# Centre PSOFTWARE Engineering



http://www.cse.dcu.ie

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#### **News from the Centre**

#### **CSE launches New Courses**

As always we are continually reviewing and updating the range of courses we provide to ensure that they remain relevant and topical. Hence in our January to June training schedule listed on the back you will find some new courses as well as some old favourites.

#### New in 2002 include:

ISEB Foundation Certificate in Software Testing: this course will enable testers to obtain ISEB certification. The Information Systems Examinations Board (ISEB) is an internationally recognized certification body that aims at certifying IT-professionals.

Reviews and Inspections: this course will provide you with a detailed insight into various review techniques ranging from informal peer reviews through to formal technical walkthroughs and inspections. In addition you will become familiar with various checklists and applicable metrics that may be used to help you ensure successful implementation of your review programme.

Overview of Agile Processes: so what's the best way to deliver quality software on time in the face of changing requirements, variable skill levels, and technology churn? For one thing your project team needs to be light on their feet, adaptable... Agile, that's the word! This course provides an introduction to Agile Processes such as DSDM and xP. More detailed follow-on courses for some of the processes will also be delivered later in the year.

**OOAD Using UML:** applying the Unified Modelling Language to the analysis and design of OO systems.

Requirements **Engineering:** this course covers the requirements process: from requirements elicitation through analysis through to validation. The course also covers the of requirements management throughout the lifecycle, along with an overview of tools and techniques available to support requirements engineering.

# Project Management Tutorials (Half-day Overview Series)

We will be running a number of halfday courses giving a short introduction to a particular topic. Subjects covered will include:

- DSDM.
- Rational Unified Process (RUP),
- and PRINCE 2.

Also two of our existing courses, Overview of DSDM and Internal Auditing for Software Companies, will be revised and extended to 2day courses.

# Information Mapping™ Seminars for Software Engineers and Documentalists

CSE is pleased to announce that, from February 2002, its training schedule will include seminars in writing and information design. Through partnership arrangement with thirdinformation developers, party Rédacteurs Limited, a new three-day seminar Developing Procedures, Policies and Documentation will be run at the CSE on a regular basis.

Documentation is a core element in the software development process, and yet, while software engineers typically spend in excess of 25% of their time writing, they are seldom trained to do so efficiently.

The seminar teaches the internationally recognised Information Mapping™ methodology, a researchapproach based analysing, to organising and presenting information. It enables authors to break complex basic information into its most elements and then present those elements optimally for readers. using Documents produced methodology are easy to access, use and remember. The precisely defined information modules are consistent from author to author, and from document to document.

Information Mapping™ is used throughout the world to develop a wide variety of business documents, from memos and e-mails, through reports, proposals and tenders, to system specifications and user documentation. Any written business or technical material can benefit from its application. This seminar is thus of relevance to anyone whose job includes a significant writing workload.

## Another Success for a CSE Client

Congraulations to Automsoft who were awarded the ISO 9001:2000 certificate in late November 2001.

Jill Pritchet, one of our senior consultants, worked closely with them to help implement their quality system to meet the new ISO 9001:2000 standard.

If you need help or advice to implement or upgrade your systems then contact Jill at: 01 700 8055 or email jill@cse.dcu.ie





# Friends, Romans, E-Business Application Developers....the E-Business Technology (EBT) Forum is about to commence

#### **Background**

We are launching a new service aimed at organisations interested in building e-business applications that are not just robust, fast, and secure, but also have design flexibility. The main point is that e-business applications should be easy to change to meet new requirements compromising without design integrity. We have been researching this fundamental problem for the past year. Now we would like to share some of our hard-earned lessons with you, through our EBT Forum.

But what makes the software engineering aspects of an e-business application different from traditional application development? A successful e-business application typically has to cope with thousands of transactions per day originating from many different types of client, many of which involve different back-end systems and databases.

If you knew from day one that this is what you would be faced with, what would you do? One answer is to use a standards-based layered architecture that would allow you to separate out the application into its main technical layers:

- User interface;
- Business logic; and
- Persistence.

Ideally, these layers should be loosely coupled so that backend and interface elements may be easily changed. Within these layers there may be other constraints on design flexibility. For example, the business logic may be distributed over different platforms, or the user interface may have to deal with different types of client platforms. Given this complexity, it is imperative that application code maintains a high degree of simplicity.

If this is the way you feel e-business applications should be developed, whether you are in the J2EE or .NET camp, please read on. Otherwise you might still like to join the EBT Forum as a heckler in residence!

#### What is the EBT Forum about?

The vision for the EBT Forum is of developers with a common set of concerns, learning from each other and us through sharing war-stories, designs, and code. We will take the lead by making available our ongoing research to forum members through a number of mechanisms including access to a web-site repository and regular workshops.

The EBT Forum will operate with regards to various areas of expertise encompassing technology process. One area will involve members sharing their experiences with specific technology elements, such as a specific application server, Java API, XML standard, or a useful component that they created. Another area will involve sharing design expertise through medium of patterns. The patterns will be brought to life with UML design models and if possible, program code. Process issues that highlight some of the most effective ways of developing applications for e-business will also be addressed.

The EBT Forum will function through two primary media:

- A web-site repository only fully accessible to forum members and moderated by the CSE; and
- A comprehensive and valuable series of interactive workshops.

The workshop series will start with the following topics, which directly link to research work undertaken by us:

- Model View Controller Pattern and its variants;
- Capturing Business Logic in Value Objects; and
- Unit Testing Approaches.

It is envisaged that further workshop topics will be driven by the interests of forum members.

#### What will your organisation get?

Your organisation's annual subscription to the EBT Forum will provide a multitude of benefits. Exclusive benefits to staff from forum member organisations will include:

- Full access to web-site repository including private discussion lists;
- Free attendance at half-day monthly workshops; and
- Free attendance at related oneday workshops during the year.

Other benefits will apply to forum members including:

- Free attendance at related awareness events;
- Discounts on related training courses; and
- Preferential consultancy.

#### **Further Details**

If you are interested in your organisation being considered for membership of the EBT Forum please contact:

Dave Halpin, Tel: 01 700 5622, Email: dave@cse.dcu.ie.

More detailed info will also be posted on the CSE web-site.

An information session will be held on 6th February at CSE. Please come along.





# Technology Snapshots

Again this year we are running a series of awareness raising events at a number of locations around the country. These are short presentations (typically 1-2 hours) on the key aspects of software engineering technology.

A small charge may be made for these events to cover expenses.

We are also planning to run some of these events in Galway, Limerick, Cork and Belfast. For more details look at our training schedule on our website: www.cse.dcu.ie/training.html.

#### **Dublin events from January to June**

ISO 9001:2000 – Experiences with the New Standard	22 January
Launch of E-Business Technology (EBT) Forum	6 February
Software New product Development – Developments in Europe	28 February
DSDM Interest Group – e-DSDM	5 March
Process Forum: RUP versus XP	27 March
Project Management in an E-business Environment	15 April
Introduction to IPR	17 April
Software New Product Development – Funding	9 May
Translating Software Requirements	22 May
What is the CMMI?	12 June

## **Consultancy Services**

# Our aim is not to do things for you but to help you do them for yourself.

In this way you gain and retain valuable knowledge that will help your company both now and in the future.

We offer a range of consultancy services which can be carried out as individual assignments or which can be packaged together with in-house training (from our portfolio of public courses, or specifically tailored for you needs).

#### Services we provide include:

- mentoring for companies to help them implement a Quality System including preparation and pre-assessment for ISO 9001:2000
- informal and formal CMM ® assessments
- process improvement strategy and implementation of an improvement programme suitable for your organisation
- advice and assistance on product strategy
- product evaluations in terms of the feasibility of product development and also end product quality
- advice and assistance on business strategy
- advice and assistance on implementing cultural change
- advice and assistance on introducing new technologies
- advice and assistance on IPR issues
- a mediation and arbitration service

While providing a service to all size of companies, we are particularly conscious of the issues which are specific to SME's (small and medium sized enterprises).

Our services are flexible and are very much tailored to your needs, so whatever your problem give us a call and let us help.

If you would like more information about any of our services please contact us at:

admin@cse.dcu.ie, Tel 01 700 5750

#### **CSE** Online

http://www.cse.dcu.ie

Subscribe to csenews and be kept up to date with courses and other events at CSE.

To subscribe send an email to:

maiser@cse.dcu.ie

The contents should be as follows:

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A message will be emailed to you as confirmation of subscription.

We would encourage you to contact us to discuss issues arising from articles in this newsletter or with any other queries you might have, all CSE emails follow the same pattern, firstname@cse.dcu.ie.





### **Training Calendar for January - June 2002**

Event	Days	Jan	Feb	Mar	Apr	May	Jun	
Quality and Software Process Improvement								
Fundamentals of Software Engineering	2			20-21			18-19	
Upgrading Software Companies to ISO 9001:2000	1	9				14		
Introduction to Capability Maturity Model	2	30-31			29-30			
Aspects of Quality ©	2			<b>2</b>				
Internal Auditing for Software Companies	1-2	29			23-24			
Software Inspections	1		8					
Reviews and Inspections	2				17-18			
Tmap - A Structured Approach To Software Testing	2		21-22			30-31		
ISEB Foundation Certificate in Software Testing	3				10-12			
SPI Approaches	1	Available on-site only						
ISO 9001:2000 Programme Briefing	0.5	23	20	19				
SPI - the easy way Programme Briefing	0.5	14						
SCATE Programme Briefing	0.5						<b>2</b>	
Object Orientation & Component Based Development								
Overview of the UML Notation	1		18		18		21	
OOAD using UML	2					27-28		
E-Business Design Patterns	1			28			6	
Introduction to Extreme Programming ©	2				29-30			
Overview of Agile Processes	1		27			23		
Java, C++, VB or C? - Making the Right Choice for Projects!	1			Available or	n-site only		ı	
Introduction to Object Orientation	1	Available on-site only						
RAD - Dynamic Systems Development Method	- Available on oils strij							
Overview of DSDM	2			25-26				
DSDM Practitioner	3			Available o	n request			
Requirements Engineering								
Requirements Engineering ©	2			7-8			13-14	
Project Management								
Project Management Fundamentals	2			14-15			6-7	
Project Management Tutorials ©	0.5	24	28	6	9	29	26	
Successful Risk Management for Software Projects	1		19			20		
Software Estimation	2	17-18			4-5			
Business Strategy								
Intellectual Property Rights	1		7					
Introduction to New Product Development (NPD)	2			19-20			11-12	
Winning Strategies – Introduction	1	Available on-site only						
R&D Management for Software Organisations – Overview Course	1	Available on-site only						
R&D Strategy	1	Available on-site only						
People Issues								
Developing Procedures, Policies and Documentation	3		13-15			15-17		
Facilitation Skills	2			Available or	n-site only			

Training courses are usually discounted to Associate Members.

Programme Briefings are introductions to our longer Special Training Programmes and are generally free to everyone.

Dates subject to change For more information and booking details please contact our admin department:

Phone: +353 (0)1 700 5750, Fax: +353 (0)1 700 5605, Email: events@cse.dcu.ie

Details of CSE events and registration forms are also available on our web site at: http://www.cse.dcu.ie/training.html

