

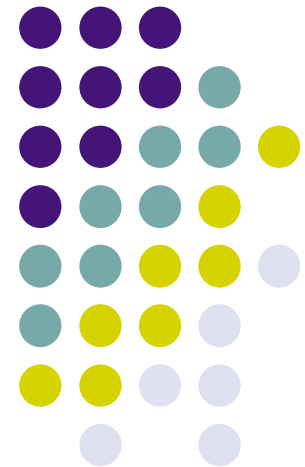
Agile Software Development

Where do I begin?

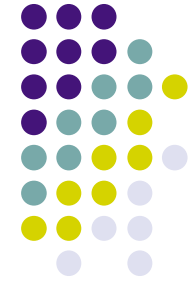
ACCU Cambridge & South Coast

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Autumn 2007



How many of you... - hands up



- Think Agile Software Development is *a good thing*?
- Would like to do Agile S/w Development?
- Think Agile S/w Development would help your organization?
- Do Agile S/w Development?
- **Would like to introduce Agile S/w Dev?**

Objective



- Help those of you who wish to introduce Agile Software Development to your organization
 - Give you some ideas on how to start
 - Give you the confidence to start
 - Explains why its not easy

Why me?

- Kent Beck was busy tonight
- Ward Cunningham was washing his hair
- I was cheap



Why me?

- Spoken at ACCU conferences
- Have some experience
- Advise/Help companies do it
- And I've written a book
 - January 2008
 - John Wiley & Sons

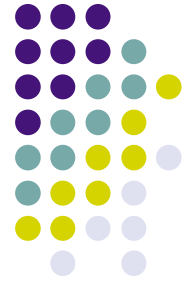


Do you really want to be Agile?



- Why?
 - What is it about Agile that attracts you?
 - The pair programming?
 - Endless unit tests?
 - No chairs at the meetings?
 - Macho programming? - *Extreme!*
 - The mighty redwoods of British Columbia?

Or do you just want to be *Better?*



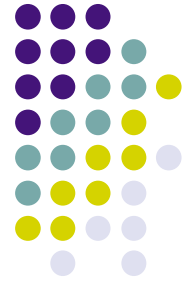
- Better at meeting deadlines?
- Better at servicing customers?
- Better at making money?
- Just better at what you do?



Secret: Agile means better

- Most people are attracted to Agile s/w dev because:
 - Deliver on time (and on budget)
 - Working software (better serve the need)
 - Better quality
 - Reduce risk
 - Classical s/w dev is frustrating
 - (Looks good on the CV)

Secret #2: Most businesses can't cope with Absolute Agile



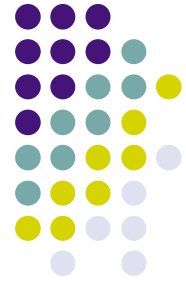
- Absolute Agile means
 - Being market led
 - Deep customer understanding
 - Responding exactly to customer needs
 - Rational decision making
 - Long term view; short term actions
- If you can handle it: you're going to Win!
 - Toyota, Tesco, Dell...

Secret #3: Agile is a solution



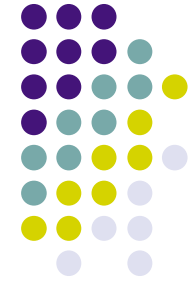
- What's the problem?
 - 'Agile' starts in the wrong place
 - Here is a solution... erh...? What was the problem

Agile is...



- A toolkit of techniques to improve your software development processes
 - Process improvement
 - Continuous improvement
- A nice set of stories to tell people
 - Did you hear about the company that was Agile...

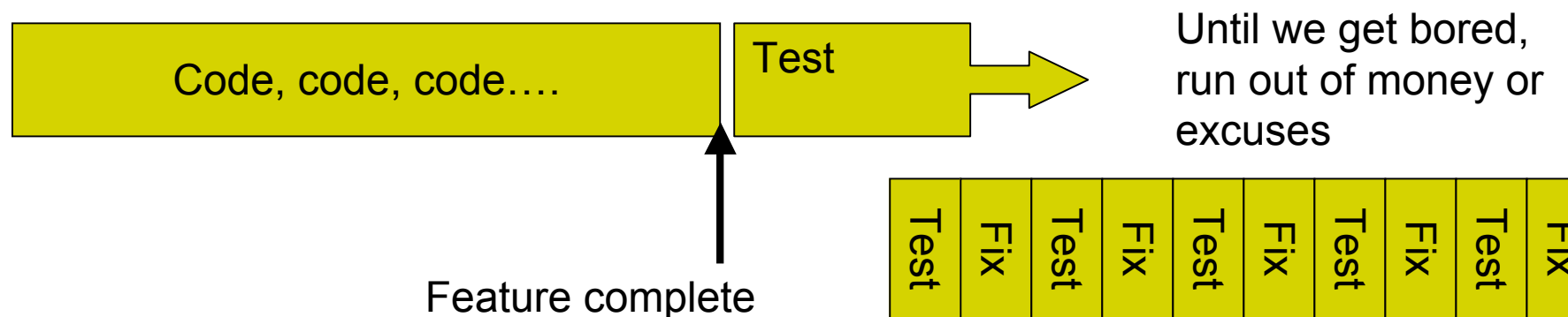
Quality: the tool to begin with



- Quality is the key to...
 - Remove test-fix-test-fix... cycle
 - Remove gap between development and release
 - Make deadlines meaningful
 - Expose feature-deadline trade-off
 - Ending bug fix disruption
 - Allow problems to be seen

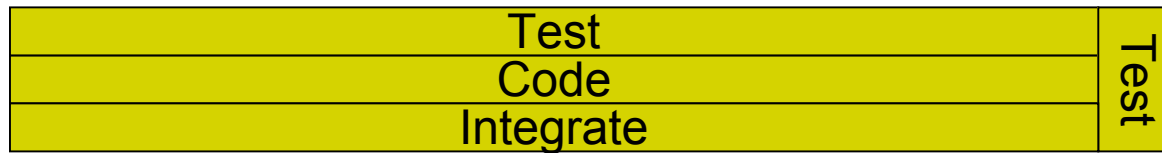
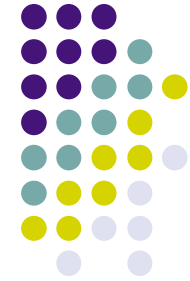


Traditionally Test at the end



- We depend on test because quality low
- We try to inspect quality into the product
- We can't release until we get through Test
- The more we test, the more bugs we find

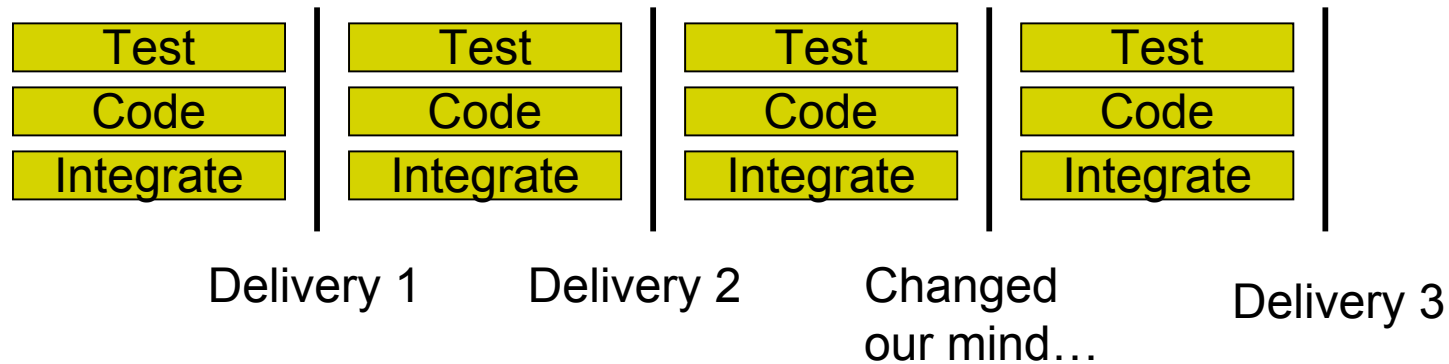
Invest in Quality - Spread Test out



Test becomes a formality

- Quality built in so test ceases to be block
- Trade speed for predictability
- Disruptions cease because no bugs
- Final test eventually goes away

Quality makes all things possible



- Little and often
 - Deliver anytime
 - Business reaction?
- Requirements can change
- Predictable deliveries



Ideas for putting quality first

- Educated developers
 - Coding standards are poor way to educate
- Pair programming
- Code reviews: 20% effort -> 80% benefit
- Test First (Driven) Development
- Early integration
 - Build early, build often
- Static code analysis



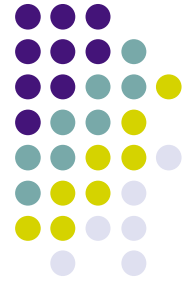
Problems putting quality first

- People assume time is all important
- People assume you don't mean it
- People don't know ...
 - How to do Test Driven Development
 - How to retro-fit to legacy code
- Don't like code reviews
 - Don't have the habit
 - Don't agree on what to review
 - {Get caught up in minutiae}

But: how do you get quality first?



- It depends... where are you starting from?
 - Manager?
 - Developer?
 - Tester?
- Who has the most power to change this?
 - Audience vote please...



As a Developer you can...

- Educate yourself
- Change yourself - model changes - *JFDI!*
- Build the infrastructure - make it easy to for others
- Find allies
- Explain the logic to others
 - Help them with specific practices
 - Help educate them; coaching, books, etc.
- Pursue wider goal, e.g. CppUnit, Aeryn,
 - Go with the flow, agree the consensus
- Persuade your manager (need fresh breath)
 - Understand your managers problems



As a Manager you can...

- Help people learn
 - Put money where your mouth is
 - Pay for Training, Coaching, books, time
 - Allow time in schedules
- Repeat the message
- Tell stories (actually, we can all do this)
- Repeat the message

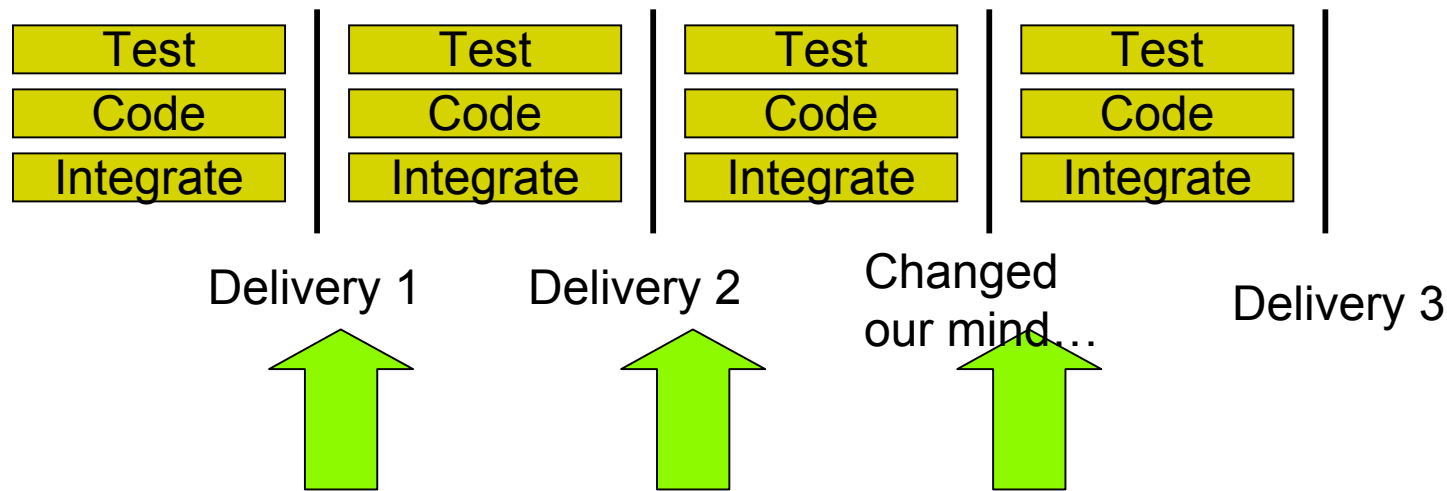


As a Tester...

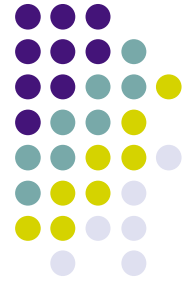
- Your job to improve quality
- Tell stories.....
- Persuade your manager.....
- Persuade your developers...
- Probably the most difficult position
- ...
- Back to basics
 - Demming, Quality movement



Next step: Prioritization



- Need to know what to do
- MoSCoW rules do not work
 - Let developers choose
- Absolute priorities 1, 2, 3, N



Prioritization

- Need path finders out ahead of the team
 - Product Managers / Business Analysts
 - Someone needs to know what is needed
 - Someone needs to decide - single voice
 - Someone needs to arbitrate
- Product requirements need to be
 - Driven by market (not individual customers)
 - Support and influence business strategy
 - (Company needs a strategy)
- *A real challenge for organization*



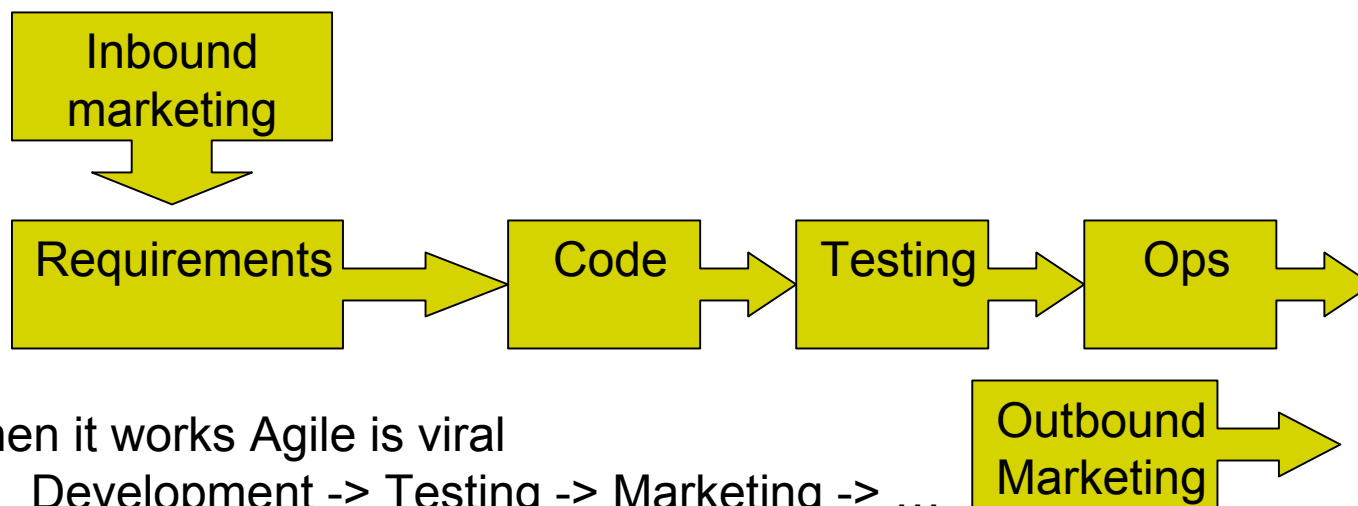
Recap

- Agile is a set of techniques that build a solution
- Quality is the first one to attack
 - Leads to other good things
 - Developers can change today
- Prioritisation is next
 - Management needs to address



Closing thought

- Non-Agile company will constrain Agile development
 - Work on organizational interfaces



When it works Agile is viral
Development -> Testing -> Marketing -> ...
Agile developers need an Agile company

the end

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