SPA2005 SESSION PROPOSAL

Num: 46

Working Title **A set of heuristics for improving precision in UML models**

Case Study **75 minutes**

One Line Description:

This case study describes a set of heuristics that can be applied in order to understand where a visual UML model might be incomplete.

Abstract:

InferData have been helping HSBC apply OCL to define the business rules that apply to FX Trade messages used to integrate Front and Back Office Systems.

The session will look at the lessons learnt and benefits identified, including people issues and technology constraints.

The purpose of this session is to provide a set of heuristics that will help modellers spot potential weaknesses in a UML structural model. The weaknesses in question are unavoidable when using visual models for the purpose of system specification without additional constraints.

The presenters will show that a precise model can be used to underpin a model driven development approach today.

However, writing OCL is a large step for most analysts or developers. This session aims to provide an easy introduction that concentrates on the 'what' of specification constraints as opposed to the 'how' (syntax).

Participants will learn techniques that will enable them to better evaluate a model with regard to completeness, consistency and precision.

Audience:

- Should have some experience of using UML to specify a system.
- Relevant to: Business Analysts, Systems Analysts, Developers (in a process that requires the use of visual models), Testers, Architects.

Benefits:

- Learn practical ways that can be applied immediately to improve the quality of UML models on any project.

- Understand one of the key steps in the move towards MDA.

Materials:

A set of slides explaining and demostrating each heuristic with an full example model.

Process:

Mainly taught, but with audience involvement stronly encouraged.

Planned timetable:

00:00 - 00:05 Hellos
00:05 - 00:20 Why precision is needed
00:20 - 00:60 Heuristics for where to add constraints to type models
00:60 - 00:70 People issues
00:70 - 00:75 Wrap-up

Outputs:

Other heuristics suggested by participants.

History:

Based upon a tutorial and mentoring deliverd to HSBC and a Swiss bank.

Submitter(s)

Rob James HSBC Bank plc

Robert James is an architect with HSBC, where he has responsibilities for a large J2EE-based back office project. He has been involved with object technology since 1991 and he is a regular speaker at BCS OOPS' OT conferences and other events. His experience includes involvement with all software life-cycle processes, including development in Smalltalk and Java and design using UML. More recently this has included tailoring RUP for large projects. His current software engineering interest is in capturing requirements for large systems as 'business component specifications'.

Other interests...Arranging latin music for small groups...

Richard Mitchell Inferdata

Richard trains and consults for InferData Corp in the general area of object-oriented analysis and design. He is particularly interested in approaches that include modeling the world into which systems are to be placed. Richard is lead author of the book Design by Contract, by Example, published by Addison-Wesley, 2002. He has trained and consulted in the application of the principle of design by contract to domain and system modeling, and program design.