



IterEx

***Agile and Beyond / Agile e Oltre
Italian Agile Day 2007***

Tim Mackinnon

<http://www.iterex.co.uk>

Agile And Beyond...

As Agile development moves into the mainstream, it's now included in CV's and even appears in job advertisements. But beyond the hype, where have we really got to? What do we need to remember as we move on? And what should we be looking to in the future?

Tim Mackinnon is an early pioneer of agile development. His contributions include the well recognized techniques: Mock Objects, Gold Cards, Heartbeat retrospectives and Futurespectives. He has worked with numerous organisations, developing, teaching and mentoring teams in effective agile methods. Tim is also the founder of Iterex Ltd, a company specialising in Iterative Excellence and the creator of the Iterex Professional software.

Agile – Is It Mainstream?

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▼ **Role:** agile

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[Agile Software Development Project Manager \(Java, Agile/Scrum/XP\)](#) ★ ★ ★ [Apply](#) 

Location: London
Type: Permanent
Salary/Rate: £60k-£70k

Agile Process Mentor required by leading City software house to take responsibility for software development projects with experience of managing Java (or OO) development teams in an Agile (Scrum or XP) environment. With good experience of leading the evolution of development process in other agile Java teams, the ideal candidate will be familiar with both Scrum and extreme programming, although knowledge of either should be sufficient. In addition, and previous hands-on experience with Java [more ->](#)


Posted: 22/11/2007 10:40:35 **Start Date:** ASAP

[Agile Java Developer \(Java, Agile, Scrum\)](#) ★ ★ ★ [Apply](#) 

Location: London
Type: Contract
Salary/Rate: 500/Day

Agile Java Developer required by leading organisation to join the development team and help deliver new green-field projects. You must have excellent commercial experience of Java development with previous experience of working on several Java/J2EE projects. The team follows an agile development process, primarily a Scrum/Extreme Programming Hybrid, including story-boarding, test driven development, iterative development, continuous integration, paired programming. Must have strong Agile [more ->](#)

Posted: 22/11/2007 10:34:07 **Start Date:** ASAP

[Agile Tester - .NET, C#, Fitness](#)  ★ ★ ★ [Apply](#) 

Location: London
Type: Permanent
Salary/Rate: £40k + Excellent Benefits

Who has played golf, or knows someone that does?



What happens if...



Instead What If...



Appreciative Inquiry – An Agile Core?

- The study and exploration of what gives life to human systems when they function at their best
- AI suggests that strengths, successes and hopes are transformational
- ***Agile is not just process and practices, but a belief in achievement***



Once Upon A Time...



What is this Agile fairy tale?

- An umbrella term covering development frameworks that adhere to the Agile Manifesto:

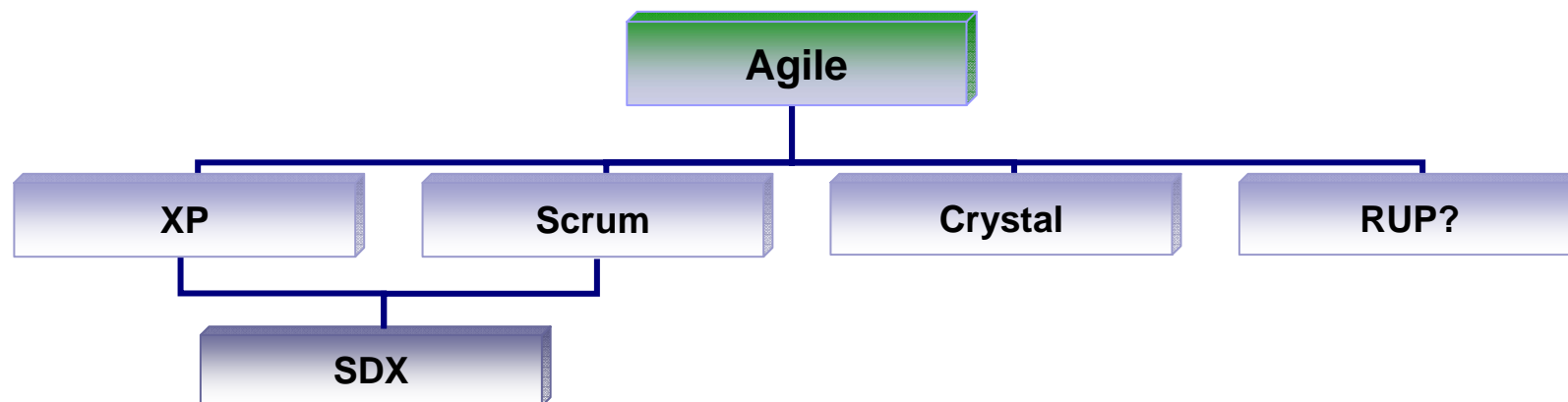
“We are uncovering better ways of developing software by doing it and helping others do it. Through this work we have come to value:

- ***Individuals and interactions*** over *processes and tools*
- ***Working software*** over *comprehensive documentation*
- ***Customer collaboration*** over *contract negotiation*
- ***Responding to change*** over *following a plan.*

That is, while there is value in the items on the right, we value the items on the left (bold) more.”

Agile Taxonomy

- Of course, given this loose definition of agile, many things fall into this category
- Some are more extreme in their definitions
- Hybrid approaches are now quite common, and can work well if they are sympathetic to their roots.



But did you read the second page?

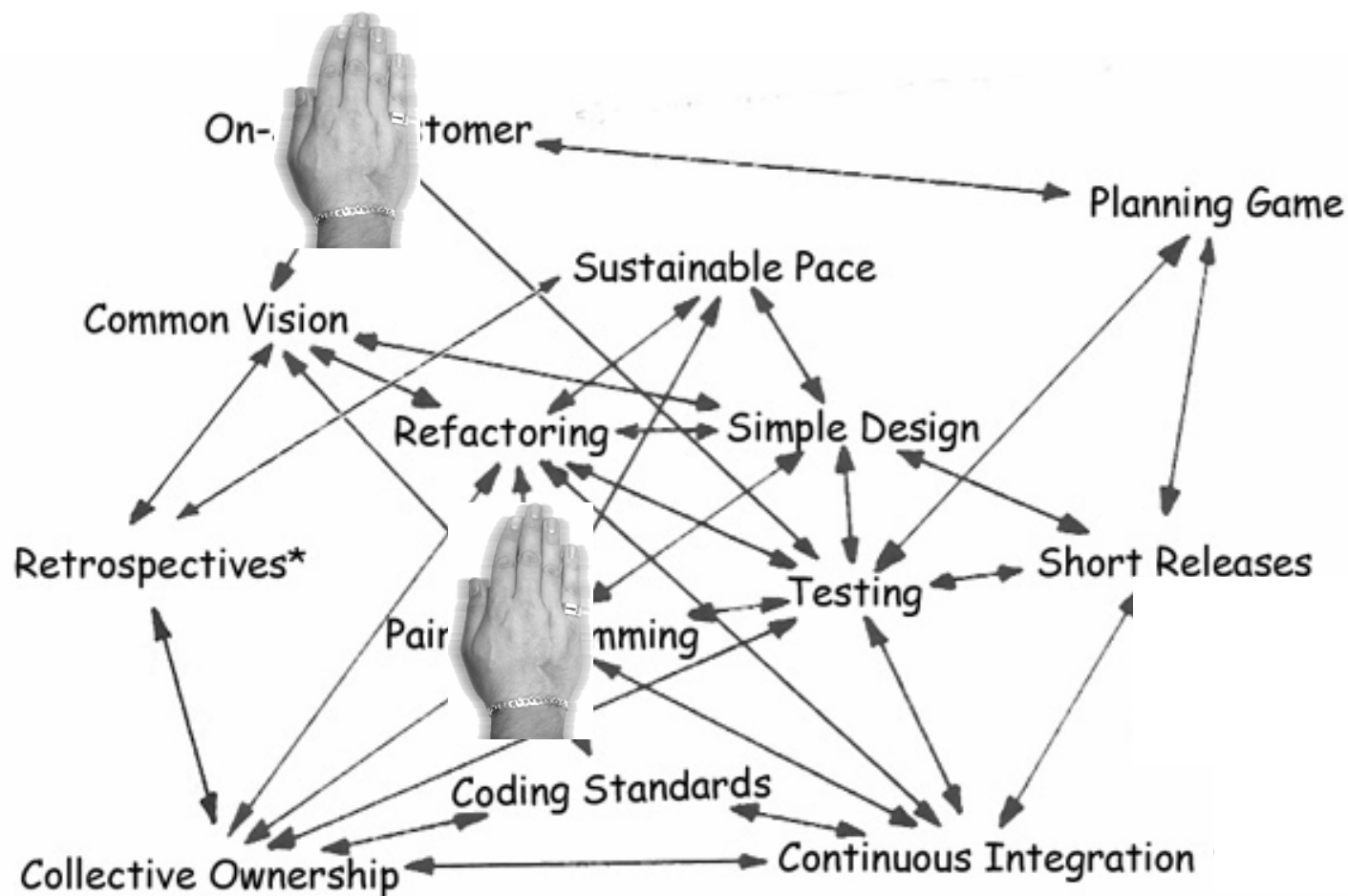
Principles behind the Agile Manifesto

- Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.
- Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.
- Business people and developers must work together daily throughout the project.
- + more...

So who defends this honour?



Reinforcing Practices, from early XP



AI Applied – the Mock Object Story



Testing with No Getters

- Connextra 1999, we had started possibly the first UK XP team
- Were writing lots of “tests” but found we were adding getXXX to facilitate testing

```
protected int getSalary() {  
    return this.salary }  
}
```

- Our CTO (John Nolan) insisted this was compromising too far
“No Getters” was our challenge



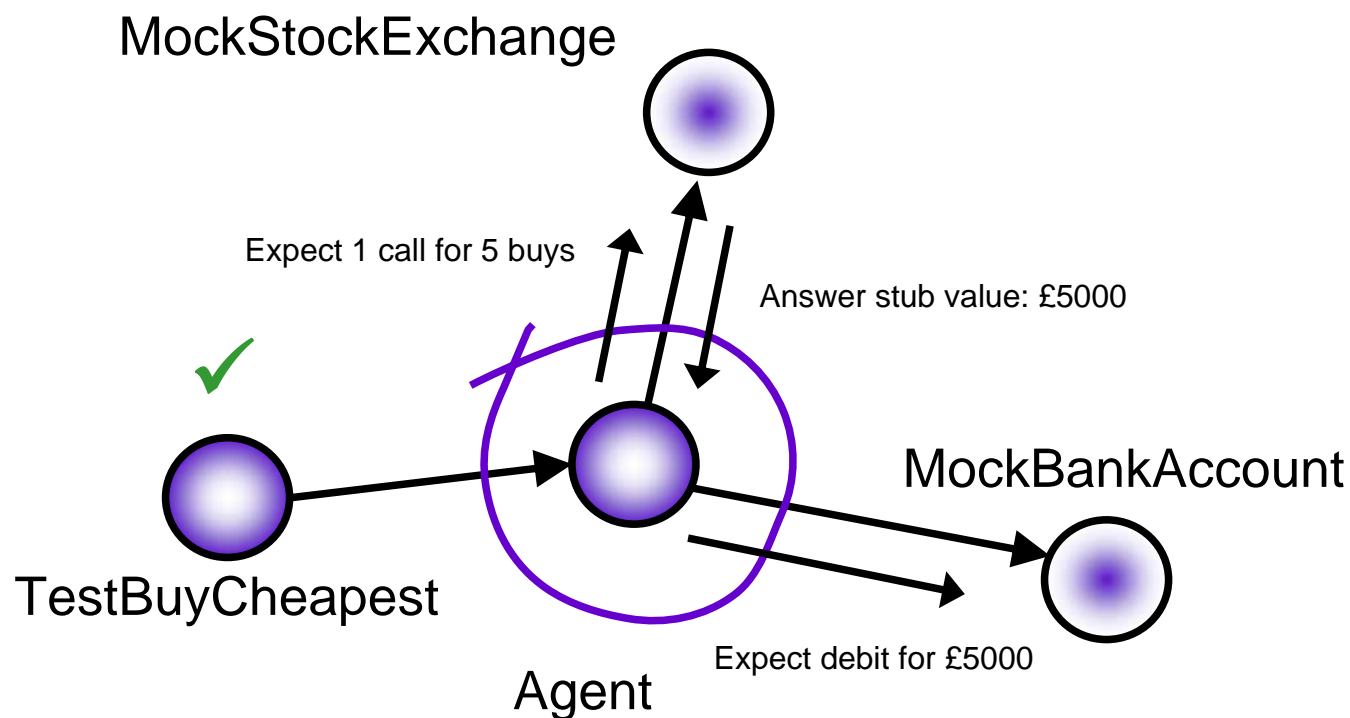
Onion Peels and Composition

- Software can be viewed as layers of functionality built around each other
- But how to access functionality inside?

- By challenging ourselves we (re)discovered:
 - Composition is better than inheritance
 - Rich Interfaces based on behavior
 - Specifying Expectations



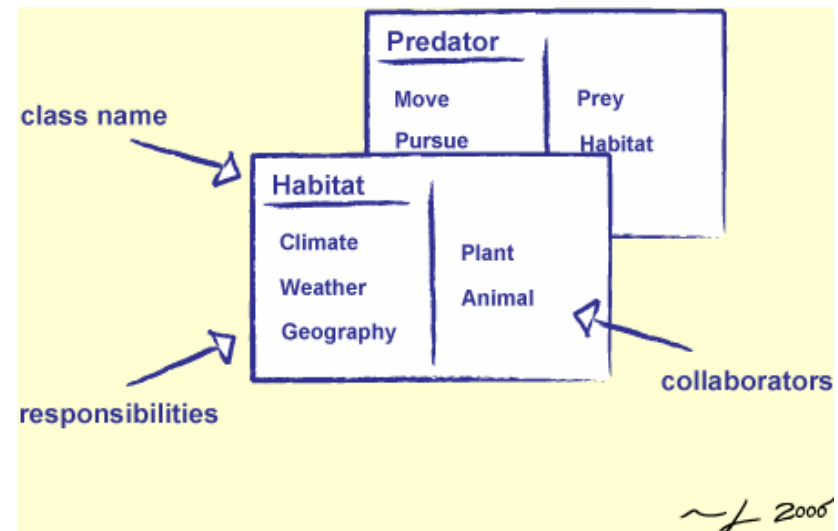
Mocks asserting interactions with object under test



But Where Did These Objects Come From?

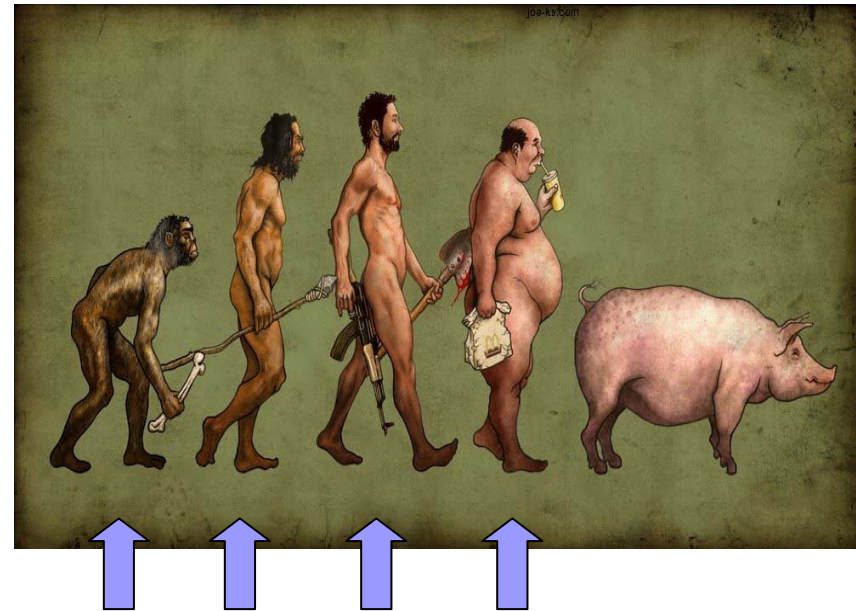
- The Lost Art Of CRC cards!
- The loss of Objects
- Who uses CRC cards?

- When observing (junior?) programmers struggling with a test, the main reason was failure to understand which object they were testing
- In fact in many instances they had even forgotten what they were testing
- Not only are cards useful, acting out the system in your team can be beneficial



The Evolution Of Mocks...

- Hand coded “Stubs”
- Refactored simple expectations:
 - ExpectationCount
 - ExpectationList
- Mock Maker to generate mocks for interfaces
- Dynamock / Easymock reflection based mocking
- Jmock, DSL
- Jmock2 DSL for Java 5



The Importance of Group Sharing (XtC)

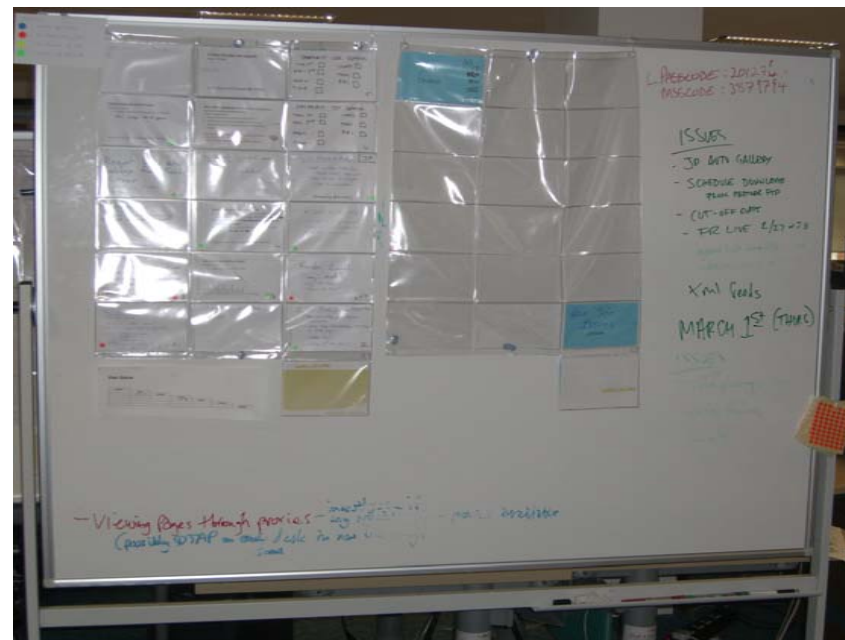


- Started XtC/XpD to encourage sharing Ideas and to have a beer with friends
- I Mentioned Mock Objects as:
“This concept is obvious right? Everyone must do something like this?”
- NO! In fact the simplest ideas are often those overlooked
- By sharing, many got involved and helped refine the work



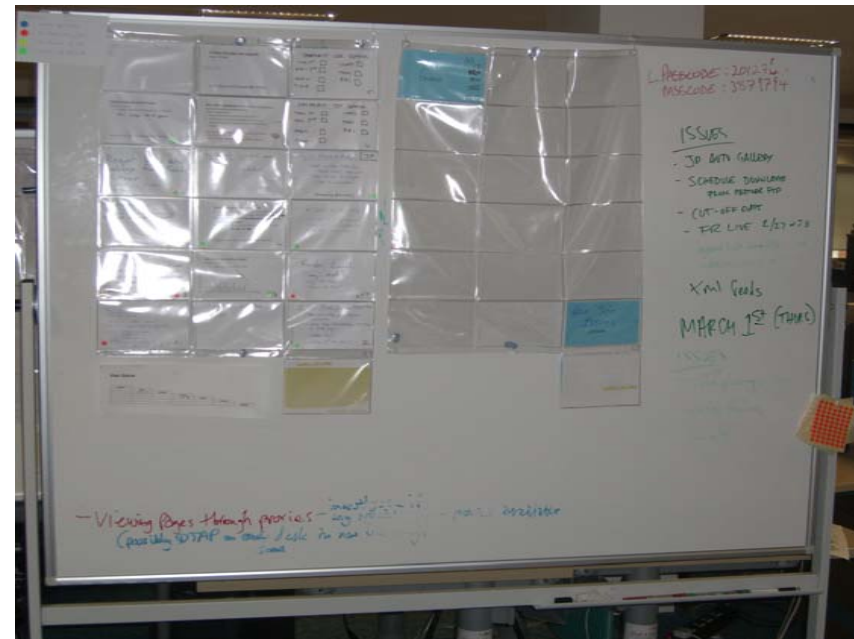
But where do you get the time for this?

- Gold Cards (presented XP Universe 2001)
- Just an Index Card with a gold star on it?
 - Provide a separate stack of self directed cards – 2 per developer
 - Cannot be “carried over”, must be taken over the month
 - Team self organises on their redemption
 - Must be used to further the team
 - Demonstrated at weekly “Show & Tell”



While talking about Cards...

- How many of you use story cards?
- How many of you use a planning board?



Story Card Technology...

- Planning is based on “Story Cards”
 - A simple but effective requirements capture tool
 - Resist overusing technology, keep it simple and tactile
- A Story is a placeholder for a bigger conversation
- A Story has enough information to allow an estimate
- In 2001 we used a specific format for clarity
 - A good title to make it easy to refer to
 - An “author” allowing developers to have a conversation
 - Format: As a “Role”, I want “Feature” so that “Business Value”

| | | |
|-------------|---|-----------------------|
| Perspective | Title | Reserved for priority |
| | WRITING GOOD STORIES | |
| Reason | As a Connextra employee - I want to know how to write good stories so that I can submit cards to the planning game that are clear and will be accepted in the next iteration. | |
| | | Requirements |
| Author | Date | Reserved for estimate |
| Tim | 8/Nov/01 | |

Its Nice to see Extending Story Cards...

SELECT FAVOURITES

As an anonymous user

I want to select my favourite radio stations

So that I can see information about only the stations I usually listen to, whenever I use the same Computer

Writing some tests

- Test: *select some favourites*
- Test: *edit favourites*
- Test: *select all as favourites*
- Test: *select none as favourites*

But once it was implemented...

The tests passed, but...
Exploratory Testing discovered...

- Bug: can't save favourites from cached page
- Bug: added favourites lost in cached page
- Bug: remove loses all favourites in cached page

How to convert bugs to stories

- Test: ~~can't~~ save favourites from cached page
- Test: ~~added~~ favourites ~~lost~~ in cached page
- Test: remove ~~loses all~~ favourites in cached page

Moving back to a story

- Test: ~~can't~~ save favourites from cached page
 - Given I have ~~had~~ 3 favourite stations saved
 - and I am ~~was~~ viewing the cached instance of the 'edit favourites' page that made the selection
 - When I selected ~~ed~~ 'save favourites'
 - Then the same now/next view shows the schedule for the 3 selected favourite stations
 - favourites were lost

Final story with additional “Rather Than”

SELECT FAVOURITES ITERATIVELY

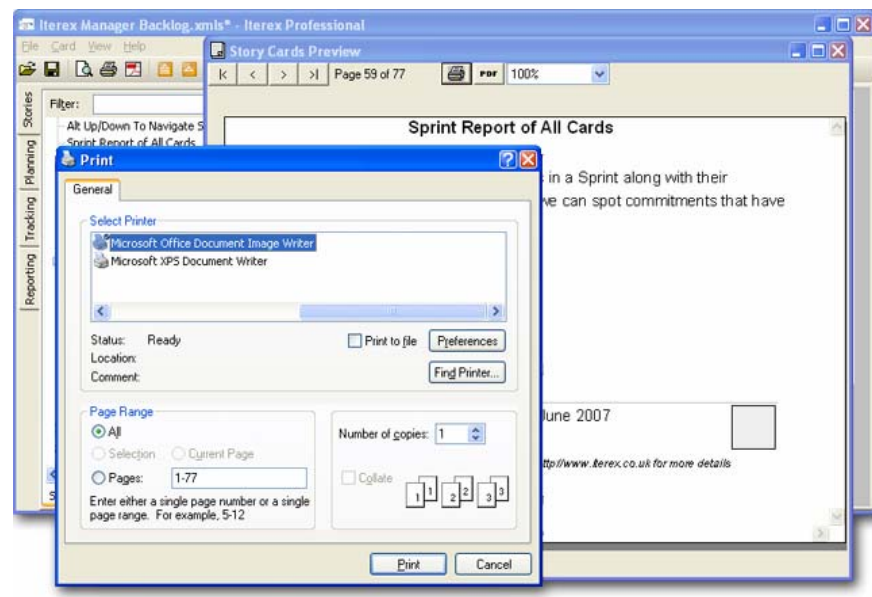
As an anonymous user

I want to iteratively
select my favourite radio stations
using my browser history

So that I can refine
the information I see
about my favourite stations

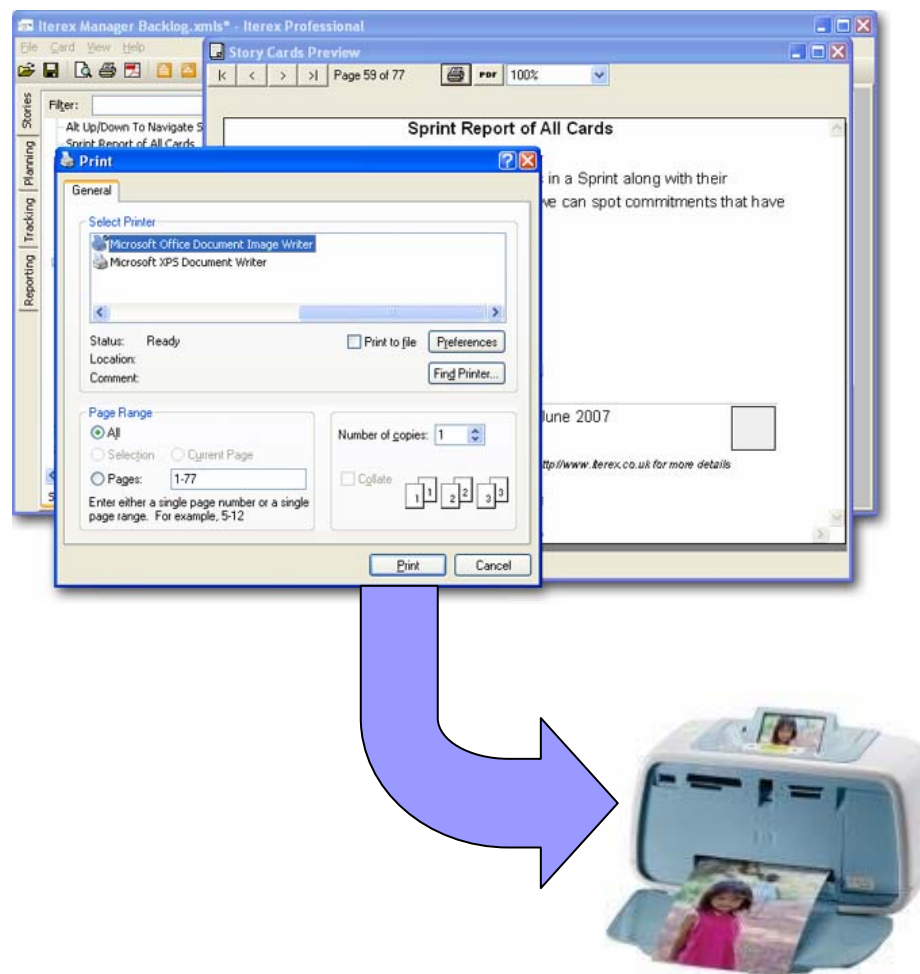
Rather Than losing all my “favourites”

No excuses: Card Wallets, and Card Printing...



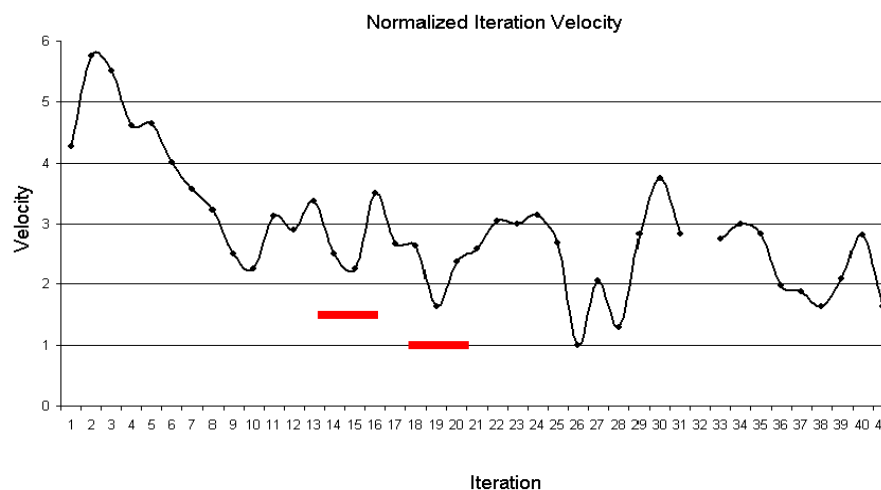
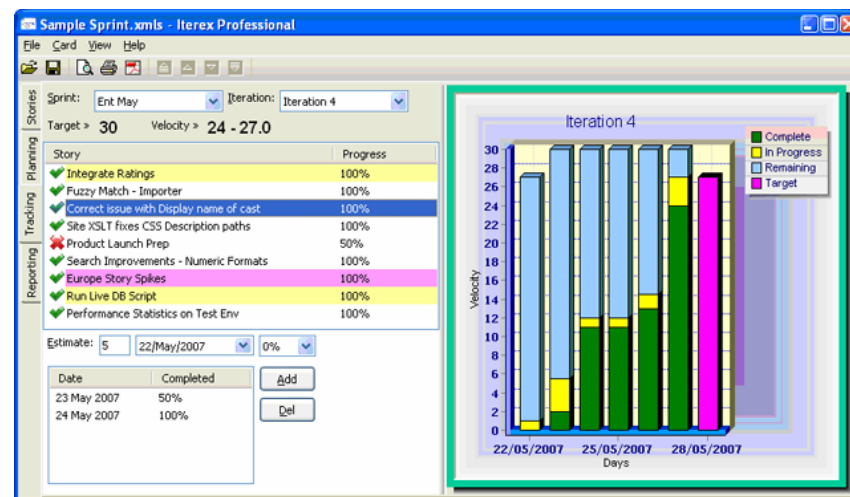
Printing Demo

- I gave a demo printing out a card from Iterex Professional onto an HP 526 photosmart printer (picked up in the airport on the way out) using a standard 6x4 index card.



But Good Ideas Don't Always Create Happiness...

- How many of you track velocity/burndown?
- Do you spot patterns? Low Points?
- We discovered “Catholic Guilt” in the process
 - And this is where Gold Cards came from
- We also discovered how not to ask for problems
 - And we discovered Retrospectives, in fact Heartbeat Retrospectives



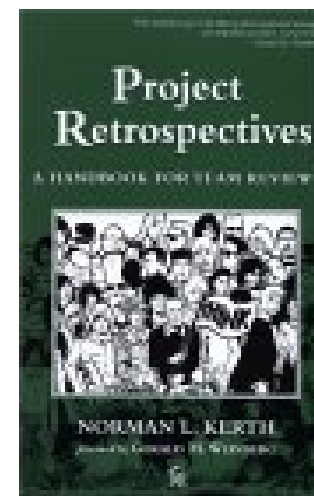
Be Careful Of What You Ask For...

- We held a session to brainstorm:
 - Problems
 - Fears
 - Issues

- We got what we asked for...
 - Lots of problems
 - The shock of dealing with an anonymous card like:
“Hypocritical Management”

Retrospectives

- Q: “how to prevent such an emotional build-up?”
- Answer: retrospective (rèt´re-spèk-tîv) -- a ritual held at the end of a project to learn from the experience and to plan changes for the next effort.
- Pioneered by Norm Kerth
 - Project Retrospectives: A Handbook for Team Reviews
- Also by E. Derby & D. Larson
 - Agile Retrospectives: Making Good Teams Great
- Caveat: we weren’t at the end of a project, but it seemed to fit the bill...



What we could have done, if we knew

- Run a proper Retrospective (read the book)
- Break into teams to identify situations based on experience that support this “Hypocritical Management” card
- For each, analyse forces that contributed to this situation
- Propose ways to avoid this situation

Tips for your Retrospectives

- To have an honest discussion, everyone must feel “safe”
- Use a simple ranking exercise:
 1. No Problem, I'll talk about anything
 2. I'll talk about almost anything, a few things might be hard
 3. I'll talk about some things, but others will be hard to say
 4. I'm not going to say much, I'll let others bring up issues
 5. I'll smile, claim everything is great and agree with managers
- Present your agenda first!
- Do a safety exercise by ballot to verify a level of 3+
- Mention that knowledge of the project is not being measured, its comfort in talking in the room
- Stress all exercises are **optional, just say pass**

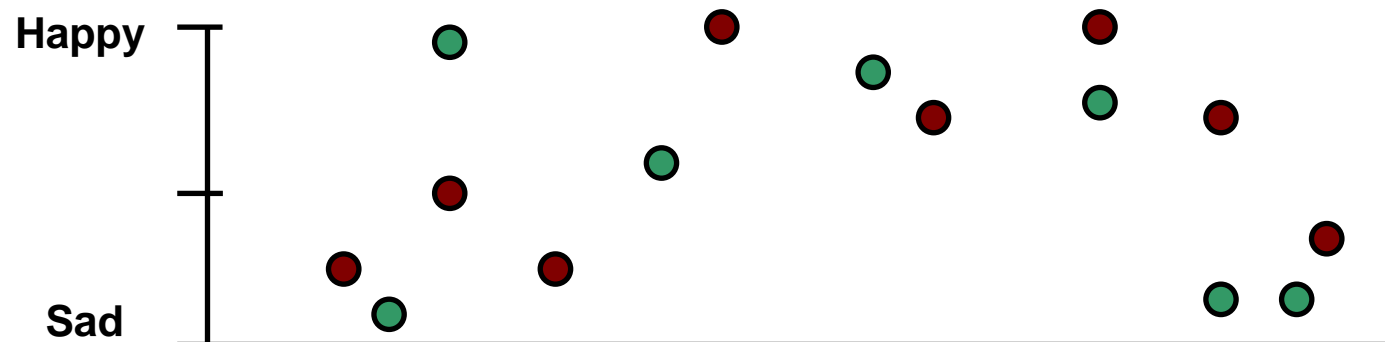
“In-progress” Timeline

- The following shows the “in-progress” timeline
- Tip – use some yellow “post-its” at the top of the timeline to align everyone’s vision of time – record some months and some non-controversial events (e.g. Xmas Party). Remember to leave more space for critical time periods



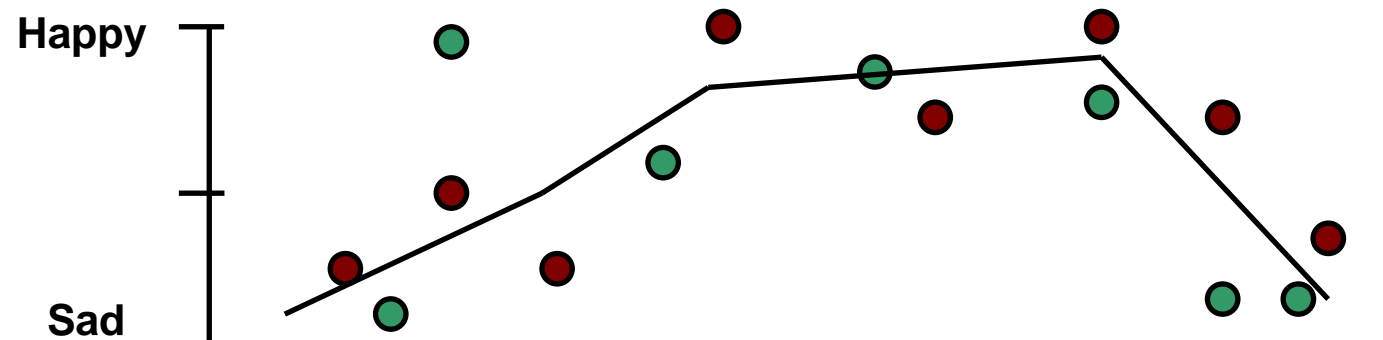
Phase 2 - Feelings

- Ask the group to walk along the time line and mark a dot indicating how they each felt about each event



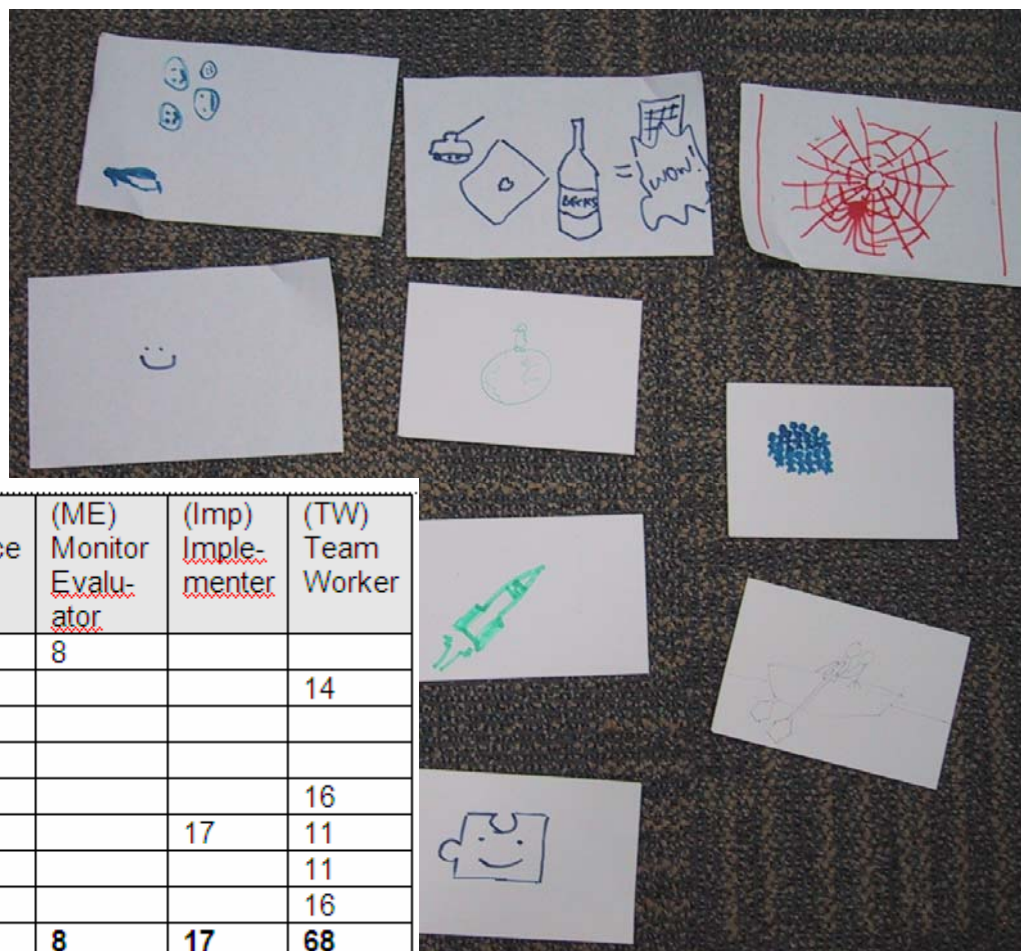
Phase 3 - Studying

- Ask the group to stand back and look at the timeline
- With the group encourage volunteers to draw a line through the dots and explain their trend and feelings.
- Record main trends, and general observations on a flipchart for later discussion



Other Exercises...

- Project pictures
- Futurespectives
- Sharing team roles



| Role /Name | (SH) Shaper | (CO) Chair | (CF) Completer Finisher | (PL) Plant | (RI) Resource Investigator | (ME) Monitor Evaluator | (Imp) Implementer | (TW) Team Worker |
|--------------|-------------|------------|-------------------------|------------|----------------------------|------------------------|-------------------|------------------|
| N | 17 | 8 | | 17 | 8 | 8 | | |
| A | | 20 | 10 | | | | | 14 |
| Joe | | 11 | | 22 | 17 | | | |
| S | | 11 | 12 | 10 | | | | |
| W | | | 12 | | 13 | | | 16 |
| C | 11 | 17 | | | | | 17 | 11 |
| K | | 12 | | | 14 | | | 11 |
| T | | | 9 | | 19 | | | 16 |
| Total | 28 | 79 | 43 | 49 | 71 | 8 | 17 | 68 |

For exercise details refer to: <http://www.planningcards.com/site/links/papers.htm>

Practicing Happiness

- In Society, an accurate perception of reality is often considered “a negative one”
- Organizations normally operate in this negative norm
- When we introduce the positive and honest, we are seen to be challenging the norm
- This is non-technical but most problems aren't technical!



Appreciation

- Injecting positivity into our picture of reality is an act of *completing* reality (the Appreciative Inquiry effect)
- Lasting relationships exhibit a 5:1 ratio of appreciation to criticism
- But appreciation needs to be genuine, succinct and concrete (if you fake it they will know)
- Nancy Kline in “Time to Think” writes:
 - In exploring why so few people appreciate each other directly, I discovered the problem lies in doing such a lousy job of receiving.
 - Being appreciated increase your intelligence. It helps you to think better. So don’t utter a hissing “humph”... (I might as well insult myself before they get a chance). Those dismissive responses actually insult the person who paid you the compliment. And insults are a thinking inhibitor.

Receiving Appreciation

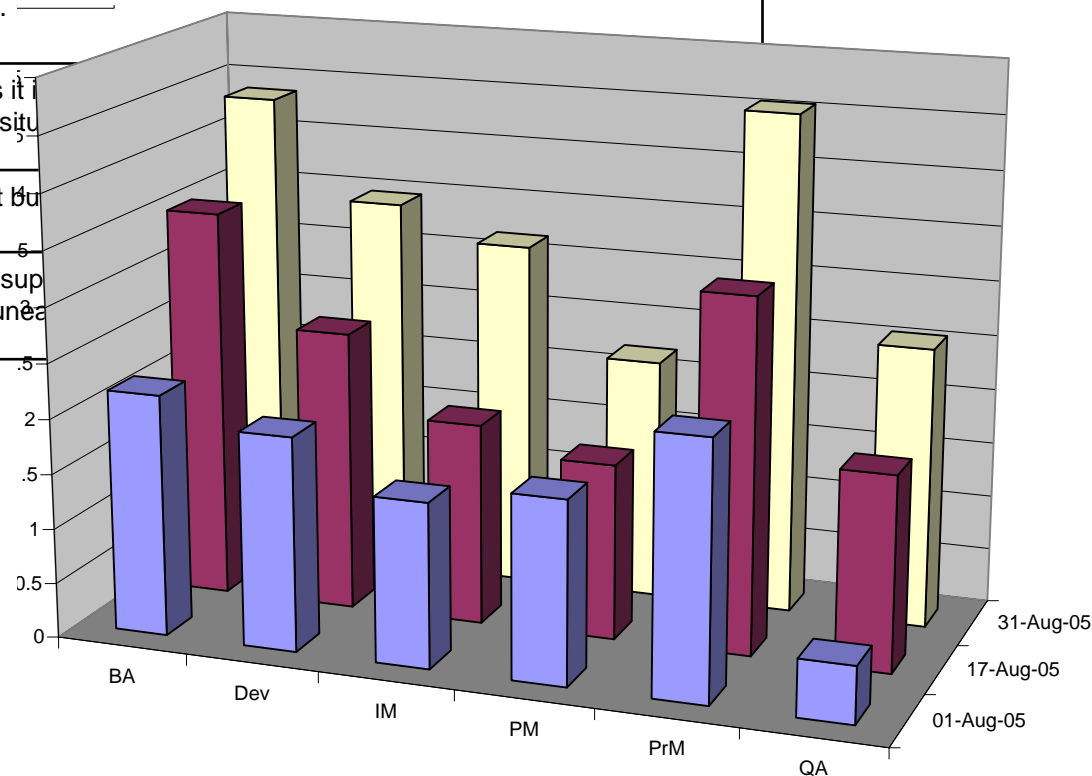
“Just say thank you“

- Think of it as a gift.
- It is good manners to say thank you when you receive a gift.
- But don't do it for manners - do it because, if you will destroy the “Thinking Environment” for both of you.
- To say “Don't Be Stupid”, which rejection says, is to lower the chances that they will keep thinking well about you



Honest feedback not just lip service...

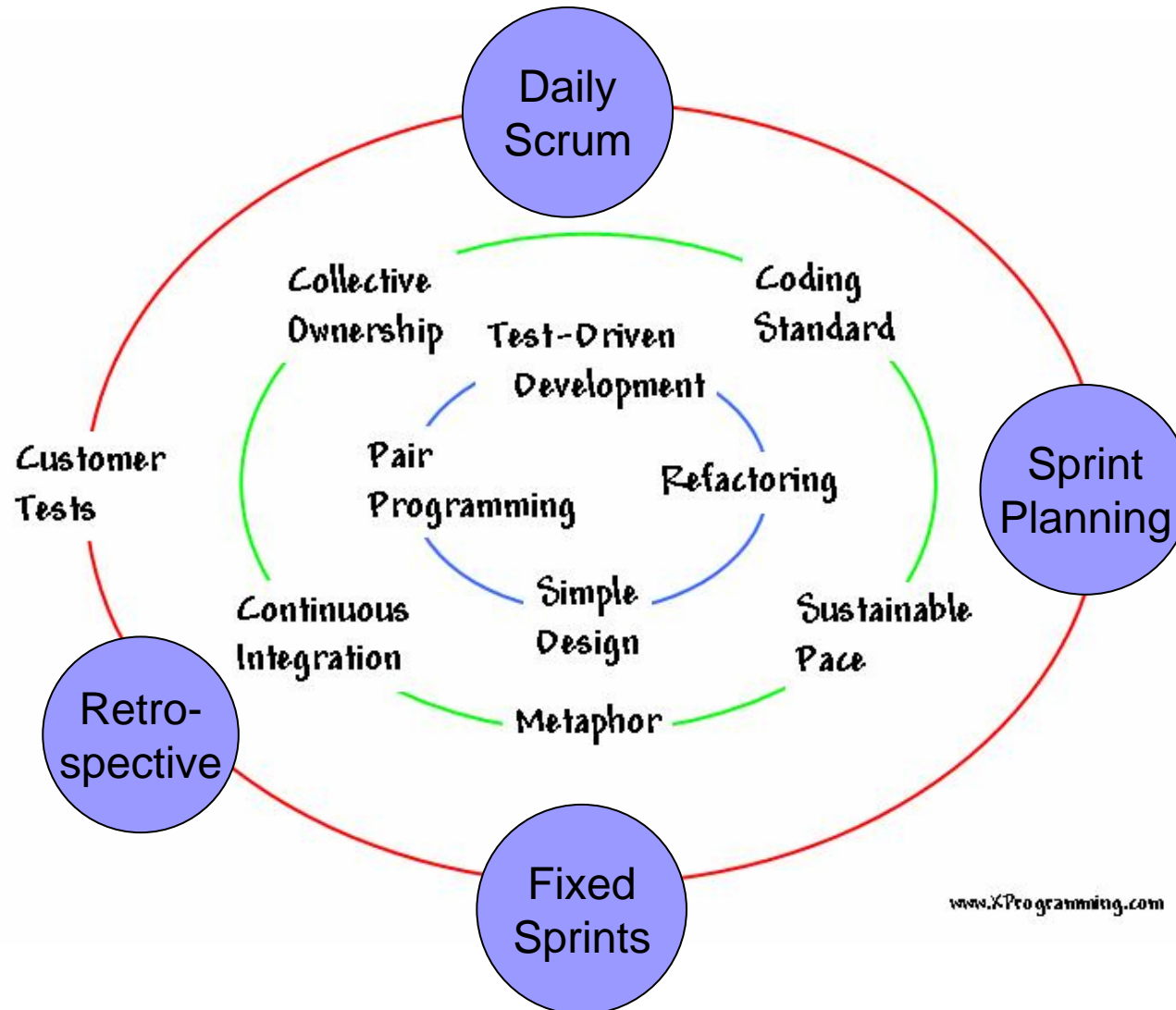
| Summary | Description |
|---------------|---|
| Excellent | Applies the competency in difficult or unusual situations. Innovates and furthers the practice. Evangelizes it and develops others in the practice. |
| Does Well | Incorporates the practice into their daily work, almost without thought, and does it without having to prepare or make a special occasion of it. It is part of their "comfort zone" and does not drop the practice when things "get tough". |
| Does Somewhat | Aware of the practice and understands it but does it when asked or in simple situations. |
| Not Aware / | Not heard of the practice, or heard of it but does not understand it. |
| Does Poorly | Understands the practice, even if only superficially, but when they use this particular practice they are unenthusiastic. |



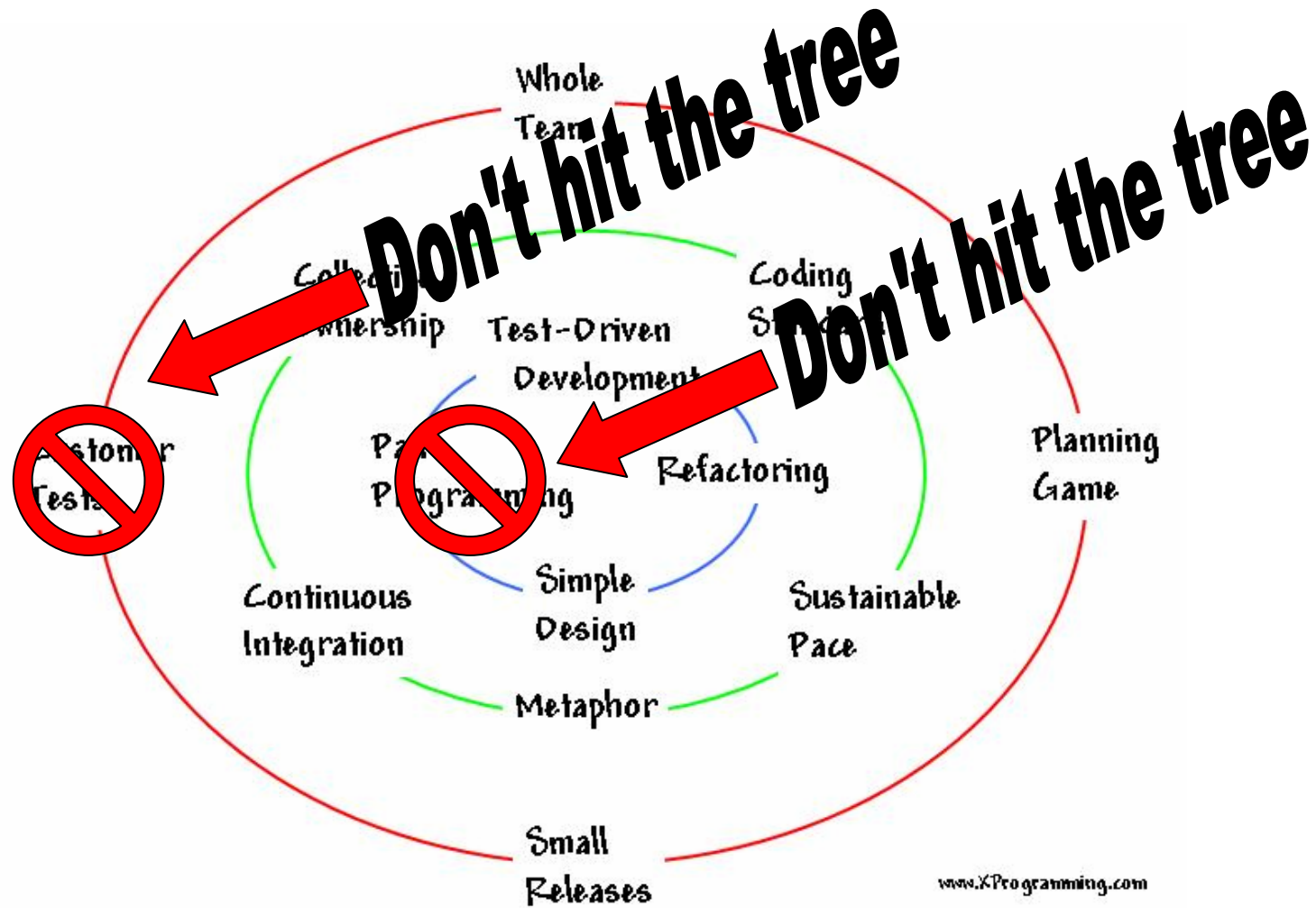
Revisiting who defends your teams honour?



XP or Scrum Practices?



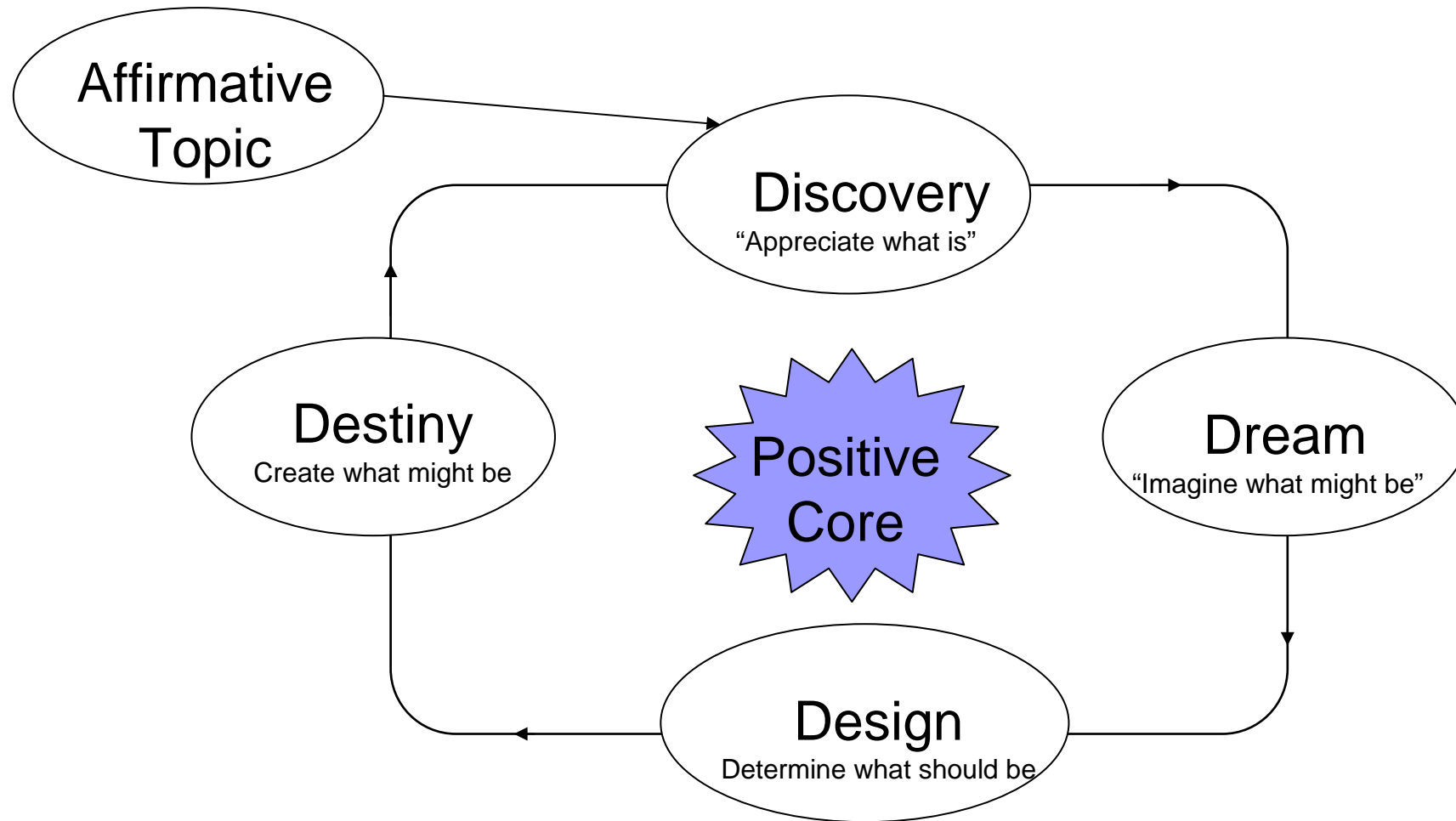
A Popular methodology: Scrumbut/XPbut



Don't limit yourself...



Appreciative Inquiry – Doing More



In The Horizon?

- Things that look interesting, that might interest you too.
- Kanban
 - David Anderson (author: Agile Project Management)
 - Based on Lean Manufacturing Principles

Features

- Reduce work-in-progress (fixed job queue 20 cards);
- Balance capacity against demand (new items can only be introduced when a kanban card frees up after a release)
- Prioritization of mmf's
- No estimation or velocity, but track time for features to complete



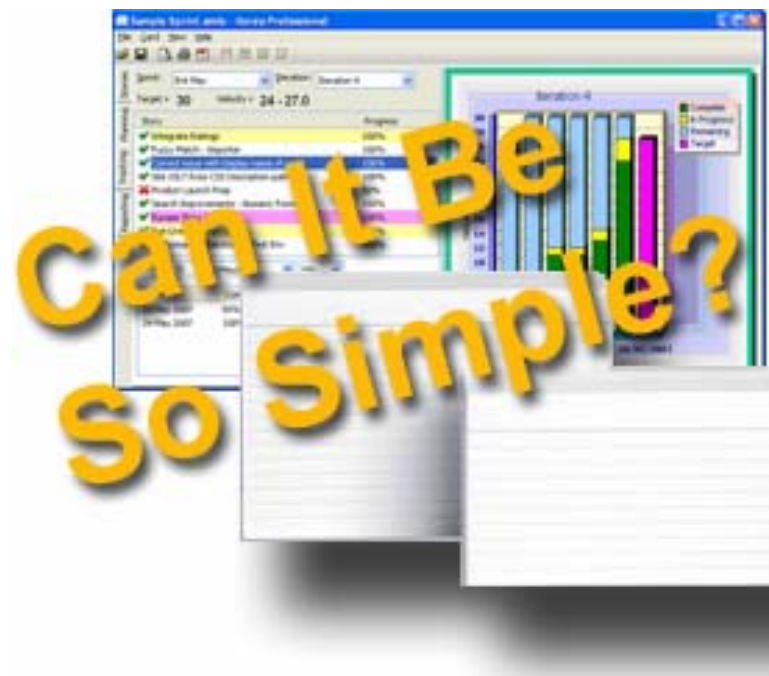
Where will your journey take you?



Thank you

Speaker: Tim Mackinnon

<http://www.iterex.co.uk>



Try Iterex Professional Beta for free:

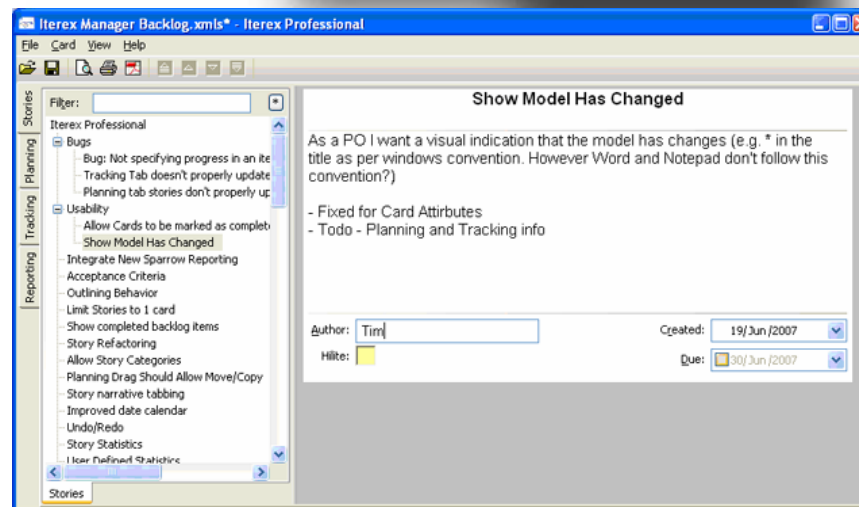
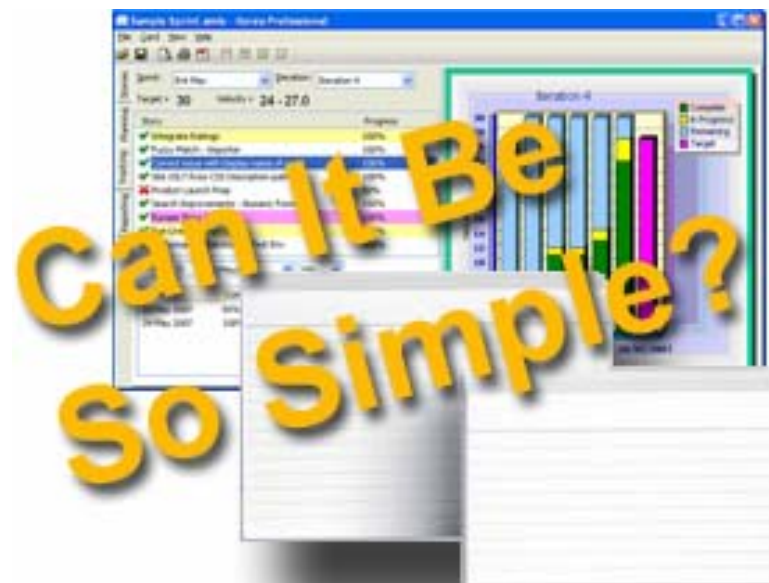
<http://www.planningcards.com>

Acknowledgements

- Thanks to users of Flickr who use a creative commons licence for their pictures
- Renewtek for kind permission to reproduce two of their slides from their excellent presentation at Scrum 2007 London
- Antony Marcano (<http://am.testingReflections.com>) for sharing his enhancements to the Connextra story card format

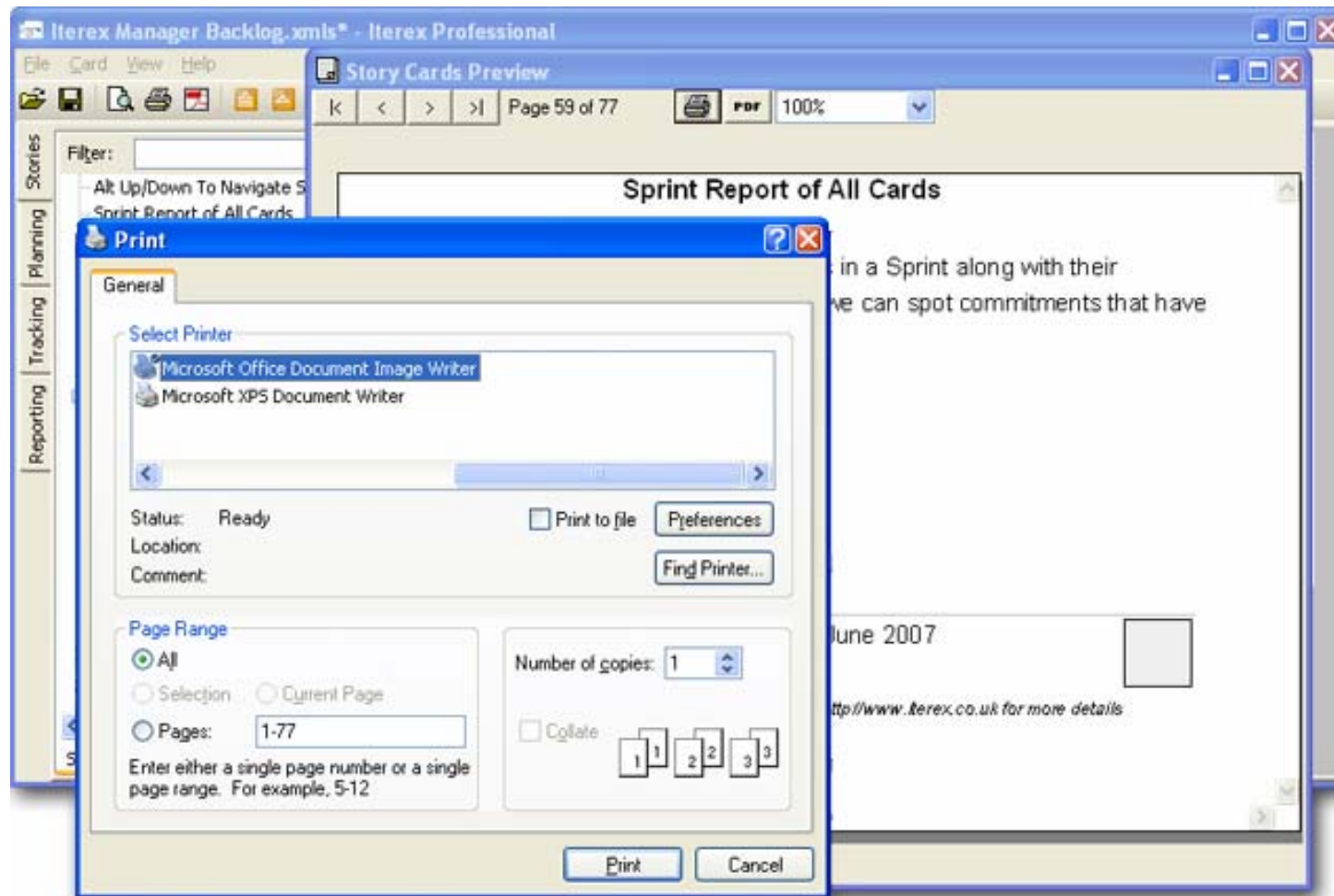
Introducing Iterex Professional

- Helping teams split projects into meaningful pieces for easy estimation and progress tracking.
- Features:
 - Rich native Windows interface
 - Produces vivid tracking charts for group reflection.
 - Prints 4x6 index cards
- Vision:
 - An agile outlier for efficiently tracking and refactoring ideas

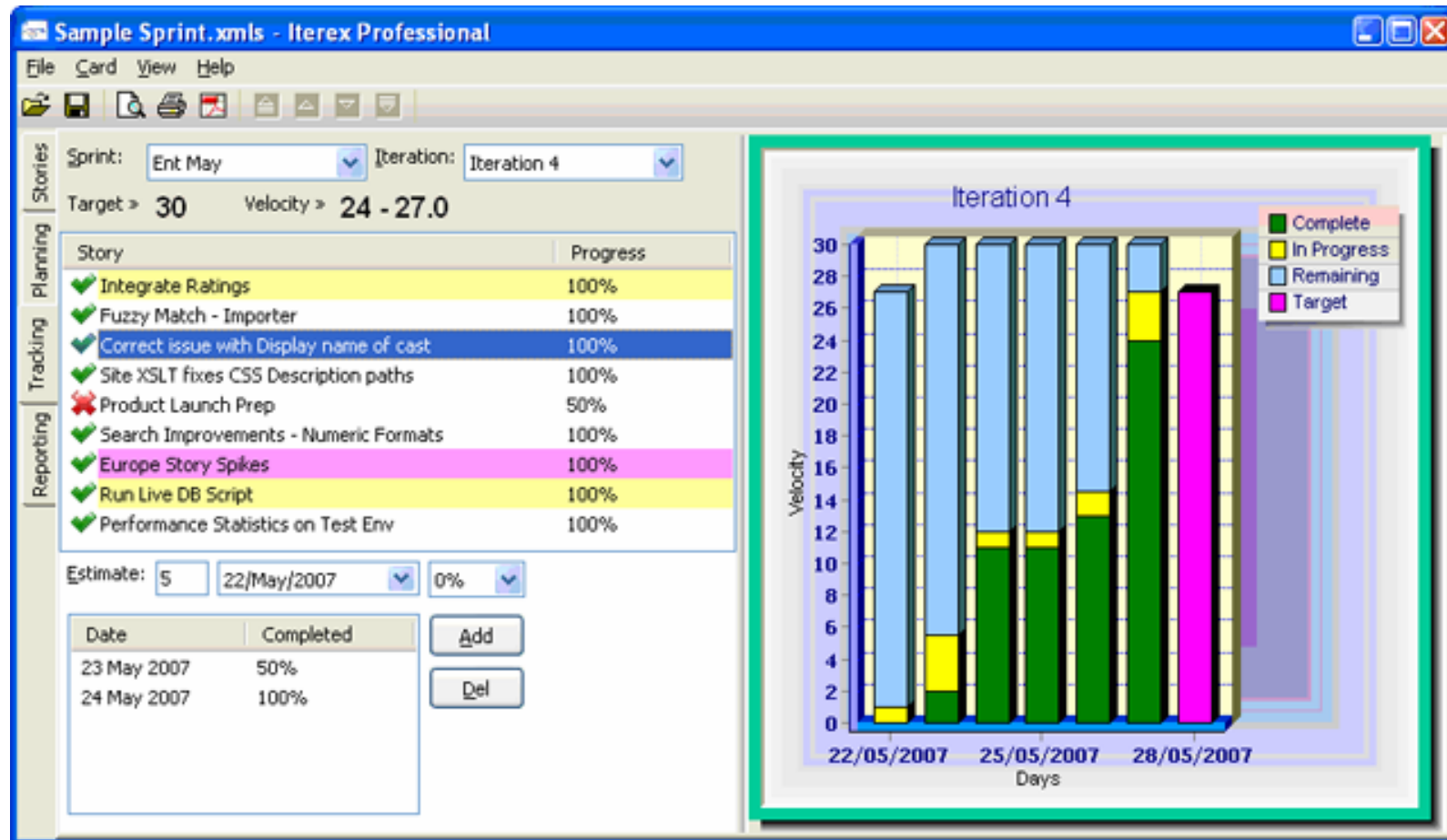


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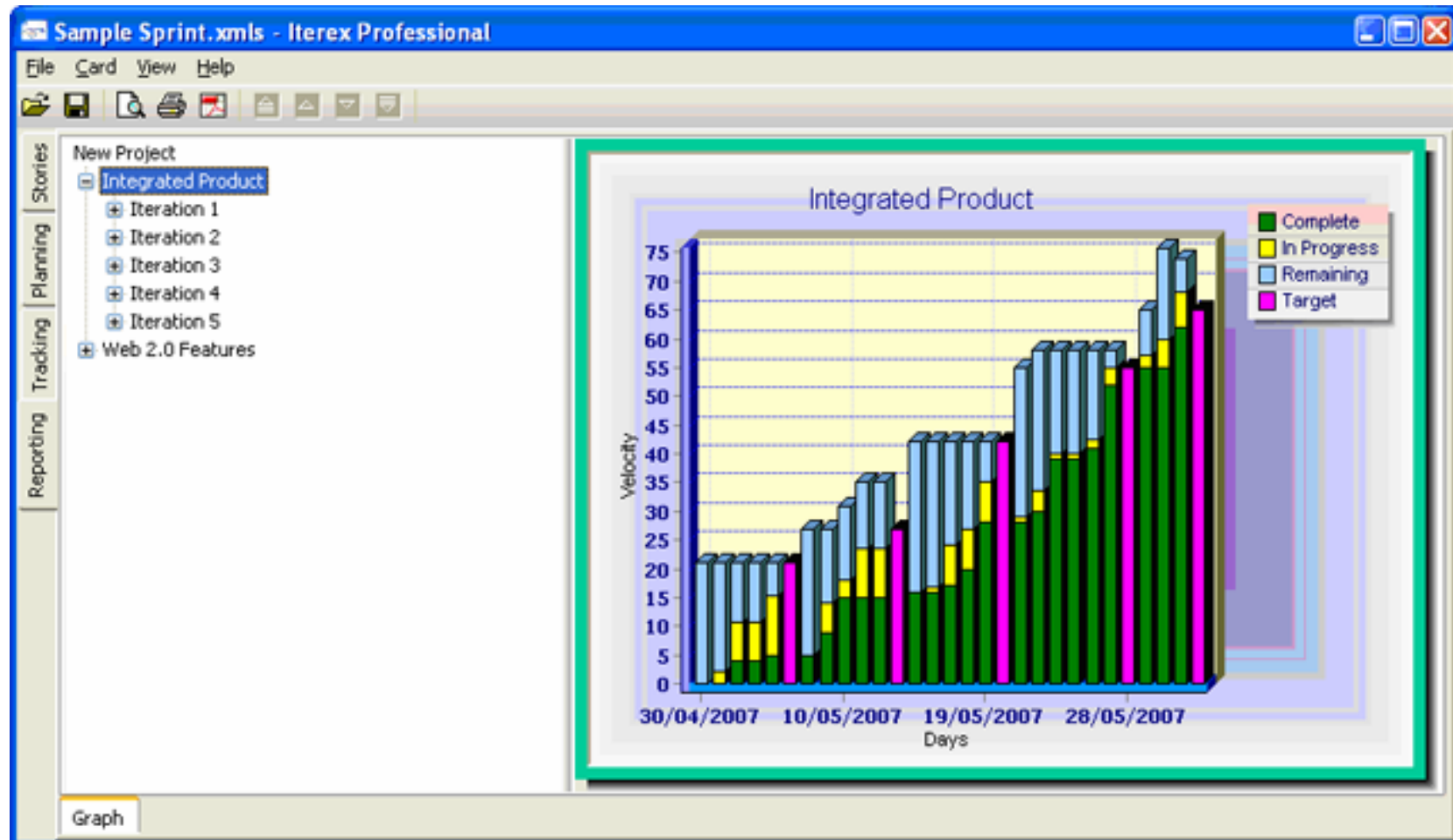
Not just visualise, but print them too



Not just print, but Track Progress



And Visualise Performance



Tim Mackinnon - Who are you?

- 1996 – OTI
 - Developer on teams credited for early use of agile practices

- 1999 – Connextra
 - Formed one of the first Agile teams in the UK
 - Invented “Mock Objects” test technique
 - Pioneered Iteration/Heartbeat Retrospectives

- 2003 – ThoughtWorks
 - Agile enablement coaching
 - Established hi-level release estimation techniques
 - Developed worldwide QuickStart project workshops

- 2006 – Iterative Excellence
 - Tailored Consulting for Agile projects
 - Iterex Professional – Software helping teams plan and track agile projects