Agile Software Development

Lecturer: Raman Ramsin

Lecture 6

DSDM: Iterative Phases
DSDM: Process

[DSDM Consortium 2014]
DSDM: Products

[DSDM Consortium 2014]
DSDM Process: Evolutionary Development Phase

- Inputs:
  - Evolutionary Documents: Business Case, Prioritized Requirements List (PRL), Solution Architecture Definition (SAD), Development Approach Definition (DAD), Delivery Plan, Management Approach Definition (MAD)

- Goal: Creating Solution Increments that meet the business need and are technically sound; the practices applied include:
  1. Iterative Development
  2. Timeboxing
  3. MoSCoW Prioritization
  4. Modeling
  5. Facilitated Workshops

- Outputs:
  - Updated versions of Evolutionary Documents
  - Evolving Solution
Evolutionary Development Phase: Timeboxes

Typically 2-4 weeks

Investigation
@10-20% of effort

Refinement
@60-80% of effort

Consolidation
@10-20% of effort

[DSDM Consortium 2014]
Timebox Activities: Kick-Off

- Short session: Takes around 1-3 hours for a 2-3-week timebox.
- Attended by the SDT, Project Manager, Technical Coordinator and Business Visionary.

### Activities:
- Reviewing timebox objectives, as outlined in the Delivery Plan, to gain a common understanding of what is to be achieved
- Ensuring that it is still feasible within the timebox to deliver what was initially expected, and to re-plan if this is no longer possible
- Agreeing acceptance criteria for each product to be delivered in the timebox
- Reviewing the availability of all SDT members to participate in this timebox
- Highlighting any known dependencies that may affect this timebox:
  - Internal: other SDTs on this project working concurrently in parallel timeboxes
  - External: people/projects outside the team’s control that may impact this project
Timebox Activities: Investigation

- Details the requirements agreed for the timebox and their acceptance criteria.
- An initial model/prototype of the solution may be created to demonstrate the requirements and also to attain feedback.
- At the end of Investigation the whole SDT review the following:
  - Dependencies (internal and external)
  - Timebox Plan (reviewing the work still to be done, and agreeing which members of the team will be working on what)
  - Risks
- Feedback from this review is captured as a Timebox Review Record (can be as simple as an email, confirming what has been agreed).
Timebox Activities: Refinement

- The aim of Refinement is to complete as much of the development work as possible, including testing the products.
- The primary objective is to meet the detailed acceptance criteria previously agreed, and also to focus on the current business need.
- Ends with a review with the Business Ambassador(s) and other stakeholders, such as Business Advisors and Business Visionary.
  - Would typically involve a demo of the product developed within the timebox.
  - Determines what actions are necessary to achieve full completion of the work, according to the acceptance criteria, by the end of the timebox.
  - Changes requested at this time (fixing minor outstanding issues) are carefully considered and prioritized.
  - Feedback from this review is captured as a Timebox Review Record.
Timebox Activities: Consolidation

- Actions agreed at the Refinement review are carried out, together with final testing and any work required to satisfy the standards.
- Any final quality control checks are carried out by the SDT to ensure all products meet the business need to an acceptable quality.
- Ends with a review to check whether the timebox objectives have been met.
- Any products not meeting the agreed acceptance criteria by this point are deemed not to have been delivered.
  - Undelivered products remain open on the Prioritized Requirements List.
Timebox Activities: Close-Out

- Short session: Takes around 1-3 hours for a 2-3-week timebox.
- The primary aim is formal acceptance of the timebox deliverables by the Business Visionary and Technical Coordinator.
- An important secondary aim is to determine what is to be done about work that was not completed. Such work may be:
  - Considered for the next timebox
  - Scheduled for some point later in the Project Increment or project
  - Dropped from the Project Increment or project
- Includes a short timebox retrospective workshop, to learn from the timebox and to take actions to improve future timeboxes.
Daily Stand-Up Meetings

- SDT’s opportunity to share information and to do any day-to-day re-planning and reorganizing necessary when issues occur.
- Takes place at the same time each day (with the Timebox Plan visible).
- Normally facilitated by the Team Leader; takes no longer than 15 minutes.
- Attended by all members of the SDT, and any Business Advisors and Technical Advisors actively involved in this timebox.
  - May be attended by other roles in order to observe progress and pick up escalated issues.
- Each participant in turn describes:
  - What I have been doing since the last stand-up that helps achieve the timebox objectives.
  - What I will be doing until the next stand-up to help achieve the timebox objectives.
  - What problems I have that will prevent me or the team from achieving the objectives.
- Ideally held with participants standing in a circle by their Team Board.
- Should not attempt to solve the problems; problems are taken off-line.
Evolutionary Development Phase: Evolving Solution

- Made up of:
  - all appropriate components of the final solution
  - any intermediate deliverables necessary to explore the detail of requirements and the solution under construction

- Including: Software components, models, prototypes, supporting materials and testing/review artefacts.

- Produced by: Solution Development Team

- Produced for:
  - Business Sponsor
  - Solution Participants (users of the end-products of the project)

- Approved by: Business Visionary and Technical Coordinator
Evolutionary Development Phase: Timebox Plan

- Provides detail for each Timebox in the Delivery Plan.
- Elaborates on:
  - objectives of the Timebox
  - deliverables of the Timebox
  - tasks to produce the deliverables
  - resources required to do the work
- Shown on a Team Board as work to do, in progress, and done.
- Updated at least on a daily basis at the Daily Stand-ups
- Produced by: Solution Development Team
- Produced for: Solution Development Team
- Approved by: Project Manager and Technical Coordinator
Evolutionary Development Phase: Timebox Review Record

- Captures the feedback attained from each review conducted during the Timebox.
- **Produced by:** Team Leader
- **Produced for:**
  - Project Governance Authority
  - Project Manager
- **Approved by:**
  - Business Visionary
  - Technical Coordinator
Evolutionary Development Phase: Project Review Report

- A single document that is updated at the end of each Project Increment by adding new sections pertinent to that Increment.
  - Captures the feedback from the review of the delivered solution and confirms what has been delivered and what has not
  - Captures learning points from the retrospective
  - Describes the business benefits that should now accrue through the proper use of the solution delivered so far

- Produced by: Project Manager
- Produced for: All project participants and stakeholders
- Approved by:
  - Business Visionary
  - Technical Coordinator
  - Team Leader
DSDM Process: Deployment Phase

- **Inputs:**
  - Evolutionary Documents: Business Case, Prioritized Requirements List (PRL), Solution Architecture Definition (SAD), Development Approach Definition (DAD), Delivery Plan, Management Approach Definition (MAD)
  - Evolving Solution

- **Goal:** Bringing the Evolving Solution into operational use

- **Stages:**
  1. Assemble
  2. Review
  3. Deploy

- **Outputs:**
  - Updated versions of Evolutionary Documents
  - Deployed Solution
Deployment Phase: Assemble

- Solution Increments are assembled into a single release.
- May also include bringing together any relevant supporting information; e.g.,
  - a new business process
  - a schedule of training
  - user guides
  - Support and maintenance plans
Deployment Phase: Review

- Ensures the proposed release meets the appropriate standards and is complete enough to be viable.
- Provides “approval to deploy”.
- In a simple environment, it can be based on a basic checklist.
- In a more complex environment, it may be as formal as a go/no-go checkpoint workshop.
- A retrospective is also carried out for the release, focusing on ways of working and areas for improvement.
Deployment Phase: Deploy

- The physical act of putting what has been assembled (the release) into operational use.

- Includes:
  - Any technical work, such as transfer of the solution into the live (production) environment
  - Enactment of any plans for business change

- After the final Deployment, the project is formally closed.
  - The whole team hold a retrospective for the overall project, both from the technical/process perspective and from the business perspective.
  - Analogous to a post-mortem review.
Post-Project Phase: Benefits Assessment

- Describes how the benefits have actually accrued, following a period of use in live operation.
- Usually, a number of Benefits Assessments are produced on a periodic basis.
- **Produced by:**
  - Business Visionary
  - Business Analyst
- **Produced for:** Project Governance Authority
- **Approved by:** Business Sponsor
### Sequential Phases: RACI Chart of Roles and Products

RACI: Responsible, Accountable, Consulted, Informed

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Sponsor</td>
<td>A</td>
<td>A</td>
<td></td>
<td>I</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Visionary</td>
<td>C</td>
<td>A</td>
<td>A</td>
<td>I</td>
<td>C</td>
<td>C</td>
<td>A</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Advisor</td>
<td>(C)</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical Coordinator</td>
<td>I</td>
<td>C</td>
<td>R</td>
<td>R</td>
<td>AC</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical Advisor</td>
<td>(C)</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>I</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Manager</td>
<td>C</td>
<td>A</td>
<td>A</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>I</td>
<td>A</td>
<td>I</td>
<td>R</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Analyst</td>
<td>I</td>
<td>R</td>
<td>R</td>
<td>C</td>
<td>I</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>I</td>
<td>C</td>
<td>R</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Ambassador*</td>
<td></td>
<td></td>
<td></td>
<td>C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solution Development Team</td>
<td>I</td>
<td>I</td>
<td>C</td>
<td>I</td>
<td>C</td>
<td>C</td>
<td>R</td>
<td>C</td>
<td>RI</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team Leader*</td>
<td></td>
<td></td>
<td></td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DSDM Coach</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Governance Authority</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anybody</td>
<td>RC</td>
<td></td>
<td></td>
<td>I</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Where different to collective responsibility of the Solution Development Team

[Moran 2015]
References
