

# Can You Become an Agile Project Manager?

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## About Skyline Technologies

- Microsoft Gold Certified Partner supporting five practice areas including: Business Intelligence, Custom Software Solutions, Enterprise Portals, Online Marketing and IT Business Consulting.
- Skyline's IT Business Consulting group:
  - **Builds IT strategies** that transform IT from a cost center into a strategic asset;
  - **Integrates** IT into official business processes so companies can exploit technology to drive profitable growth, control costs and improve customer service;
  - **Guides and mentors** people in best of breed development methodologies, business analysis techniques and quality assurance programs;
  - **Provides certified** (PMI and Scrum) program and project managers, senior quality assurance professionals and experienced business analysts.
- Proud sponsors of PMI-NEW and the Northeast Wisconsin Agile Users Group

***Partnering with You to Deliver Business Ready IT***



## Agenda

- **Agile Principles**
- The Scrum Framework
- The Agile Project Manager
- Agile and the PMBOK
- Final Thoughts
- Questions?



## 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 more.”

[www.agilemanifesto.org](http://www.agilemanifesto.org)



## What does it mean to be agile?

- Iterative and incremental development (IID)
  - Working software in each iteration
- Evolutionary and adaptive
  - Inspect and adapt
  - Visibility
- Iterative and adaptive planning
  - Risk driven
  - Client driven
- Self managed and self organized teams
- Time boxed



## Agile Principles

- 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.
- **Deliver working software frequently**, from a couple of weeks to a couple of months, with a preference to the shorter timescale.
- Business people and developers must **work together** daily throughout the project.
- Build projects around **motivated individuals**. Give them the environment and support they need, and trust them to get the job done.
- The most efficient and effective method of conveying information to and within a development team is **face-to-face conversation**.



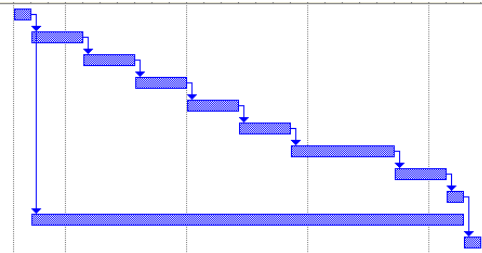
## Agile Principles

- Working software is the primary **measure** of progress.
- Agile processes promote **sustainable development**. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.
- Continuous attention to **technical excellence** and good design enhances agility.
- **Simplicity** – the art of maximizing the amount of work not done – is essential.
- The best architectures, requirements, and designs emerge from **self-organizing teams**.
- At regular intervals, the **team reflects** on how to become more effective, then tunes and adjusts its behavior accordingly.



## When Should Waterfall Methods Be Used?

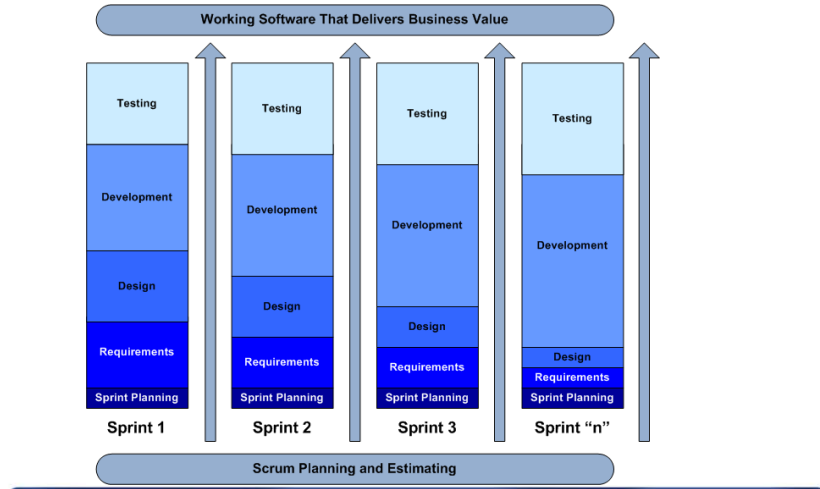
Initiate
Plan
Business Requirements
Technical Requirements
Functional Design
Technical Design
Development
Testing
Deployment
Control
Close



- Requirements are known and estimates are solid before you begin to build (e.g. standard install of packaged software, conversions, building a house, etc.)
- Minimal or no changes are expected after work begins.
- Company is in a mature industry where change occurs infrequently.
- Your culture is not ready to adapt agile techniques.

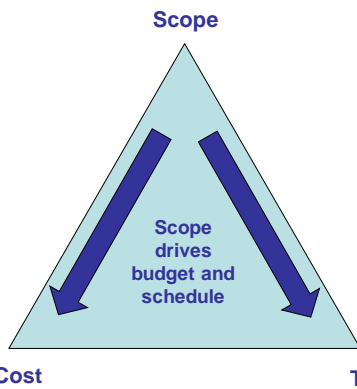


## Consider This Alternative

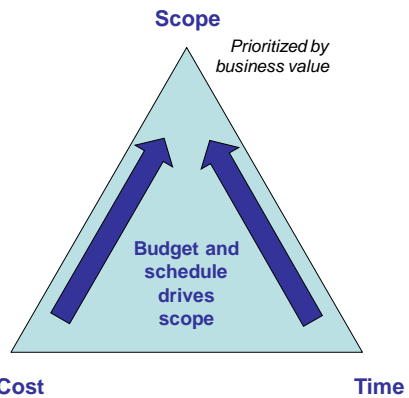


## Triple Constraint Does Not Go Away

*Traditional Methods*



*Agile Approach*



*It is impossible to fully define requirements until the client actually begins to use the product.*



## A Plethora of Agile Methods

- Scrum
- Extreme Programming (XP)
- Kanban
- Crystal Methods
- Unified Process (UP)
- Dynamic Systems Development Method (DSDM)
- Feature Driven Development (FDD)
- Lean Development
- Adaptive Software Development
- Evolutionary Project Management (Evo)
- and more ...



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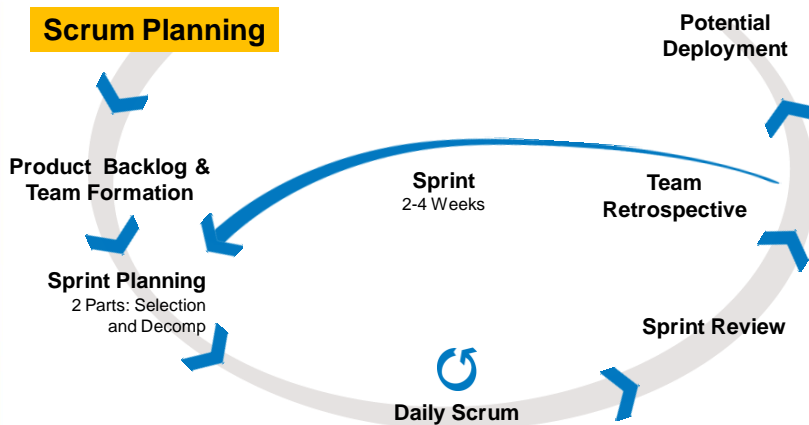


## Scrum Terms

<b>Scrum</b>	Not an acronym. Sometimes used to refer to the daily stand up meeting
<b>Sprint</b>	An iteration – typically 2-4 weeks in duration
<b>Product Backlog</b>	A prioritized list of product features with estimated effort
<b>Sprint Backlog</b>	Detailed list of tasks that the Scrum Team has committed to deliver during a sprint
<b>Scrum Board</b>	Used by Scrum Teams to track sprint progress – typically a white board with post-it notes
<b>Burn Down</b>	Publicly displayed chart showing work remaining – either for the sprint or a release
<b>ScrumMaster</b>	Scrum's equivalent of a Project Manager. Responsible for Scrum process. Works FOR the Scrum Team.
<b>Product Owner</b>	Scrum's equivalent of the Sponsor. Owns the Product Backlog. Represents interests of all stakeholders.
<b>Scrum Team</b>	Self-managed, cross-functional group responsible to deliver the product



## The Scrum Framework

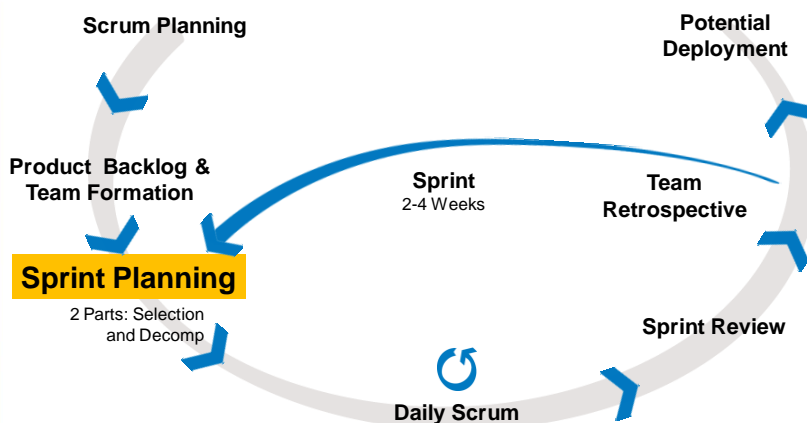


## Scrum Planning

- Sometimes called “Sprint 0”
- Primary work product is a healthy Product Backlog
  - Typically in the form of user stories (product features)
- Whatever your company requires to initiate a project
- Establish team, team rules, sprint length, space, ...
  - Co-located team is most optimal
- Do not try to define all requirements
- More time spent here means that the team is not creating software



## The Scrum Framework

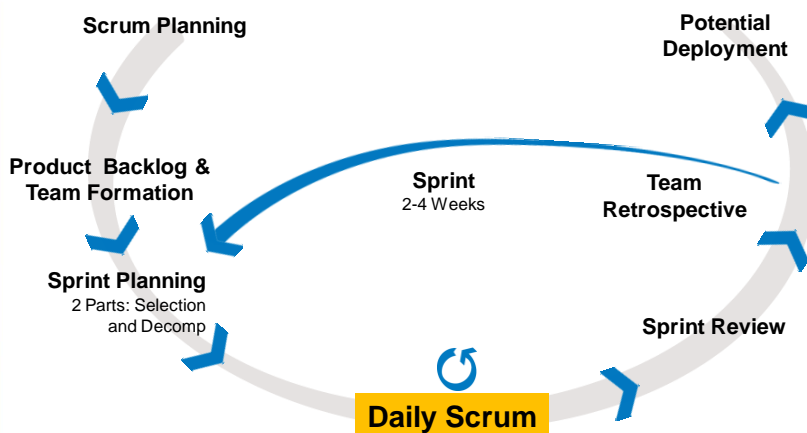


## Sprint Planning

- Prerequisite: A healthy Product Backlog
- Beginning of each sprint
- Part I: Selection and capacity assessment
  - Time box at 1 hour per week in sprint
  - Product Owner shares vision for the product and goals for the sprint
  - Team members provide capacity for the sprint
- Part II: Decomposition and design
  - Time boxed at 1 hour per week in sprint
  - Team decomposes user stories into tasks
  - Product Owner is available for questions or changes



## The Scrum Framework

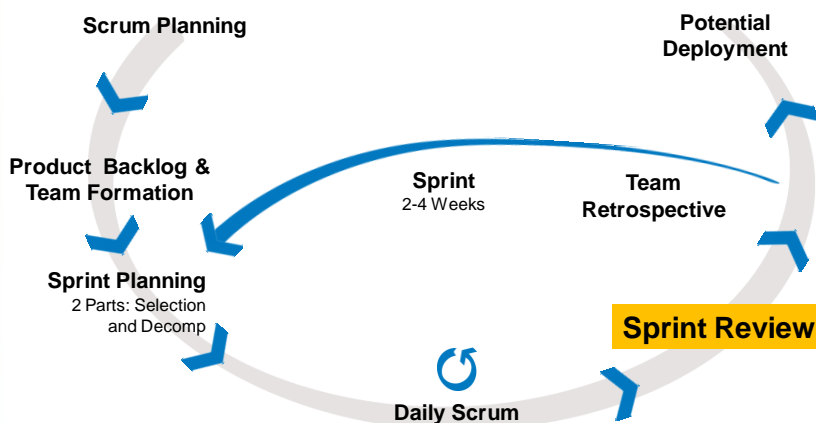


## Daily Scrum

- Daily 15 minute meeting – usually stand up
- Same place and time every day
  - At a time when all team members can attend
- Team members speak, anyone else can observe
- Three questions
  - What have you done since last meeting?
  - What will you do before the next meeting?
  - What is in your way?
- Fourth question: How are we doing?
- Updates on impediments and decisions
- Sprint Burn Down updates
- Inspect and adapt for benefit of sprint



## The Scrum Framework

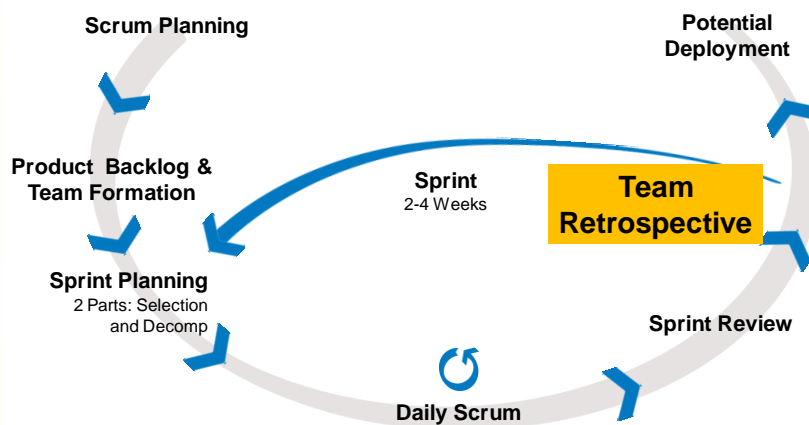


## Sprint Review

- End of each sprint
- Assess how well the sprint goal was met
- Team Members demo each item in sprint goal
- Not a formal presentation
  - PowerPoint is prohibited!
- Updates to Product Backlog
- Product Owner determines whether to release
- Inspect and adapt for benefit of project



## The Scrum Framework



## Team Retrospective

- Process improvement at end of every sprint
- What went well? What can be improved?
- Prioritized with input from team members
- Team comes up with solutions
- Inspect and adapt for benefit of team



## Scrum Roles

### Product Owner

- Product vision
- Prioritizes work to maximize ROI
- Determines when to deploy
- Keeps team “fed” with high value work

### Scrum Team

- Self organizing
- Cross functional skills
- Creates and enforces own ground rules
- Responsible for commitments

### ScrumMaster

- Works for the team
- Coach, Leader, Facilitator, Change Agent
- Removes impediments
- Has no authority



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## ScrumMasters and Project Managers

- Many agile “purists” view Project Managers with contempt
  - Blamed for ills associated with traditional projects
  - Why do you think there is not an Agile PM role?
- Both perform many of the same functions
  - Manage scope (backlog)
  - Build schedules and plans (iteration and releases)
  - Track and report on progress (burn down, velocity)
  - Manage quality, risk, etc.
  - Issues and impediment resolution

***There are excellent Project Managers and ScrumMasters just as there are ineffective Project Managers and ScrumMasters.***



## Which Best Describes You?

### Column 1

- Command and control
- “Keeper” of the plan
- Focal point for all project related communications
- Assigns tasks
- Controls change
- Paper producer
- Enforcer of the process
- Only does Project Manager work

### Column 2

- Coach, leader, facilitator
- Removes impediments
- Servant leader
- Change agent
- Representative to management and to team
- Transparent and visible
- Tenacious protector of team
- Whatever it takes ...



## Challenger of the Status Quo

- Agile is consistent with continuous improvement
  - Lean for software development
- Anything that slows down the team should be challenged
  - Governance
  - PMO
  - Even regulatory
- Challenges with compliance
  - Regulatory, certifications, standards
  - Traceability
  - Do “just enough” to pass
- Impetus for holistic organizational improvements



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## Typical Agile Complaints about the PMBOK

- Requires too much documentation
- Resistant to change
- Devotion to a plan that may no longer be relevant
- Controlling project manager
- Task based planning
- Project phases promote silos and unproductive hand-offs
- Testing is done at the end of the project



## Typical Complaints About Agile

- Lack of planning
- Scope creep
- Lack of controls
- Lack of documentation
- Auditors will not approve
- Business stakeholders cannot make time commitment



## Can't We All Just Get Along!



## PMBOK Project Management Processes

### Process Groups

- Initiating
- Planning
- Executing
- Monitoring and Controlling
- Closing

### Knowledge Areas

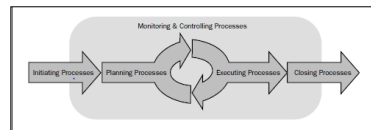
- Scope
- Time
- Cost
- Quality
- Human Resource
- Communications
- Risk
- Procurement

*"As practitioners of project management, we are committed to doing what is right and honorable."*



## PMBOK Does Not Preclude Using Agile

- Communication methods and frequency are not dictated
- Progressive elaboration
- Triple constraint still applies
- Lessons learned can and should be collected throughout the project
- Planning should be done iteratively
- Code of ethics and professional conduct applies regardless of approach



*Is it the PMBOK that is too prescriptive or how our organizations have chosen to interpret it?*



## Project Management Processes

*“This does not mean that the knowledge, skills and processes described should always be applied uniformly on all projects. The project manager, in collaboration with the project team, is always responsible for determining what processes are appropriate, and the appropriate degree of rigor for each process, for any given project.”*

“PMBOK Guide – Fourth Edition”



## Your Toolbox



## Agile or PMBOK?

- What tool is better – hammer or screw driver?
  - Depends on the task at hand
  - Compare for understanding, not judgment
- Value of a tool is that it limits your options
  - Prescriptive (Do it this way)
  - Adaptive (Do whatever)



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## Don't Get Too Comfortable

- While the PMBOK does not preclude using agile approaches, it also does not promote it
- Defined (waterfall) processes are not conducive to complex projects with evolving requirements
  - Let's quit using the “building a house” analogy
- Implementing the Scrum “skeleton” is easy – implementing the Scrum heart is hard
  - Paradigm shifting approach
  - Will impact many areas of a company
  - Disruptive, but worth the effort



## Themes to Take With You

- Have you added any tools to your toolbox lately?
- Focus on features not tasks
- Working software – early, often and valuable
- Embrace change
- Importance of individuals and the team
- Collaboration among the team and stakeholders
  - Ideally co-located
- Continuously improve
  - Best practices promote complacency
- Know what is enough documentation
- Agile projects done right are fun!



## Resources

- Web Sites
  - [www.agilealliance.org](http://www.agilealliance.org)
  - [www.scrumalliance.org](http://www.scrumalliance.org)
  - <http://agile.community.pmi.org>
- Books
  - Agile and Iterative Development: A Manager's Guide by Craig Larman
  - Agile Estimating and Planning by Mike Cohn
  - Agile Project Management with Scrum by Ken Schwaber
  - Kanban and Scrum: Making the most of both by Henrick Kniberg and Mattias Skarin
  - "Project Managers vs. ScrumMasters: Agile Project Management Matures" by Kevin Aguanno
  - Succeeding with Agile by Mike Cohn
- NEW Agile Users Group ([www.newagile.org](http://www.newagile.org))
  - Next meeting: Wednesday, 3/17/09 5:30 PM at Fox Valley Technical College



## Questions?



## Thank You

For questions or more information, please contact:

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