using C# and developing using Visual Studio 2008. Course participants will receive a workbook containing exercises and fully worked examples in C#.

*Note that this course can be given in VB.NET on a closed basis.*

### WINDOWS WORKFLOW FOUNDATION (WWF) OVERVIEW

The Windows Workflow Foundation Architecture. Sequential and State Workflows. Support for WF in Visual Studio 2008. Domain Specific Languages (DSL).

### BUILDING A WWF SEQUENTIAL WORKFLOW

Workflows, activities and the WF Runtime. Creating resumable workflows with bookmarks and the WorkflowQueuingService. Hosting the WF Runtime in .NET applications; running a WF Program. Building Composite Activities. Representing workflows with XAML and using Activity Binding.

### THE VISUAL STUDIO 2008 WORKFLOW DESIGNER

Using the Workflow Designer in Visual Studio 2008. Overview of standard activities such as: CodeActivity, WhileActivity, IfElse, Throw, FaultHandler, CallExternalMethod etc. Debugging a workflow in Visual Studio 2008.

### LONG RUNNING WORKFLOWS

Passivating and resuming a WF program instance. Using the persistence services such as SqlWorkflowPersistenceService. Creating a custom persistence service using the file system. Creating and managing work queues, e.g. presenting lists of executing workflow instances to users. Terminating and aborting workflow instances.

### ADVANCED ACTIVITY EXECUTION

The Activity Lifecycle: Initialized, Executing, Faulting, Cancelling, Closed, Compensating. The Activity Execution Context and Services. Composite Activity Execution with examples such as Sequential, Interleave and Prioritized Interleave Activities. Using transactions with activities.

### STATE MACHINE WORKFLOWS

Creating a State Machine Workflow. Define the workflow states. Transition; moving from state to state. Defining activities in each state. Using the EventDriven activity to change state.

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