
Agile Application Development
«Scrum Framework»
Soykan Gülcan
Yazılım Araçları ve Yaygınlaştırma Müdürü
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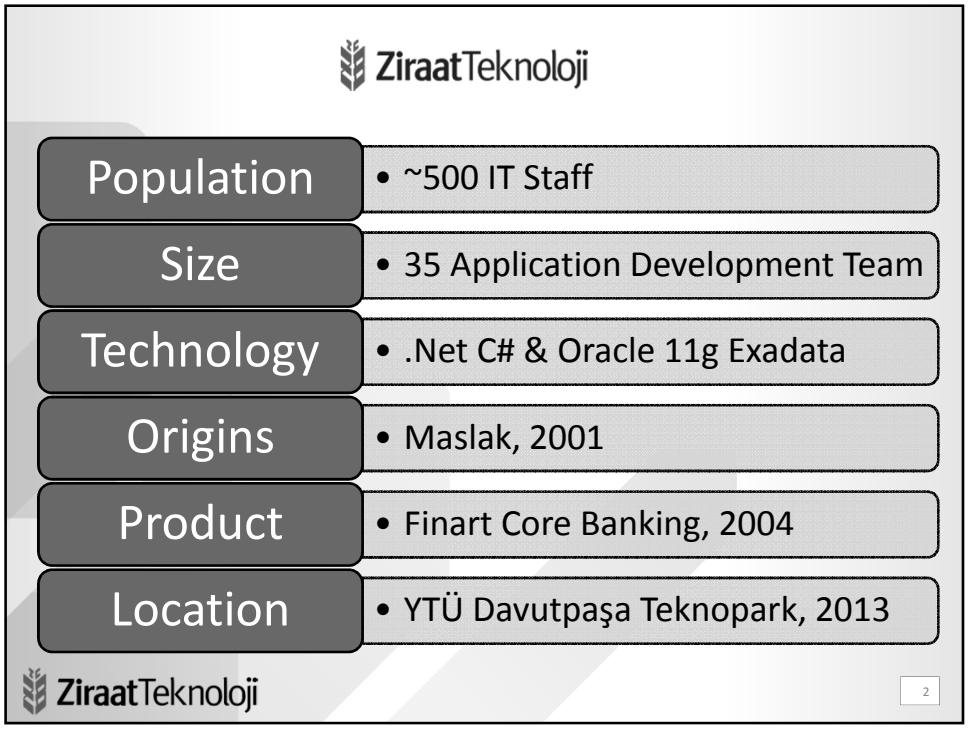
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Population
• ~500 IT Staff
Size
• 35 Application Development Team
Technology
• .Net C# & Oracle 11g Exadata
Origins
• Maslak, 2001
Product
• Finart Core Banking, 2004
Location
• YTÜ Davutpaşa Teknopark, 2013
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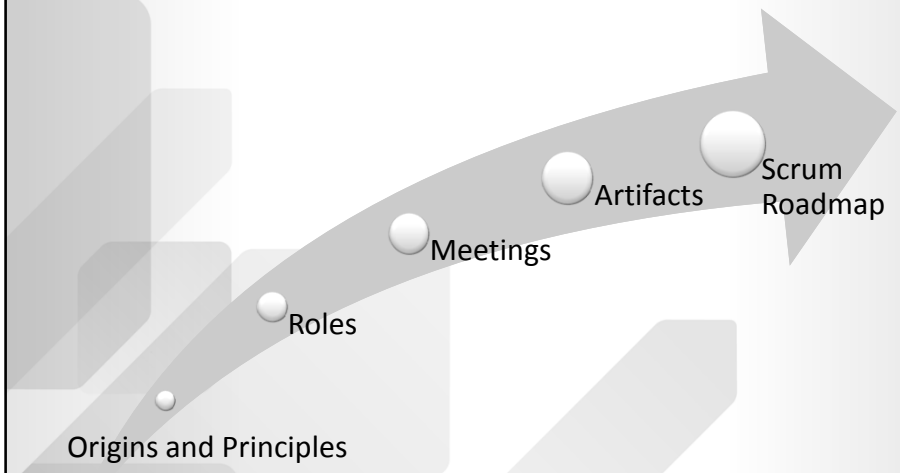
Agenda



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Origins and Principles

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Origins

- The foundations of Scrum include the paper by *Hirotaka Takeuchi* and *Ikujiro Nonaka* in «Harvard Business Review» that talked about issues related to knowledge management.

> *"The… 'relay race' approach to product development…may conflict with the goals of maximum speed and flexibility. Instead a holistic or 'rugby' approach—where a team tries to go the distance as a unit, passing the ball back and forth—may better serve today's competitive requirements."*

Hirotaka Takeuchi and Ikujiro Nonaka, "The New New Product Development Game", Harvard Business Review, January 1986

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Origins

- The first Scrum took place at the Easel corporation in 1993.
- Lean principles are also a major foundation, as are Iterative and Incremental development and time boxing.

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Lean

Reduce waste! How?

- Don’t let mistakes propagate into the process
- Find problems early
- Don’t build something for which there isn’t a customer
- Minimize on-hand inventory: optimize material flow.

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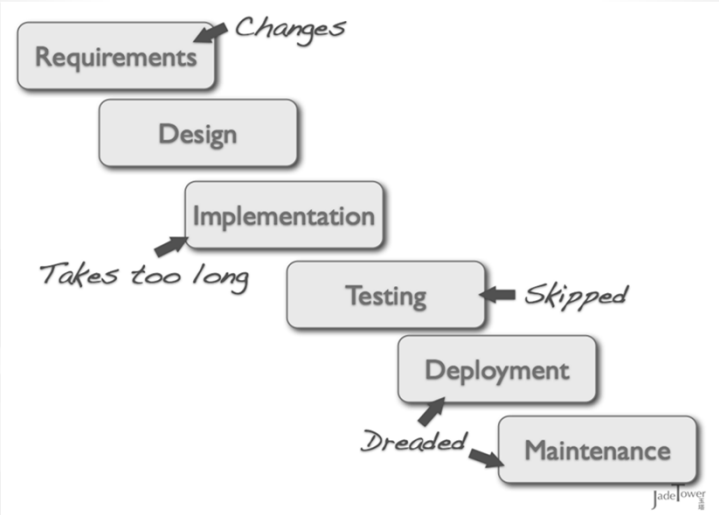
Conventional Process (Waterfall)



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Problems

Requirements Not Clear

- Fear to go to the next phase
- Analysis paralysis

Requirements Change

- Change gets more and more expensive
- Customers don't get what they want

Project Takes Too Long

- 32% of projects delivered successfully
- Long duration defers revenue

(Source: Standish Report 2009)

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Problems

No Time for Testing

- Quality assurance gets crunched
- Late integration means late failures

Time Wasted on Junk

- 52% of requirements implemented
- 64% of functionality rarely used

Poor Progress Visibility

- % Task complete not sufficient
- Average overrun 43%

(Source: Standish Report 2009)

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Agile Manifesto

Individuals and interactions	over	Process and tools
Working software	over	Comprehensive documentation
Customer collaboration	over	Contract negotiation
Responding to change	over	Following a plan

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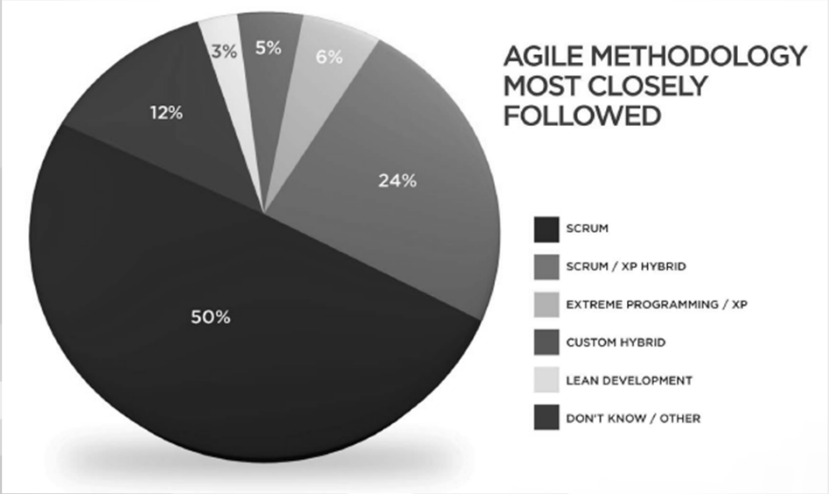
Agile Methodologies



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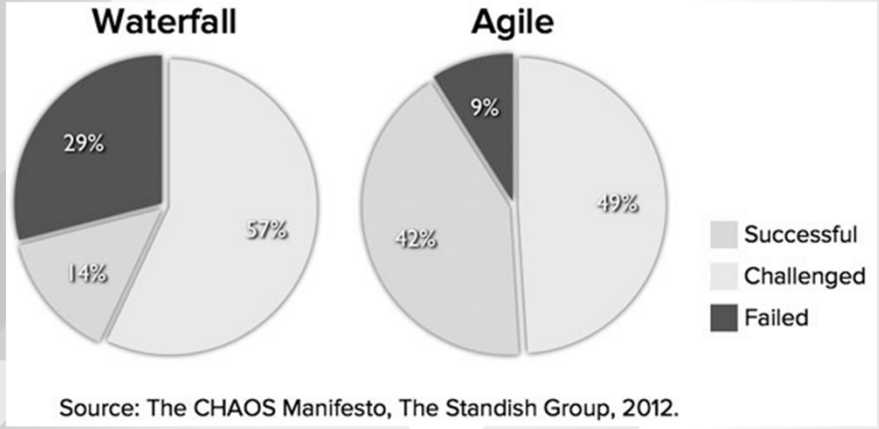
Agile Methodologies



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Scrum

A light-weight agile project management toolkit.

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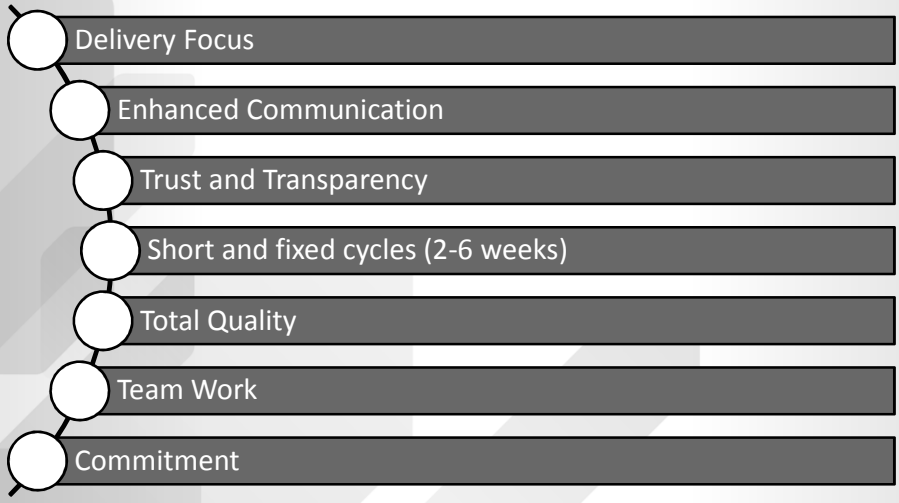
Scrum Principles



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Scrum

In the end its all about...

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Scrum

Clear Understanding

Clear Communication

and.. Trust

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Scrum Goals

Manage

Complexity, Unpredictability, Change

Through

Visibility, Inspection, Adaptation

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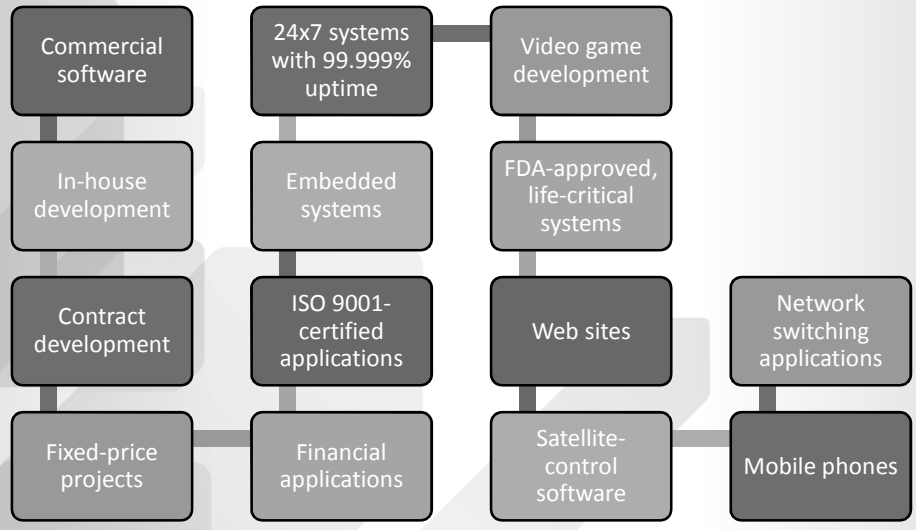
Scrum Usage



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Product Owner, Scrum Master, Team

Roles

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Scrum Roles

Product Owner

Scrum Master

Team

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Product Owner

- Define the features for the product
- Decide on release dates and its contents
- Responsible for the ROI, audience, etc.
- Prioritize features according to market and strategic value
- Interact with stakeholders and customers to define the Product backlog
- Adjust features and prioritize every sprint, as needed
- Accept or reject work results during the Sprint Review

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Scrum Master

- Protect values and principles
- Removes impediments
- Keep the team fully functional and productive
- Shield the team from “dark forces”
- Enable cooperation
- Facilitates integration
- He does **NOT** allocate tasks

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Team

- Typically 5-9 people
- Cross-functional
  - Programmers, analysts, testers, etc.
- Full-time allocated
- Self-organized
- Responsible for the quality
- Estimates the complexity

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Sprint Planning, Daily Scrum, Sprint Review

Meetings

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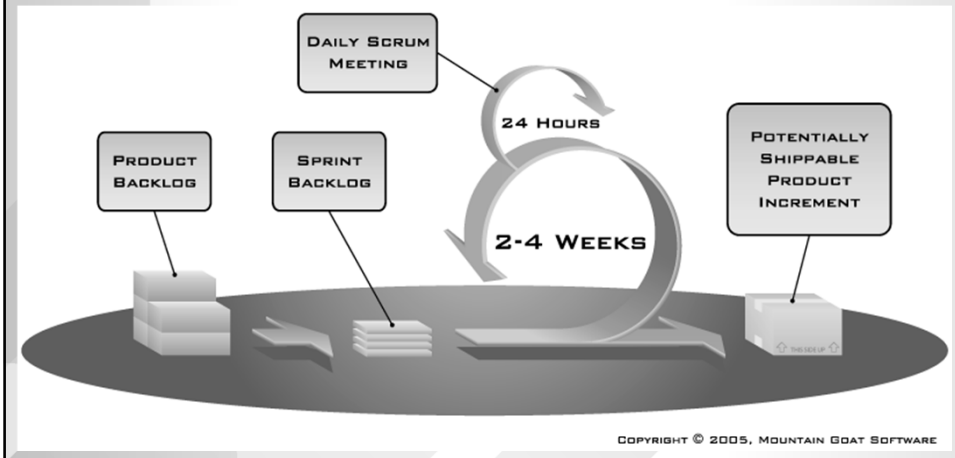
Scrum Process



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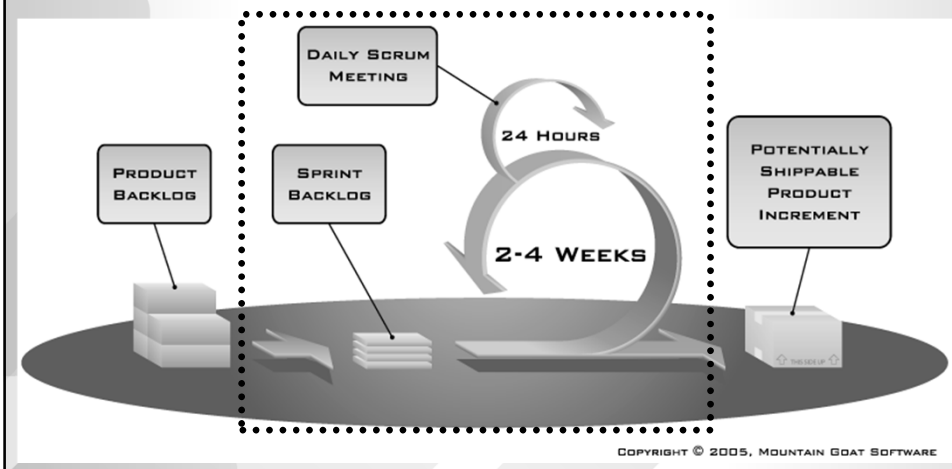
Sprint



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Sprint Planning Meeting

- What are we going to build?
- How to build it?

Time-boxed
Max 8 hours

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Sprint Planning Meeting

Strategical Planning (Part 1)

- PO explains the scope
- Team chooses the Sprint backlog
- Prioritize/select features
- Discuss acceptance criteria
- Verify understanding

Tactical Planning (Part 2)

- Team estimates the complexity
- Team writes the tasks for each story
- Define sprint backlog items
- Estimate sprint backlog items
- Use velocity (Yesterday's Weather)
- Share commitment

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Daily Scrum Meeting

- 3 Question?
  - What I did since the last meeting?
  - What I will do until the next meeting?
  - Any impediments?
- Only the team talks
- Not to Scrum Master
- No problem solving
- Standing up

Time-boxed
Max 15 min.

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Sprint Review Meeting

- Team demo what was accomplished during the sprint
- Each developer demo a story
- Informal, no slides
- Whole team participates
- Anyone is invited to participate

Time-boxed
Max 2 hours

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Product Backlog, Sprint Backlog, Burndown Charts

Artifacts

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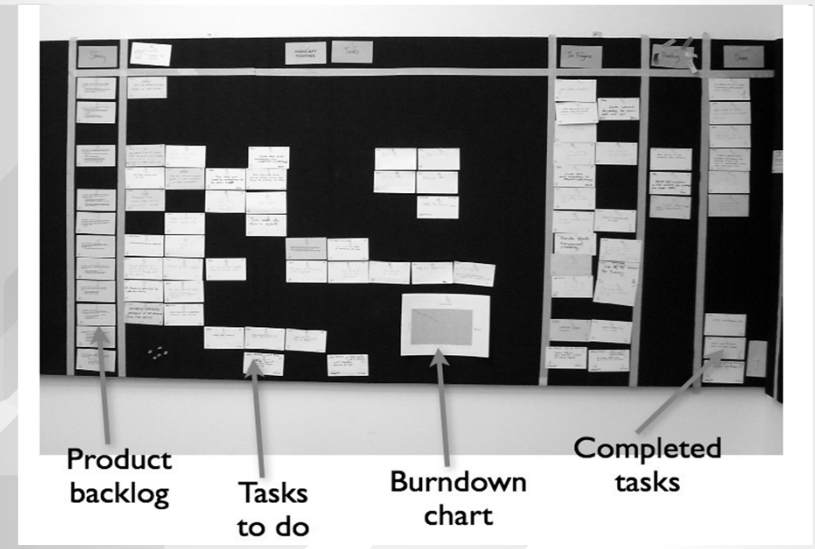
Big Picture



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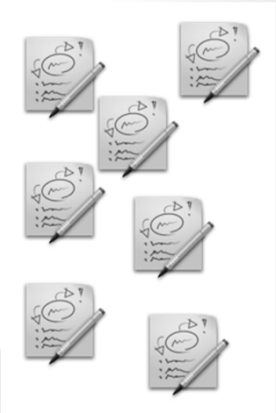
Product Backlog

- The product requirements
- Everything (ideas, features, epics)
- Expressed in User Stories
- PO keeps it organized
- Always prioritized and estimated



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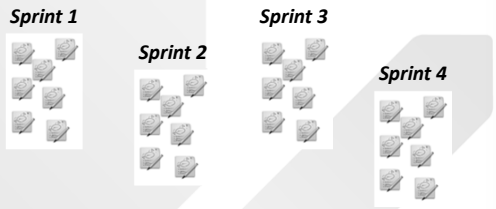
Sprint Backlog

- User Stories selected by the Team
- Will be built in next 15 days
- Fully Estimated Divided in daily tasks
- Breakdown of business value into assignable tasks



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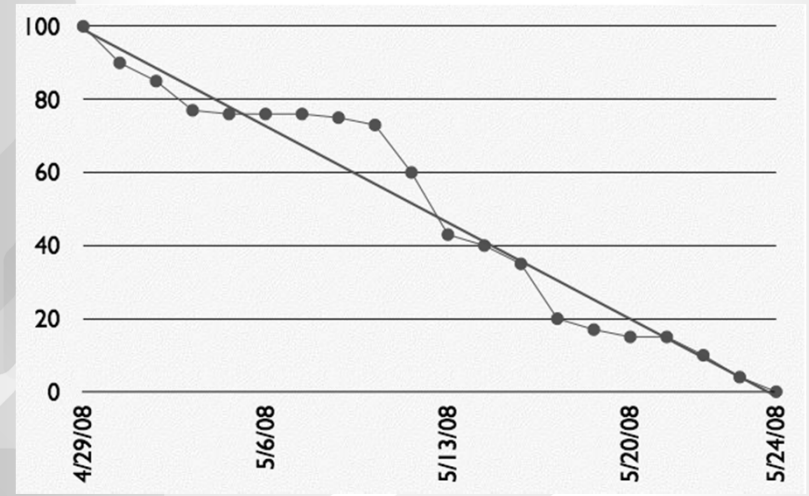
Burndown Charts



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Definition of Done - *Avoid the 90% syndrome*

- Coded
- Commented
- Checked in
- Integrated
- Reviewed
- Unit tested
- Deployed to test environment
- Passed user acceptance test
- Documented…

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Sprint Termination

- Only in extreme cases
- Team terminates: cannot meet sprint goal
- Product Owner terminates: priority change
- Work reverted to end of prior sprint
- Raises visibility of problems

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Scrum Roadmap

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Scrum Roadmap

- Jim Coplien, Scrum Training Course, 2008
- Trying First Scrum, 2009
- First Scrum Implementation at Framework Team, 2010
- Internal Scrum Training Course for Teams, 2010 Q3
- Develop Scrum Software, 2010 Q4
- Software Development Teams Transformation, 2011
- PWC, COBIT Audit with Scrum, 2013

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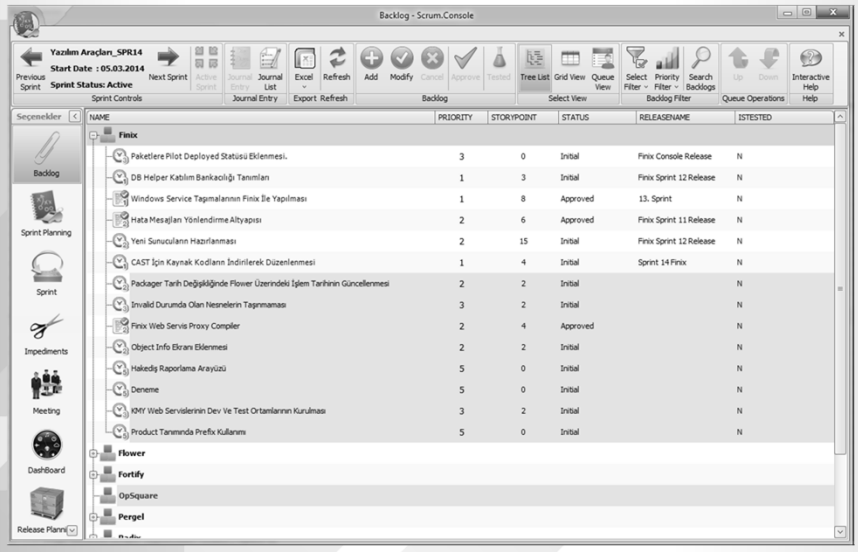
Scrum Console



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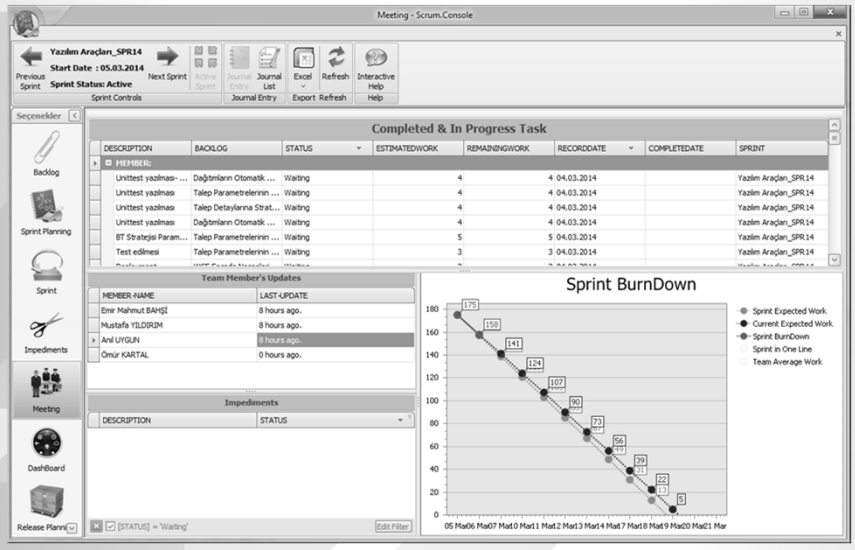
Scrum Console



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Questions

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