Distributed Software Development

















The Development Group

Real-Time Bridge Monitoring Final Presentation









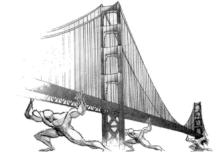


- Team Organization
- Project Work Summary
 - Work hours
 - Timeliness
 - Milestones
 - Deliverables
 - Requirements Fulfilled









Github

- Info
- Contributions
- Issues
- Commit Activity
- Traffic
- Milestones
- Project Plan Fullfilment









- Distributed Project Experience
 - Communication
 - Meetings
 - Synchronization
 - Time Spent
 - Possible future improvements
- Requirements
- Design









- Verification and Validation
 - Verification and Validation approach
 - Level of Coverage of tests
 - Non-functional requirements coverage testing
- Demo







Team Organization



The Development Group



Andrea Bottoli (PoliMi)



Lorenzo Pagliari (PoliMi)



Marko Brčić (FER)



Dzana Kujan (MDH) Jörn Tillmanns (MDH)





Miraldi Fifo (MDH)



Nikola Radisavljevic (MDH)











• Roles

Name	Initials	Responsibility (roles)
Andrea Bottoli	AB	Project Manager
Dzana Kujan	DK	Team Leader
Marco Brčić	MB	Documentation Manager
Lorenzo Pagliari	LP	Design Manager
Miraldi Fifo	MF	Testing Manager
Jörn Tillmanns	JT	Database Manager
Nikola Radisavljevic	NR	Integration Manager











Work Hours

Member	W42	W43	W44	W45	W46	W47	W48	W49	W50	W51	W52	W01	Total
Andrea Bottoli	11	40	50	45	47	68	40	41	14	53	7	8	424
Lorenzo Pagliari	10	37	53	51	46	57	37	51	43	54	10	26	475
Dzana Kujan	9	36	43	36	27	36	27	49	24	17	2	5	311
Marko Brcic	11	40	54	60	28	36	26	15	15	15	11	4	315
Jorn Tillmanns	9	37	51	43	20	13	39	16	15	22	18	12	295
Nikola Radisavljevic	9	37	45	36	26	35	26	46	25	17	12	7	321
Miraldi Fifo	9	38	45	35	16	28	14	18	18	13	12	10	256
Ghazaleh Shojaee	-	T-3	53	13	32	26	-	-	-	-3	37-3	-	124
Total	68	265	394	319	242	299	209	236	154	191	72	72	2521











Timeliness

	Production & Section 1991		Finished week						
ld	Milestone Description	Responsible Dept./Initials	Dian	Forec	Astual				
			Plan	Week	+/-	Actual			
M-001	Project Plan & Vision	All	42	42	0	43			
M-002	Requirements gathering		43	43	0	43			
	Requirements document	AU	43	44	1	43			
M-004	System Design		43	44	0	43			
M-005	Requirement Document	Control Contro	44	44	0	44			
	Design Document		44	44	0	44			
	Status Report		44	44	0	44			
CONTRACTOR OF THE PARTY OF THE	Organize Repository	Marko Brcic	45	45	0	45			
	Team Policies	Marko Brcic	45	45	0	45			
M-010	Share telephone number	All	45	45	0	45			











Timeliness

	Partition of the Control of the Cont		Finished week					
ld	Milestone Description	Responsible Dept./Initials	Dian	Forecast		Astual		
200			Plan	Week		Actual		
M-011	Modify Requirement Doc	Dzana Kujan	45	46	1	45		
M-012	Modify Design Doc	Lorenzo Pagliari	45	46	1	45		
M-013	Setup tools on PC	All	45	45	0	45		
M-014	Change DB	Jorn Tillmanns	45	45	0	45		
M-015	Implementation Parser		45	45	0	45		
	Implementation DAO	The state of the s	45	45	0	45		
	Start Implementation Math	Andrea Bottoli	45	46	1	45		
M-018	Test Parser	Miraldi Fifo	46	47	0	46		
M-019	Test Classes alpha prot.	Miraldi Fifo	46	47	0	46		
M-020	Alpha prototype	AU	46	48	2	46		









Timeliness

			Finished week				
Id	Milestone Description	Responsible Dept./Initials	Plan	Forecast Week +/-		Actual	
M-021	Requirements Gathering					47	
M-022	Update Design Doc.	Andrea Bottoli	47	48	0	48	
M-023	Update Requirem, Doc.	Dzana Kujan	47	48	0	48	
M-024	Finalize Math Engine	Lorenzo Pagliari	48	49	1	48	
M-025	Web Design	Miraldi Fifo	48	49	1	48	
M-026	Status Report	All	49	49	0	48	
M-027	UserLoginSystem	Jorn Tillmanns	49	50	1	48	
M-028	Finalize Math Engine	Lorenzo Pagliari	49	50	0	49	
M-029	Junit tests v1	Miraldi Fifo	49	50	0	49	
M-030	Web Site Mockups	Nikola Radisavljevic	49	49	0	49	









Timeliness

			Finished week					
ld		Responsible Dept./Initials	Plan	Fored Week	ast +/-	<u>Actual</u>		
M-031	Web Site Graphs	Dzana Kujan	49	50	0	49		
	Beta Prototype	All	50	51	0	50		
M-033	Beta Prototype pres.	Lorenzo Pagliari	51	51	0	51		
M-034	Technical documentation	Andrea Bottoli	51	51	0	51		
M-035	Acceptance Test Plan	Miraldi Fifo	51	52	0	52		
M-036	Test Report	Miraldi Fifo	01	02	1	52		
M-037	Final Presentation	All	02	02	0	01		
M-038	Final Documentation	AJI	02	03	1	01		
M-039	Final Product	All	02	03	1	01		
	Final Questionnaire	All	02	03	1	01		









Timeliness

- Deliverables
 - Project Plan
 - Design Description
 - Requirements Specification
 - Project Reports
 - Test Specification
 - Acceptance Test
 - Test Report
 - Final Documentations

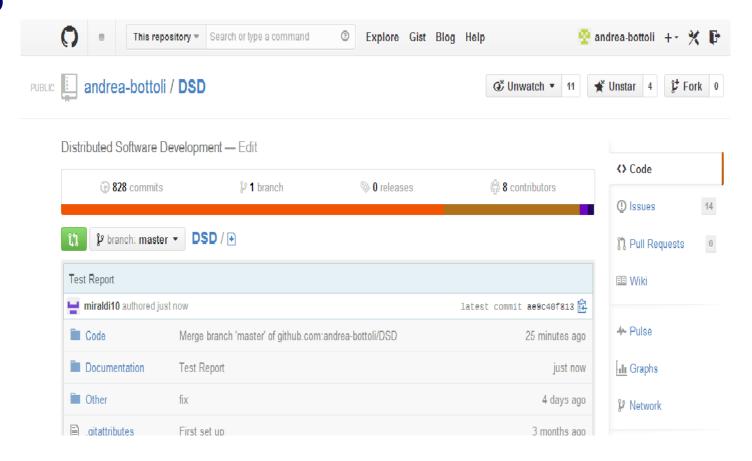








- Github
 - Info



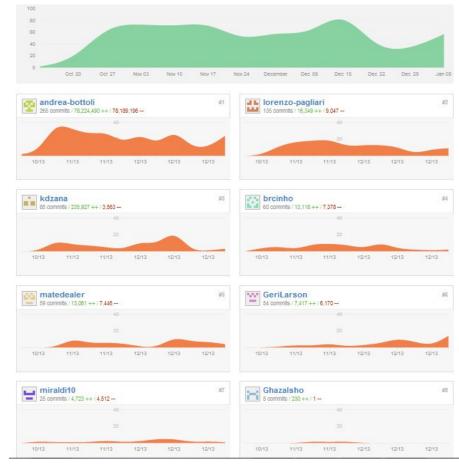








- Github
 - Contributions











Github

- Traffic



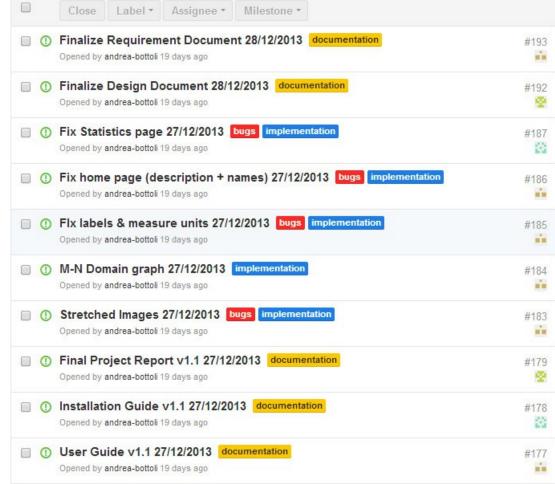








- Github
 - Issues











• Github

Commit Activity



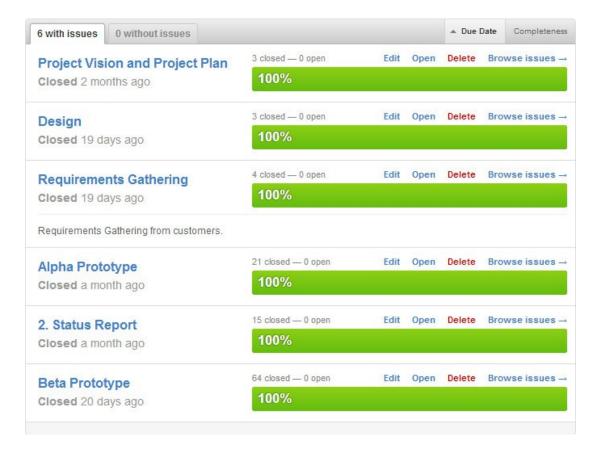








- Github
 - Milestones











- Project Plan Fullfillment
 - More or less we finished everything
 - Just to finalize some document

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Anfang	Ende		Vorgang	Whiche 44 29.10.12	Wache 45 04.11.13	Wache 46	Wache 47	Wache 48 25:11.12	Woche 49 02.12.13	Wache 50
28.10.13	03.11.13	u	Requirements	E)						
4.11.13	0 4.11.13	0	Design Milestone		•					
28.10.13	20.12.13		Desigin	51						
3.11.13	13.11.13	U	Alpha Design							
7.11.13	21.11.13	- 0	Alpha Implementation							
7.11.13	27.11.13		Alpha Testing							
8.11.13	28.11.13		Milestone Alpha Prototype					•	400	
1.11.13	0 4.12.13	- 0	Beta Design							
2.11.13	12.12.13		Beta Implementation							
18.12.13	18.12.13	0	Beta Testing							
9.12.13	19.12.13		Milestone Beta Prototype							
2.12.13	20.12.13		Final Design							_
3.12.13	22.12.13		Final Implementation							
1.01.14	12.01.14		Final Testing							
3.01.14	13.01.14		Milestone FinalVersion							









- Project Plan Fullfillment
 - More or less we finished everything
 - Just to finalize some document



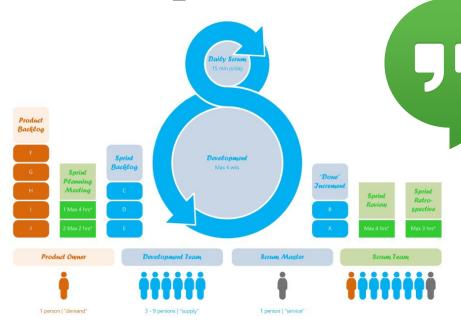
























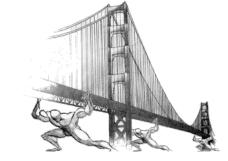
Meetings

- Both chat & video
- Group Meetings
 - Face to face meetings
 - Formally scheduled every Monday and Thursday
 - Chat used everyday by each member of the group
- Project Leader & Team Leader Meetings
 - About every day (during the week)
 - Formally scheduled every Tuesday









Meetings

- Customers Meetings
 - One every week
 - First one with both customers
 - The others with ing. Crotti
- Supervisors Meetings
 - One every week
 - Inform about: project status, group status & managing
 - Report about customer meetings
 - Gather advices, suggestions and proposals
 - Report problems









- Synchronization
 - Group Meetings
 - Skype chats
 - Github issues
 - Minutes of Meeting
 - Sharing Documents
 - Fixes summary
 - Customers/Supervisors Meeting Summaries







Requirements

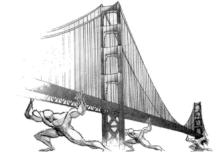
- Local and Remote interface using the web
- Different views depending on the role of the user
- Math Engine that does all the structural calculations
- A DB that contains all the data in a structured way
- Real-Time Monitoring of the status of the bridge







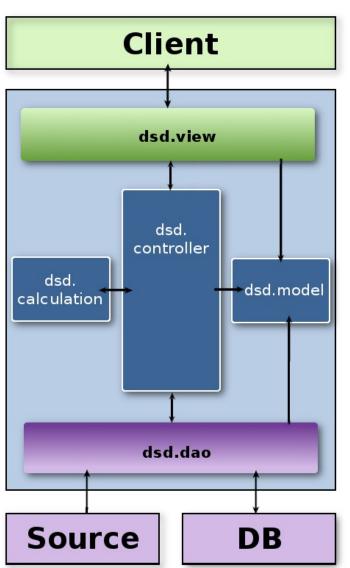
Requirements



- Conform on
 - EU 305/2011
 - NTC 08
- MN Domain
- Send Alarm (e-mail) to the engineer in charge to manage the possible crisis
- Possibility to change some parameter to change the structural model
- Possibility to add/edit/delete users

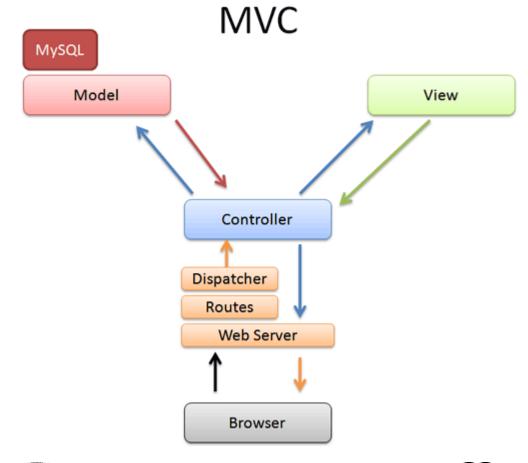


















Verification&Validation



Approach







Verification&Validation



Coverage











Non-Functional Coverage







DEMO



• 161.53.67.134/BridgeMonitoring/

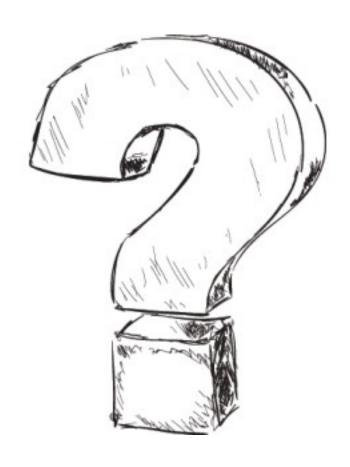






Question Time













Thank you for your attention and Good Luck for the Future!







