

Final Assignment SCM Course 2007

Version: 1.7

Date: Msy 1st, 2007

Deadline: 26 June 2007 at 12:00

Report: ~ 20 pages (text)

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 an 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, build management, branching strategies, configuration selection, release management, work space management, change (or defect) management, etc.. In the final assignment students have to show that they have understand these SCM functions and are able to recognize them in a real-world situation, including the interactions between SCM 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

Each group is responsible for contacting the right persons at the right time. From experience, people in industry are busy, so plan ahead! Before visiting the industry, contact by mail and phone should be made. Groups have to ask for information (be specific!) during this first contact. 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. An initial version of the report, of each group, will be presented and discussed in a lecture.

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 early (**now!**). Note that different roles can be fulfilled by a single person in an organization (distinguish the roles!). 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 (system = combination of processes, tools and roles in the organization) of the company 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 (this information must be present: software development size (#developers), product description, development sites, maturity level, number of releases (per year), etc.)
- Description of SCM processes, organization and tools (following the discussed SCM functions at the lectures)
 - Provide the following information: tools, used languages and compilers, build time for whole product, used release distribution technique, etc.)
 - Documentation, UML, Hardware deliverables in SCM?
 - 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 *Collaborative Development*
 - How do teams work together? Role of SCM in this?
 - Do they have parallel projects? What about release rhythm (# releases per year)
 - What is the merge policy? What is your opinion on this?
 - What are the applied 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? Your opinion!! Why?
 - Which functions should be improved? Why?

The lecturers will provide the contacts to software organizations

Plan:

Week 21-24: visit company

Week 25: present draft of report to the group & feedback & Q&A

Week 25: Finalize report, talk to company (phone)

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