




Presented to
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Successfully Integrating
Test Automation and Agile Projects


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*Thinking
Through
Testing*




Goals of Automation

- ❖ The following are some of the benefits to be expected from successfully implementing automated software testing.
 - ❖ Earlier Discovery of Defects
 - ❖ Speed, Accuracy, Repeatability
 - ❖ Availability (rapid and unattended)
 - ❖ Test Capability and Coverage
 - ❖ Test Accumulation
 - ❖ Tester Effectiveness
 - ❖ Formalization / Measurement of Testing
- ❖ Resulting in improved testing productivity, reduced costs, and improved product quality
→ Customer Satisfaction




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Challenges of Automation




- ❖ Test automation is not treated as a project with proper project planning and design solution
- ❖ Testing typically only included at the end of the project life cycle
- ❖ Attempt to automate all test cases
- ❖ No automation framework (reusability and external utilities) implemented prior to scripting
- ❖ Testers are untrained in programming
- ❖ Automation test suite is not maintained



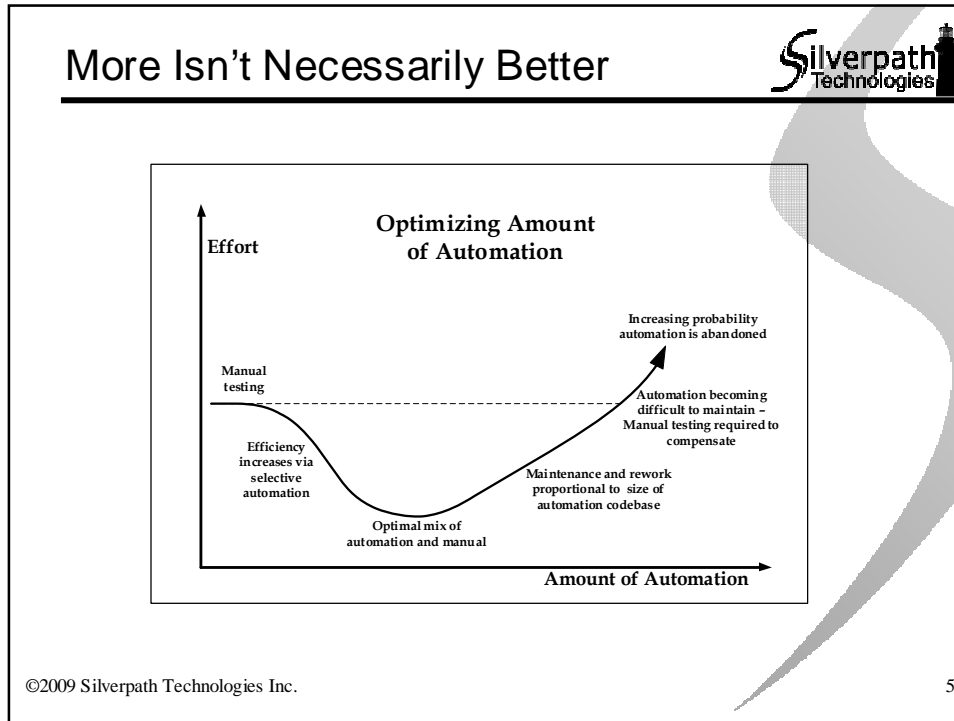
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Approaching Automation

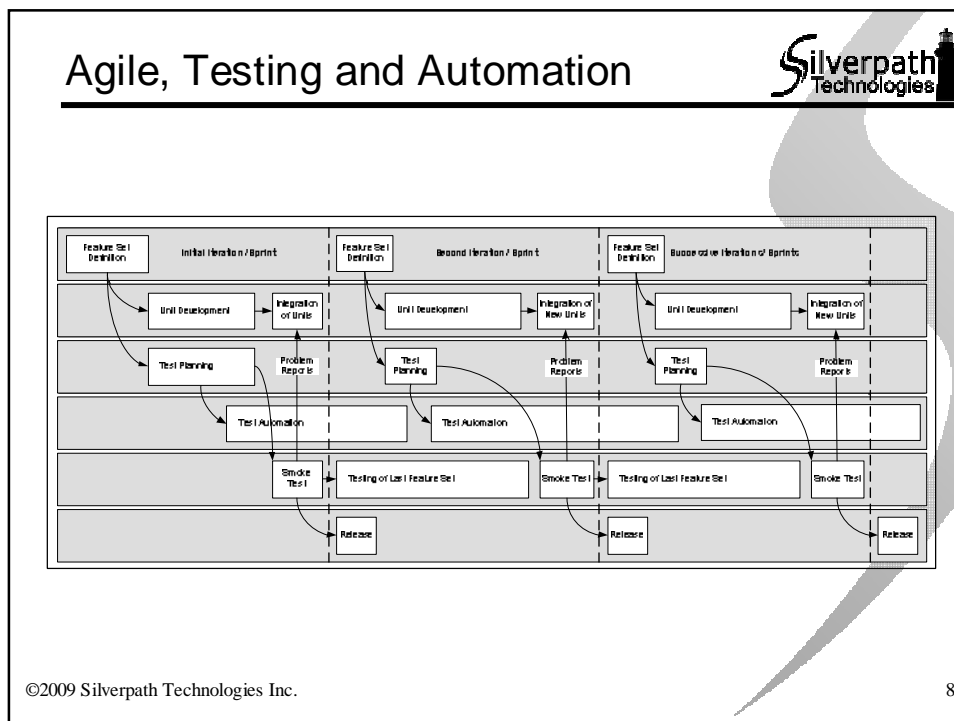
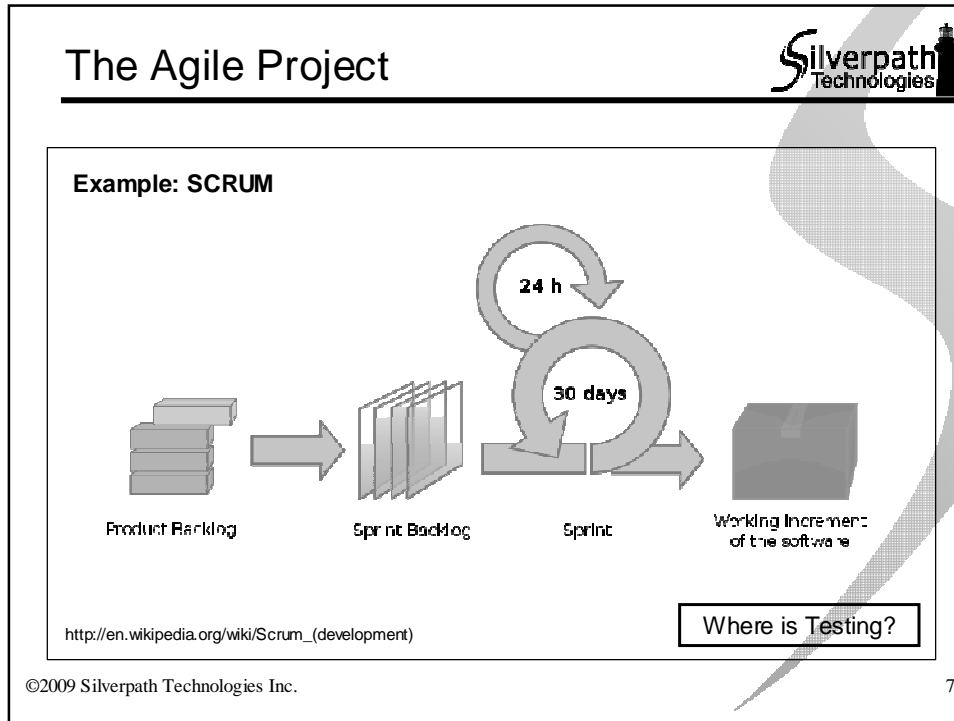


<ul style="list-style-type: none"> ❖ Acceptance Testing ❖ Beta Testing ❖ Black Box Testing ❖ Build Verification (BVT) or Smoke Testing ❖ Compile-Time Options (or CTO) Testing ❖ Configuration Testing ❖ Database Testing ❖ Functional or Verification Testing ❖ Glass Box or Structural Testing ❖ GUI Testing ❖ Installation Testing ❖ Integration Testing ❖ Internationalization Testing ❖ Localization Testing 	<p>Should</p> <p>Can</p> <p>Can't</p>	<ul style="list-style-type: none"> ❖ Memory Leak Testing ❖ Negative or Error Handling Testing ❖ On-line Documentation Testing ❖ Performance Testing ❖ Platform Testing ❖ Print Testing ❖ Real World Testing ❖ Regression Testing ❖ Reliability Testing ❖ Scenario Testing ❖ Security Testing ❖ System Testing ❖ Stress Testing ❖ Unit Testing ❖ Usability Testing ❖ Validation Testing
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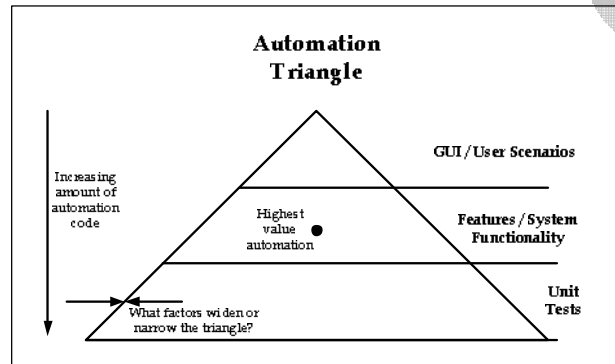
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- ## Common Automation Scenarios
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- ❖ **Build Verification (Smoke Testing)**
 - ❖ Quickly determine the stability of a new build before committing a large number manual test resources
 - ❖ **Configuration Testing**
 - ❖ Run similar tests on a variety of system configurations
 - ❖ **Regression Testing**
 - ❖ Easily verify that stable (non-changing) functionality remains working between builds/releases
 - ❖ **Unit Testing**
 - ❖ Ensure each individual unit of code meets its design and behaves as intended
- Mature Functionality
vs.
New Development
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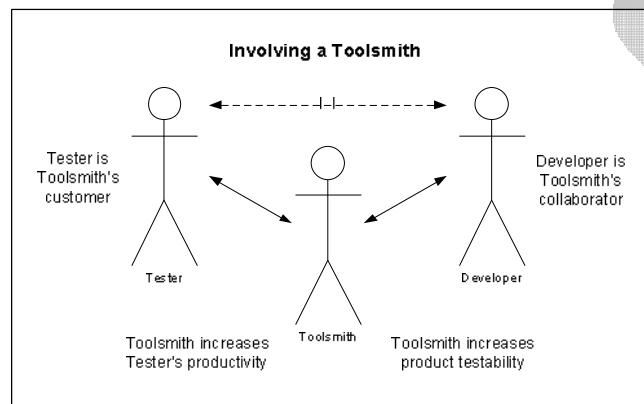
Scripters vs. Toolsmiths



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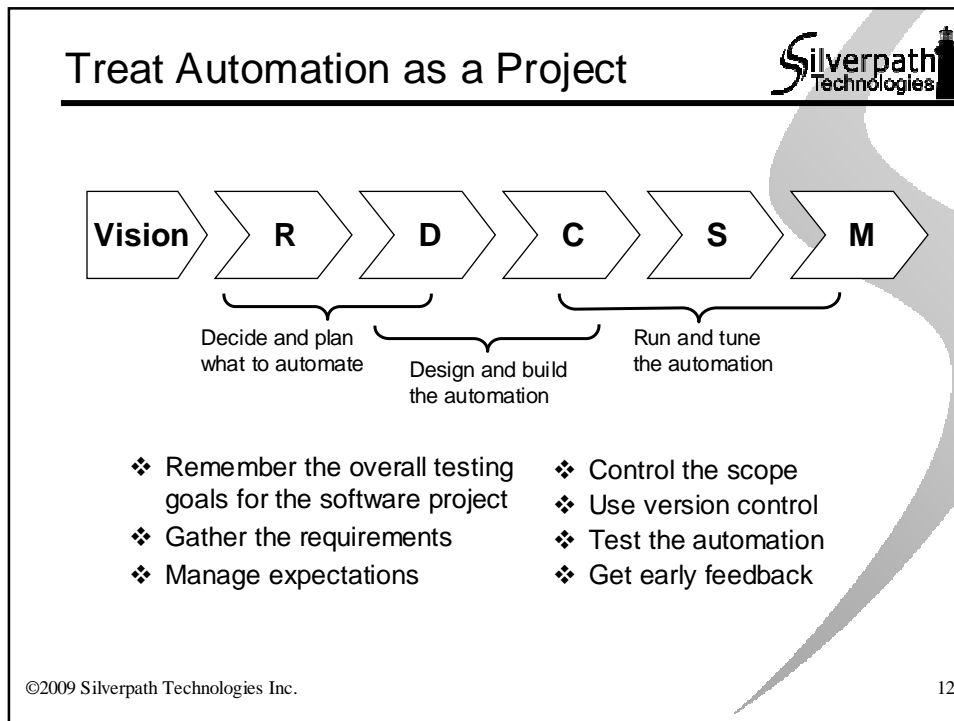
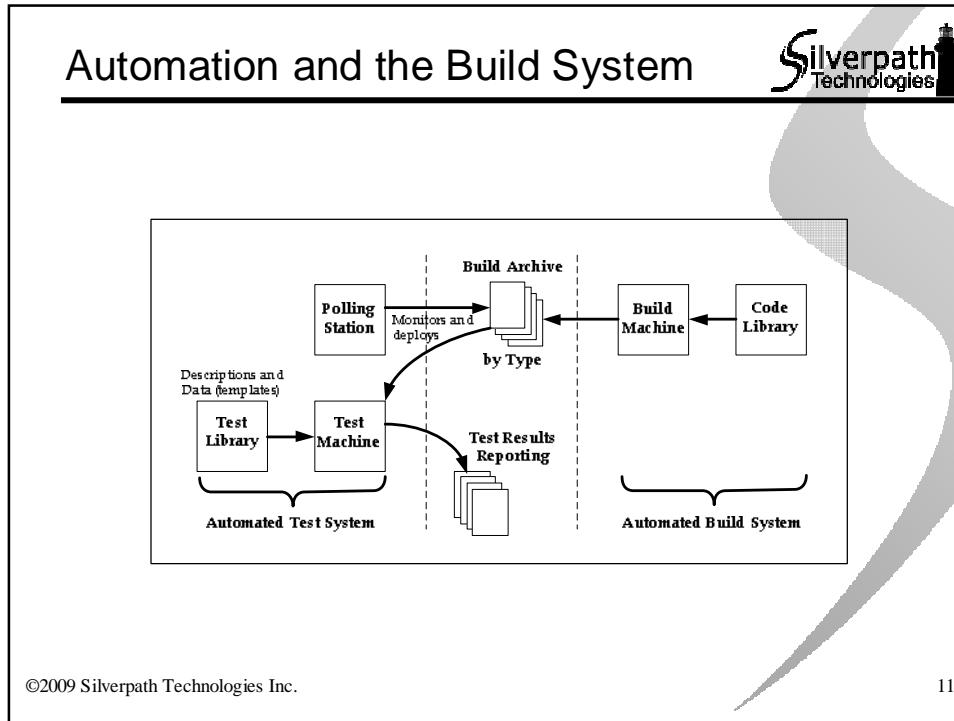
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Accelerate Your Testing



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Thinking Through Testing™



- ❖ Silverpath is founded on the principle vision of providing high value to software companies by raising the quality of their software systems and teams while simultaneously driving down the total costs to achieve that quality.
- ❖ Silverpath's approach of *Thinking Through Testing*:
 - ❖ Is risk-driven, ROI-centric
 - ❖ Enables early feedback on quality
 - ❖ Executes the right testing at the right time
 - ❖ Leverages standardized light-weight practices
 - ❖ Conducts in-parallel test activities
 - ❖ Maximizes reusability
- ❖ Working together, we obtain the practical results needed from the optimal balance of quality requirements, scope of effort, and project constraints and thereby achieve the greatest return on investment.
- ❖ Visit <http://www.silverpath.com>

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