

Final Assignment SCM Course 2006

Version: 1.0

Date: May 1st, 2006

Deadline: 30 June 2006 at 12:00

Report: ~ 20 pages

The objective of the SCM course is to learn the basic elements of software configuration management and to be able to apply this in a software (development) organization. During the last weeks of the course, students will analyze SCM concepts and principles in a software organization. The result of the assignment is a report that clearly describes the SCM processes, principles, policies, plans and tools of that organization. The report must be self-contained, meaning that software people are able to understand the report even without having followed the SCM course. The software organization should also benefit from this report.

During the SCM course various SCM functions have been comprehensively discussed: version management, concurrent development, branching policies, configuration selection, build management, release management, work space management, change (or defect) management, release distributions. In the final assignment students should show that they have understand these SCM functions. Especially, attention should be paid to interactions between the functions. How do these functions work together in the real-world? How do these functions strengthen each other? How do they interfere?

Way of Working

In groups students will visit the software organizations. During this visit, all required information should be gathered to develop a complete view of all applied SCM functions. The visit must be carefully prepared to cover all aspects as needed to finalize the report. Depending on the organization, emphasis should be put on certain SCM functions.

In advance, groups prepare a kind of report framework in which the to-be-gathered information fits. This framework can be seen as a kind of initial version of the final report, containing the sections and their brief content. The report-framework can serve as a guide to gather the required information. The report-framework of each group will be presented and discussed in two lectures (weeks).

Note: Groups can already gather information by asking for material from their contact person.

Contact & Communication

Per group there is one coordinator who will take care of all communication with the software organization. Groups should consider who they want to interview (SCM manager, project leader, Build manager, etc.). We advise to make an appointment with the company already in week 23. Note that different roles can be fulfilled by a single person. The coordinator will discuss this with the company contact person. Please keep the course lecturers on the copy list of all mails to the industry.

On forehand, the coordinator can ask for information about the used SCM tool(s). If you are lucky they may provide you some written procedure how they deal with SCM (Quality Manual).

Assignment

Analyze the SCM system of the software organization and report on that. The report should be self-contained, meaning that all SCM terms should be briefly explained (including possible references to literature). The report should contain at least the following four parts and flavoured with your opinion throughout the report (be constructive and critical):

- Brief description of the software organization (software development size, product description, development sites, maturity level, etc.)
- Description of the SCM system of the organization (following the SCM functions as discussed)
 - Tip: use hard data to make it concrete (how many files? How often changed? How many defects? Etc. etc.)
- Special attention should be paid to *Concurrent Development*
 - Do they work in teams?
 - How do teams collaborate?
 - Do they have parallel projects?
 - What is the merge policy?
 - What do you (your opinion) think of the merge policy?
 - What are the branching strategies?
 - Do they work with internal releases? How?
- Evaluation of the SCM system (your opinion)
 - What are the strong points in the SCM system?
 - Which functions should be improved? Why?

The lecturers will provide the contacts to software organizations (see website).

Week 23: prepare report framework (present in class)

Week 24: gather information and extend the report framework (present in class)

Week 25: visit software organization

Week 26: Deadline, submit the report to lecturers (in Word or PDF and by email)

Further details can and will be discussed in the classes in week 23 and 24.