

Agile Software Development

Lecturer: Raman Ramsin

Lecture 12

DSDM: Sequential Phases

Department of Computer Engineering



DSDM: Process



[DSDM Consortium 2014]

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DSDM: Products





DSDM Process: Feasibility Phase

Inputs:

□ <u>Terms of Reference</u> (from the Pre-Project phase)

- Goals: Establishing
 - 1. Technical Feasibility
 - 2. Business Justification
- Outputs:

Preliminary versions of: <u>Business Case</u>, <u>Prioritized Requirements</u> <u>List (PRL)</u>, <u>Solution Architecture Definition (SAD)</u>, <u>Development</u> <u>Approach Definition (DAD)</u>, <u>Delivery Plan</u>, <u>Management Approach</u> <u>Definition (MAD)</u>

Feasibility Assessment



Feasibility Phase: Terms of Reference

- High-level definition of the overarching business driver for, and top-level objectives of, the project.
- Its primary aim is to scope and justify the Feasibility phase.
- Identified as a governance product because it may be used for purposes such as prioritization of a project within a portfolio.
- Produced by: Anybody with a product vision

Produced for:

- □ Project Governance Authority (to make a decision)
- □ Business Analyst and Technical Coordinator
 - To ensure, by reference, that objectives and proposed solutions emerging during Foundations phase are appropriately aligned
- Approved by: Business Sponsor

Feasibility Phase: Terms of Reference Template

Background	Provide an overview of the history behind the proposed project; Clearly state why perform the project; State the general role of stakeholders in project activities; Write a brief explanation of the need behind the project
Objectives	State the major objectives of the proposed project; Describe the intended achievements at different stages of the project lifecycle; Provide an overview of the resources required; Clearly define what is expected from the project and who the target audience is
Issues	Highlight the key issues to be studied and disputed at every stage of the project; List the criteria (including Efficiency, Relevance, Effectiveness, Impact, Sustainability) against which the issues will be analyzed and evaluated
Methodology	Define the key phases of the project implementation process; Specify the required level of stakeholder involvement; Describe the content and duration of project activities; List the information collection tools necessary for monitoring purposes; Provide data analysis rules
Expertise	Specify the type of work involved in the proposed project; Describe the type of skills and abilities required; Define the exact number of individuals involved; Point at the period of engagement of each team member; Describe the duties and responsibility per teammate; Identify the relationships between the team members
Reporting	Provide the Table of Contents for project reports; Define rules for composing annexes; Add report templates; Set submission dates; List the computer software tools to be used for report writing; Refer to people responsible for reporting and approving; Provide other sufficient information such as number of copies to be created, responsibilities for report production and presentation, etc.
Work plan	Provide a summary of the anticipated work; Describe the activities and necessary resources required for achieving the project's results and purpose; Provide the activity schedule template; Describe The finance resources allocated to the project

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Feasibility Phase: Business Case

- Provides a vision and a justification for the project from a business perspective.
- Created first as an outline by the end of Feasibility, then as a basis for approval of development by the end of Foundations.
- Formally reviewed at the end of each Project Increment in order to determine whether further work is justified.
- Produced by: Business Analyst
- Produced for:
 - □ Project Governance Authority
 - □ The entire project team
- Approved by: Business Sponsor (responsible for ROI)



Feasibility Phase: Prioritized Requirements List

- Describes, at a high level, the requirements that the project needs to address.
- indicates priorities with respect to meeting the objectives of the project and the needs of the business.
- Consideration of requirements begins in Feasibility and demarcates the scope of the project at the end of Foundations.
- Produced by: Business Analyst
- Produced for: Entire project team
- Approved by: Business Visionary (responsible for ensuring that requirements align with business vision)



Feasibility Phase: Solution Architecture Definition

- Provides a high-level design framework for the solution.
- Covers both business and technical aspects of the solution.
- Produced to a level of detail that makes the scope of the solution clear but does not constrain evolutionary development.

Produced by:

- □ Business Analyst (design of business process and organization change)
- □ Technical Coordinator (design of technical aspects of the solution)
- Produced for: Solution Development Team
- Approved by:
 - □ Business Visionary (responsible for business change)
 - □ Project Manager (responsible for ensuring delivery of products)



Feasibility Phase: Development Approach Definition

- Provides a high-level definition of the tools, techniques, customs, practices and standards that will be applied.
- Describes how quality of the solution will be assured.
 A strategy for testing and review is therefore a key part of the development approach and is described in the DAD.
- Produced by: Technical Coordinator
- Produced for: Solution Development Team
- Approved by: Project Manager



Feasibility Phase: Delivery Plan

- Provides a high-level schedule of Project Increments and, for the next increment, timeboxes that make up that increment.
- Does not deal with task-level detail.
- Produced by: Project Manager (responsible for ensuring that increments of the solution are delivered)
- Produced for: All project participants and stakeholders

Approved by:

- □ Business Visionary
- □ Technical Coordinator



Feasibility Phase: Management Approach Definition

- Shows the approach to management of the project as a whole.
- Considers, from a management perspective:
 - $\hfill\square$ how the project will be organized and planned
 - $\hfill\square$ how stakeholders will be engaged in the project
 - □ how progress will be demonstrated and reported
- Produced by: Project Manager
- Produced for: All project participants and stakeholders
- Approved by: Business Sponsor



Feasibility Phase: Feasibility Assessment

- Provides a snapshot of the above-mentioned evolving business, solution and management products at the end of Feasibility.
- Products should be mature enough to contribute to the decision as to whether the project is likely to be feasible or not.
- May be expressed as a baselined collection of the products, or as an executive summary covering the key aspects of each.
- Produced by: Project Manager
- Produced for: Project Governance Authority (to decide whether or not the project should proceed)
- Approved by: Business Sponsor (responsible for ROI)



DSDM Process: Foundations Phase

Inputs:

 Preliminary versions of: <u>Business Case</u>, <u>Prioritized Requirements List</u> (PRL), <u>Solution Architecture Definition (SAD</u>), <u>Development Approach</u> <u>Definition (DAD</u>), <u>Delivery Plan</u>, <u>Management Approach Definition (MAD</u>)

Goals: Establishing

- 1. the business rationale for the project and the scope of the project
- 2. the potential solution that will be created by the project
- 3. how development and delivery of the solution will be managed
- 4. how DSDM will applied

Outputs:

- Updated versions of the inputs
- Foundation Summary



Foundations Phase: Foundation Summary

- Provides a snapshot of the aforementioned evolving business, solution and management products at the end of Foundations.
- Products should be mature enough to contribute to the decision as to whether the project will deliver the required ROI.
- May be expressed as a baselined collection of the products, or as an executive summary covering the key aspects of each.
- Produced by: Project Manager
- Produced for: Project Governance Authority (to decide whether or not the project should proceed)
- Approved by: Business Sponsor (responsible for ROI)

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Sequential Phases: RACI Chart of Roles and Products

RACI: Responsible, Accountable, Consulted, Informed

	Terms of Reference	Business Case	Prirotised Requirements List	Solution Architcture Definition	Development Approach Definition	Delivery Plan	Management Approach Definition	Feasibility Assessment	Foundations Summary	Evolving Solution	Timebox Plan	Timebox Review Record	Project review Report	Benefits Assessment
Business Sponsor	Α	Α				1	Α	Α	Α	1		1	1	Α
Busines Visionary		С	Α	Α		AC	С	С	С	Α	Α	Α	Α	R
Business Advisor		(C)	С	С	С	С	1	С	С	С	С	С	С	
Technical Coordinator	1	С		R	R	AC	С	С	С	Α	Α	Α	Α	
Technical Advisor		(C)		С	С	С	1	С	С	С	С	С	С	
Project Manager		С		Α	Α	R	R	R	R	1	Α	1	R	
Business Analyst	1	R	R	R		С	1	С	С	С	1	С	С	R
Business Ambassador*			С											
Solution Development Team		1	1	С	1	С	1	С	С	R	RI	С	С	
Team Leader*												R	A	
DSDM Coach					С		С	С	С	С			С	
Project Governance Authority	1	1			1	1	1	1	1			1	1	1
Anybody	RC									1				С
* Where different to collective responsibility of the Solution Development Team														

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[Moran 2015] Sharif University of Technology References



- DSDM Consortium, *The DSDM Project Framework Handbook*. Agile Business Consortium, Published online at: <u>https://www.agilebusiness.org/dsdm-project-framework.html</u>, 2014 (visited: 14 September 2024).
- Moran, A., Managing Agile: Strategy, Implementation, Organisation and People, Springer, 2015.