Distributed Software Development
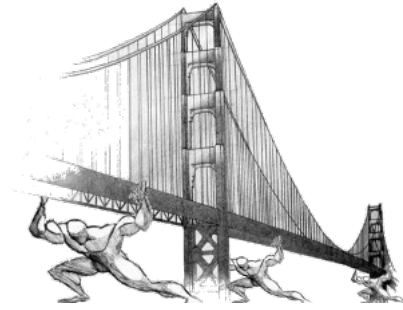
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The Development Group

Real-Time Bridge Monitoring Beta Prototype

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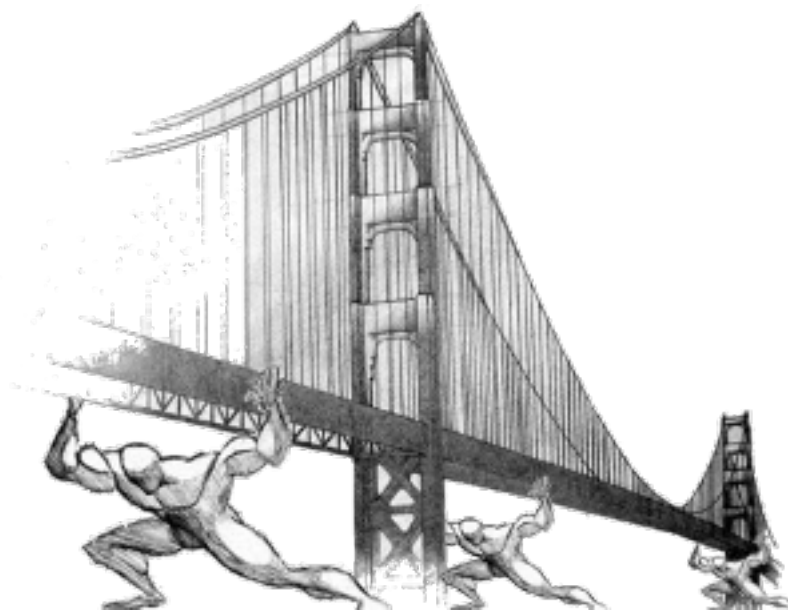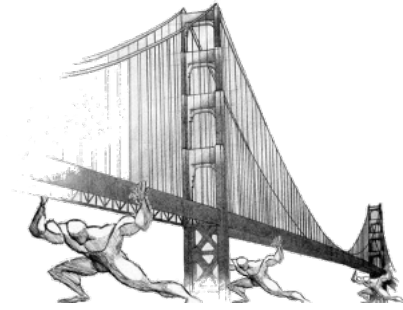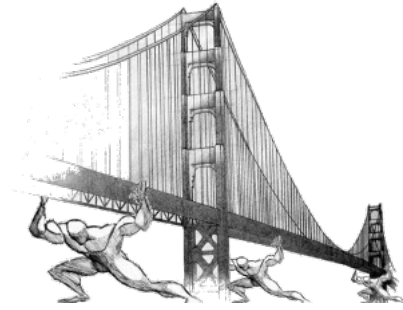
Overview

- Team Organization

- Project Schedule

- Alpha Prototype

- Beta Pototype

- New Functionalities

- Integration

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Overview

- Changes in Documentation

- Acceptance Testing

- Experiences

- Demo & Screenshots

- Question time

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Team Organization

- ## The Development Group

Andrea Bottoli (PoliMi)   Lorenzo Pagliari (PoliMi)   Marko Brčić (FER)
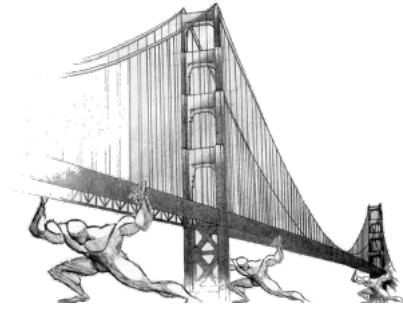
Dzana Kujan (MDH)   Jörn Tillmanns (MDH)   Miraldi Fifo (MDH)   Nikola Radisavljevic (MDH)
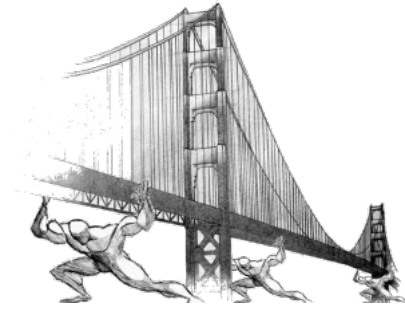
Team Organization

- 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

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Team Organization

- Management
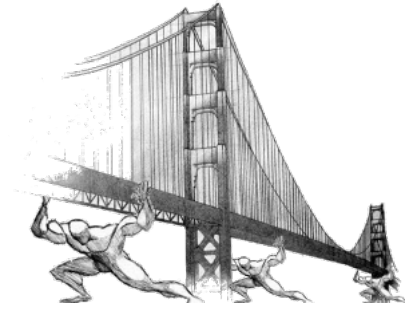 - Managing Meeting
    - Dzana & Andrea
  - Meeting Agendas
    - Before each meeting
  - Meeting Summaries
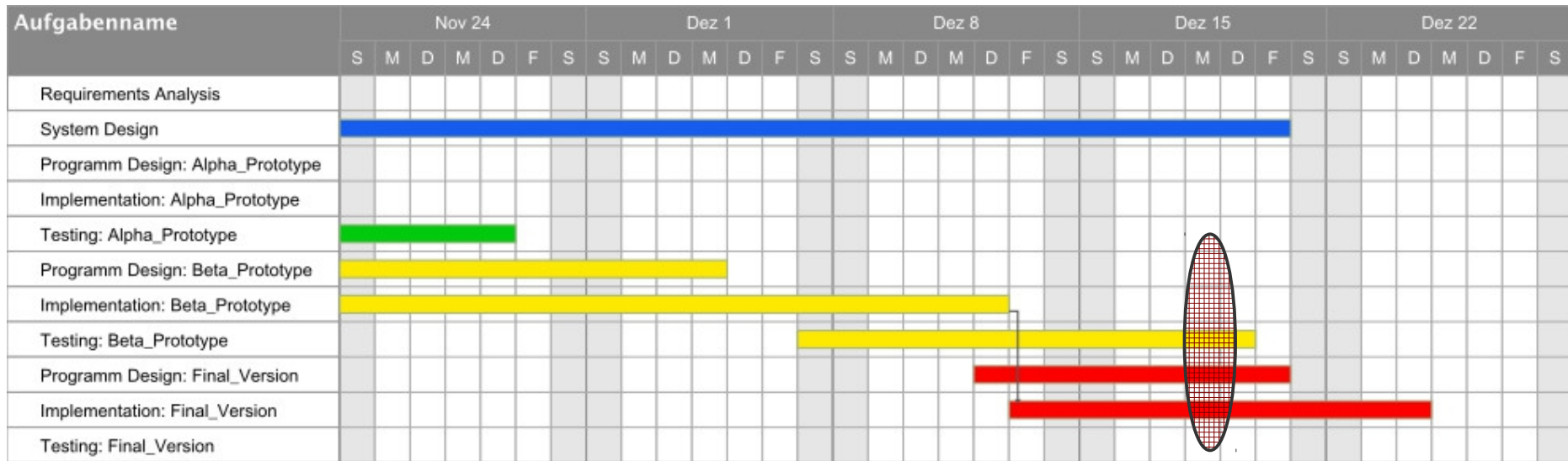   - Customers, Supervisors, Group ...

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Project Schedule

- ## Project Plan and Current State
  - ### Where we are and what we have to do

| Aufgabenname	Nov 24							Dez 1							Dez 8							Dez 15							Dez 22						
	S	M	D	M	D	F	S	S	M	D	M	D	F	S	S	M	D	M	D	F	S	S	M	D	M	D	F	S	S	M	D	M	D	F	S
Requirements Analysis																																			
System Design																																			
Programm Design: Alpha_Prototype																																			
Implementation: Alpha_Prototype																																			
Testing: Alpha_Prototype																																			
Programm Design: Beta_Prototype																																			
Implementation: Beta_Prototype																																			
Testing: Beta_Prototype																																			
Programm Design: Final_Version																																			
Implementation: Final_Version																																			
Testing: Final_Version																																			

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Project Schedule

- ## Development Process
  - SCRUM
  - Every day chat meetings
  - Some hangouts calls
  - Lot of commits

Alpha Prototype

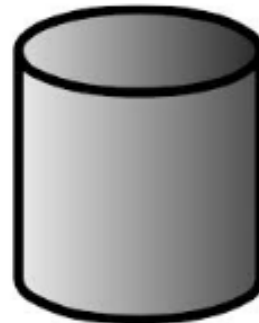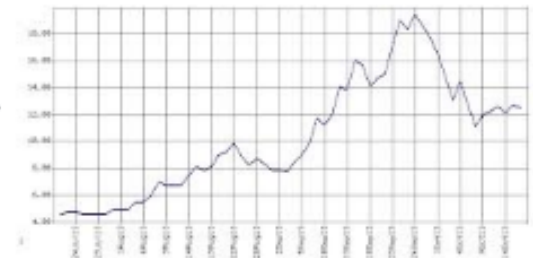Files   Parser   Database   Servlet / JSP   Presentation
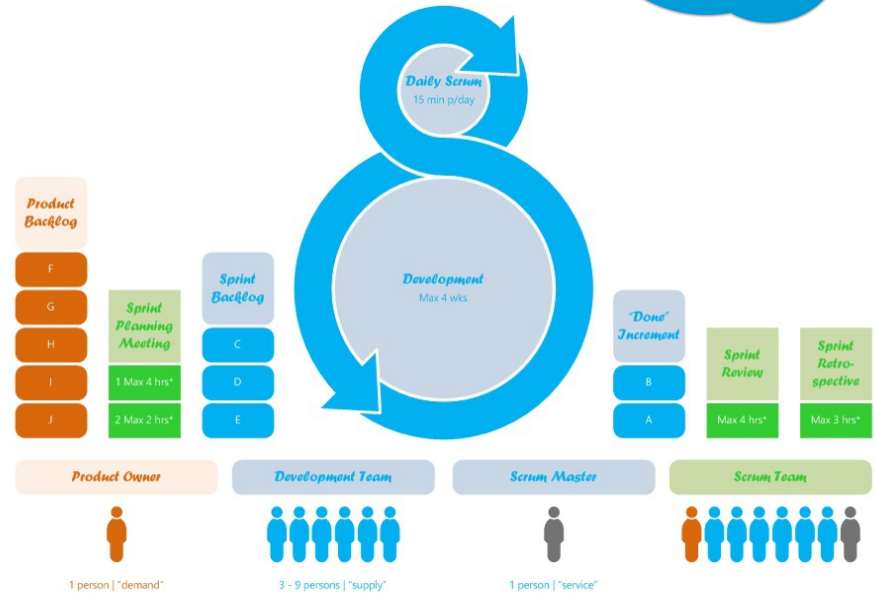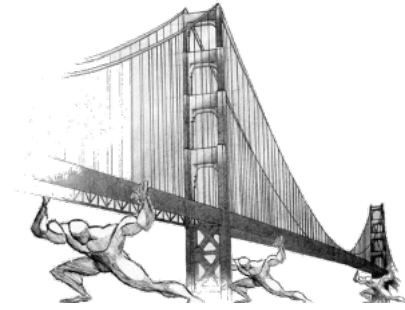
Beta Prototype
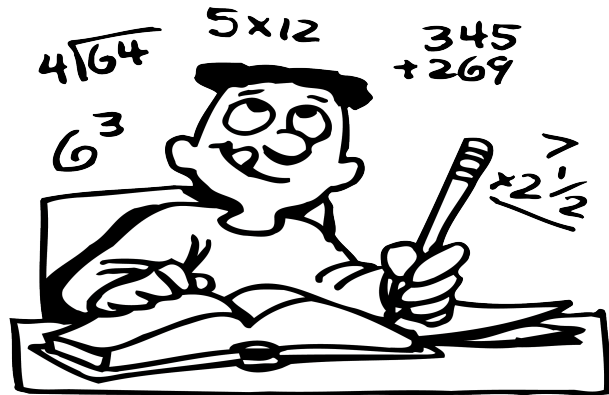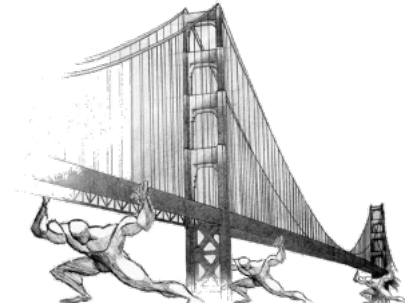
Math Engine
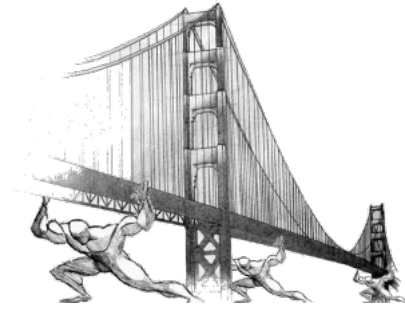
Authentication System

Parser

Servlet

JSP

Files

Database

Presentation

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New Functionalities
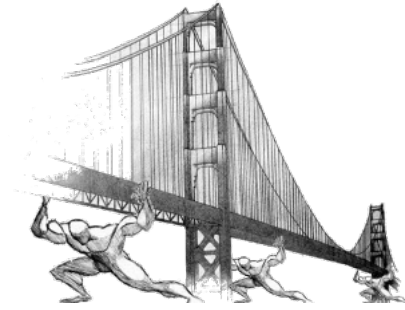
- **New Functionalities**
  - **Math Engine**
    - Library for making
      - Structural calculations
      - Statistical calculations
      - Algebraical calculations
    - Used by the calculation Controller
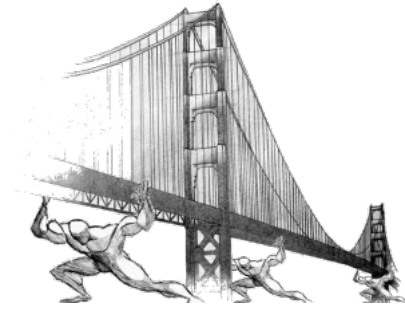   - Used to produce the Safety Factor (CS)

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New Functionalities

- ## New Functionalities
  - ### Calculation Controller
    - Controls the logic of the calculations
    - Manages calculations
      - A lot of threads in parallel
    - Uses the math engine
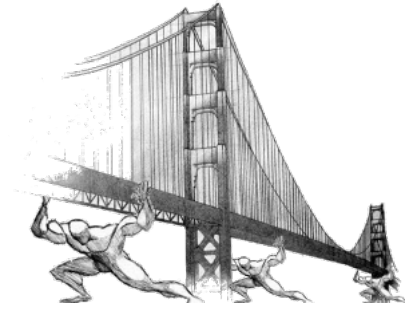   - Stores the results in the DB

New Functionalities

- **New Functionalities**
  - Quartz scheduler
    - Schedules
      - The loading of the system settings
      - The checks for new data
      - The parses of new data
      - The calculations
    - Uses Job Classes and Servlets
    - Interfacing with Tomcat
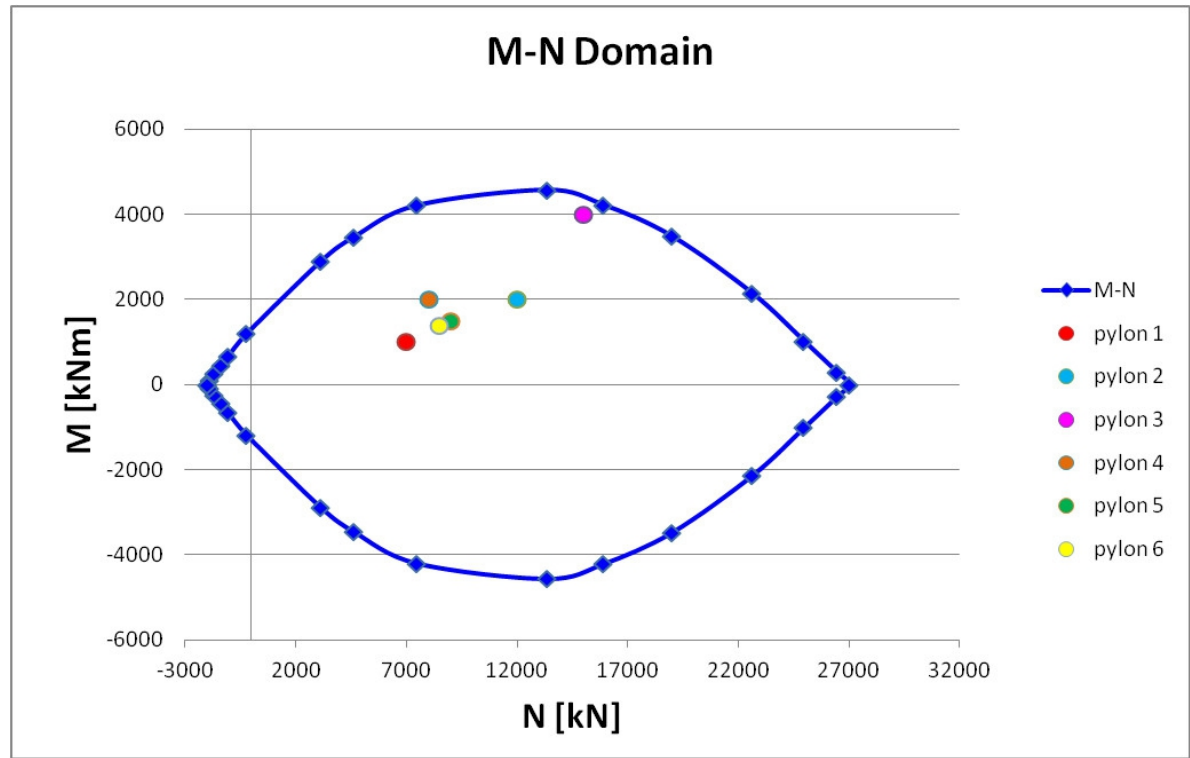
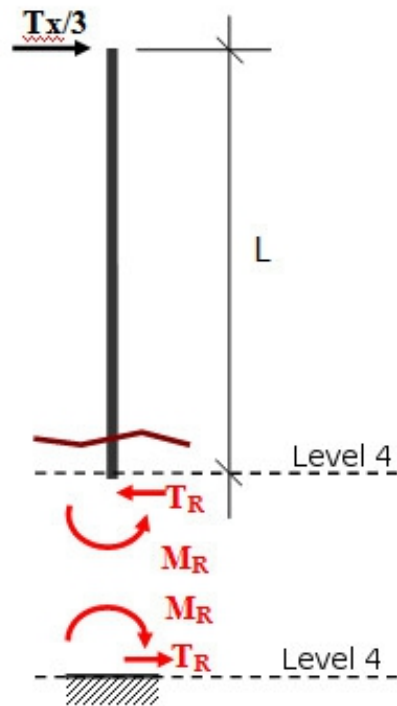MÄLARDALENS HÖGSKOLA

New Functionalities

- **New Functionalities**
  - Authentication System
    - Allowed a first authentication
    - Permits to see different pages
    - Permits to see different contents & data
    - Works with Tomcat

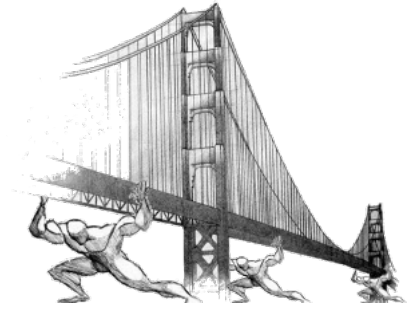MÄLARDALENS HÖGSKOLA

New Functionalities
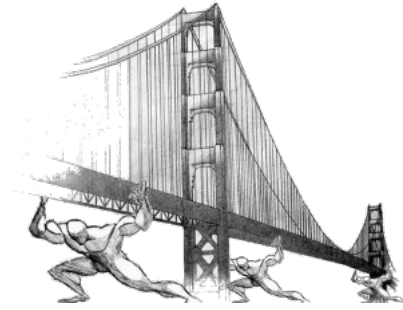
- ## New Functionalities
  - ### M-N Domain

Integration

- Parser
- DB
- Calculations
- Authentication System
- Web Pages and Servlets
- Tomcat
- << a picture? >>

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Documentation

- Changes in Documentation
  - Requirements Documentation v1.3
  - Design Documentation v1.5
  - Technical Documentation v1.1
  - User Guide v1.0
  - Installation Guide v1.0
  - Acceptance Test Documentation v1.0

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Acceptance Testing

- Meetings with customers

- Check on requirements and functionalities

- An acceptanc test document
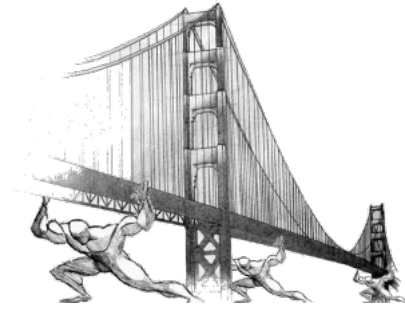
- Local and Remote Tests

- JUnit test classes
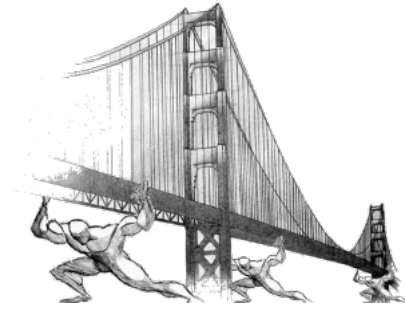
Experiences
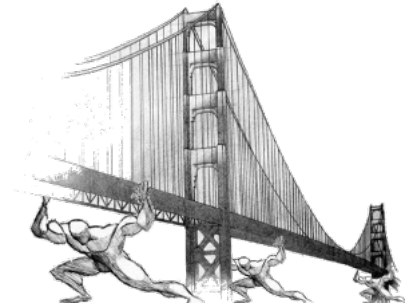
- ## Effort

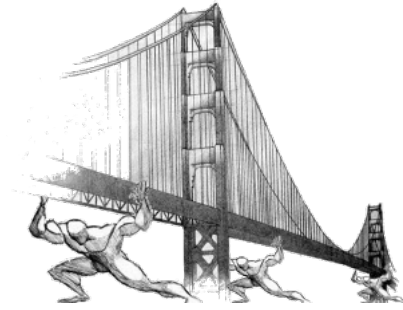| Member	W42	W43	W44	W45	W46	W47	W48	W49	W50	Total
Andrea Bottoli	11	40	50	45	47	68	40	41	14	356
Lorenzo Pagliari	10	37	53	51	46	57	37	51	43	385
Dzana Kujan	9	36	43	36	27	36	27	49	24	287
Marko Brcic	11	40	54	60	28	36	26	15	15	285
Jorn Tillmanns	9	37	51	43	20	13	39	16	15	243
Nikola Radisavljevic	9	37	45	36	26	35	26	46	25	285
Miraldi Fifo	9	38	45	35	16	28	14	18	18	221
Ghazaleh Shojaee	-	-	53	13	32	26	-	-	-	124
Total	68	265	394	319	242	299	209	236	154	2186

Experiences

- Important Events
  - Changes in Desing
  - Changes in Requirements
  - Comply with NTC 08 and EU 305/2011
  - New Technical Documentation
  - Fly to Sweden ;-)
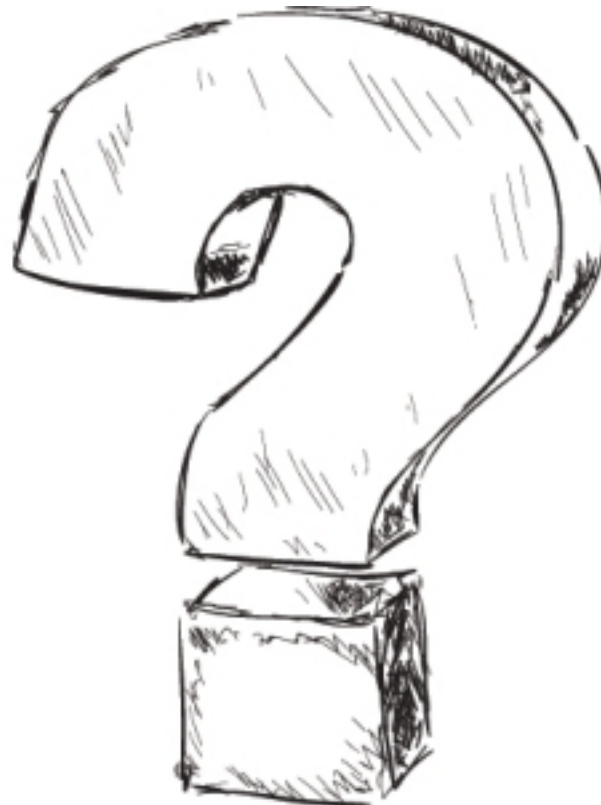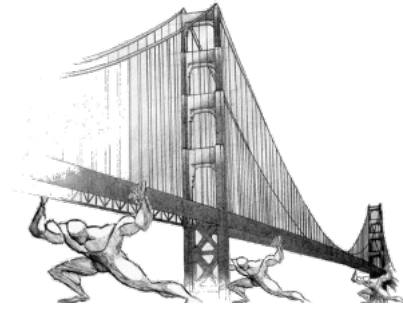
MÄLARDALENS HÖGSKOLA
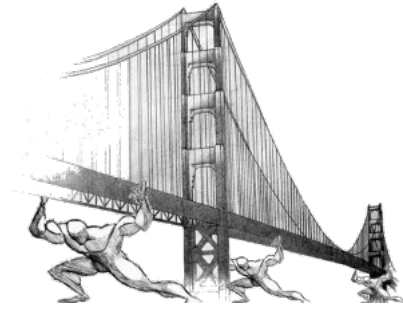
Demo

- Localhost

- VM: http://161.53.67.134/BridgeMonitoring/

Screenshots

Question Time

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Thank you for your attention