Introduction to Disciplined Agile Delivery (DAD)
The Agile Manifesto

We 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.

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

Practices

- Product Backlog (work item list)
- Value-driven lifecycle
- Daily Scrum meeting (coordination meeting)
- Release Planning
- Sprint planning (iteration planning)
- Sprint review and demonstration
- Sprint retrospective
- User story driven development
Why This is Hard: Delivery at Scale

- **Geographic Distribution**
  - Co-located
  - Global

- **Team Size**
  - 2
  - 1000s

- **Organizational Distribution**
  - Single
  - Outsourcing

- **Team Culture**
  - Agile
  - Rigid

- **Project Type**
  - Agile-Friendly
  - Traditional

- **Organizational Culture**
  - Agile
  - Rigid

- **Domain Complexity**
  - Straightforward
  - Very complex

- **Technical Complexity**
  - Straightforward
  - Very complex

- **Compliance**
  - None
  - Life critical
Are you experiencing any of these pain points?

• Requirements backlogs that seem to keep growing
• Defects found late in the project
• Poor quality and hard to maintain code
• Never ending projects
• Misunderstanding with business about the value of agile
• Agile being viewed as uncontrolled “hacking”
• Inconsistency with corporate standards in the areas of architecture, database, governance
• A Project Management Office (PMO) that wants detailed plans, requirements, and specifications that agile doesn’t have
Disciplined Agile Delivery (DAD) is a process decision framework

The key characteristics of DAD:

- People-first
- Goal-driven
- Hybrid agile
- Learning-oriented
- Full delivery lifecycle
- Solution focused
- Risk-value lifecycle
- Enterprise aware
DAD is a Hybrid Framework

DAD leverages proven strategies from several sources, providing a decision framework to guide your adoption and tailoring of them in a context-driven manner.
A High Level Lifecycle

- **Inception**: Envision and Plan
- **Construction**: Incrementally build a consumable solution
- **Transition**: Release solution

Next Release
Disciplined Agile Delivery: Basic Lifecycle

...so there’s a fair bit to the agile delivery lifecycle.
Disciplined Agile Delivery: Lean Lifecycle

DAD doesn’t prescribe a single lifecycle…
The Phases Disappear Over Time

First release: Inception Construction Transition

Second release: I Construction T

Third release: I Construction T

Nth+ releases: C T C T C T C T

…and promotes continuous learning and improvement.
Disciplined Agile Delivery: Lean Continuous Delivery Lifecycle

A good end goal
Sometimes it takes time to identify what your stakeholders actually need
DAD supports a robust set of roles

- Team Lead
  - Agile process expert, keeps team focused on achievement of goals, removes impediments

- Product Owner
  - Owns the product vision, scope and priorities of the solution

- Architecture Owner
  - Owns the architecture decisions and technical priorities, mitigates key technical risks

- Team Member
  - Cross-functional team members that deliver the solution

- Stakeholder
  - Includes the customer but also other stakeholders such as Project Sponsor, DevOps, architecture, database groups, governance bodies
DAD is Goal-Driven, Not Prescriptive

**Disciplined Agile Delivery**

**Inception** (How do we start?)
- Form initial team
- Develop common vision
- Align with enterprise direction
- Explore initial scope
- Identify initial technical strategy
- Develop initial release plan
- Secure funding
- Form work environment
- Identify risks

**Transition** (How do we deploy?)
- Ensure the solution is consumable
- Deploy the solution

**Construction** (How do we produce a solution?)
- Produce a potentially consumable solution
- Address changing stakeholder needs
- Move closer to deployable release
- Improve quality
- Prove architecture early

**Ongoing** (What do we do throughout?)
- Grow team members
- Fulfill the team mission
- Leverage and enhance existing Infrastructure
- Mitigate Risk
- Improve team process and environment
- Coordinate Activities

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Goal Driven Approach

Form the Initial Team

Source
- Team size
- Team structure
- Team members
- Geographic distribution
- Supporting the team
- Availability

Co-located
- Partially dispersed
- Fully dispersed
- Distributed subteams

Advantages
Disadvantages
Considerations
Goal: Develop Common Vision

- **Collaborative**
  - Stakeholder driven
  - Sponsor driven
  - Team driven

- **Information radiators**
  - Light-weight
  - Detailed
  - None

- **Consensus**
  - General agreement
  - Dictated
  - None

- **Statement of intent**
  - Informal agreement
  - Contract
Another example - Goal: Secure Funding

- **Funding Strategy**
  - T&M plus performance bonus
  - *Time and materials (T&M)*
  - *Stage gate*
  - Fixed price/cost (ranged)
  - Fixed price/cost (exact)

- **Access Strategy**
  - IT funding pool
  - *Informal request*
  - Formal request
**Goal – Secure Funding**

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Potential Advantages</th>
<th>Potential Disadvantages</th>
<th>Considerations</th>
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<tbody>
<tr>
<td>Fixed price (nonranged)</td>
<td>Provides stakeholders with an exact cost to hope for.</td>
<td>Doesn’t communicate the actual uncertainty faced by the project team.</td>
<td>Works well when the scope of what you need to deliver is allowed to vary. Stakeholders have caught on to the fact that most IT teams are padding the budget, so will do their best to negotiate that padding away. High probability that you will need to go back and negotiate for more funding, which in turn can lower stakeholder trust in your ability to get the job done.</td>
</tr>
<tr>
<td>Fixed with range</td>
<td>Provides stakeholders with a more realistic assessment of the uncertainty faced by the team.</td>
<td>Many stakeholders will focus on the lower end of the estimate range. Many stakeholders don’t understand the need for ranged estimates (see Chapter 10 for a detailed discussion).</td>
<td>You will likely need to educate some of your stakeholders regarding the desirability of a ranged estimate.</td>
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<tr>
<td>Staged</td>
<td>Lowers financial risk of project. Provides stakeholders with financial leverage over your project.</td>
<td>Some organizations have an onerous project funding process, so requiring teams to obtain funding in stages can increase their bureaucratic overhead and increase risk of delivering late.</td>
<td>Align your funding gates with lifecycle milestones to hopefully reduce overall overhead and to focus both stakeholders and the teams on the importance of the milestone reviews.</td>
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DAD Teams Are Enterprise Aware

Disciplined agilists:
- Work closely with enterprise groups
- Follow existing roadmap(s) where appropriate
- Leverage existing assets
- Enhance existing assets

Enterprise Awareness
“How can I help my organization?”

Departmental Awareness
“How can I help my department?”

Team Awareness
“How can I help the team?”

Individual Awareness
“How can I be the best me?”
Context Counts – Tailoring and Scaling Agile

DAD provides the foundation from which to scale:
- Large teams
- Geographically distributed teams
- Compliance
- Domain complexity
- Technical complexity
- Organizational distribution

Disciplined Agile Delivery
- Delivery focus
- Risk-value driven lifecycle
- Self-organization with appropriate governance
- Goal driven
- Enterprise aware

Agility at Scale
- Construction focus
- Value driven lifecycle
- Self-organizing teams
- Prescriptive
- Project team aware

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Governance Should Address a Range of Issues

- Team roles and responsibilities
- Individual roles and responsibilities
- Decision rights and decision making process
- Governing body
- Exceptions and escalation processes
- Knowledge sharing processes
- Metrics strategy
- Risk mitigation
- Reward structure
- Status reporting
- Audit processes
- Policies, standards, and guidelines
- Artifacts and their lifecycles
- Funding
Why Traditional Governance Strategies Won’t Work

Traditional assumptions that conflict with agile:

– You can judge team progress from generation of artifacts
– Delivery teams should work in a serial manner
– You want teams to follow a common, repeatable process
– Projects should be driven by senior IT management
**Governance is Built Into DAD**

- Governance strategies built into DAD:
  - Risk-value lifecycle
  - Light-weight milestone reviews
  - “Standard” opportunities for increased visibility and to steer the team provided by agile
  - Enterprise awareness
  - Robust stakeholder definition
Measuring Agile Teams

• Talk to people; don’t manage to the metrics
• Measure teams, not individuals
• Collect several metrics
• Trends are better than scalar values
• Empirical observation is important but limited
• Prefer automated metrics
• Some metrics must be gathered manually
• Prefer pull versus push reporting
• Beware scientific facades
• Measure the value of your metrics program
• Be prepared to educate people
• The value of many metrics diminishes over time
• If you collect no metrics at all you’re flying blind
• If you collect too many metrics you may be flying blinded

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Potential Metrics

- Acceleration
- Activity time
- Age of work items
- Blocking work items
- Build health
- Business value delivered
- Change cycle time
- Code quality
- Defect density
- Defect trend
- Effort/cost projection
- Iteration burndown

- Lifecycle traceability
- Net present value (NPV)
- Ranged release burndown
- Release burndown
- Return on investment (ROI)
- Risk mitigation
- Stakeholder satisfaction
- Team morale
- Test coverage
- Time invested
- Velocity
Why Disciplined Agile Delivery (DAD)?

• Increased productivity
  – Enterprise awareness leads to better solution fit
  – Risk-value lifecycle streamlines development – Reduces “surprises” late in the project
  – DAD optimizes the solution delivery whole, not just the agile programming part
• Easy to tailor
  – Goal-driven approach provides easy-to-follow advice
  – Avoids the “one size fits all” approach of other agile methods
• Scalable
  – Enterprise awareness leads to better organizational fit
  – Goal-driven
• Palatable
  – Answers many of the questions experienced agile teams are still struggling with
  – Reflects actual practice, not theory
  – The next step for teams currently doing Scrum
Disciplined Agile Delivery: The Foundation for Scaling Agile

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- Outside In Dev.
- SAFe
- And more...
- XP
- Agile Modeling
- Scrum
- Kanban
- Lean

Disciplined Agile Delivery (DAD)

DAD leverages proven strategies from several sources, providing a decision framework to guide your adoption and tailoring of them in a context-driven manner.
What Does it Mean to Be Disciplined?

- In general, it requires discipline to follow many agile practices and philosophies
- But, it also requires discipline to:
  - Reduce the feedback cycle
  - Learn continuously
  - Deliver solutions incrementally
  - Be goal driven
  - Enterprise aware
  - Streamline Inception and Transition efforts
  - Adopt agile governance strategies
Recommended Resources
DAD Resources

- *Disciplined Agile Delivery: A Practitioner’s Guide*, by Scott Ambler & Mark Lines
- DAD LinkedIn Discussion Group:
  - [http://www.linkedin.com/groups/Disciplined-Agile-Delivery-4685263](http://www.linkedin.com/groups/Disciplined-Agile-Delivery-4685263)