DSDM: What’s the Use of It?

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Abstract

In 1997 five Water Control Boards collaborated to make a product for water information management. In 1998 the result was INTWIS, an Integrated Water Control Board Information System. INTWIS is based on ArcGIS 8 with an Oracle database. It consists of a basic module for INTWIS management and, by now, 13 water management supporting modules. Each of these modules has specific functionality and can be integrated with (inter)national coordinating information systems. A characteristic of these modules is that they are built following the DSDM-concept. DSDM stands for Dynamic Systems Development Method. It's a framework for system engineering and consists of 9 basic principles. Besides these principles there are supporting techniques like timeboxing, prototyping and MoSCoW-rules. With this method the supported business case is central. Cooperation with the customer is central; in fact, the module is built with a constant presence of a customer in the clean room.
INTWIS

- INTegral Water Control Board Information System
- System for registration of all kinds of relevant Water Control Board data
- Both geographic (maps) and administrative data
- Consists of different software components:
  - ArcGIS
  - ArcSDE
  - Oracle
  - Oracle Forms
  - BusinessObjects
Supported Processes

- Water quantity/quality
- Water protection (dikes)
- Cadastral information
- Sewer system key data
- Waste water quality
- WVO permits
- Taxes
- Registration of properties
All INTWIS modules are built following DSDM-concepts

- Dynamic Systems Development Method
- Based on best-practices, originated in England
- 9 DSDM principles, the bases of the Method
- Other methods: workshops, timeboxing, prototyping, MoSCoW: must-should-could-won’t haves
Why do IT-projects fail

- System doesn’t support company goals
- System has insufficient performance
- End users don’t accept the system
- It is not possible to maintain the System

IT-Projects more often fail due to personal failures than technological failures
How does DSDM tackles theses problems

- First off all the 9 principles, starting point is:
  - Nothing is perfect at once, but 80% of the solution is built within 20% of the time
  - Users are able to choose after they have seen it
  - Iteration is a natural way of working
  - Dynamic society, fast changes in time
DSDM: the 9 principles

1. Active user involvement is imperative
2. DSDM-teams must be empowered to make decisions
3. Focus on frequent delivery of products
4. ‘Fit for business purposes’ is the essential criterion for acceptance of deliverables
5. Iterative and incremental development is necessary to converge to an accurate business solution
6. All changes are reversible
7. Freeze requirements on a global level
8. Testing is integrated throughout the lifecycle
9. A collaborative and cooperative approach between all stakeholders is essential
Critical success factors

- Acceptance of the DSDM philosophy
- Decision making powers off the whole team
- Commitment of management to provide end-user involvement
- Stability of the development team
- Skills and the size of the development team
- A supportive commercial relationship
- Self directed teams, with clear team roles
DSDM project organization

Management Board

User Management

End Users

Executive Sponsor

Project Board

Project roles:
- Project manager
- Tech. coordinator
- Visionary
- Advisory user

Team roles:
- Team leader
- Ambassador user
- Developers
- Scribe
Culture and roles

The ideal team member is **Earnest**

- Empowered
- Active
- Responsible/Respected
- New ideas
- Experienced
- Trained
Summary: When to use DSDM

- Interactive systems
  (all functionality reasonably visible at user-interface)
- Clear defined user group
- Decomposable / isolatable complexity
- Decomposable in smaller functional components
- Fixed delivery time
- Project is time constrained:
  prioritable requirements (MoSCoW)
- Requirements are not too detailed or fixed
  (changeable requirements)