SPA2005 SESSION PROPOSAL

Num: 25

Working Title **A Taxonomy of Models**

Workshop **150 minutes**

One Line Description:

How the characteristics of a model are chosen to suit various purposes

Abstract:

Model-driven development in general and the OMG's MDA in particular are current hot topics. But do we really understand the objectives of the models we create, and are we using modelling languages that fit with those objectives? For example, what's the difference between using UML for sketching and for creating blueprints? Should we model the way a business works differently from the way software works?

This session considers two dimensions of models:

1. Perspective:
 a) Conceptual – Describes how the problem domain operates.
 b) Specification – Describes the required behaviour of software.
 c) Implementation – Describes the internal design of software.

2. Formality:
 a) Sketch – Informal, partial, not designed for automation.
 b) Blueprint - Intended to be translated, either manually or semi-automatically into something else (presumably another blueprint or a program).
 c) Program - Executable by a "machine". Takes inputs, generates outputs.

Taken together these two dimensions form a 3 by 3 matrix. The aim of the workshop is to consider, for each cell of the matrix:

- the reasons why you might want to build such a model
- the purpose of such a model
- the appropriate language for expressing such a model, or, if UML is to be used, the subset of UML that is appropriate

Audience:

To get the most of the session you will have some experience of building models of software systems, probably using UML.

Benefits:

* Understand the different uses for modelling as part of a software process
* Become more effective in setting the goals for your modelling
* Improve your choice of modelling language

Materials:

Worksheets

Process:

9 small groups will each consider one cell of the matrix, and produce some ideas about it (if the number of participants is low, some or all groups will take two or more cells). Ideas will be exchanged with other groups through discussion and presentation. We will build consensus as groups merge, leading to the creation of agreed session outputs in a plenary.

Timetable

0-15 Introduction
15-45 Initial group working
45-90 Exchange of ideas
90-120 Presentation of agreed positions
120-150 Creation of session outputs

Outputs:

A set of flip charts / web pages that set out the characteristics of models occupying each cell of the matrix.

History:

None

Submitter(s)

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John Daniels is an object technology pioneer, with nearly 20 years experience of object/component modelling, design, development. John has been a session leader at every OT conference, and has a track-record of enthusiastic participant response and high ratings (provided you ignore OT2003!). OT97 [http://www.sis.port.ac.uk/bcs-oops/ot97/programme/descriptions/tt1.html]