TB141Ic – ICT System Engineering and Rapid Prototyping - UML Modeling supplementary material

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20 February 2022

This document clarifies some of the aspects that have been discussed during Lecture 4 - System modeling with UML - Use Case and Activity diagrams.

Relevant Concepts

Model-driven Engineering

Model-driven engineering is a software development process (cf. Lecture 1) in which the development of the ICT System results directly from the translation of a high-level model into executable code (Figure 1).

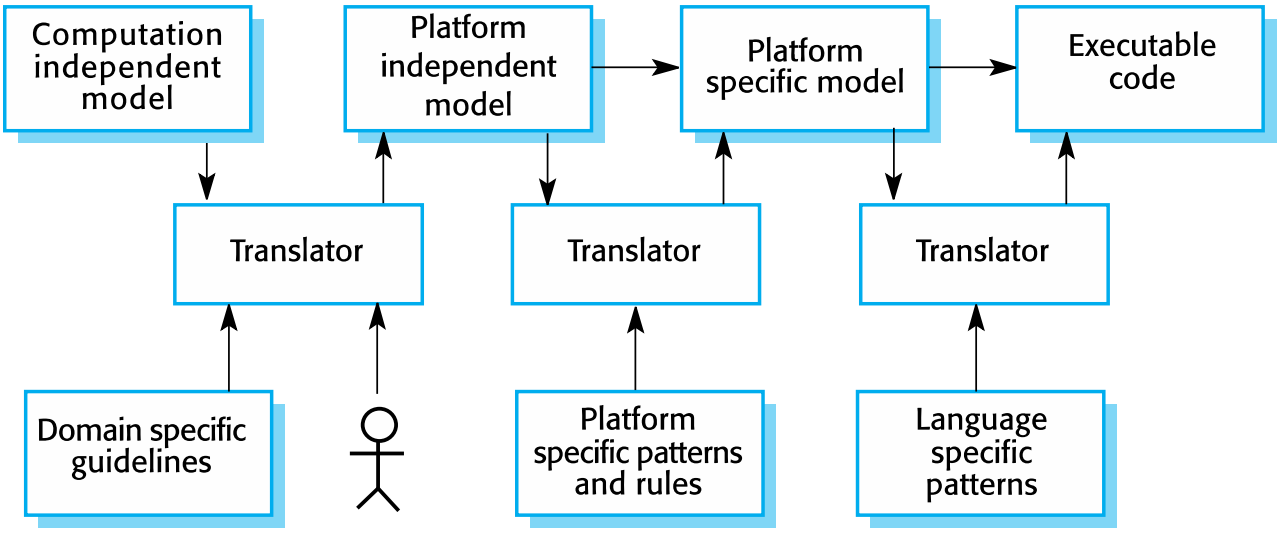

Figure 1: Example of a Model-driven software development process.

UML

UML (Unified Modeling Language) is a graphical modeling language. UML defines the syntax (i.e. the graphical elements) and the semantics (i.e. the information associated to the graphical elements). UML can be used as a modeling language in a model-driven engineering approach due to the fact that it could be easily translated in executable code (see Mendix part of the course.)

UML perspectives

UML defines a set of views and a specific set of diagrams (cf. Lecture 4-5), in order to represent different perspectives on the system to model (for instance, static versus dynamic modeling, design vs implementation modeling).[1] There is no notion of specific ordering between the view/perspectives, as they just represents different points of view on the system to mode.

[1] As every model, also UML model are **simplified** representation of the reality ⇒ Each UML diagram has a set of limitations in which could/could not be modeled.

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