

**MÄLARDALENS HÖGSKOLA**

INDIVIDUAL STUDY PROGRAMME FOR POSTGRADUATE STUDENTS

Datum: _____ 2003-10-30; 2004-05-19, 2005-01-23 _____ Review, indicate changes

PART 1. ADMINISTRATIVE DETAILS

Personuppgifter

Student's name:	Annita Persson Dahlqvist
Social registration number:	580707-5923
Department:	Computer Science and Engineering
Date when research studies started:	2004-01-01
Subject of research studies:	Computer Science
Principal supervisor, e-mail and phone number	Ivica Crnkovic, ivica.crnkovic@mdh.se , Tel: +46 21 103183, Mobile: +46 70 533 75 57
Assistant supervisor(s): e-mail and phone number	Christer Norström, christer.norstrom@mdh.se , +46-21-101464
Planning discussions with the postgraduate student (date(s) and persons that were present)	2003-09-17 Prof. Ivica Crnkovic PDU Manager Ola Gustafsson, Ericsson AB, Dep Manager Anders Johansson Ericsson AB, Unit Manager Göran Humleby Ericsson AB, Annika Bergbom Human Resources Business Unit , Annita Persson Dahlqvist Senior Specialist Ericsson AB

Funding (indicate one of following)

Doctoral studentship at MdH (DTJ)		
Industrial doctoral studentship (EXT)	X	Company; Ericsson AB
Other position at MdH (HTJ)		
Other type of funding		IDT, Industrial IT, SAVE-IT
Annotations The funding is divided between Ericsson AB and MdH/IDt. Ericsson AB participates in funding working time of the student. IDt is funding advising and additional costs such as travels. The IDt's funding are covered from KKS SAVE-IT project.		

COMPETENCE DEVELOPMENT PLAN

Degree

Licentiate degree YES/NO	YES	If YES, continue below
Points required in connection with thesis work for licentiate degree	50	
Points required for coursework in connection with licentiate degree	30	
In which semester is it intended to take the licentiate degree	Q2 2005	
Name of degree (philosophy, technology, economy)	Technology	
Doctoral degree YES/NO		If YES, continue below
Points required in connection with thesis work for doctoral degree	100	
Points required for coursework in connection with doctoral degree	60	
In which semester is it intended to take the doctoral degree	Q4 2007	
Name of degree (philosophy, technology, economy)	Technology	

Degree of activity in postgraduate programme

Semester	Degree requirements fulfilled <i>State as accumulated % PhD=100%, lic=50%</i>		Degree of activity <i>Indicate as % of full time</i>		Departmental duties or other obligations <i>Indicate as % of full time</i>	
	Planned %	Actual outcome %	Planned %	Actual outcome %	Planned %	Actual outcome %
fall						
Spring 2004	40%	36%	35%	35%		
fall	40%	46%	45%	45%		
Spring 2005	40%		50%			
fall	40%		60%			
spring 2006	40%		70%			
fall	40%		80%			
Spring 2007	40%		90%			
fall			100%			
spring						
fall						
spring						
fall						
spring						
Annotations						

COMPETENCE DEVELOPMENT PLAN

Courses included in the postgraduate programme (in order to include a course in the research education please fill in the form in the end of this document)

Courses planned	Accredited courses
	Advanced Configuration Management (London, England), 1997-10 2P
	Rational Dialog, 1997-10 2P
	Technical Symposia for Metaphase (PDM, Minneapolis USA), 1999-09 2P
	PROPS - development process, 1998 1P
	Rhetoric 5 days, 1998 2P
	VI - SCM Distributed Development, 1999 2P
	System Administration Metaphase (Cincinnati, USA), 2000-04, 5 days 2P
	Pedagogical education (Doc Ulf Nyttell, Uppsala), 2000-04, 3 days 1P
	Customization I Metaphase (Cincinnati, USA), 2000-09, 5 days 2P
	Ericsson – Rational conference (Stockholm), 2000-09 1P
	VI - SCM /PDM work group, 2001 5P
	Implementing and integrating PDM and SCM, published at Artech House, 2002-2003 3P
	Academic Writing for PhD Students 5P
	Software Configuration Management 3P
	Research Planning 3P

PART 2. PLANNING OF RESEARCH EDUCATION

Planned thesis task

Describe the research task planned and the approach to be adopted.

Product Data Management (PDM) is the discipline of controlling the evolution of a product design and all related product data during the full product life cycle, historically with the focus upon hardware product design. Software Configuration Management (SCM) is the discipline of controlling the evolution of a software product, with emphasis on the development phase. The PDM and SCM domains have evolved in parallel with none or little communication as the products were usually divided in software or hardware products. Today products are often complex systems consisting of hardware, software, and related documents, developed by several groups. This put high demands on support on several levels, both for the system level as well as for each group, especially during the development phase. One important requirement is the possibility to integrate product information systems where PDM and SCM is part of this integration. However the knowledge of software management and its relation to hardware management is very low. The possibilities to integrate PDM and SCM are one of the key factors in product information management of today. The companies have serious problems using PDM and SCM together, since the overall development process is usually complex and not properly defined, a common knowledge of both domains is low, and the integration possibilities provided by PDM or SCM vendors are limited.

The first goal of this work is to investigate the similarities and differences between SCM and PDM, to analyse the requirements for their usage and to analyse the development processes using both PDM and SCM. The investigation is based on theoretical reasoning, literature study, and case studies from different industrial domains.

The second goal is to propose an integrated model where both PDM and SCM are used in a common process

COMPETENCE DEVELOPMENT PLAN

<p>and where information from these systems is exchanged. The feasibility of that model is validated in industrial case studies.</p>
<p>Detailed description of research planned the forthcoming year 2004 Course Academic Writing for PhD Students CM Course for PhD Students Publication based on the cases studies of using PDM and SCM in different companies Study of integration PDM and SCM process at Ericsson AB Publication related to the case study</p>
<p>Elements completed/deviancy from planning and cause of deviancy</p> <p>A Persson: <i>Experiences of Customization and Introduction of a CM model</i> Springer Verlag LNC 1005, 1996</p> <p>U Asklund, B Magnusson, A Persson: <i>Distributed Development and Software Configuration Management</i>, Springer Verlag LNC 1675 page 17, 1999</p> <p>A Persson, I Crnkovic, M Larsson: <i>Managing Complex Systems – Challenges for PDM and SCM</i>, SCM 10, 2001</p> <p>I Crnkovic, A Persson, D Svensson: <i>Complex Systems Development Requirements – PDM and SCM Integration</i>, 2001</p> <p>Co-writer of report to The Association of Swedish Engineering Industries: <i>PDM and SCM – similarities and differences</i>, 2001</p> <p>Persson Dahlqvist A., Crnkovic I., and Asklund U.: <i>“Quality Improvements by Integrating Development Processes”</i>, In Proceedings of Asia-Pacific Software Engineering Conference, APSEC2004, 2004</p> <p>Co-organizer to SCM 12.</p>
<p>Plan for licentiate thesis: 2004 Course Academic Writing for PhD Students CM course for PhD students Publication based on the cases studies of using PDM and SCM in different companies Study of integration PDM and SCM process at Ericsson AB Publication related to the case study 2005 Writing the licentiate thesis</p>

COMPETENCE DEVELOPMENT PLAN

Planned supervision

Extent Periodical meetings with the student and advisor. Periodical meetings with the project reference group. Common publication writing
Availability
Organisation of supervision and division of responsibilities between supervisors

Content of research education

Pedagogic education The student has attended a pedagogical course and has held many seminar and conference presentations.
Research ethics A part of a Research methods course
Science of science and epistemology A part of a Research methods course
Skills in using appropriate IT resources Long experience in using many different tools
Project management Project manager in many different interdisciplinary projects
Research funding Working experience
The ability to work with others A long experience of collaboration with different companies and research groups
Language proficiency in Swedish and English A long experience of using both languages
Environmental considerations in the program Standard education
Communication with non-specialists A long experience of communication with different category of people
Interdisciplinary ability Project manager in many different interdisciplinary projects
Awareness of career possibilities outside higher education Industrial employee
Workplace and physical resources Available at the office
Other

COMPETENCE DEVELOPMENT PLAN

Signatures

The undersigned acknowledge the contents of the individual study programme above

Date _____

Postgraduate student

Principal supervisor

Assistant supervisor

(Assistant supervisor 2)

Department chair/Director of postgraduate studies

This document is forwarded to the Director of Studies for Postgraduate Programmes, Division for Education and Research, Box 883, 721 23 Västerås. Contact information: studierektor-fu@mdh.se, tel 021-107013

Revisions

The date together with the signatures of the postgraduate student, the principal supervisor and representative of the Department. Approval also has to be given by the Dean. The amendments are entered and indicated in the appropriate sections of the document.

Decision

I, the undersigned, hereby approve this individual study programme
Date and the Dean's signature

Date

Dean

REPORT OF PH D COURSES

THIS FORM IS TO BE SUBMITTED TO LADOK-RESPONSIBLE PERSON AT
THE DEPARTMENT

Student (name soc reg nr): _____

Course code: _____

Name of the course: _____

Name of the course in
English _____

Credit: _____

Date of approval: _____

Department: _____

Examiner: _____

Date and signature of
examiner: _____

REPORT OF ACCREDITED PH D COURSES

THE FORM IS TO BE ATTACHED TO THE FIRST INDIVIDUAL STUDY PLAN

If the course is registered in Ladok at MdH, just fill in fields marked *).

***) Student** (Name, soc reg nr) _____

***) Course code:** _____

***) Name of the course:** _____

Name of the course in English _____

Original date:

Original credit: _____

Original examiner: _____

(not compulsory)

Swedish University: _____

Foregin University: _____

Country _____

***) Research subject:** _____

***) Credits to be accredited** _____

***) Date of decision:**

Department _____

***) Supervisor:** _____