

From Project Manager to SCRUM Master

Changing to Agile without missing a step in your development cycle

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CEO, Luxoft Canada

Agenda



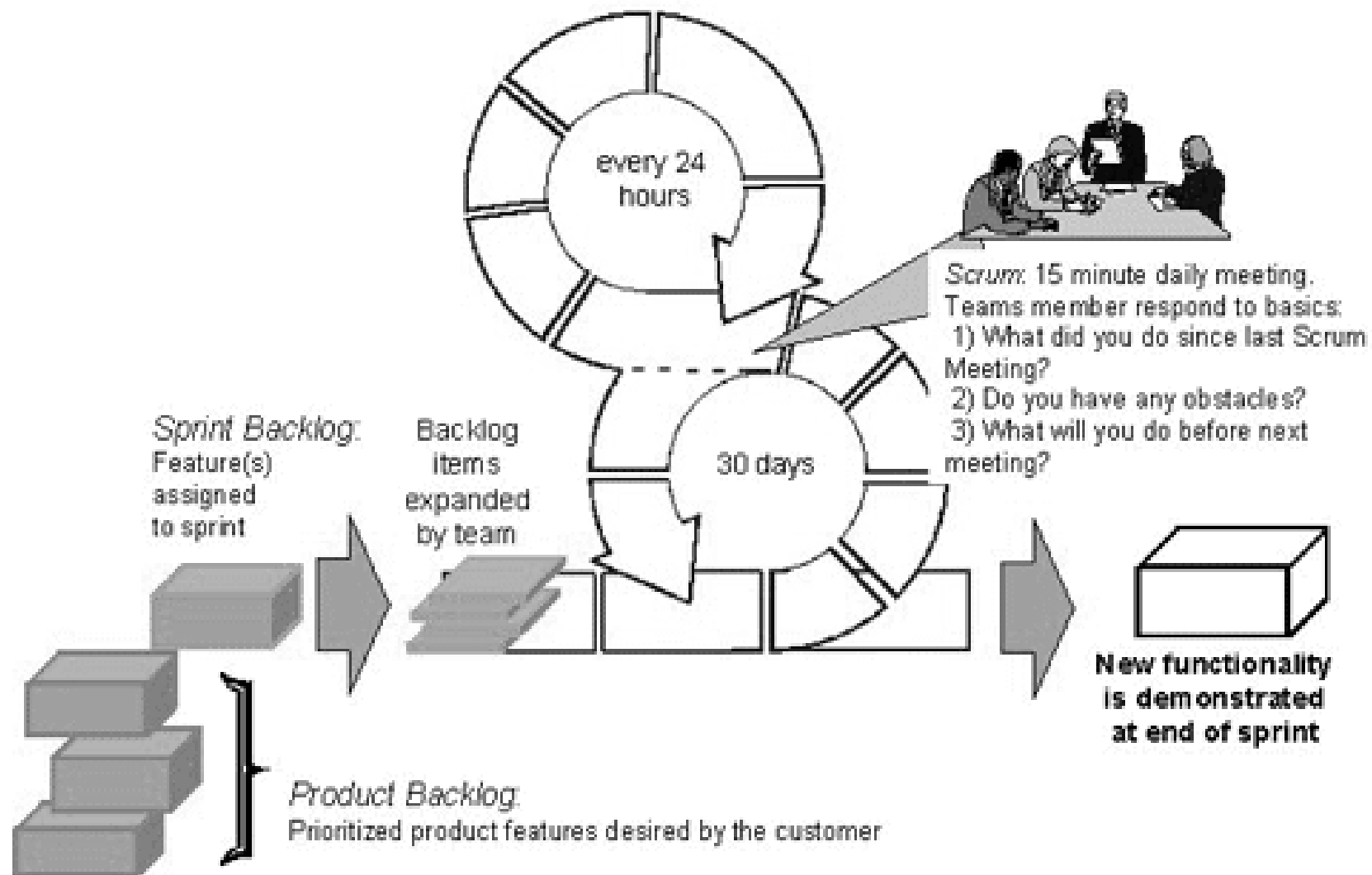
- Project Context
- A word about SCRUM
- Moving to the Agile process without missing a step on your current project
- Implementing Agile in a distributed environment
- Addressing challenges in changing the development culture
- Q&A

Project Context



- Very complex and highly configurable J2EE application (9,000 Java classes) that leverages:
 - BEA WebLogic Enterprise Server
 - Oracle and MS SQL databases
- Development team was about 100+ people, located in both Vancouver and Boston
- Well established configuration management and development infrastructure

SCRUM



Daily SCRUM meetings



- Meetings are held in the same place at the same time
- Meetings last no longer than 15-30 minutes
- The Scrum Master is responsible for asking every team member the following three questions:
 - *What have you done since the last SCRUM meeting?*
 - *What obstacles do you have?*
 - *What do you plan on doing between now and the next SCRUM meeting?*
- Later, we added one more question – What is ready for QA?
- Conversation is restricted to team members answering the above questions
- If required, additional meetings can be scheduled to avoid going off topic

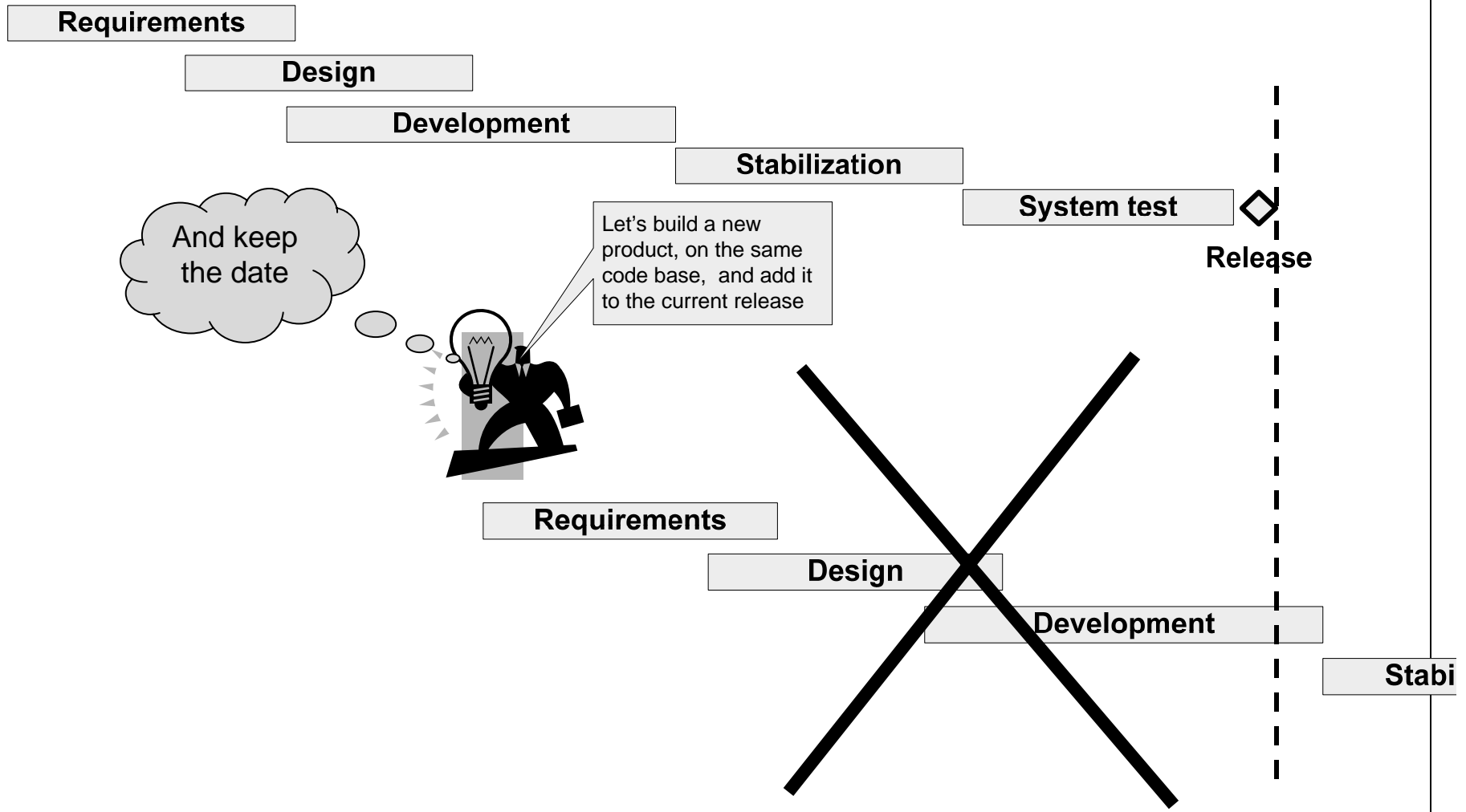
SCRUM Team



- SCRUM Master – project manager
- Product Owner (Product Manager)
- Architect
- Developers (2-5)
- Tester
- Technical Writer
- UI Designer

Introducing Agile in the Middle of a Project

Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun



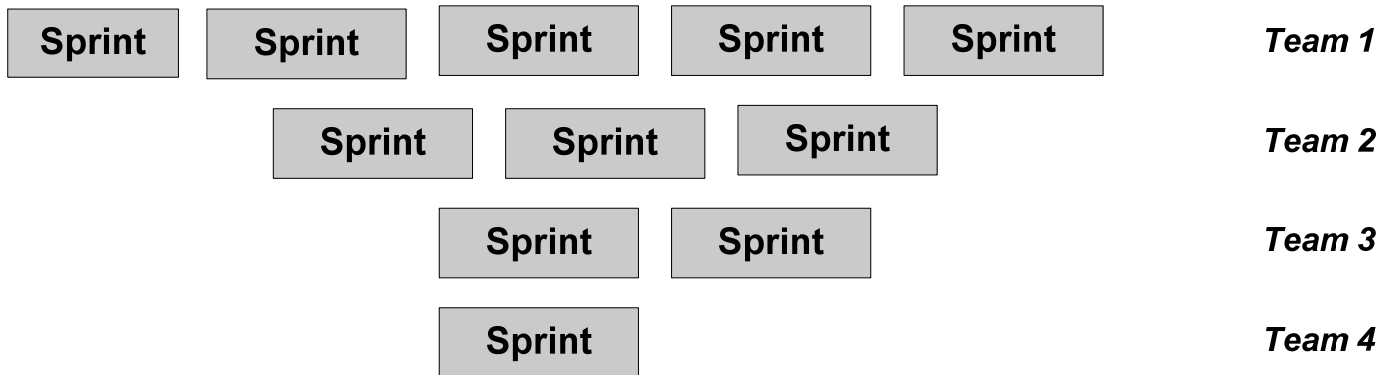
Introducing Agile in the Middle of a Project



Oct Nov Dec Jan Feb Mar Apr May Jun



Release



Lessons Learned



- Agile process can coexist with waterfall on the same project
- Can be difficult to switch people to Agile thinking
- Good SCRUM master is the key
- Empower the team
- Some hiccups can be expected in a new process

Distributed Team

- Developers – Vancouver & Boston
- Product managers – Vancouver & Boston
- Project managers – Vancouver & Boston
- Architects – Vancouver & Boston
- Testers – Vancouver
- UI Designers – Boston
- Technical writers – Vancouver

Virtual Whiteboard



Orange

Modify Sh

Site Menu

- Home
- Sprints
- User Stories
- Tasks
- Technical Corner
- General Discussion
- Progress Graphs
- Meeting Minutes

Admin

- Documents & Lists
- Site Settings

Sprints

Name	Sprint Page	Start date	Target end date	Status
Admin: Section Query Sprint	Home Page	6/12/2006	7/7/2006	In progress
Admin: Terms Sprint 1	Homepage	6/7/2006	7/7/2006	In progress
Tools Sprint 1	Homepage	6/7/2006	6/30/2006	In progress
Admin: Moving Learning Contexts	Home Page			Planned
Admin: Terms Sprint 2	Home Page	7/10/2006	8/11/2006	Planned
Admin: User Query Sprint	Home Page	7/12/2006	8/4/2006	Planned
Tools Sprint 2	Homepage	7/3/2006	7/28/2006	Planned

Announcements

Sign up for alerts

by Morrow, Chloe

6/7/2006 3:59 PM

Hi everyone - in order to sign up for alerts about activity on the site in general - you can use this link http://kms/sites/RD/PD/Orange/_layouts/1033/MySubs.aspx and then select all the lists and discussions you want to be alerted about.

...

Kick Off Meeting Slides @

by Morrow, Chloe

5/18/2006 8:17 PM

Hi all - here are the slides that were presented at the kick-off meeting

- ▣ Add new announcement

MAJOR PROJECT MILESTONES

Development - June/July
 Feature Complete - July 28
 System Test Start - Aug 14
 Ready for Release - Sept 29

Admin Team

SCRUM Master: Karen Ciardi
Product Manager: Geoff Glave
Architect: Prashant Nayak/James Zhou
UI Designer: Tom Brown

QA: Greg Chan

Developers:

- Diane Bennett
- Delvin Shen
- Surya Mudundi
- Vimali Kannan
- Deepak Lalwani
- Alexander Petrov

Tools Team


SCRUM Master: Ryan Ogg
Product Manager: Kristin Allen
Architect: Claude Vervoort/Lance Neuman
UI Designer: Scott Whitmore

QA: TBD

Developers:

- Ray Xie
- Kazem Naderi
- Barry Ki

Sprint's Home page



Sprint Name - Admin - no loose ends [id - 8]

- Bring all previously developed Admin functionality to the "release ready" point.
- Goal of this sprint is NOT to enhance functionality by adding new requirements but to ensure that there are no c initialization, tracking, monitoring, ect) as well as if you can create an object their is an interface to modify and

Status In progress | **Start date** - 2/27/2006 | **Target date** - 3/24/2006

Meeting Rooms: Vista Conference Room | NetMeeting IP: 10.60.2.111

Quest Conference # 1-866-262-1846 *6610411*

Tester - Lurye, Alexander Architect - Sharda, Ajay UI - Brown, Tom

Modify Shared Page ▾

Site Menu

- Portfolio Features
- > Requirements
- >Req. by Sprint
- Technical corner
- Design Area
- > Recent Changes
- Sprints
- Tasks
- Discussion
-
- Process Info
- Docs&Lists

Sprint Tasks

[New Item](#) | [Change Filter](#)


Title	Assigned To	Priority	% Complete	LOE (d)	Sprint
⊕ Status : Completed (23)					
⊖ Status : In Progress (9)					
Sum = 46.75					
Sum = 14					
Feat 113: Delete portfolio	Bennett, Diane	(2) Normal	10%	3 Admin - no loose ends	
Feat 206 - Delete LMS Person with Portfolio	Kannan, Vimali	(2) Normal		3 Admin - no loose ends	
Feat 249: Deny access LMS user in User Mgt with portfolio	Kannan, Vimali	(2) Normal		1 Admin - no loose ends	
Feat 213: Delete LMS Institution & PInstitution	Mudundi, Surya	(2) Normal		2 Admin - no loose ends	
Fix previous sprints' SCRs		(2) Normal		Admin - no loose ends	
Tech Comm Documentation	Bailey, Janet	(2) Normal	10%	Admin - no loose ends	
QA Test Plan	Lurye, Alexander	(2) Normal		Admin - no loose ends	
Feat 205: Licensing: Update Enrollment action/service to check enrollment count for POWN	Mudundi, Surya	(2) Normal	80%	4 Admin - no loose ends	
Feat 249: provide sample custom login page	Brown, Tom	(2) Normal	10%	1 Admin - no loose ends	
⊖ Status : Not Started (6)					
Sum = 6					
Feat 249: Provide recovery from background task failures (Startup and Runtime)	Mudundi, Surya	(1) High		2 Admin - no loose ends	

Add New Note

SCRUM Notes

[New Item](#) | [Filter](#)

Title	Descriptions
Scrum Meeting, Tuesday, March 21st! <small>NEW</small>	
21-Mar-06 by Bennett, Diane (8)	
<u>Accomplishments</u>	Admin LMS/PF integration points doc (Diane)
<u>In Progress</u>	Licensed max portfolio owner check (Surya's part done, 2 integration points) TC Documentation (Janet) Test Cases (Alex) Delete Portfolio (Diane) How many POWN can an 'other' portfolio have? (Jen) Portfolio Server level issue (Jen to follow up with Ajay) Provide sample custom login page (Tom) Feat 205: Licensing Downgrade Portfolio-Enabled and Expiry Date (Surya) Feat 205: Licensing Downgrade for Number of Enrollments (Surya)
<u>Blocking Issues</u>	Scrum Meeting, Monday, March 20 - Happy Spring! <small>NEW</small>
20-Mar-06 by Ciardi, Karen (8)	
<u>Accomplishments</u>	
<u>In Progress</u>	

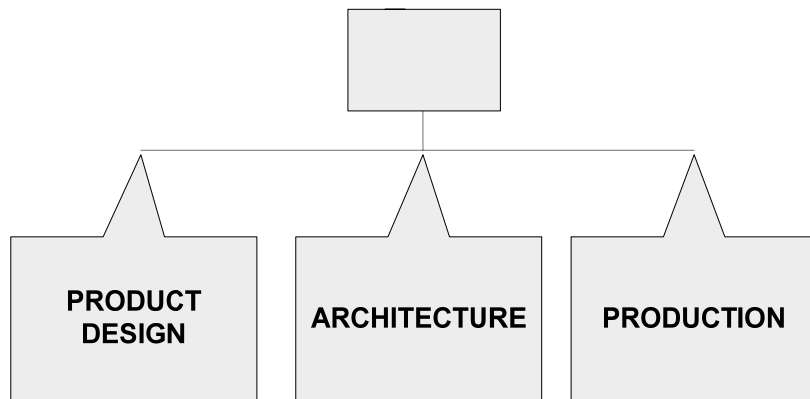


Changing Process & Culture



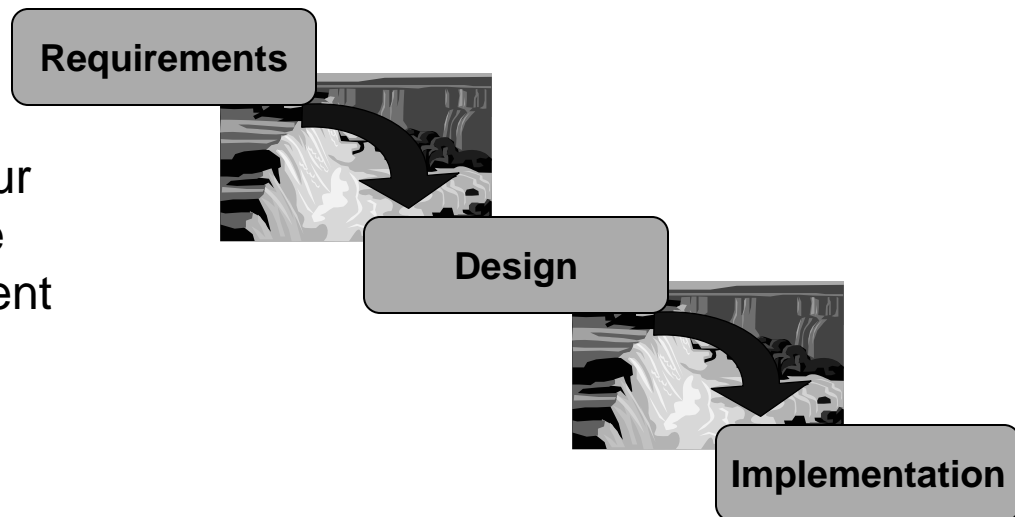
- Organizational structure & Agile
- Requirement
- Planning
- Design
- Implementation
- Testing
- Project Management

Organizational structure & Agile

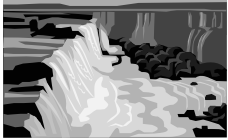


Each group tends to optimize processes inside the group vs. optimizing the overall throughput of the organization

Boundaries imposed by your organizational structure are reflected in your development process



Requirements



- Long requirement documents with UI prototypes
- Wasting time on requirements there is no time for, or resources to implement
- Prioritized backlog of user stories
- Detail requirements are only done when stories are planned for the next sprint

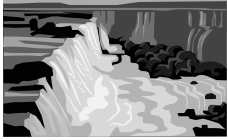


Challenges



- Every story is the “must-have”
- Let’s **start** as many stories as possible

Planning



- Plan by activities
- Project scope is planned ahead of time
- Task estimations by expert
- Plan by features
- Only general scope is known at the beginning.
- Task estimations by team



Challenges



- Dealing with uncertainty
- Involving the entire team in estimation process



Agile Estimations

- Estimate size not duration
- Ideal Days vs. Story Points
- Estimate in teams
- Estimations are done by people who are going to do the work
- Additional estimations effort yields very little value beyond a certain point
- Velocity



Estimation poker

- Planning poker game combines expert opinion, analogy, and disaggregation into a single fun and effective approach
- Participants include all programmers, testers, database engineers, UI designers, technical writers, architects, and so on
- The product owner participates in planning poker, but does not estimate

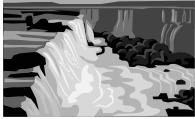


Planning Sprints



- Time Box vs. Sprint's Goals
- Make sure that functionality is demonstrable and testable when sprint ends
- Do detail planning for the next sprint only
- Don't make development teams too small or too big

Design



- Design is separated from coding
- Design encompasses all planned functionality
- All design decisions including detail design are made at the beginning
- Design is done throughout the project
- Start with high-level concepts
- Detailed design evolves during coding and can be expected to change

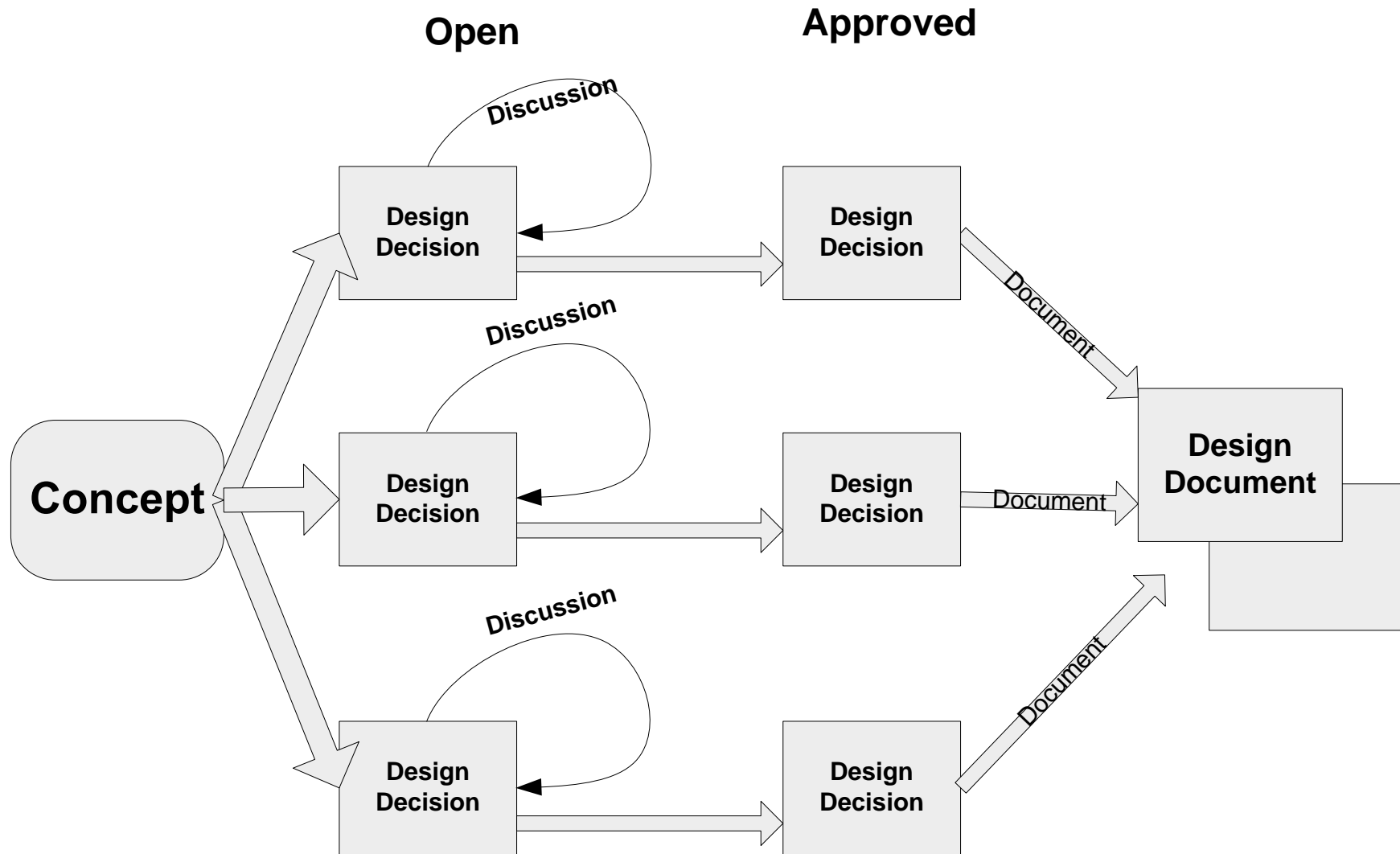


Challenges




- How much should be documented?

Design Workflow



Design Decisions on SharePoint





ePortfolio Design Decisions

→

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Design Decisions ▾

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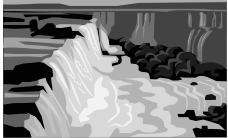
	Title	Problem Description	Modified By
<p>☐ Status: Approved</p> <p>☐ Area: Admin</p>			
1	Does portfolio have parent LC? [View]	If yes, who are they If yes, what's the uniqueness name space (Currently LC name is unique within a parent) Name uniqueness is still open. jennifer to write requirements.	12/5/2005 4:18 PM Sharda, Ajay
2	Finalize new Portfolio LC type [View]	Finalize new Portfolio LC type and determine updates to LC_TYPES DB table population scripts and LCTypeService to support new type. Only enable Server/Domain/Institution/Portfolio LC types in Portfolio schema	12/5/2005 4:18 PM Sharda, Ajay
11	Does portfolio have My content area? [View]		1/5/2006 10:28 AM Sharda, Ajay
12	New Portfolio Roles [View]	PADM (PInstitution Administrator, like IADM) POWN (Portfolio owner, like SDES, but additional capabilities) PDES (Portfolio designer, like POWN, without ability to enroll) PREV (Portfolio reviewer, read/write capabilities) PGST (Portfolio guest, read only capabilities)	12/14/2005 4:34 PM Bennett, Diane
<p>Not implemented: PHCM, PHEM, PHTM, PHUM (No need identified by PM for Help desk users.) PMEM (Vista no longer has explicit IMEM roles). PIDES (Designer at the PInstitution level)</p>			

Design



- Create minimal documentation, but whatever is written should be correct
- Implementation can start before all major design decisions are made
- Strategic design decisions may require a separate sprint to make them (new products, frameworks, etc.)

Implementation



- Bug are fixed mostly during the Stabilization phase
- Most of the testing is done at the end of the project
- Testability of the application is an afterthought
- Bugs are fixed as part of the sprint
- Developers play an active role in design decisions
- Tests stories are included in sprint's scope



Challenges



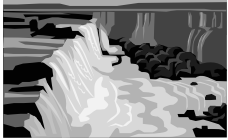
- Testers are busy with previous release or Sprint
- What does DONE mean?

Testing



- Test cases for new functionality are created during the Sprint
- First pass testing is completed before Sprint's end
- Automation tests are written and deployed
- Weekly builds are available for QA
- Due to its size, full regression testing is not done during a Sprint

Project Management



- Detail MS Project schedule
- PM assigns tasks and collects status
- Team members assign tasks to themselves during SCRUM meetings
- Status is reported on SharePoint by team members
- SCRUM master is a facilitator and enabler



Challenges



- Create a self-managed team
- Controlling Sprint's scope

Tasks Assignments



- Task breakdown is done by developers
- Sprint's tasks are listed on the Sprint's home page
- Developers can pick up tasks to work on from the list of incomplete unassigned tasks
- Task assignments for the next day are discussed during the SCRUM meeting
- New tasks can be added by any member of the team, but should be related to Sprint's stories

Reporting Status



- Team members report their progress at SCRUM meeting
- Percentage completed for sprint tasks is updated daily Sprint's home page
- Measure each team's Velocity

Scaling



- Do not depend on a single resource on SCRUM teams when running multiple Sprints in parallel
- Scheduling daily meetings may become a problem
- Need to have coordination between different Sprints. SCRUM of SCRUMS.

Changing Culture



- People's roles change. The team as a whole is empowered, but some members can perceive this as diminishing their status
- Transferring to shared code ownership is tough
- Transferring to shared project ownership is even tougher
- Make sure that everyone is participating
- Quality is everyone's business
- SCRUM Master is a facilitator, not a babysitter

Questions?