A Taxonomy of Models

Presenters: ExampleSubmitter

Type: WSL   Duration: ID: 6

One line description

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

Topics

Themes

Process
Practice

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
  - which transformations to other cells are useful and why

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

Detailed timetable
00:00 - 00:15   Introduction
00:15 - 00:45   Initial group working
00:45 - 01:30   Exchange of ideas
01:30 - 02:00   Presentation of agreed positions
02:00 - 02:30   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

Session Leaders
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SPA Conference

A non-existent user used for submitting example proposals