Adopting Disciplined Agile Delivery in the Government

Lunch Session 1 @ 11:30 - 13:00

Scott W. Ambler, IBM Rational, Chief Methodologist for IT



IBM Software Development and Systems Engineering Symposium

Ottawa, ON | May 2, 2012



Agenda

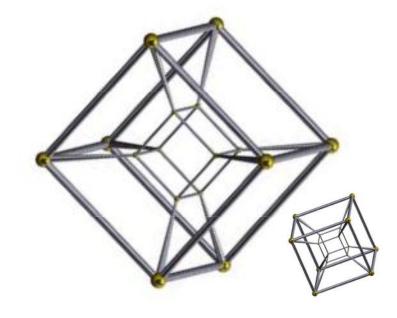


- Disciplined Agile Delivery (DAD)
- Adoption Lessons Learned
- Parting Thoughts



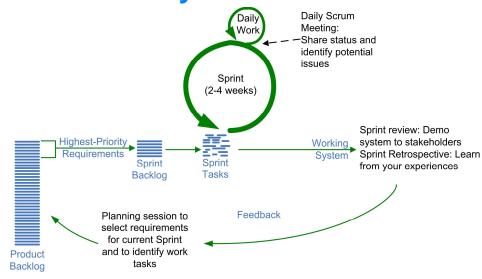
Defining Disciplined Agile Delivery (DAD)

- The DAD process framework is an agile approach to IT solution delivery that is:
 - People-first
 - Learning-oriented
 - Risk and value driven
 - Goal-driven
 - Hybrid
 - Enterprise aware
 - Scalable



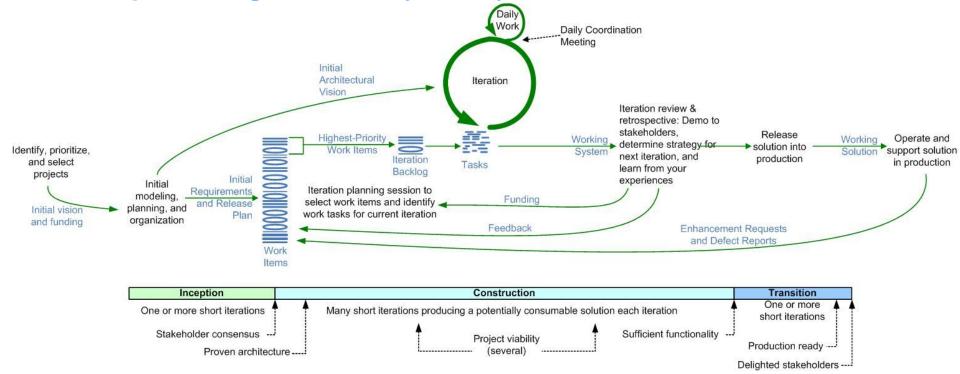


The Scrum construction lifecycle





The Disciplined Agile Delivery life cycle – Basic

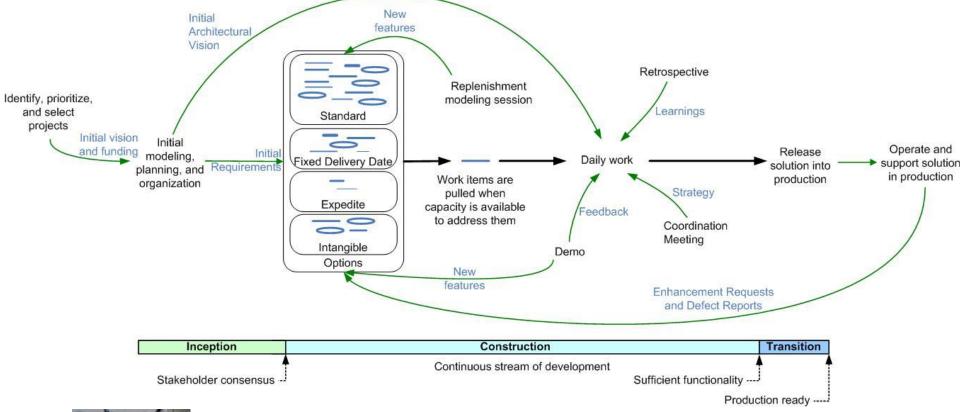




The Disciplined Agile Delivery (DAD) process framework is a people-first, learning-oriented hybrid agile approach to IT solution delivery. It has a risk-value lifecycle, is goaldriven, scalable, and is enterprise aware.



The Disciplined Agile Delivery life cycle – Advanced

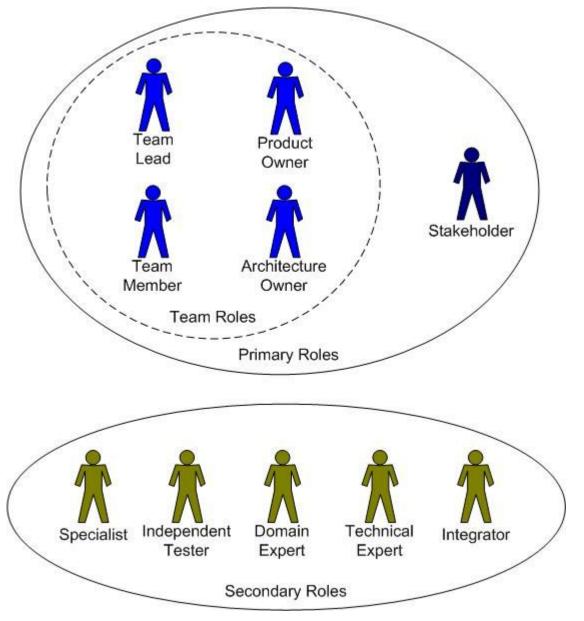




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Potential roles on DAD teams





Inception Goals

Construction Goals

Transition Goals

- I dentify the vision for the project
- Bring stakeholders to agreement around the vision
- Align with the enterprise direction
- I dentify initial requirements, technical strategy and project plan
- Setup the work environment
- Form initial team
- Secure funding
- I dentify risks

- Produce a potentially consumable solution
- Prove architecture early
- Address changing stakeholder needs
- Move closer to a deployable release
- Maintain or improve upon existing quality levels

- Ensure the solution is production ready
- Ensure the stakeholders are prepared to receive the solution
- Deploy the solution into production

Ongoing Goals

- Fulfill the project mission
- Grow team members skills
- Enhance existing infrastructure
- I mprove team process and environment
- Leverage existing infrastructure
- Address risk



Goals Driven: An example

Instructions:

- -Consider your <u>actual</u> experiences on agile projects, if any
- Share your experiences exploring the initial requirements/scope at the beginning of agile projects



- -Who did you work with?
- What types of models/artifacts did you create, if any?
- What level of detail did you go to?
- How long did it take?
- How did you go about doing it?
- What were the advantages and disadvantages of each thing you did?





Agenda

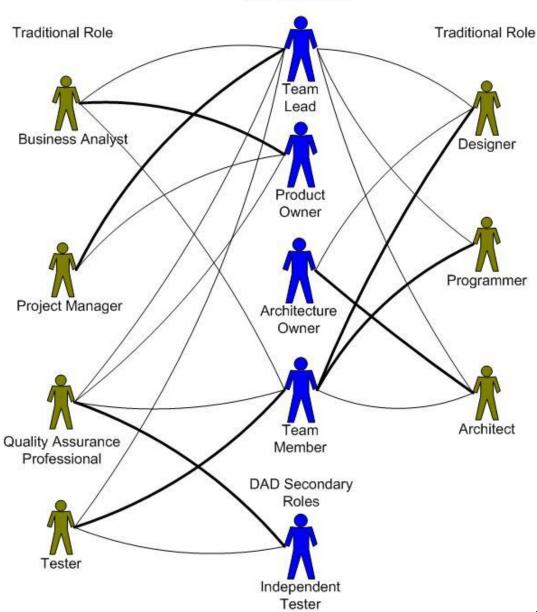


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DAD Team Roles

Individuals transition to agile





Key agile challenges that IBM clients are experiencing IBM assessments of troubled client agile engagements, and hundreds of

discussions with clients have repeatedly identified three themes of pain

Inexperience



- Existing teams read agile books and adopt core agile practices, but struggle with scalability and organizational issues
- Clients hire agile consultants who may not have breadth of experience with large projects or complex organizations
- Good buzz overshadows more serious shortcomings
- Late or no planning for impacted entities

No Enterprise Agile Plan



- Lack of understanding of the current state barriers to agility
- Little to no consideration of existing COE's, strategy, standards or traditional causes of project failure (unqualified resources, lack of resources, inadequate environments and tooling)
- No plans to resolve barriers, build sponsorship, deliver pilots, implement common tooling, measure, communicate and scale

Limited Executive Sponsorship



- > For alternate to rigid, waterfall, financial and IT governance (phases, gates, roles, deliverables, infrastructure)
- For direct involvement of the right business and IT personnel
- > For overcoming the existing culture and organization that conflict with leading agile, lean, rapid and traditional practices

Evidence of one or more of these challenges can lead to short term chaos, create a negative impression of the implementation and eventually erode sponsor support for agile best practices © 2012 IBM Corporation



Scaling up capability using a waved implementation plan This example from a real IBM engagement, shows a waved approach to agile

This example from a real IBM engagement, shows a waved approach to agile assessment, implementation and improvement (do something and learn)

Preparatory workshops

- Vision workshops to identify candidate pilot project scope
 - Identify and orient Key Stakeholders
 - Define and prioritize key features and users
 - Define business value to be achieved
 - Refine solution definition workshop plans
- Solution Definition workshops
 - Elaborate key features into epics and stories and prioritize
 - Define high level architecture and technology requirements for first release
 - Outline implementation roadmap (business features and infrastructure)
- Agile Release Planning Workshops
 - Identify gaps in skills, capabilities and infrastructure
 - Tailor agile team structures
 - Develop release level plans
 - Prepare initial tooling and architecture required
 - Mobilize agile teams

First release

- Develop First Release
 - Conduct iteration planning
 - Design/code/test
 - Reflect
- Plan for second release
 - Consider reflections from first iterations
 - Conduct definition and release planning activities for next features/epics/stories

Next release

- Optimize agile practices that may not have been fully used due to timing of the first release
- Develop Release
 - Conduct iteration planning
 - Design/code/test
 - Reflect
- Plan for next release
 - Consider reflections from first iterations
 - Conduct definition and release planning activities for next features/epics/stories

Deliverables

Key Activities

- Initial program roadmap
- Initial architecture roadmap
- Agile initiative charter (for first release)

- Executive level communication / training
- Code and light, agile deliverables
- Roadmap and supporting plans (refined)
- Code and light, agile deliverables
- Roadmap and supporting plans (refined)

30 days estimated

90 day release target

30 day release target



Organizational Adoption: Address the "5Ps" of IT

- 1. People
- 2. Principles/Philosophies
- 3. Practices/Patterns
- 4. Products
- 5. Process





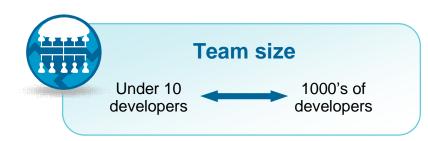
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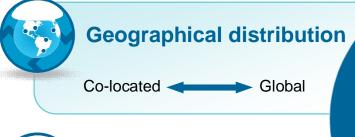
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DAD provides a foundation from which to scale agile







Project

focus









Contractual



focus



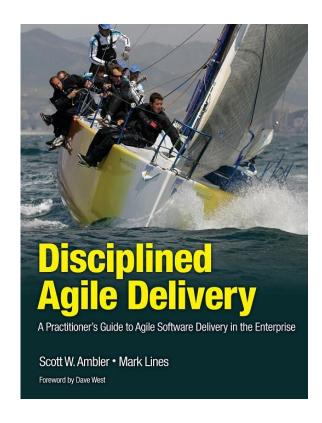


Agile Adoption Advice

- This is a paradigm shift
- There is no quick fix
- Change is needed at the individual, team, and organization level
- Hire qualified, experienced coaches
- Develop a plan, but expect it to evolve
- You need real, ongoing executive sponsorship
- Address the 5Ps of IT



For more about Disciplined Agile Delivery (DAD)



IBM Press, June 2012 www.DisciplinedAgileDelivery.com







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Due to popular demand...the and improved National Capital Rational Users Group is back!!!!

When?: May 24, 3 to 5 PM

Where?: 340 Albert St, 16th

floor

How?: http://bit.ly/lp9qzN

Agenda:

- Special guest speaker!
- Get to know your local Rational team
- Network with other Rational users
- A post meeting celebration



Why you should join!

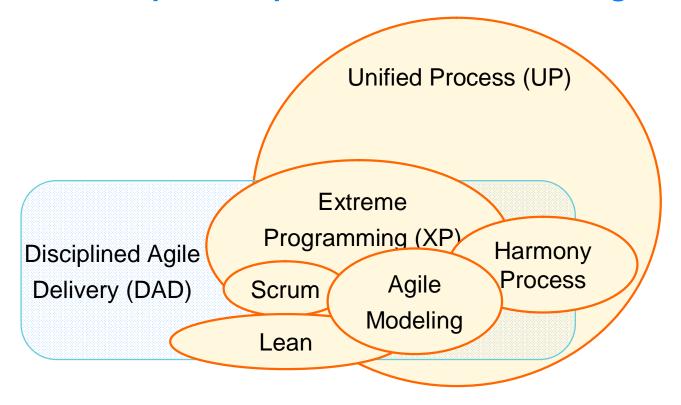
- ✓ Learn & share tips 'n tricks!
- √ Feedback and communication paths directly to IBM staff and executives
- ✓ Close community feel!
- ✓ Free membership to the Global Rational Community
- Free giveaways if you make a suggestion/idea to discuss and receive a giveaway!
- ✓ Members are eligible for a discount to Innovate 2012 and future events
- √40% discount on Rational books from IBM Press!



Backup slides



Hybrid: DAD adopts best practices from several agile methods



DAD is a hybrid process framework. DAD adopt best practices and philosophies from several methodologies



People First: Principles and values

- People and the way they collaborate are the primary determinant of success
- DAD team members are:
 - Self disciplined commit only to work they can accomplish and do it well
 - Self-organizing estimate and plan own work
 - Self aware understand how to improve
- DAD encourages:
 - Cross functional teams
 - Generalizing Specialist
 - No hierarchy within teams





Learning Oriented

Domain learning

- Initial requirements envisioning
- Incremental delivery of a potentially consumable solution
- Active stakeholder participation throughout lifecycle

Process improvement

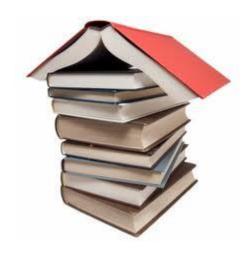
- Retrospectives at the end of an iteration
- Tracking of improvements
- Sharing of skills through non-solo development

Technical learning

- Architecture spikes
- Proving the architecture with working code

General strategies

- Training
- Education
- Mentoring/coaching
- Individuals are generalizing specialists, not just specialists





Risk-Value Driven

Address common project risks, for example:

- Stakeholder consensus around vision
- Proving the architecture early
- Align with enterprise direction
- Work on things that promote learning early in the lifecycle

Value Driven

- Work on the most valuable things first
- Continued assessment of project viability and business value
- Determining when sufficient functionality has been produced
- Potentially consumable solutions throughout the lifecycle
- Continually assessing new work against the vision





Enterprise Aware: Optimizing the whole

Follow corporate conventions:

- · Standards and guidance for the architecture
- Coding standards
- Data guidelines
- User interface (UI) guidelines
- · And many more

Enhance the organizational ecosystem:

- · Reusing and leveraging the existing infrastructure is great
- Enhancing and building out the infrastructure is better
- Work closely with the enterprise architecture (EA) team

Share learnings:

- · Personal and team improvement is great
- Organization-level improvement is better
- Your agile center of competency should harvest and share improven

Interact with other (potentially non-agile) teams:

- Enterprise architecture
- Data management
- Governance
- Quality assurance
- Project management office (PMO)





Enterprise Aware: Governing agile teams

- Agile teams provide:
 - Significantly greater visibility to stakeholders regarding their actual status
 - Many more opportunities for stakeholders to steer the project
 - BUT... require stakeholders to be actively involved and accountable

Practices:

- Active stakeholder participation
- Potentially consumable solutions every iteration
- Risk-value lifecycle
- Explicit, light-weight milestone reviews
- Daily coordination meetings
- Iteration demos
- All-hands demos
- Follow enterprise development guidance
- Work closely with enterprise architects
- Automated metrics gathering





Some agile whitepapers on IBM.com

- The Agile Scaling Model (ASM): Adapting Agile Methods for Complex Environments
 - ftp://ftp.software.ibm.com/common/ssi/sa/wh/n/raw14204usen/RAW14204USEN.PDF
- Scaling Agile: An Executive Guide
 - ftp://public.dhe.ibm.com/common/ssi/sa/wh/n/raw14211usen/RAW14211USEN.PDF
- Improving Software Economics: Top 10 Principles of Achieving Agility at Scale
 - ftp://public.dhe.ibm.com/common/ssi/ecm/en/raw14148usen/RAW14148USEN.PDF
- Enable the Agile Enterprise Through Incremental Adoption of Practices
 - http://public.dhe.ibm.com/common/ssi/ecm/en/raw14077usen/RAW14077USEN.PDF
- Disciplined Agile Delivery: An Introduction
 - http://public.dhe.ibm.com/common/ssi/ecm/en/raw14261usen/RAW14261USEN.PDF