# Exploring Visual Studio 2010 ALM Tools



**Meet the expert:** Chris Menegay is a Microsoft MVP and a Microsoft Regional Director. His process tool knowledge is broad, but primarily focuses on the Microsoft ALM tools. Chris is the VP of Consulting for Notion Solutions, Inc., a consulting and training firm specializing in software development process improvement. He has written white papers and magazine articles and has been a frequent speaker on software development best practices at several industry conferences.

**Runtime:** 10:05:02

**Course description:** Tracking and maintaining a software development project requires a team effort. With big improvements in the Application Lifecycle Management tools in Visual Studio 2010, project tracking can now be part of the development process. Anybody from team members, to project managers can now update tasks, check in code, run a testing matrix, report bugs and so much more. In this course you will start with an introduction to the ALM tools found in Visual Studio 2010 Premium Edition. These tools cover user roles, management, reporting and work tracking. Then the course will move onto version control with side by side code comparison. Then you will be shown the Team Build Architecture and working with Microsoft Test and Lab Manager.

**Course outline:**

**Introducing ALM Tools**
- Introduction
- ALM
- Components of ALM
- Full Software Lifecycle
- Microsoft ALM Tools
- Visual Studio Professional
- Visual Studio Premium
- Visual Studio Ultimate
- VS Test Professional
- VS Lab Management
- VS Team Foundation Server
- Demo: Team Foundation
- Modeling - VS Ultimate
- UML
- Layer Diagrams
- Direct Graph Diagram
- Software Testing
- Test Manager
- Performance Testing
- Developer Code Quality
- Database Change Management
- Team Foundation Server
- Team Foundation Build
- Summary

**Management And Reporting**
- Introduction
- Reporting Goals
- Standard Reports
- Test Plan Progress
- Bug Trend
- Bug Status
- Reactivations
- Status by Iteration
- Build Success Over Time
- Build Quality Indicators
- Adhoc Reporting
- Demo: Adhoc Reporting
- Summary

**Work Tracking Overview**
- Introduction
- Demo: Team Project
- Overview: New Work Items
- Demo: User Story
- Demo: Open User Story
- Demo: Edit Query
- Demo: MS Project
- Demo: Rerun Open Users Query
- Demo: Using MS Excel
- Demo: New Folder
- Demo: New Query
- Demo: My Work Items
- Demo: Areas and Iterations
- Demo: New Linked Work Item
- Demo: Web Interface
- Summary

**Version Control Overview**
- Introduction
- Demo:Source Control
- Demo:Workspaces
- Demo:Branching and Merging
- Demo:Branch Properties
- Demo:Adding Code
- Demo:Source Files
- Demo:Work Items
- Demo:Check in Notes
- Demo:Policy Warnings
- Demo:Chainset
- Demo:Branch History
- Summary

**Version Control Features**
- Introduction
- Demo:Version Control
- Demo:Merge
- Demo:Track Changeset
- Demo:Changeset Viewer
- Demo:Get Latest Version
- Demo:Check out for Edit
- Demo:View History
- Demo:Compare
- Demo:Branch and Merging
- Demo:Apply Label
- Demo:Source Control
- Demo:Shelve
- Demo:Annotate
- Demo:Merge Conflicts
- Summary

**Team Build**
- Introduction
- Team Build
- Architecture
- Tagging
- Demo:Team Build
- Demo:Trigger
- Demo:Build Defaults
- Demo:Retention Policy
- Demo:Process
- Demo:Build Status
- Demo:Schedule Builds
- Demo:Gated Checkin
- Summary

**Working with Test Manager**
- Introduction
- Demo:Test Plan
- Demo:Configuration Manager
- Demo:New Configuration
- Demo:Test Case
- Demo:Run Tests
- Demo:Test Suites
- Demo:Query-based Suite
- Demo:Update of Build
- Demo:Run Test Case
- Demo:Analyze Test Runs
- Demo:Recommended Tests
- Demo:Automated Tests
- Demo:Test Settings
- Summary

**Creating and Managing Bugs**
- Introduction

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- No Repro Problem
- No Repro Solution
- Workflow
- File Bugs - Rich Bugs
- Demo:No Repro
- Summary

**Lab Manager Overview**
- Introduction
- Virtual Test Labs
- Lab Management
- Workflow
- Deploy for Test
- Back to Lab Management
- Cloning
- Demo:Lab Management
- Demo:Create Environment
- Demo:Environment Templates
- Demo:Virtual Environment
- Demo:Testing Center
- Demo:Start Test
- Demo:Active Bugs Query
- Demo:New Build Definition
- Demo:Queue Build
- Demo:Two Environments
- Demo:Snapshots
- Demo:Build Status
- Demo:Associated Automation
- Summary

**Automated Testing**
- Introduction
- Demo:Testing in Visual Studio
- Demo:Add New Test
- Demo:Create Unit Tests
- Demo:Edit Test Settings
- Demo:Test Results
- Demo:Debug Selection
- Demo:Test List Editor
- Summary

**Coded UI Testing**
- Introduction
- Demo:Coded UI Test Builder
- Demo:Writing Coded UI Test
- Demo:Known Start State
- Demo:Find Buttons
- Summary

**Data Driven Coded UI Testing**
- Introduction
- Demo:Data Coded UI Test
- Demo:Create CSV File
- Demo:Using CSV File
- Demo:Deploy CSV File
- Demo:Running Test
- Demo:Code Details
- Demo:Manual Test Cases
- Summary

**Web Testing**
- Introduction
- Demo:Web Testing
- Demo:Add Web Test
- Demo:Add Requests
- Demo:Form Post Parameters
- Demo:Web Test Editor
- Demo:Add Data Source
- Demo:Context Parameters
- Demo:Validation Rule
- Demo:Extract Hidden Fields
- Demo:Extraction Rules
- Demo:Call Properties
- Demo:Test Plugins
- Demo:Parameterize Web Servers
- Demo:Generate Code
- Summary

**Load Testing**
- Introduction
- Demo:Load Test
- Demo:Create Load Test
- Demo:Load Test Options
- Demo:IP Switching
- Demo:Run Settings
- Demo:Run Test
- Demo:Stored Results Data
- Demo:Custom Counter Sets
- Demo:Add Threshold Rule
- Summary

**Modeling Tools**
- Introduction
- Demo:Modeling Project
- Demo:Class Diagram
- Demo:Sequence Diagram
- Demo:Use Case Diagram
- Demo:Activity Diagram
- Demo:Component Diagram
- Demo:Layer Diagram
- Demo:Dependency Graph
- Demo:Architecture Explorer
- Summary

**Developer Tools Unit Testing**
- Introduction
- Tools to Improve Code
- Unit Testing
- Unit Testing - Test First
- Unit Testing - Other Features
- Demo:Unit Testing
- Demo:Test First
- Demo:Code Coverage
- Demo:Test Impact
- Demo:Data Unit Test
- Summary

**Analysis and Performance**
- Introduction
- Tools to Improve Code
- Intellitrace
- Static Code Analysis
- Demo:Intellitrace
- Demo:Static Code Analysis
- Demo:Code Analysis Policy
- Demo:Rule Sets
- Demo:Code Metrics
- Summary

**Profiling Tools**
- Introduction
- Profiling
- Demo:Profiling
- Demo:Preformance Analysis
- Demo:Test Settings
- Demo:Call Tree
- Demo:Profile Properties
- Demo:Profile Application
- Demo:Profile Allocation
- Demo:Object Lifetime
- Demo:When to use Tool
- Summary

**Database Tools Overview**
- Introduction
- Demo:DB Schema Tools
- Demo:SQL 2008 Wizard
- Demo:Make Changes to DB
- Demo:Schema View
- Demo:Code Changes
- Demo:Unit Test
- Demo:Data Generation Plan
- Demo:Data Bound Generator
- Demo:Create Local and Deploy
- Demo:Test Case
- Demo:Schema Compare
- Summary