

Distributed Software Development

Student Projects 2013/14



Contents

- DSD infrastructure
- Project work
- Grading
- (Semi-)useful advices
- Next Steps

DSD Infrastructure



DSD Web (I)

General information

Course news, documents,
presentations, photos, ...

Initial polls

Not visible (staff only)

Projects from previous years

useful source of information

Submenus: two pages
for each project

Adobe Connect help

The screenshot shows the RASIP website interface. At the top, the header includes the RASIP logo and the text 'Računarski Sustavi i Procesi' and 'Zavod za Automatiku i Računalno Inženjerstvo'. Below the header, a navigation bar shows the path '> rasip > dsd > all'. A list of menu items is displayed, with 'DSD Main' highlighted in red. Other items include 'DSD Introduction', 'DSD poll - general', 'DSD poll - projects', 'Staff', 'Archive', 'Projects', and 'Adobe Connect - Quick help'. To the right of the menu, there is a section titled 'ABOUT THIS P' with a description: 'This page contain the file and link r The DSD student'. Below this, there are links for '[Edit article | Ar' and 'NEWS'. At the bottom of the menu, it says 'Number of visits: 26843'. The footer of the page includes the FER logo, the Politecnico di Milano logo, and the Mälardalens Högskola logo.

DSD Web (II)

DSD web page

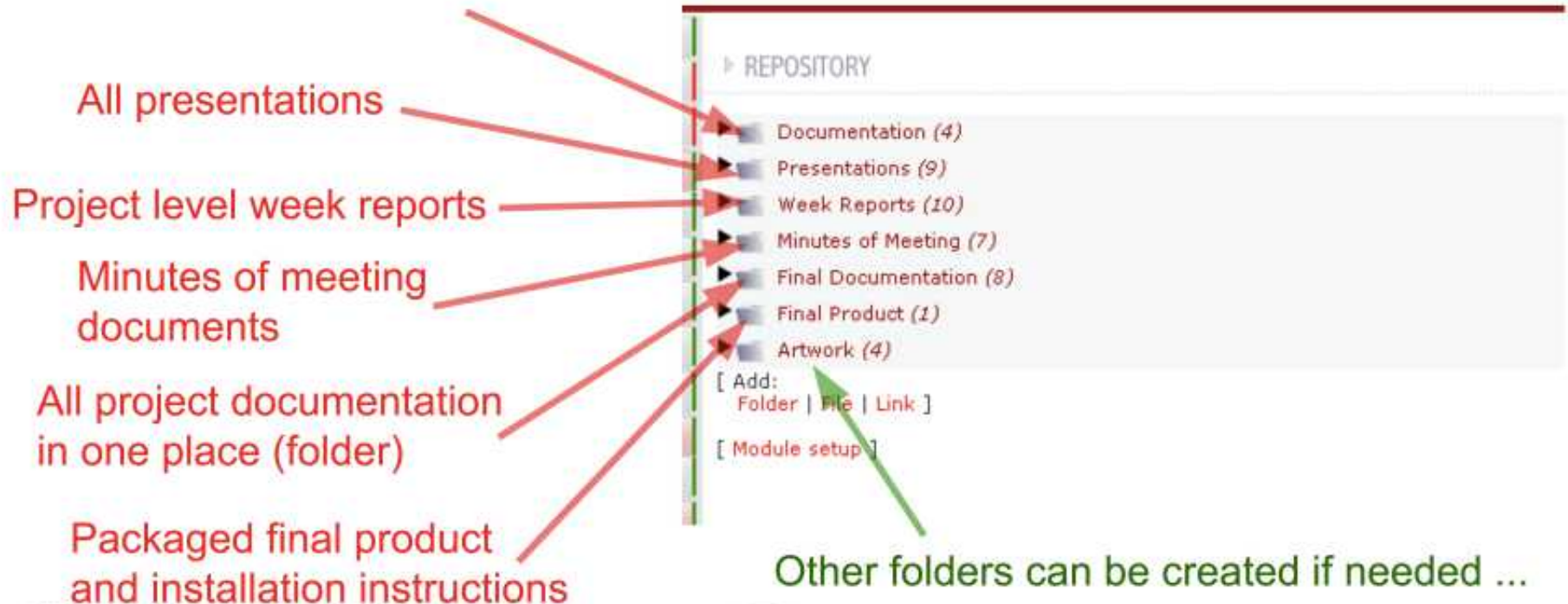


=> must not be used to share working documents or source code (use GIT) !!!

DSD Web (III)

Mandatory and optional folders

Various documents stored during the project work
(requirements, vision, project policies, internal manuals etc.)



Project team page

Team members:

- origin
- prof. knowledge
- hobbies
- contacts
- supervisor(s)

Page is editable

- correct, update, delete :)
- *upload your photo*
- *update your role(s)*

The screenshot shows a web application interface for a project team. The top navigation bar includes links like 'Not published', 'Permissions', 'Settings', 'Modules', 'New page', 'Delete page', and 'Navigation'. The main header features the 'RASIP' logo and the text 'Računarski Sustavi i Proces' and 'Zavod za Automatiku i Računsko Inženjerstvo'. The left sidebar contains a menu with items like 'DSD Introduction', 'DSD poll', 'DSD Main', 'Staff', 'Archive', 'Projects', 'Transport4You1', 'Home', 'Documents', 'Transport4You2', 'Mass Observation', 'Schematizing Maps', 'Public Transportation System', 'Link Analysis Tool', 'Software Patterns', 'Content Recommendation and Reuse', 'Visual Architecture', and 'Adobe Connect - Quick help'. The main content area displays the 'TRANSPORT4YOU PROJECT TEAM 1' page, which lists three team members: Mahdi Sarabi, Vengal Rao Pachava, and Muhammad Anwar Islam. Each member's entry includes their project role, personal information, skills and interests, hobbies, email, and other contacts. The bottom of the page shows a footer with logos for FER, MILANO, and MÄLARDALENS HÖGSKOLA.

Mahdi Sarabi
Project role(s):
Personal info: I am 27 years old. I am from Iran but I was born in UAE and grown up there. Later, I moved to Qatar. I studied Computer Science at Qatar University. Then I joined the IT sector of automotive industry science 2006.
Skills & Interests: System analyst, ERD designer, Software developer, SOA
Hobbies: Hiking, Swimming, Ping pong
Email: msarabi@gmail.com
Other contacts: sarabi_mahdi@yahoo.com

Vengal Rao Pachava
Project role(s):
Personal info: age 23, India, Nellore, studying masters in software engineering
Skills & Interests: c, c++, html, basics in unix
Hobbies: playing cricket, chatting with friends etc.
Email: vpa10001@student.mdh.se
Other contacts: skype : user id : vengalrao1, facebook : vengalrao87@gmail.com

Muhammad Anwar Islam
Project role(s):
Personal info: 26, Pakistan, Master in Software Engineering (2 Year Programme)
Skills & Interests: C#, ASP.net, Microsoft Visual Studio 2005, 2008, MS SQL Server 2000, 2005
Hobbies: playing cricket, travelling, some how or some times programming
Email: mar10001@student.mdh.se
Other contacts: anwarulhaq63 for skype and live messenger, anwarulhaq63@gmail.com for face book

Dajan Zvekić
Project role(s):
Personal info: I am 23 years old and I was born in Zenica, Bosnia and

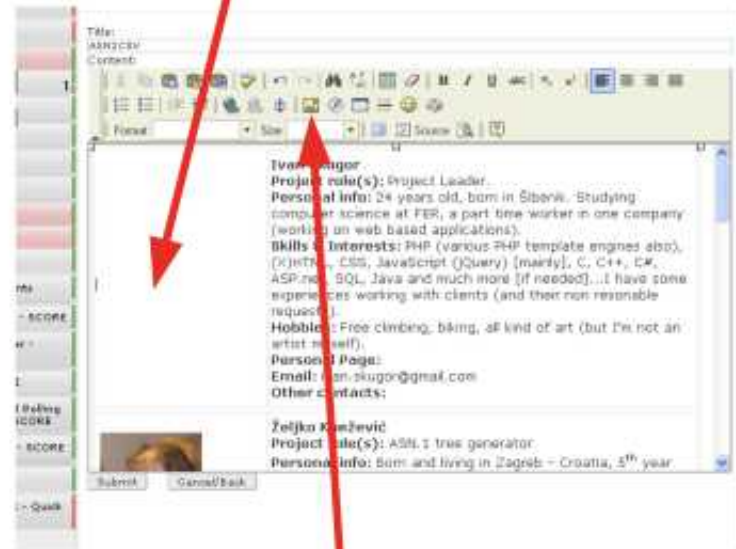
Uploading your photo (I)

- Photo size: 160x200 pixels, less than 30kB

1. Click *Edit article*



2. Place the cursor in the table cell where picture is to be uploaded

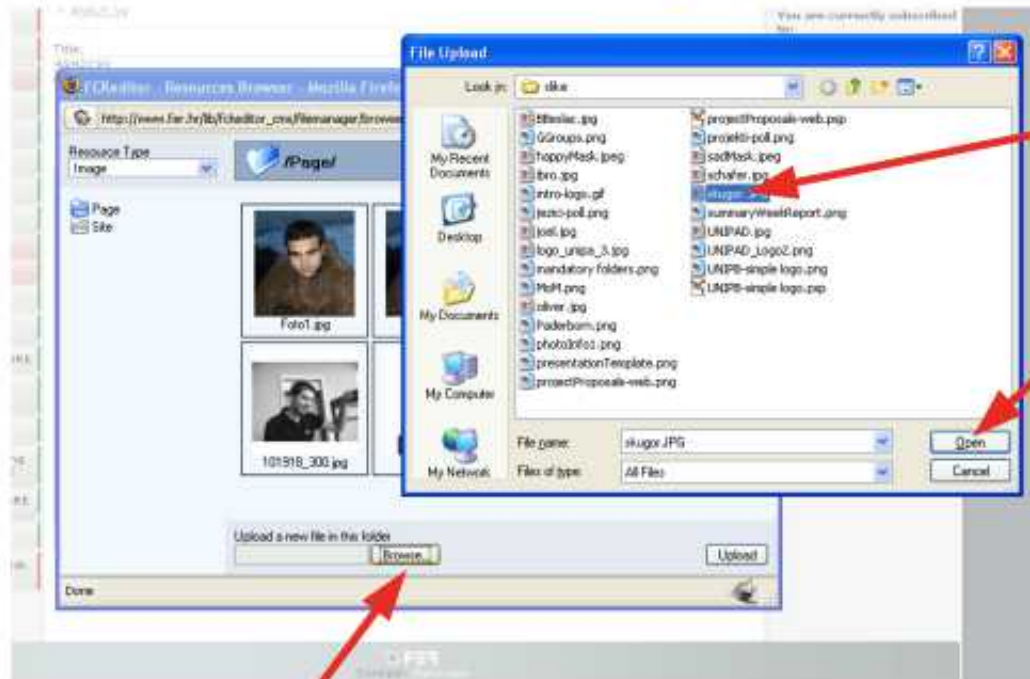


3. Click on the image icon

4. Click on the *Browse Server* button



Uploading your photo (II)



6. Choose a photo file

7. Click the *Open* button

8. Click the Upload button

5. Click on the *Browse...* button



10. Click the OK button



9. Select the image


Nikola Tanko
 Project role:
 Personal info:
 web develop
 Skills & Inte
 C, C++, C#, I
 object orient
 technologies
 Hobbies: pla
 recreation
 Personal Pa
 Email: niko
 Other conta
 niko.tanko


Danijel Zovik
 Project role:
 Personal info:
 Skills & Inte
 Hobbies:Pla
 Personal Pa
 Email: dzovik
 Other conta
 niko.com


Sonja Milic
 Project role:
 Personal info:
 Skills & Inte
 Smarty, Java
 FreeBSD, Opi
 Hobbies: C#
 Personal Pa
 Email: sonja
 Other conta


Gianluigi Cia
 Project role:
 Personal info:
 Skills & Inte
 C, Java, PHP
 Hobbies: Gra

Code repositories

github
SOCIAL CODING



- Use GIT tool for sharing code and documents
- USE GitHub as a central repository (code, issues ...), notify your supervisor of repository name etc.
- One repository per project, directory structure to be determined by the project's **SCM coordinator** and **GIT usage policy** published in a suitable **document**
- You **MUST** use GitHub for code sharing (we'll monitor and log activity data, gather statistics, check if you follow your SCM usage policy, make code reviews etc.) → *no e-mailing, dropbox code sharing etc.*
- You **MAY** use GIT for document sharing
- **FOR EVERY BAD THING THAT HAPPENS TO YOUR REPOSITORY**, blame GitHub, not us :)



MÄLARDALENS HÖGSKOLA

DSD Virtual Machines

- VMWare Server
- A server per project (or more ?!)
 - Linux (SSH access)
 - Windows (RemoteTerminal)?
- Software includes but is not limited to
 - PostgreSQL (MySQL, ...)
 - Apache WWW server + Tomcat
 - other things negotiable (we prefer that you FLOSS ☺)



If your project needs a VM, send an e-mail to igor.cavrak@fer.hr
Regular VM backups available!

Other collaboration tools

- Scheduling meetings/synchronous activities
 - Doodle <http://www.doodle.com>
 - Google calendar <http://calendar.google.com>
- Synchronous communication - determine official project tools for instant messaging, voice, video ... (Skype, MS Live Messenger, Google Hangout etc.)
 - Tip: record and publish IM conversations!
- Bug reporting systems – Bugzilla, GitHub ...
- Project management tools (Redmine, ...)

Project Work



Team roles

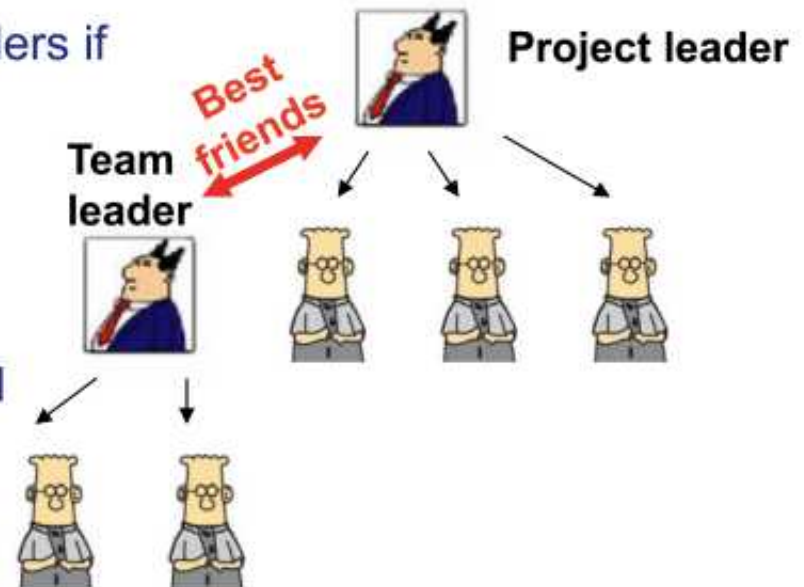
- Each team member can (must!?) have more than one role at a time, roles can change during project work
 - ... requirements gathering
 - ... documentation
 - ... design
 - ... development (various tasks)
 - ... testing (QA manager :))
 - ... backup and maintenance (database, web server etc.)
 - ... SCM
 - ...
- You must find out all the roles necessary in your project and assign them to project members
- Assign roles according to existing knowledge/preferences of your team members !



Team management roles

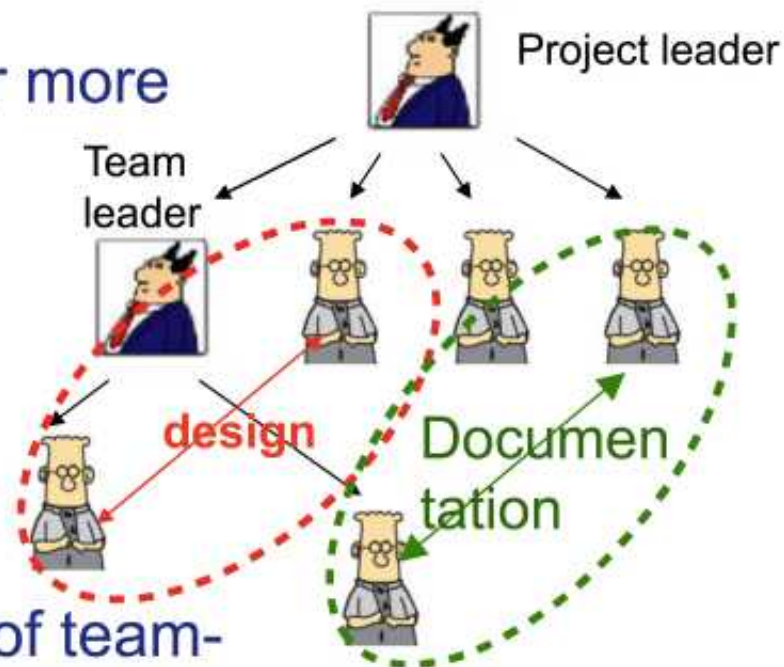
- Project leader
 - one per project
 - coordinates overall project activity
 - communicates with other project leaders if inter-project cooperation is needed
 - communicates with customer and supervisor
- Team leader
 - one per location (PL is also a TL)
 - in charge of coordinating her/his local team
- Team member
 - Slave (politically correct: executive)

PL – TL communication must be constant, or project will fail !



Project-level roles

- If a project consists of two or more sub-projects (teams)
- Project-level bodies
 - Documentation
 - Architecture
 - Testing
 - Etc.
- Project-level bodies formed of team-level roles



Project-wide policies

- Rules all team members must conform to
 - coding conventions
 - in-code documentation
 - testing (unit tests, validity tests, tools used etc.)
 - code repository organization and usage
 - etc.

You must find all the policies necessary in your project, agree upon them and publish them in corresponding documents (on project documentation web page)

Grading

- Each project will be graded according to > 40 elements
 - **Presentation** (plan, design, demo, final, etc.)
 - **Documentation** (plan, design, risk assessment, technical doc, final report, MoM, week reports etc.)
 - **Product** (requirements compliance, robustness, UI, coding style etc.)
 - **Process** (timeliness, usage of GIT, communication etc.)
- Each project will be awarded with a number of points
- Student's project grade is suggested by project leader (project points will be distributed to project members)
- Individual student grade = project grade + **final questionnaire**
- Download the **questionnaire** document from DSD Main web page, read the questions, make notes during the project, finalize it after the project is finished



Week reports

- Each project member sends the *Week report* document to the project leader (PL should set the deadline)
- Project leader compiles data from all the week report documents and creates a *Summary week report* document
- *Summary week report* document must be published in the *Week reports* folder of the Documentation project web page every week no later than Monday 23:00h

FER		MILANO		Summary Week Report	
Project	(project name)			Week	
Responsible	(project leader)			Date	
Executive Summary					
Timeliness					
General Project Status		Fulfillment of Next Milestone			
on track		slightly behind schedule			
<small>Comment: General Project Status / Fulfillment of Next Milestone: ahead of schedule, on track, slightly behind schedule, behind schedule, pause. Use the following background colors: green, grey, yellow, red, red.</small>					
Project Cost					
Current Planned Cost					
Current Actual Cost					
Planned Project Cost					
Forecasted Project Cost					
Results This Week:					
Activity Name(s)	Activity	Week lead	Fore cost	Results / Comment	
who did the job (initials)	name of activity	start actual	start fore	what were the results of this activity	

Minutes of Meeting

- Each (important) meeting should be documented with a MoM document
 - All discussion topics listed
 - Conclusions reached
 - Actions to be taken (who and what)
- MoM documents must be published in the *Minutes of Meeting* folder of the Documentation project web page

Minutes of Meeting			
Project	(project name)	Date	
		Start-end time	
Responsible	John Doe	Location /type	
Attended by	Location	Remarks	
1. Topic A			
CONCLUSION: to do this ACTION: person A to do this by deadline ACTION: person B to do this			
2. Topic B			

MoM documents are extremely useful in avoiding misunderstandings and for coordinating project work !!!

Presentations

- Official DSD Presentation Template must be used
- Time limit for each presentation will be published
- Time limits will be strictly enforced
 - Prepare and test your presentations *before the class starts*
 - Failing to respect your time slot or not presenting the complete content will lower your project points
- Presentation file must be uploaded on the project web page no later than Wednesday 23:59.

Colours in between MDH and FER

- First level
 - Second level
 - Third level
 - Fourth level
 - Fifth level



09-05-10



MÄLARDALENS HÖGSKOLA

Documentation Templates

- MSOffice/OpenOffice templates available
 - DSD Main / Repository / Document Templates
- Presentations – must use the template
- Week report, policy, MoM – must use the templates
- Plan, Design, Requirements, etc – use General Template
- **NEW from this year**
 - Guidelines document – describes the contents
 - You must create a document structure and content !
 - *Do not reuse document structure from previous years*

We like to measure ...

Every Monday fill in the *happiness questionnaire*:

“It seems that the project is going to be a success”

“I am happy with my status in the project team”



1 - disaster



10 – great

!! NOT USED IN GRADING – PURE RESEARCH !!

Link to Google Poll will be published on your project web page.

Submitting this number is mandatory. Keep your answers secret to your project colleagues (to avoid influencing each other)!

Start from Monday 2013-10-21 !!!



.... how happy you are!

Taraxacum Poll

This is a very personal poll - select from a range 1-10 how happy or unhappy you are with the current status of your project and your status within the team. Please fill this poll regularly every Monday. Do not reveal your answers to your team colleagues, we don't want you to influence or be influenced by others! Answers in this poll do not affect your final grade in any way, but not submitting your answers regularly might lower your final grade!

* Required

Select YOUR name *

Broj jedan

Select the date *

Select the Monday you are filling the poll at

2011-10-17

How happy are you with the current status of your project? *

Is the project going well or you see huge problems in front of you

1 2 3 4 5 6 7 8 9 10

Very UNhappy Very happy

How happy are you with YOUR status? *

Do you feel you contribute to the project, are you happy with relations within the team, are you informed well etc.

1 2 3 4 5 6 7 8 9 10

Very UNhappy Very happy

Submit



Some experiences from past projects (2004-2008)



Be proactive !

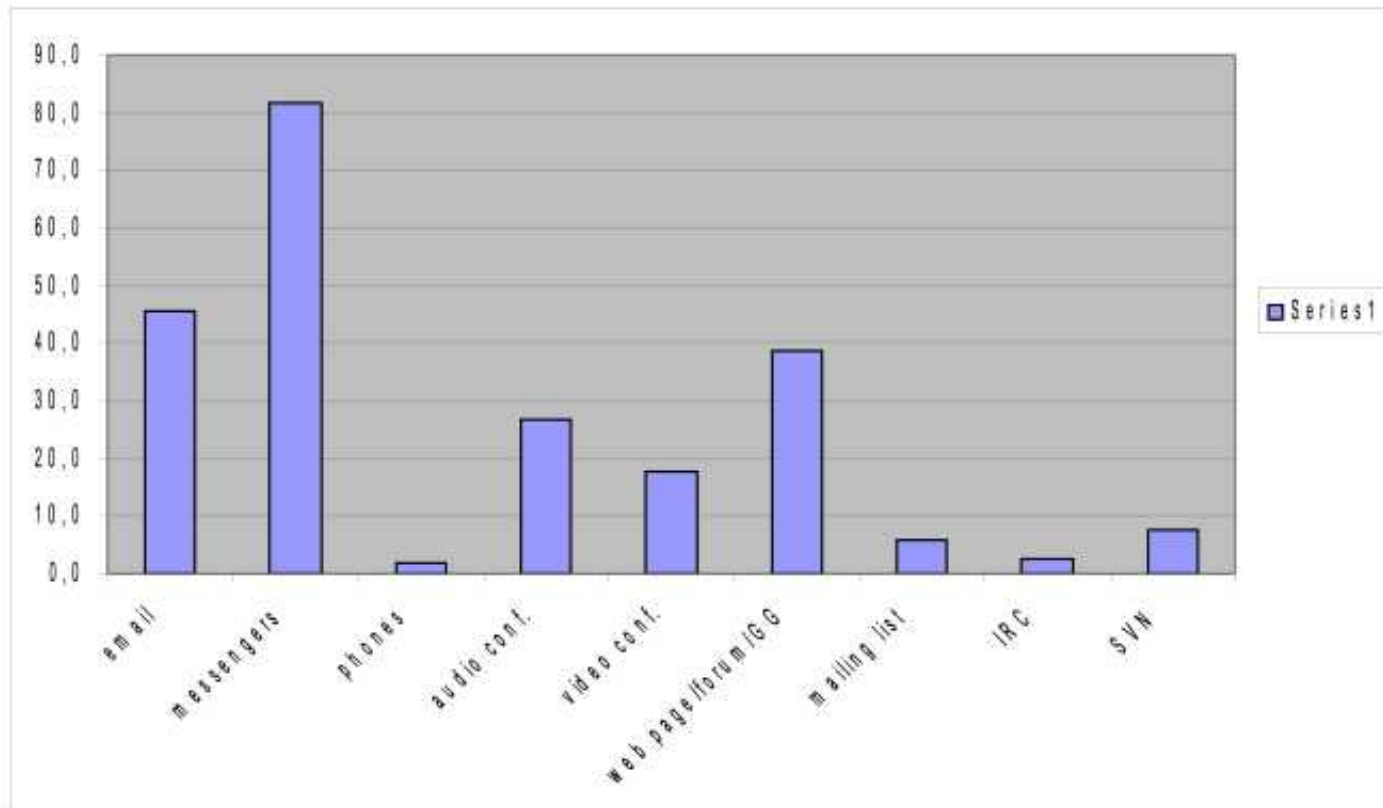
Communicate !

Identify (semi-)independent modules and
define clear interfaces among them

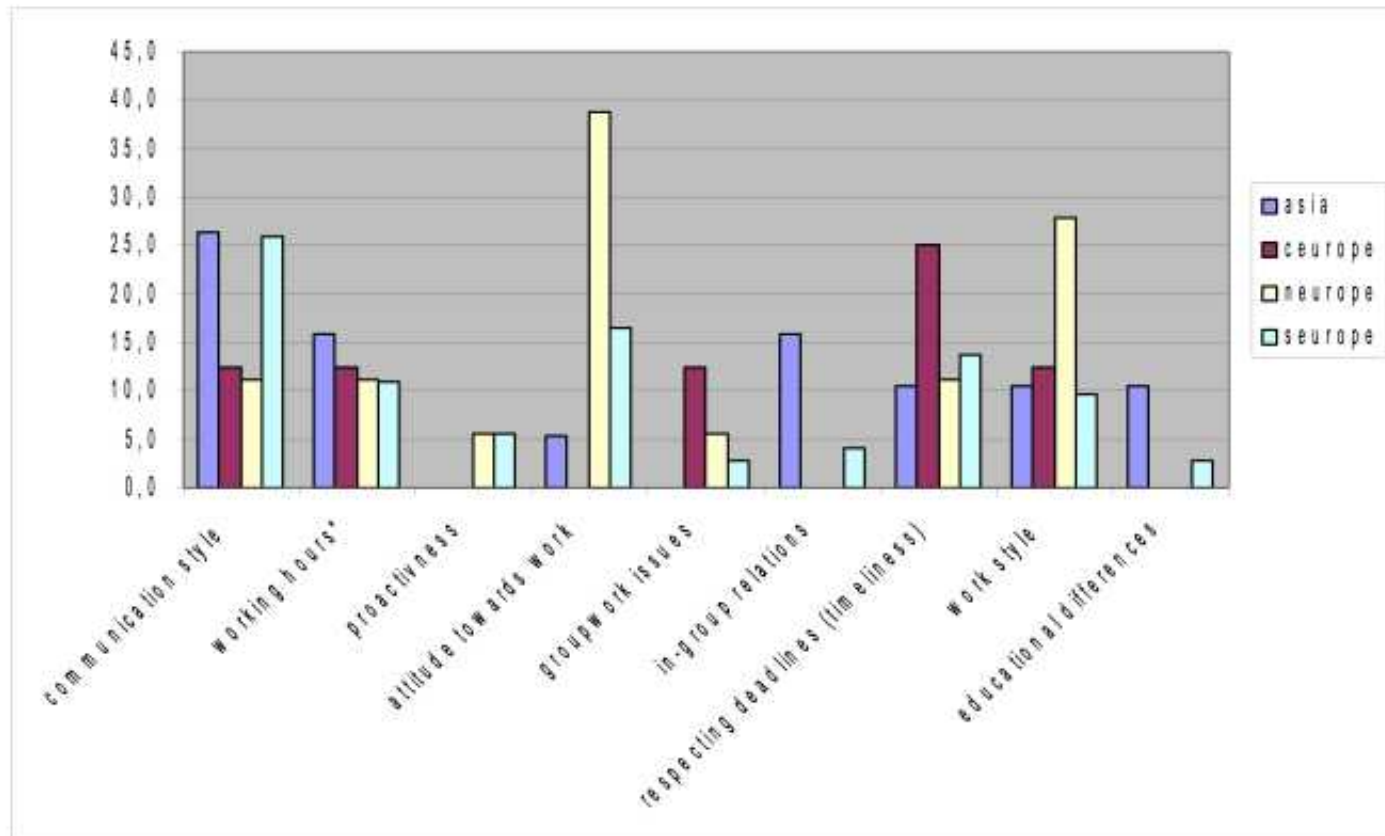
Distribute work on those modules to different
team members (possibly on different
locations)

Integrate modules as soon as possible

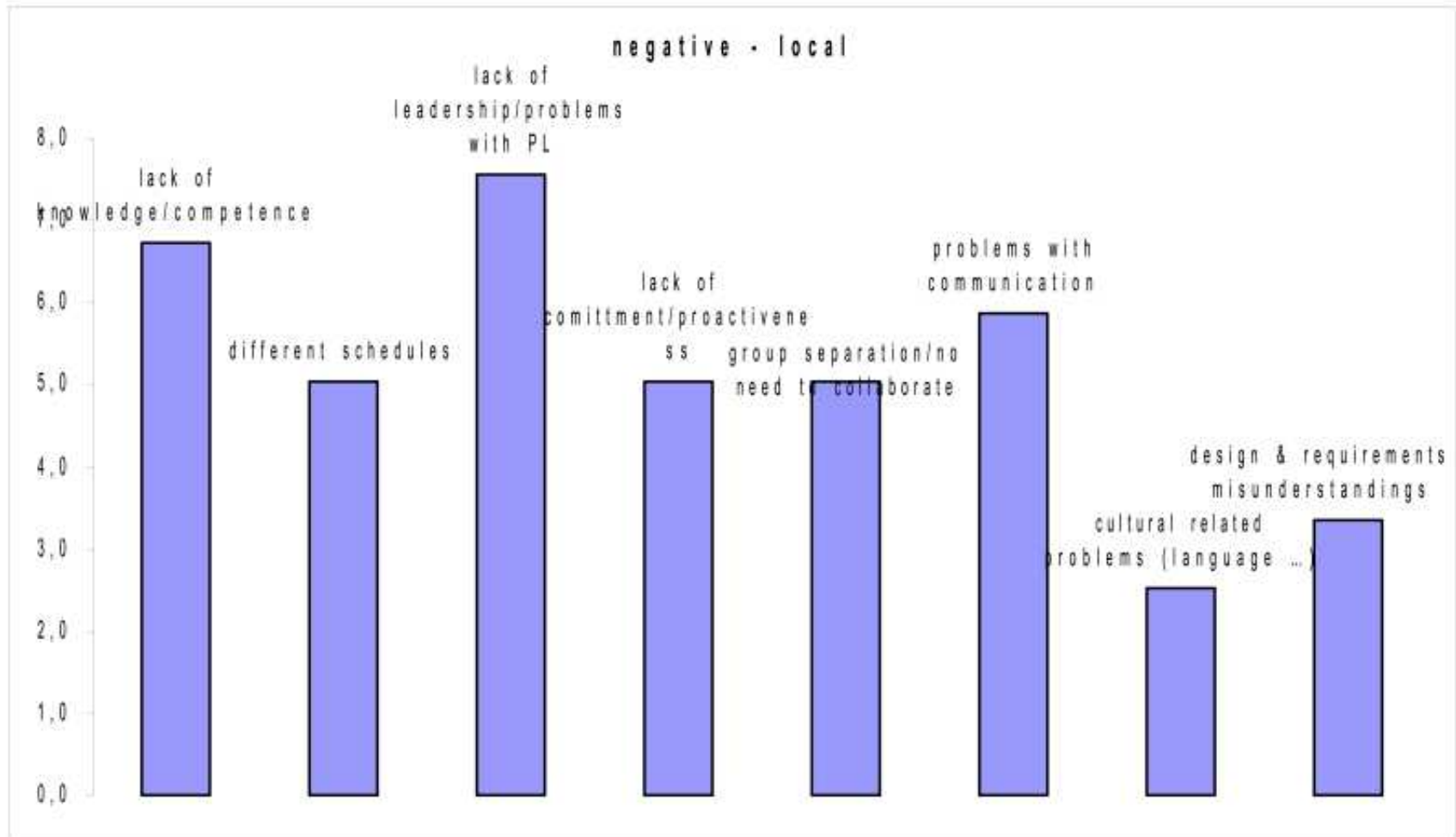
Communication tools



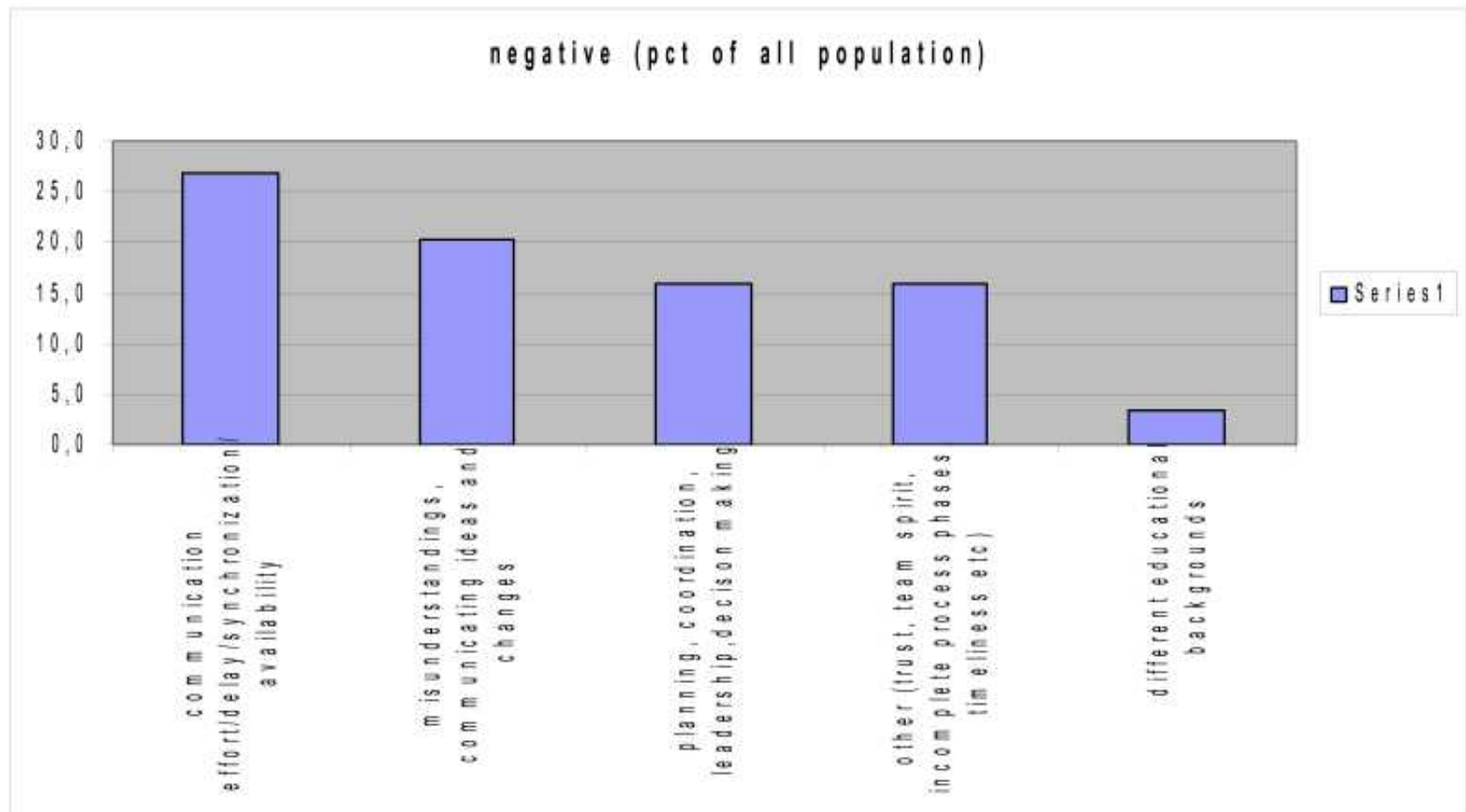
Cultural differences



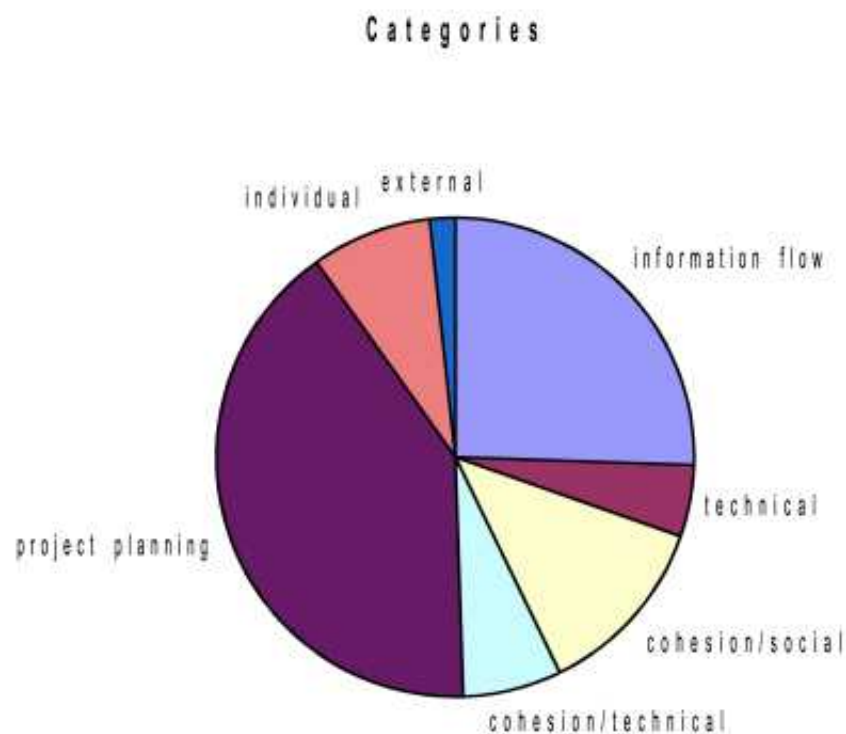
Problems in local teams



Problems with remote teams



Regrets ...



Next steps



Next steps (I)

1. Form a project team, create project vision & plan

- Elect project and team leaders, get to know each other informally
- Contact customers and start gathering requirements
- Start writing a **Requirements Definition document** (base for different reports, test plans, system design ...)
- Create a project vision, discuss it with your customer/supervisor
- Team, **Project Vision & Project Plan presentation 2013-10-24**
- Determine project policies (VCS, coding, documenting, communication, periodical meetings etc.), write and publish a number of short **project policy documents** on the web page

2. Plan a project

- Create a **Project Plan document** on the basis of your vision (and comments from Project plan presentation) and publish it by **Monday 2013-10-28 23:59**



Next steps (II)

3. Create a system design

- Requirements Definition presentation and Design Description presentation **2013-10-31**
- Publish the first version of the Requirements Definition document by **2013-11-06 23:59**
- Write a Design Description document on the basis of requirements you gathered from the customer, publish the first version by **2013-11-06 23:59**

4. Implement, document, test, backup...

- Submit Week reports to your project leader each week starting with week 43 (submit to p.leader no later than 2013-10-27 23:59)
- Summary Week Report document (assembled by project leader) published on the Documents web page starting from week 43 – publish on Monday, 2013-10-28



Next steps (III)

- Minutes of Meeting documents, also published on web
- Technical documents (use General Template)
- Revisions of other documents (requirements, project plan, etc.) – publish on the web
- Current project state presentations
 - **sr:2013-11-07, α :2013-11-28, sr:2013-12-05, β :2013-12-19**
- Integrate and test modules as soon as possible
 - on presentations - provide proofs of integration!

5. Near the end of project work

- In cooperation with the customer/supervisor create an **Acceptance Test Plan document**, publish it by **2013-12-31 23:59**
- Publish the final version of the Requirements Definition document



Next steps (IV)

6. In the end

- Perform acceptance test with your customer/supervisor BEFORE THE FINAL PRESENTATION and detect possible defects, publish **test report** on the web
- Write and publish a **Final Project Report document** by **2014-01-13 23:59**
- Write and publish **other necessary documents** (such as various technical documents, user manual, etc - negotiated per project) by **2014-01-13 23:59**
- **Product** and **Final Project Report presentation** **2014-01-09**
- Upload the packaged **product** to project web page by **2014-01-13 23:59**, have VM-s polished, backed-up on DVD ...

Summary - presentations

Presentation	Date
Project Vision & Project Plan	2013-10-24
Requirements, Design, revised Project Plan	2013-10-31
Status report	2013-11-07
Milestone - Alpha prototype	2013-11-28
Status report	2013-12-05
Milestone - Beta prototype	2013-12-19
Final project presentation	2014-01-09

Summary - deliverables

Deliverable	Date
Project plan document (v.1)	2013-10-28 23:59
Requirements Definition document (v.1)	2013-11-06 23:59
Design Description document (v.1)	2013-11-06 23:59
Summary Week Report, fill <i>happiness</i> poll	Every Monday 23:59
Minutes of Meeting	During project
Technical documents, project policies etc.	During project
Revisions of existing documents ...	On major changes
Acceptance test plan	2013-12-31 23:59
Test report	2014-01-08 23:59
Final Project Report, final versions of existing documents, other project-related documentation (as negotiated with the customer)	2014-01-13 23:59
Final product (installation, source code, etc.)	2014-01-13 23:59