

# Visual Studio 2010 Test Professional

*What is it and how to use it*

# Accentient

- A leader in Visual Studio ALM knowledge
- Has helped hundreds of clients understand, implement and leverage Visual Studio ALM tools
- Has a close working relationship with Microsoft
- Consultants are Microsoft MVPs, Microsoft Regional Directors, Certified Professional Scrum Developers, and Microsoft Certified Trainers

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# Richard Hundhausen

- President of Accentient
- Author of software development books
- Microsoft Regional Director
- Microsoft MVP (Visual Studio ALM)
- Professional Scrum Developer
- [richard@accentient.com](mailto:richard@accentient.com)



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# Agenda

- Good tests start with good stories
- Test plans
- Test suites
- Creating and running a manual test
- Test settings
- Collecting diagnostic information
- Converting a recording to a coded UI test
- Demos
- Questions?

# Quality Assurance vs. Quality Control

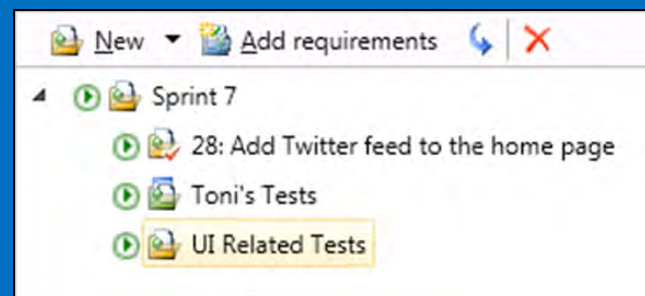
- **What is Quality?**
  - The software meets requirements, expectations, has business value, is fit for purpose, exhibits certain attributes (the “ilities”)
- **Quality Assurance**
  - Quality is planned and is treated like any other (functional) requirement
  - The team takes a proactive approach to assuring quality
- **Quality Control**
  - Checking quality through verification and validation
  - The team takes a reactive approach to fixing defects

# Good Tests Come From Good Stories

- **User stories represent what the customer wants**
  - They should contain at least a title, user story description, and business value
- **It's ok if they start vague**
  - They should have just enough detail to be estimated
  - The details will emerge as the story's priority increases
- **It's ok if they start big**
  - They can be split into smaller stories
  - A story must be small enough to be completed in 1 sprint
- **Acceptance criteria must be known before the sprint**
  - Acceptance criteria can be used as the basis for tests

# Test Plans and Test Suites

- Test plans let you specify what you want to test and how to run those tests
  - You can associate a plan to dates, area, or iteration
  - You can specify settings and environments (lab VMs)
- Test suites allow you to group your test cases
  - This allows you to run all of your tests in a suite
  - They can be created manually, based on requirements, or based on a query



# Test Case Work Items = Manual Tests

- Initially, test case work items can just represent the acceptance criteria in an evolved form
  - Eventually, the test cases will need more specific detail, such as the actual test steps, in order to be executed (run)
- Relating test cases to user stories (or bugs)
  - One user story (or bug) can, and probably will, have multiple test cases
  - One test case can be used to verify multiple stories or bug verifications/fixes
- Shared steps can help make your life easier
  - Define the steps once and use them in multiple test cases
  - Action recordings get associated with the shared steps

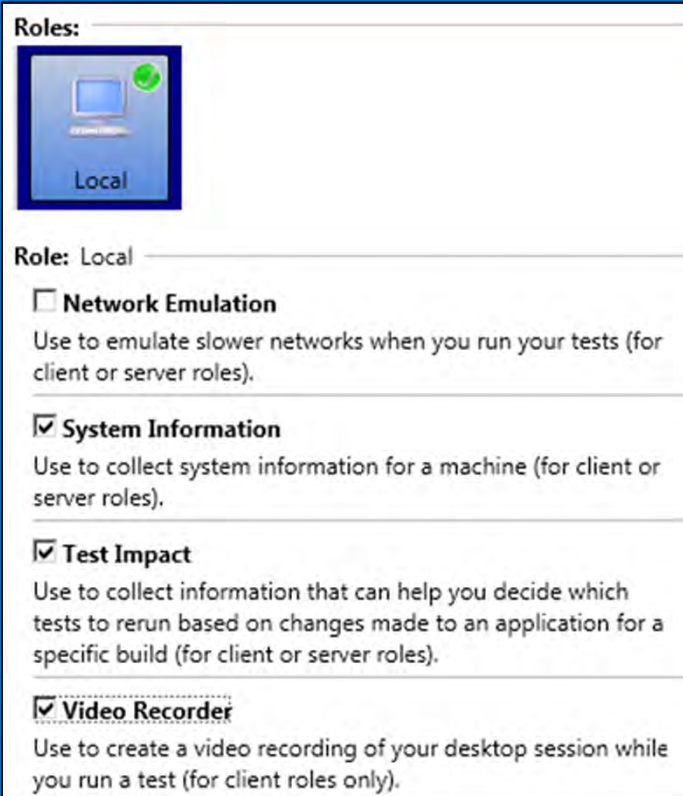


# Running a Manual Test


- Make sure you switch from *Plan* to *Test*
- Run the test case
  - Run “with options” to specify settings, environment, etc.
- You can create an action recording for playback
  - This will allow you to fast forward to the “interesting part”
- Follow each test step
  - Mark as Pass or Fail
  - Add comments, bugs, screenshots

# Diagnostic Data Adapters

- Test settings allow you to specify one or more diagnostic data adapters to collect data during a run
  - Actions
  - ASP.NET IntelliTrace/Test Impact
  - Event Log
  - IntelliTrace
  - Network Emulation
  - System Information
  - Test Impact
  - Video Recorder (requires Windows Media Encoder)



**Roles:**

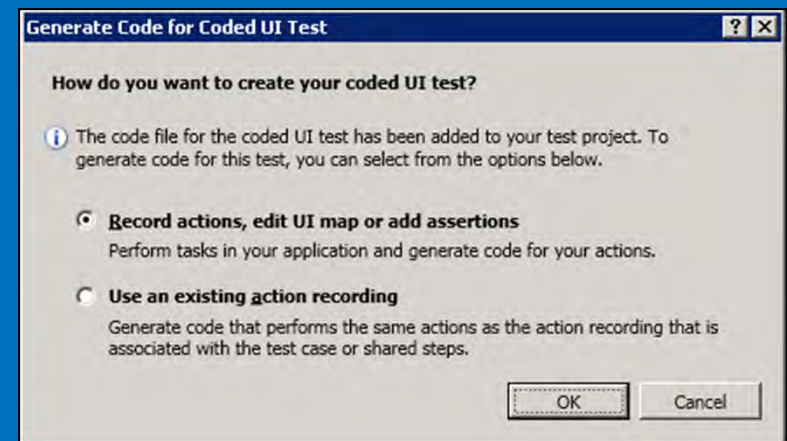
 Local

**Role: Local**

- Network Emulation**  
Use to emulate slower networks when you run your tests (for client or server roles).
- System Information**  
Use to collect system information for a machine (for client or server roles).
- Test Impact**  
Use to collect information that can help you decide which tests to rerun based on changes made to an application for a specific build (for client or server roles).
- Video Recorder**  
Use to create a video recording of your desktop session while you run a test (for client roles only).

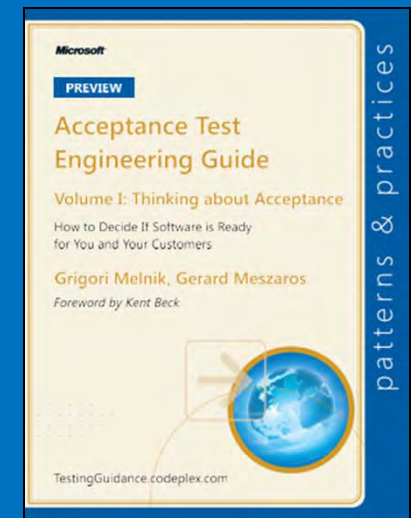
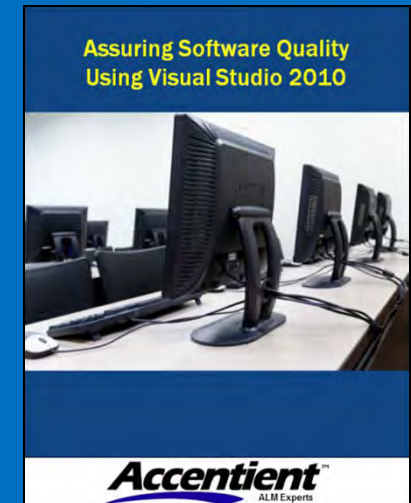
# Coded UI Tests

- Coded UI tests are automated UI tests
  - They allow you to verify that the user interface is functioning correctly after code changes
  - They don't require a (human) tester to run them
- They are like other Visual Studio tests
  - They can be placed in test lists, given test categories, run automatically during Team Foundation Build
- You can create one from scratch using recording tools or you can convert an existing action recording



# Resources

- Accentient's 3-day Assuring Software Quality using Visual Studio 2010 course
  - <http://training.accentient.com>
- Guidance on CodePlex
  - <http://testingguidance.codeplex.com>
- VS2010 Testing How-To Videos
  - <http://bit.ly/gKQLMy>
- Professional Scrum Developer Program
  - <http://bit.ly/dppXd0>



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- Michael McCully – *Sales Manager*
  - [mmccully@accentient.com](mailto:mmccully@accentient.com)
  - (208) 954-7113
- Richard Hundhausen – *President*
  - [richard@accentient.com](mailto:richard@accentient.com)
  - (208) 283-6674