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Using Enterprise Architect

Course Overview

This course provides an introduction to some of the more advanced features of Sparx Systems' *Enterprise Architect* UML and SysML modelling tool. The course comprises a mixture of teaching and hands-on exercises. The taught content covers the background and use of the tool, along with more pragmatic issues, such as implementing base projects and the use of reference data to help standardise and streamline tool use in an organisation. The exercises reinforce the taught material.

Target Audience

This course is aimed at system and software engineers that have a working knowledge of EA but who want to gain familiarity with some of EA's more advanced features in order to get the most out of this powerful tool.

Course Outline

The course consists of five modules, each followed by a workshop exercise in which delegates put the concepts covered in the module into practice.

1 Settings

- Tool settings
- Authors
- Roles

This module covers local tool settings that allow EA to be configured according to a user's preferences. Definition of model authors and roles is also covered.
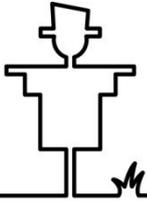
2 Project Structure

- Creating views and packages
- Creating diagrams
- The importance of model structure
- Base projects

This module discusses the structure of EA models and how to define model structure in terms of views, packages and initial diagrams. The importance of defining such a structure based on the needs of the project, rather than using the defaults provided by the tool, is considered which leads into a discussion of the role, creation and use of base projects.

3 Drawing Diagrams

- Adding elements to diagrams
- Adding connectors to diagrams
- Properties

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- Rearranging the model
- Improving navigability

This module discusses the ways in which diagrams can be edited, considering tool short-cuts that allow elements and connectors to be added quickly and efficiently. The importance and use of various element properties are discussed as are the various ways in which models can be rearranged as they are developed. The module concludes with a discussion of model navigability, considering hyperlinks within a model and to external items, cross-referencing of model elements and the creation of index diagrams to aid the user of a model.

4. Document Generation, Baselines and Working with EA

- Generating documentation
- Baselines
- Working with EA

This module discusses the basics of automatic documentation. Generation of RTF documents from packages is considered, as is the greater flexibility offered by the use of virtual documents. HTML documentation is also discussed. Baselines and their use is covered, together with comparison of baselines in order to determine changes made to a model between baselines. The module concludes with a number of topics related to general usage of EA: security and working in teams, showing and hiding model information, maintaining model consistency.

5. Stereotypes, Profiles & Patterns

- Stereotypes, profiles and patterns
- Creating stereotypes
- Profiles
- Patterns

This final module introduces the concepts of stereotypes, profiles and patterns and covers their creation, export and use. Their importance in establishing the way an organisation works with EA is discussed.

Course Material

A full set of printed course notes and exercises are provided. Delegates also receive an electronic (PDF) version of the course material.

Course Tutors

This course is delivered by Simon Perry and James Towers. Simon and James have extensive experience in the use of EA, have taught many EA courses and are experts in the use of SysML and in model-based systems engineering (MBSE). Simon has co-authored five books in the field of applied MBSE. James is Chair of INCOSE UK's MBSE Working Group.