

Risky Business: An Agile Approach to Risk



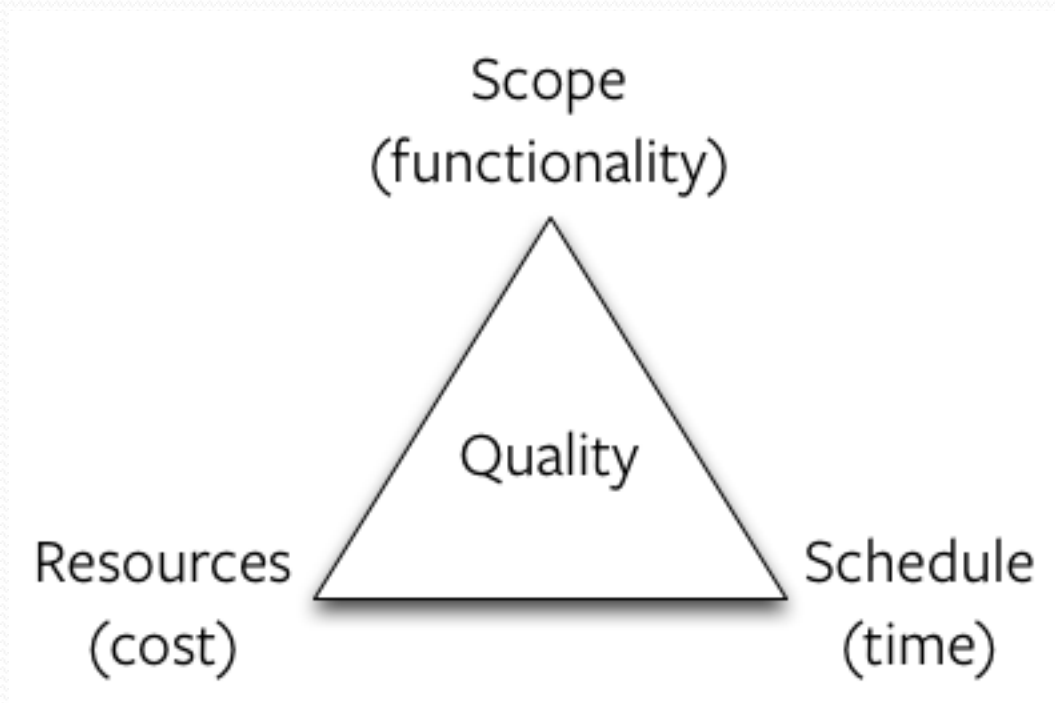
About Me

- Doing Agile since 1999
- Start ups / Enterprises
- Planigle - Consulting and Training
- Aptage - VP of Engineering



Agenda

- Scope Risk
- Schedule Risk
- Resource Risk
- Quality Risk



Managing Risk

Waterfall

- Schedule, scope and resources “fixed”
- Changing one affects the others as well as quality
- Manage the plan
- Try to minimize change



Agile

- Schedule, resources and quality fixed
- Changing schedule or resources affects scope
- Manage the priorities
- Change as you learn more

Scope Risk

Will we get everything done?

becomes

Are we focusing on the right things?

Will it help our customers?

Will they buy it?

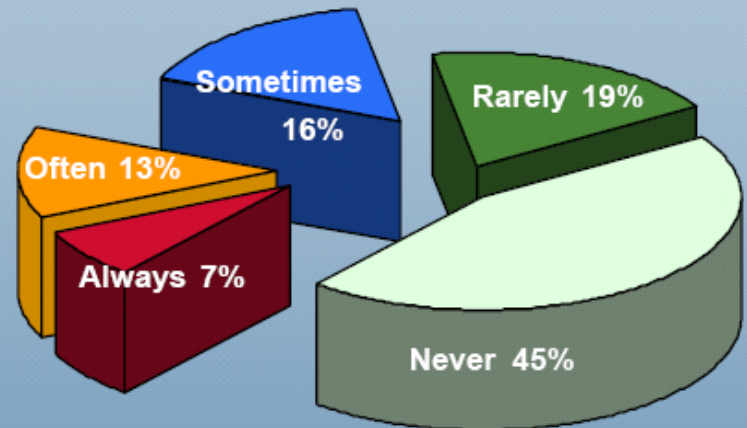
Will they use it?

Start here to reduce risk

Features / Functions Used in a Typical System

**Often / Always
Used: 20%**

**Rarely / Never
Used: 64%**



Standish Group Study Reported at XP2002 by Jim Johnson, Chairman

Scope Risk – Prioritize

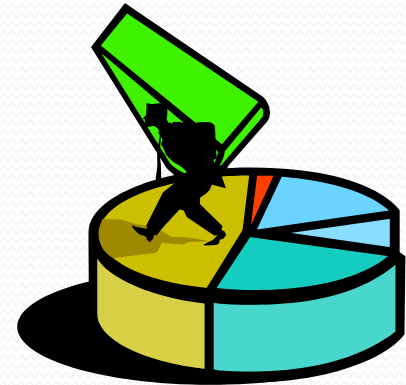
- Not all or none (or must, should, frill)
- Attack most important items first
- Look for items to kick out / down
- Look for more valuable items / approaches
- Frequently reassess

I am not a product of my
circumstances. I am a
product of my decisions.

Stephen Covey

Scope Risk – Go Small

- Smaller is better
 - Finer grained prioritization
 - Easier to estimate
 - Easier to get your head around it
 - Easier to establish flow
- But don't go too small too early



Scope Risk – Get Feedback

- Early and Often
- Identify users you can talk with
 - By area
- Incorporate users into your process
 - Mock ups
 - Demos
 - Betas
 - A/B Testing
- Frequent, small releases



Scope Risk – Use Themes

- What are the areas we're going to invest in for this release?
- Themes give you room to be flexible
 - We know we're going to do something in this area
 - We'll decide as we go how much
- Themes are a great way to communicate the focus of the release without prematurely committing you to details

Scope Risk – Measure It

- The further down the list, the riskier it is
- Update your priorities and release plan regularly
- Use that to update your stakeholders



Afterwards:

- Is it used?
- Are we making a difference?

Schedule Risk

- What if we don't make it?
- If you can't reduce scope, can you increase schedule?



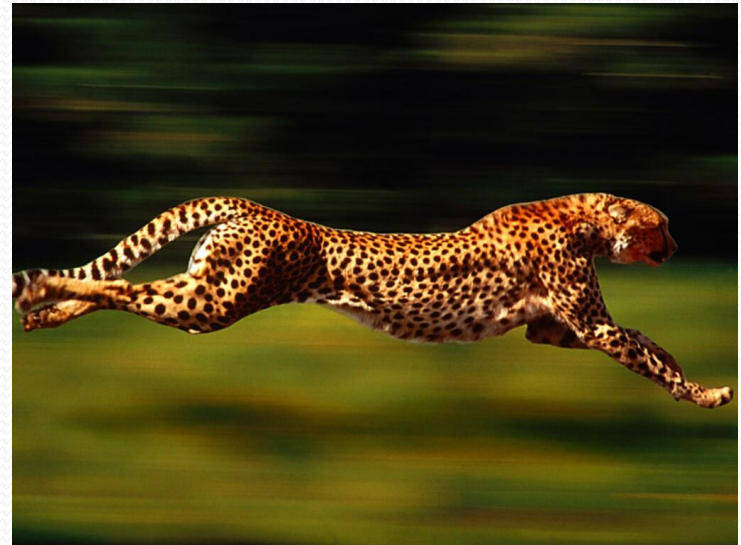
Schedule Risk – Do Riskiest First

- What are the items that could blow up your release?
- What items are you least sure about?
- Risk affects priority
- More confidence once resolved
- More time to respond



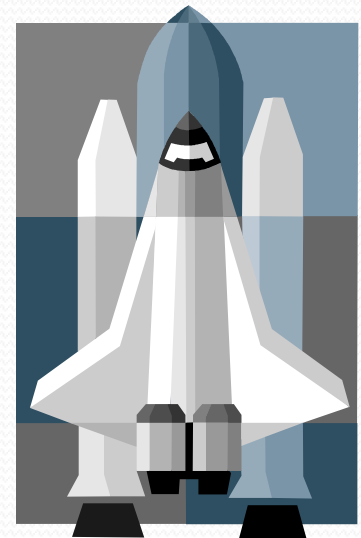
Schedule Risk – Speed Up Feedback

- Why is quick feedback important?
 - Easier to identify the problem
 - More options
- How to do it?
 - Stakeholders in process
 - Test automation
 - Continuous integration
 - Small work items



Schedule Risk – Stay Releasable

- Goal: Always releasable
- Reality: Ability to do this will evolve over time
- Staying releasable gives you the ability to more easily change direction / take on new things
- It also tends to improve quality
- And predictability

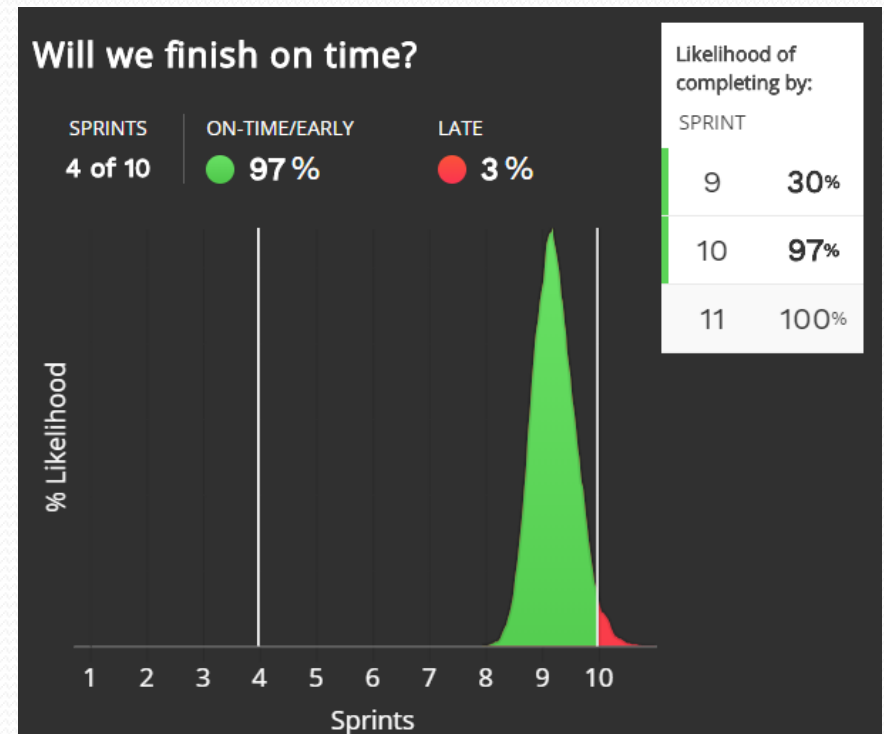


Schedule Risk – Measure It

- Super Planning Poker
 - Low / Expected / High Estimates
- Velocity
 - How much does it vary?
- Monte Carlo Simulations

Afterwards:

- Did we make it?
- What made a difference?



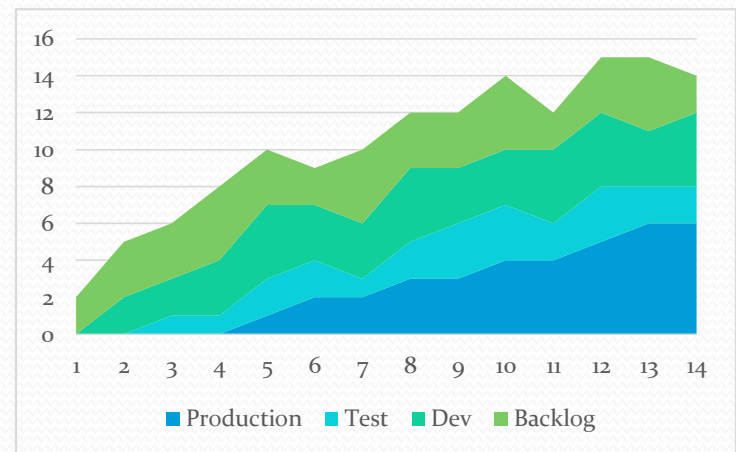
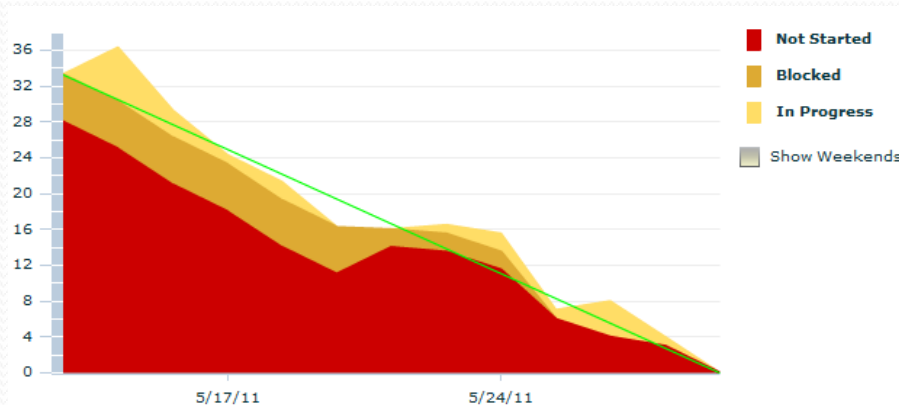
Resource Risk

- Can we do it with the resources we have?
- What if our resources change?
- This is probably the last item you want to change to get a project back on schedule



Resource Risk – Establish Velocity

- Defer committing until the team is staffed and has a track record
- Use dedicated team members
- Use long lived teams
- Take the work to the team



Resource Risk – Encourage Generalists

- When do you put names on tasks?
- Tackle the highest priority item you can help with
- Avoid areas of ownership / specialization



Resource Risk – Do Peer Review

- Helps establish norms
- Helps identify issues
- Helps familiarity with other areas / resources



Resource Risk – Measure It

- Budget
- Happiness metric



- Afterwards:
 - Did we hit our budget?
 - What is our turnover rate?

Quality Risk

- What if we do it, but it just isn't right?



Quality Risk – Define It

- Write acceptance criteria
- Ensure everyone is on the same page
- Make sure you have details covered
- Think about how to test
- Think about negative cases

- | | |
|---|---|
| <input type="checkbox"/> User can enter additional in progress statuses | ✘ |
| <input type="checkbox"/> These statuses are ordered | ✘ |
| <input type="checkbox"/> Statuses apply to epics, stories and tasks | ✘ |
| <input type="checkbox"/> Status rolls up (for example, if all stories in epic are put to test status, epic is put to test status) | ✘ |
| <input type="checkbox"/> Task board displays additional statuses | ✘ |

Quality Risk – Retrospect and Fix

- The problem is the system
- How do we fix the system?



Quality Risk – Measure It

During:

- Broken builds
- Bug counts

After

- Released bugs
- Support calls



Summary

- Agile inherently reduces risk
 - Focus on the team
 - Do the most important thing first
 - Do a little bit
 - Get quick feedback
 - Retrospect
 - Stay releasable throughout



Resources

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