

# Agile Estimation and Planning

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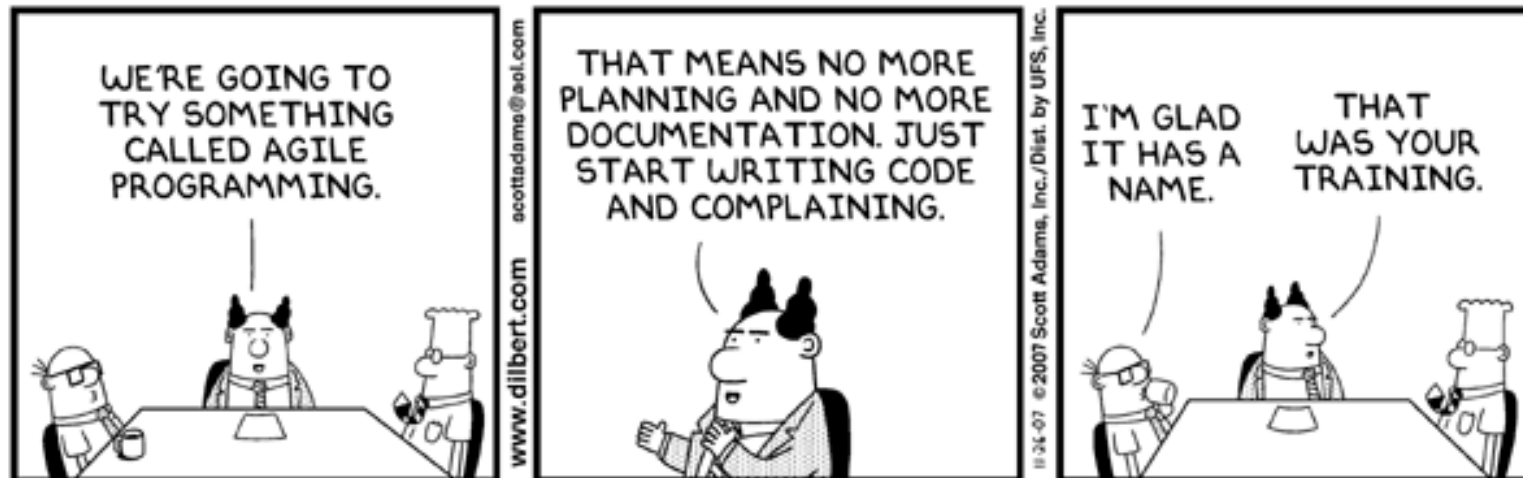
8 July 2009

# Agenda

- Stories of learning
  - First use of basic techniques
  - Learning more about techniques
  - Example project - 1
  - Example project - 2
  - Example project - 3
- Summary

## About Me

- Development background
- Frustrations
  - Project managers wanting to “tick” things
  - Always being under pressure because of unrealistic planning
  - Pressure to compromise on quality to get something done



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# First use of Agile techniques

- Planning workshop with team developing system
  - Relative size estimate on requirements
  - Estimated single unit of work
  - Total units of work \* estimated duration of 1 unit of work = Total duration
  - Unit of work estimation checked against work done
- Outcome

# Agile planning techniques

- Agile planning techniques used without understanding what they were or why they worked
  - Get whole team involved in the estimates - shared estimate
  - Estimate relative size
  - Estimate velocity
  - Create a release plan
  - Lots of whiteboards, big visible information

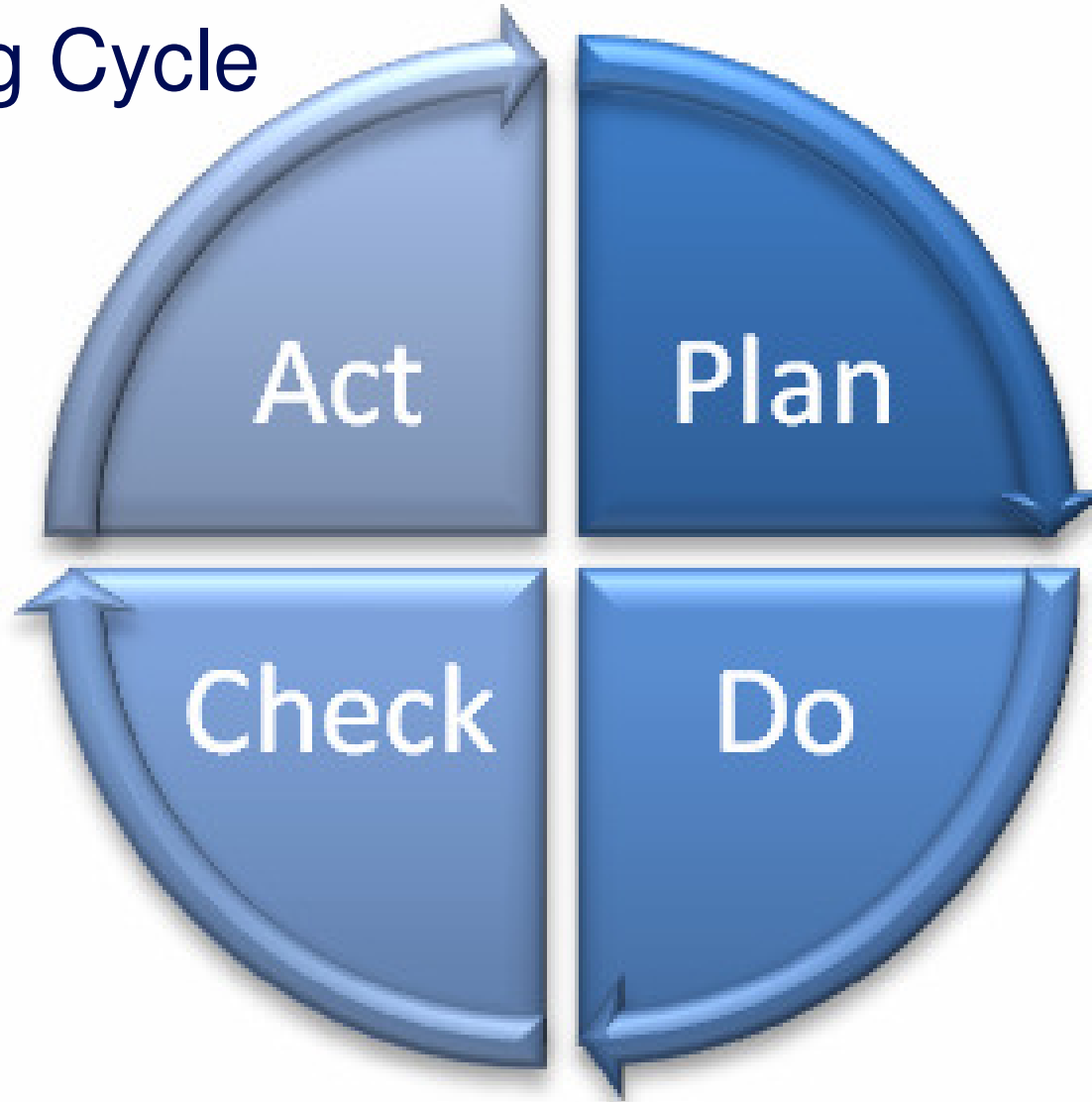
# Agile planning techniques

- Did not have the following
  - Prioritized requirements
  - Static project plans indicating lateness over initial inaccurate estimates
  - No way to measure velocity
  - Requirements not structured to deliver working slices of functionality

# Borland

- Hyper-productive Quattro Pro team
- Generalizing Specialist
- Company itself going through Agile transformation
- Kick-started formal agile education

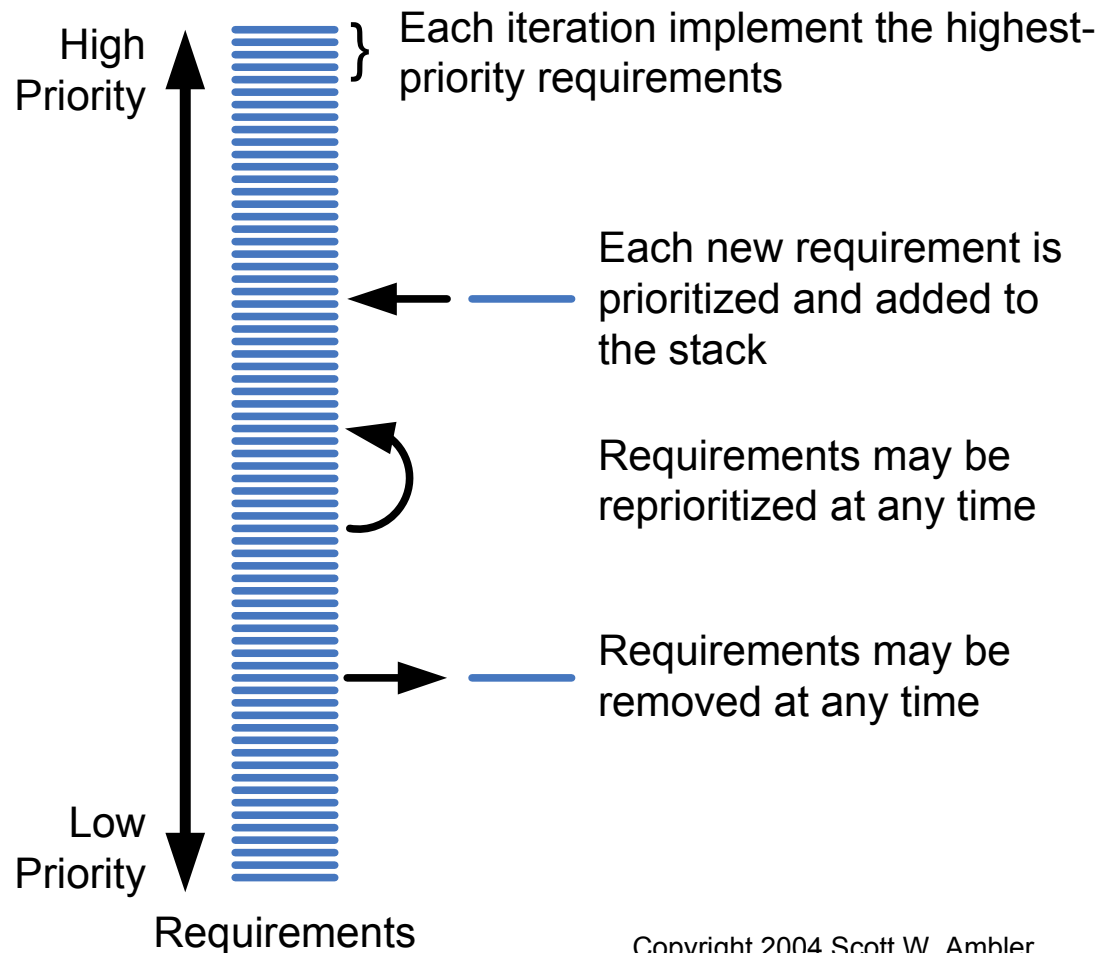
# Deming Cycle



## Example project - 1

- Project had an initial requirements gathering/documentation phase separated from development
- Got team together, used a “layered” approach not quite agile, but worked well enough in environment
- Planning we used agile approach although client had new PMO and everything had to be translated into project plans

# Product Backlog



# Planning Poker



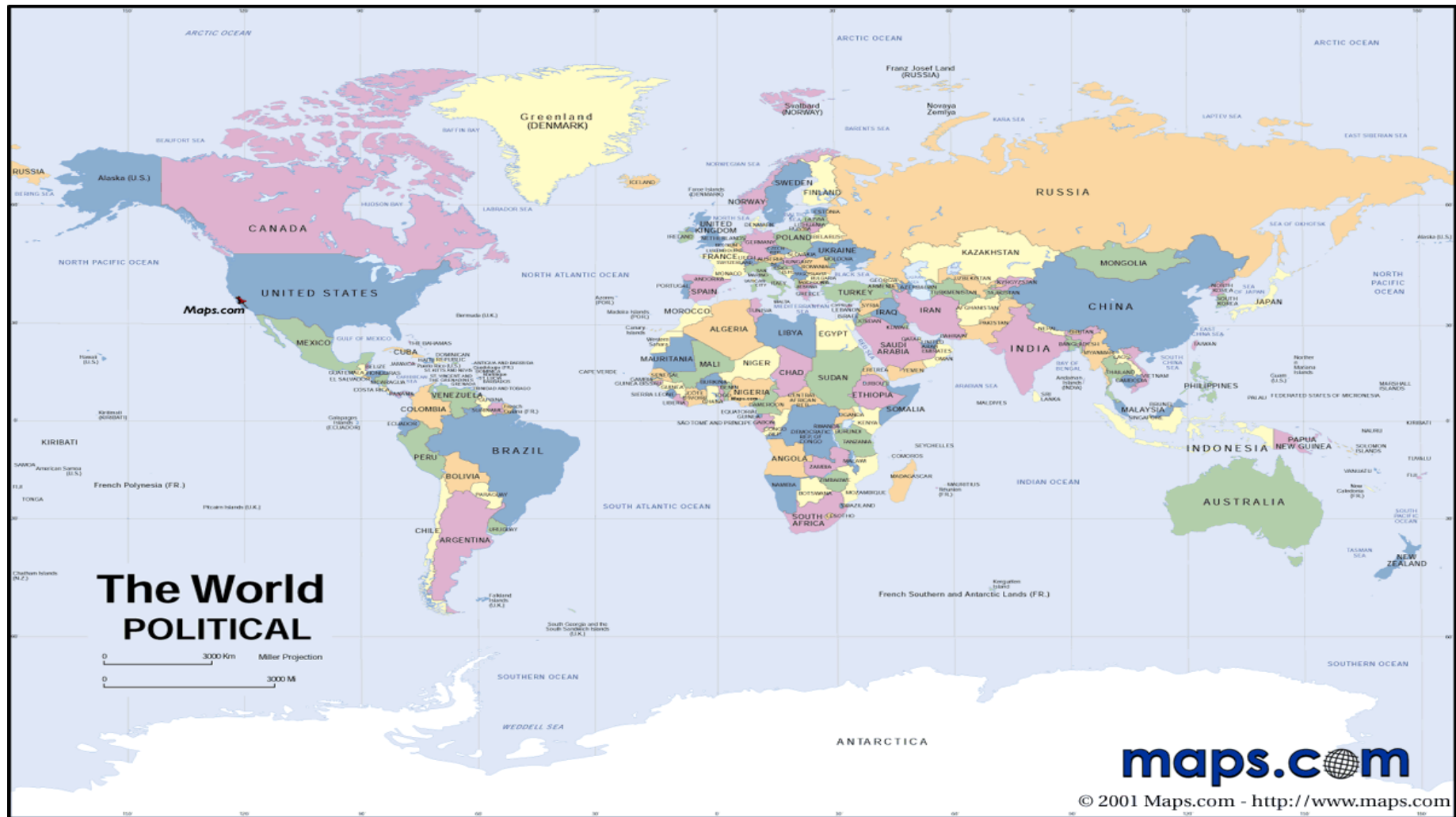
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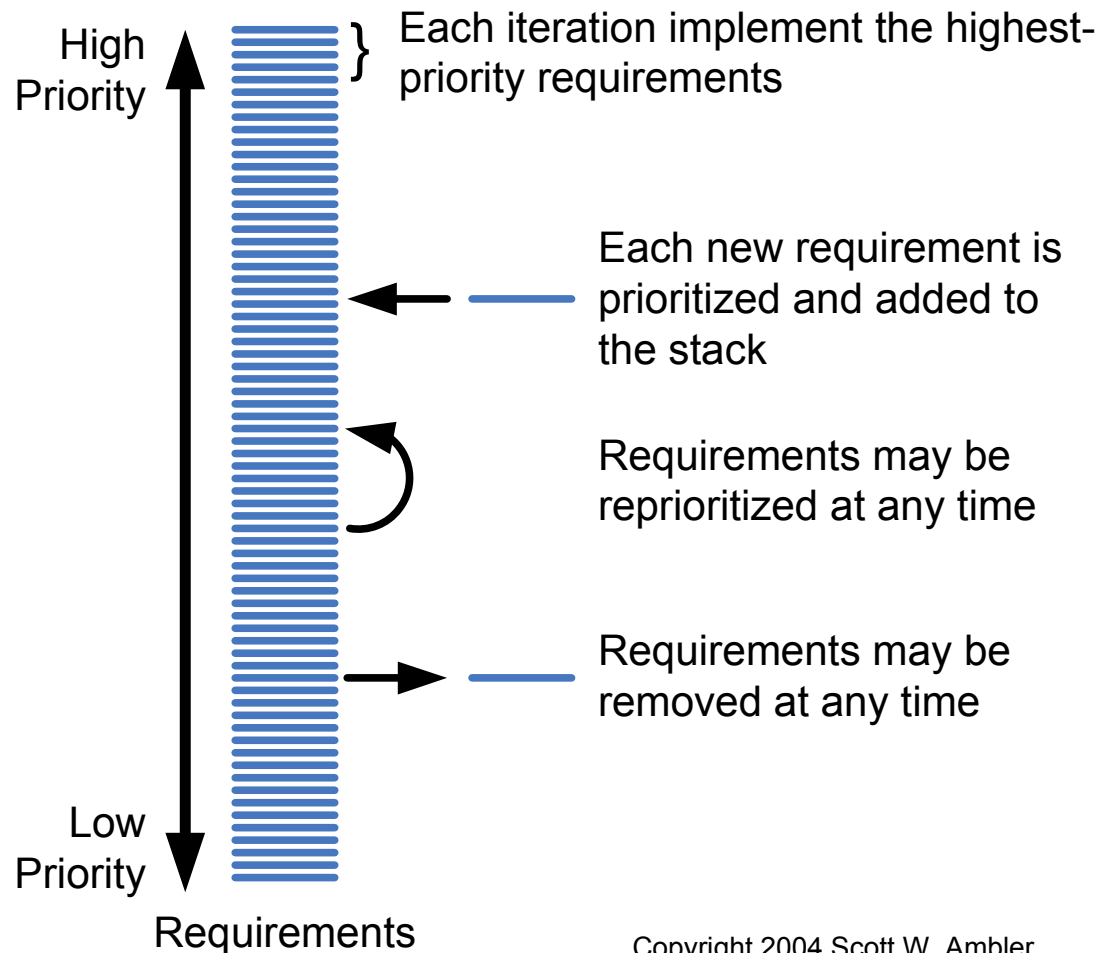
# Planning Poker



# Relative Size



# Product Backlog



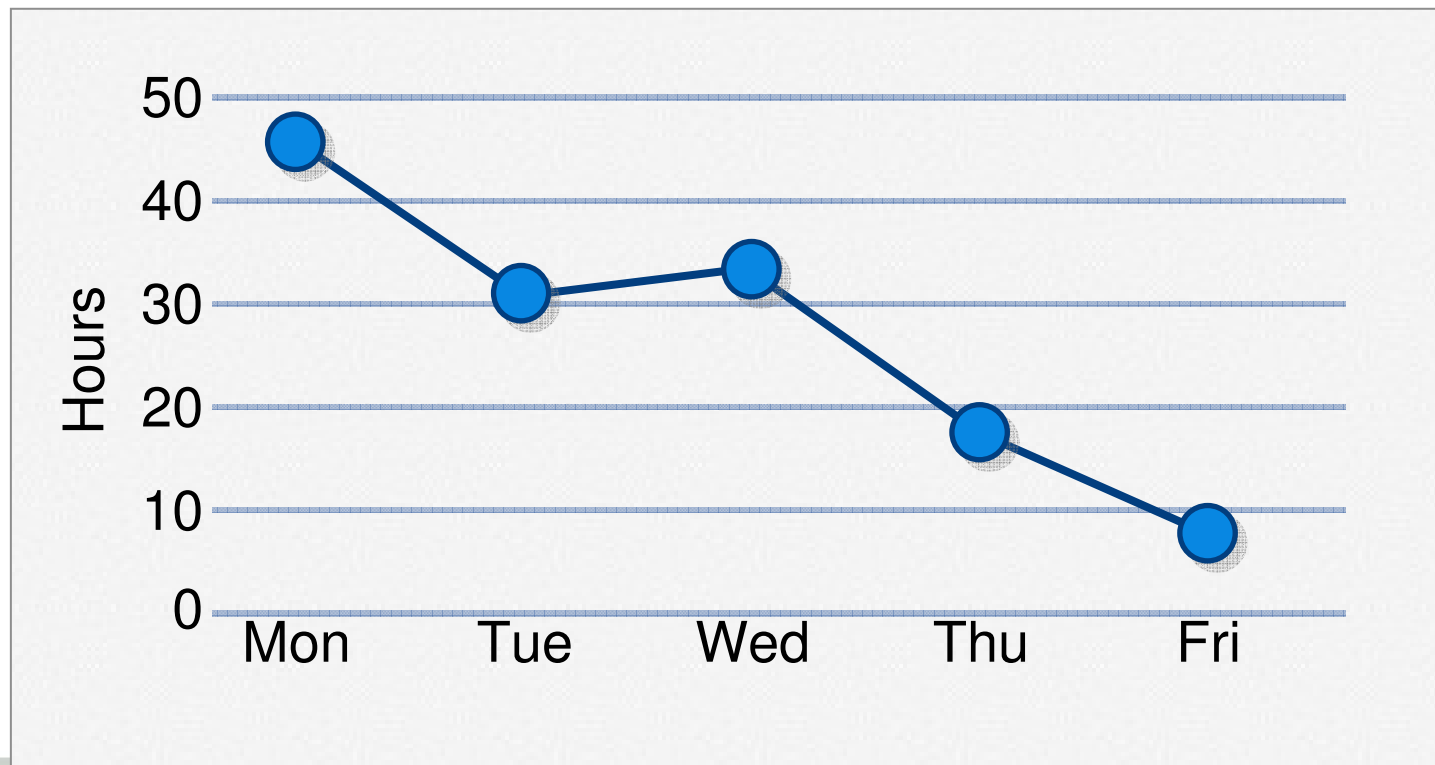
# Velocity



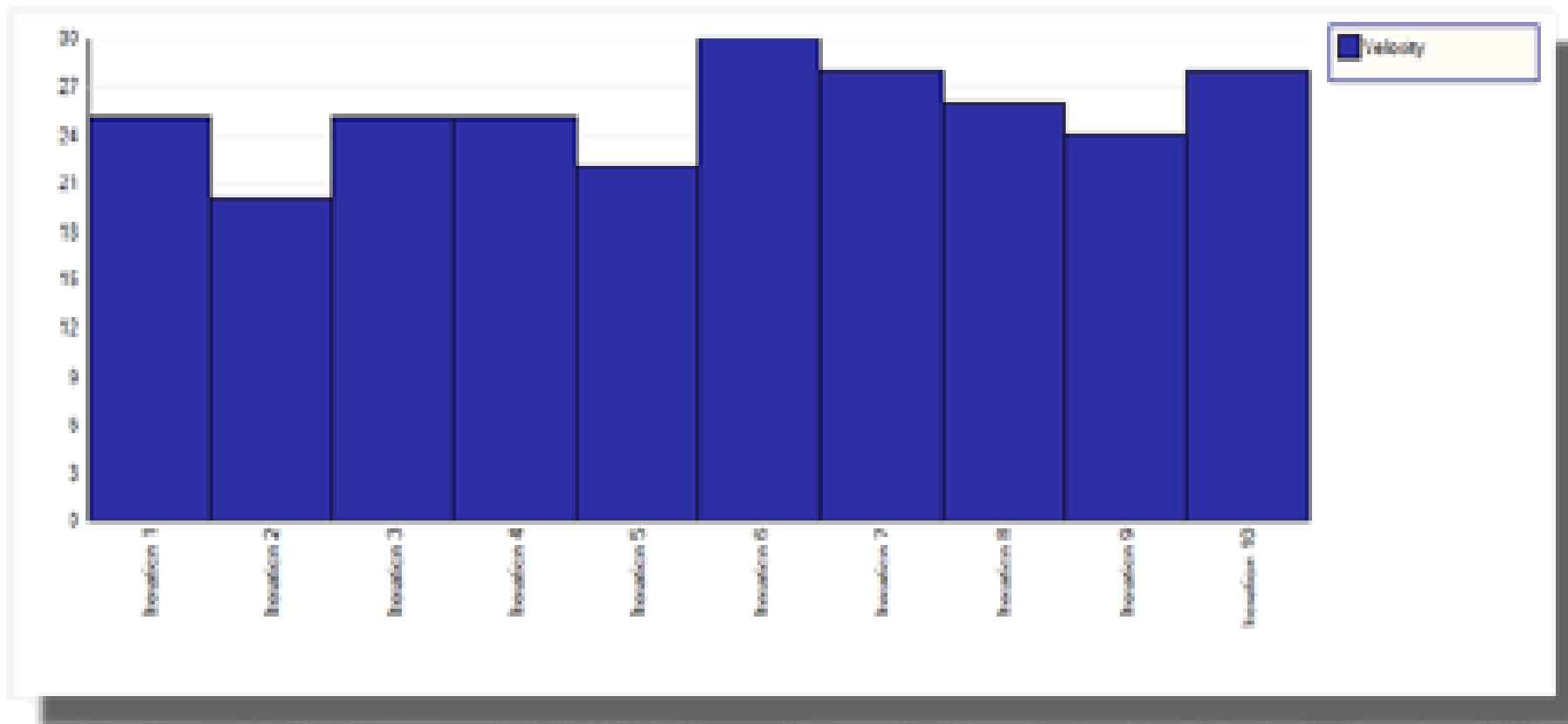
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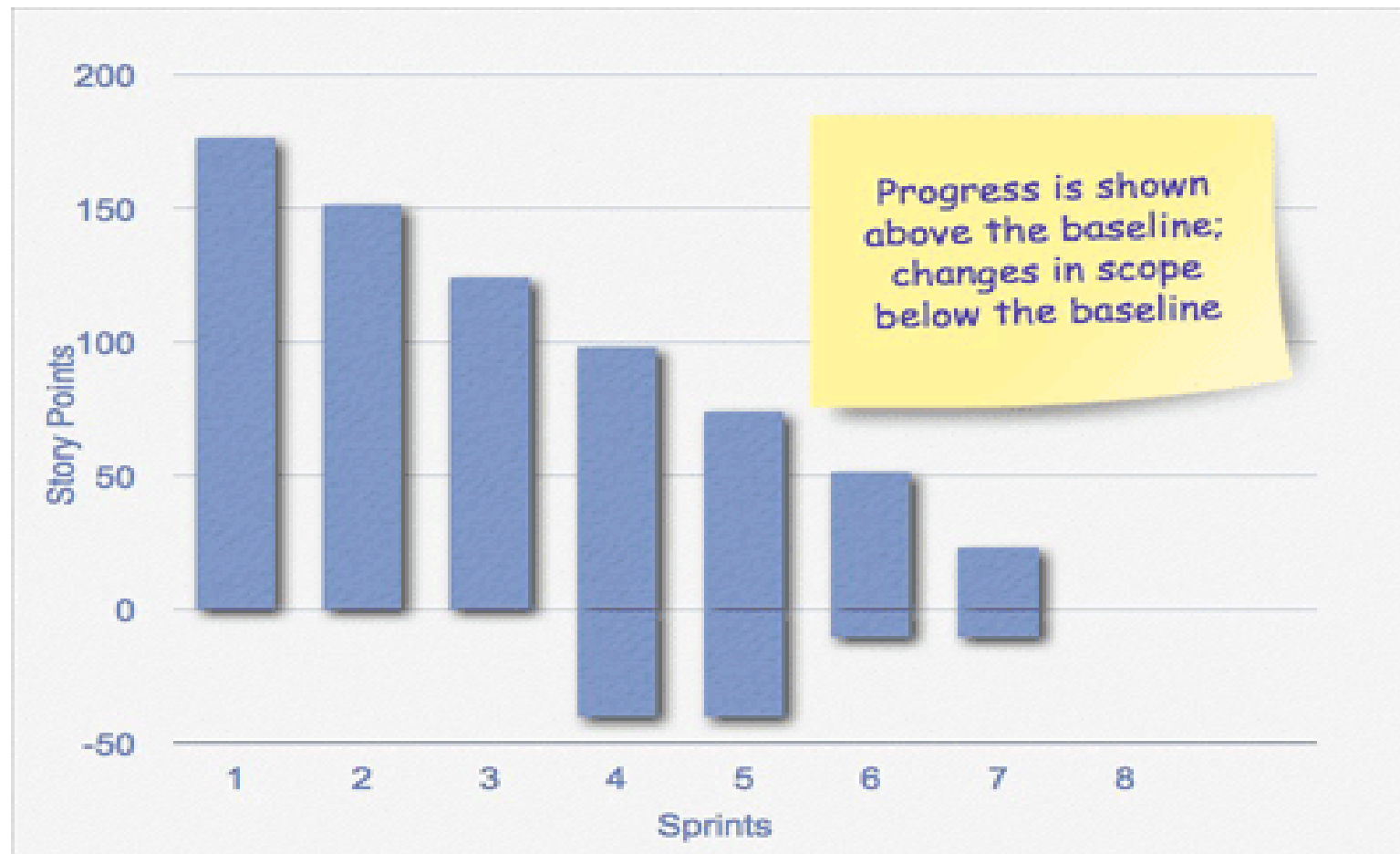
Tasks	Mon	Tues	Wed	Thur	Fri
Code the user interface	8	4	8		
Code the middle tier	16	12	10	7	
Test the middle tier	8	16	16	11	8
Write online help	12				



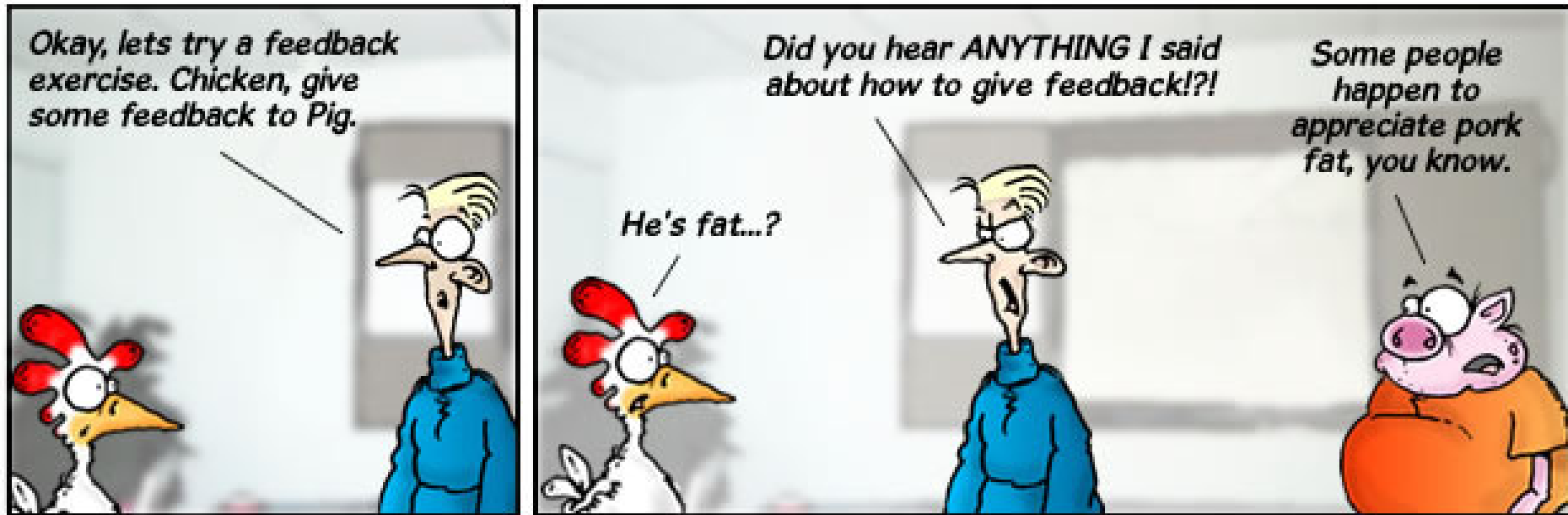
# Velocity



# Release burndown



# Sprint Retrospective



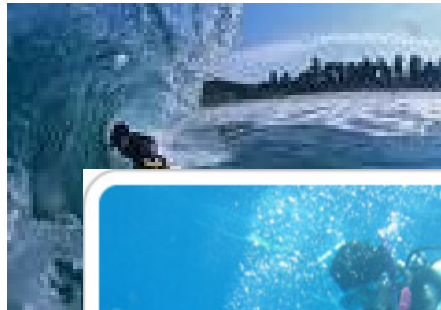
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## Example project - 2

- Core team of previous project
- Understood basic mechanisms, wanted to adjust planning

# Ideal days



## Ideal days

- Initially easier to estimate
- My ideal day is not your ideal day
- If Joe does it, yes, 3 days, if I have to 8 days
- Acceptable “focus factor”
- Balanced with relative size

# Ideal days vs. Story points

- Story points
  - Help drive cross-functional behaviour
  - Estimates do not decay
  - Pure measure of size
  - Typically faster
  - My ideal days are not your ideal days
- Ideal days
  - Easier to estimate

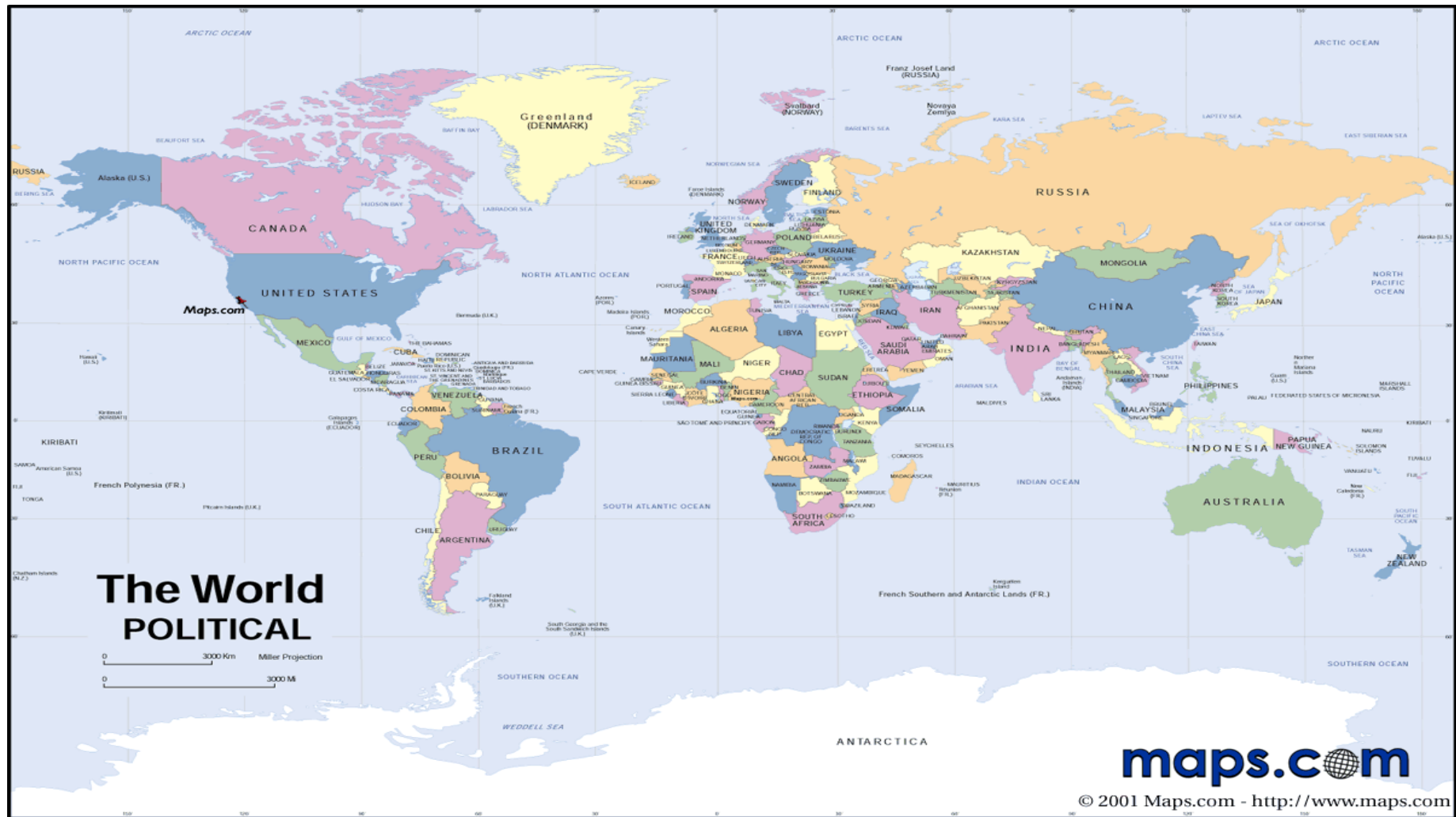
# Results

- Accurate and predictable
- Could they have performed even better?
- Did they challenge themselves enough?

## Example project - 3

- Team is brand new to Agile approach
- Difficulty in relative sizing
  - Number of screens
  - Amount of back-end development
  - Easy/Medium/Hard algorithm

# Relative Size



# Definition of done



# *Summary*

# Planning activities

- Initial backlog sizing
- Release planning
- Iteration planning
- Daily planning
- Retrospect on iteration and adjust
- Grooming backlog

## Why agile planning works

- Re-planning occurs frequently
- Estimate of size and duration are separated
- Plans are made at different levels
- Plans are based on features, NOT tasks
- Work in Process is eliminated each iteration
- Tracking is at team level
- Uncertainty is acknowledged and planned for

## Why planning fails

- Planning is by activity rather than feature
- Activities don't finish early
- Lateness passed down the schedule
- Activities are not independent
- Features not developed by priority
- Ignore uncertainty
- Estimates become commitments

# Things learned about Agile

- Empirical process
- Deming Cycle
- Prioritized and sized Backlog
  - Planning Poker
- Fixed iterations
- Planning each iteration with clear goal
- Daily planning
- Progress i.t.o. burn-downs/burn-ups
- Velocity
- Retrospect on iteration and adjust

# Questions?

## An Agile & Scrum reading list

- *Agile Estimating and Planning* by Mike Cohn
- *Agile and Iterative Development: A Manager's Guide* by Craig Larman
- *Agile Project Management with Scrum* by Ken Schwaber
- *User Stories Applied for Agile Software Development* by Mike Cohn
- *Agile Software Development with Scrum* by Ken Schwaber and Mike Beedle
- *Scrum and The Enterprise* by Ken Schwaber
- *Agile Retrospectives* by Esther Derby and Diana Larsen

# Feel free to contact me:

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