EAST-ADL Introduction

Methodology

What is a methodology?

Merriam-Webster:

1. A body of methods, rules and postulates employed by a discipline. A particular procedure or set of procedures.

2. (The analysis of the principles or procedures of inquiry in a particular field.)

Objectives

- Give advice on how to efficiently use EAST-ADL
- Provide guidelines for system modelling and analysis using EAST-ADL

- Focus on integration and documentation
- Allow for adaptation of EAST-ADL usage to different contexts (processes, organizational, technical)

Methodology Modelling

A model-based approach was chosen to represent the methodology

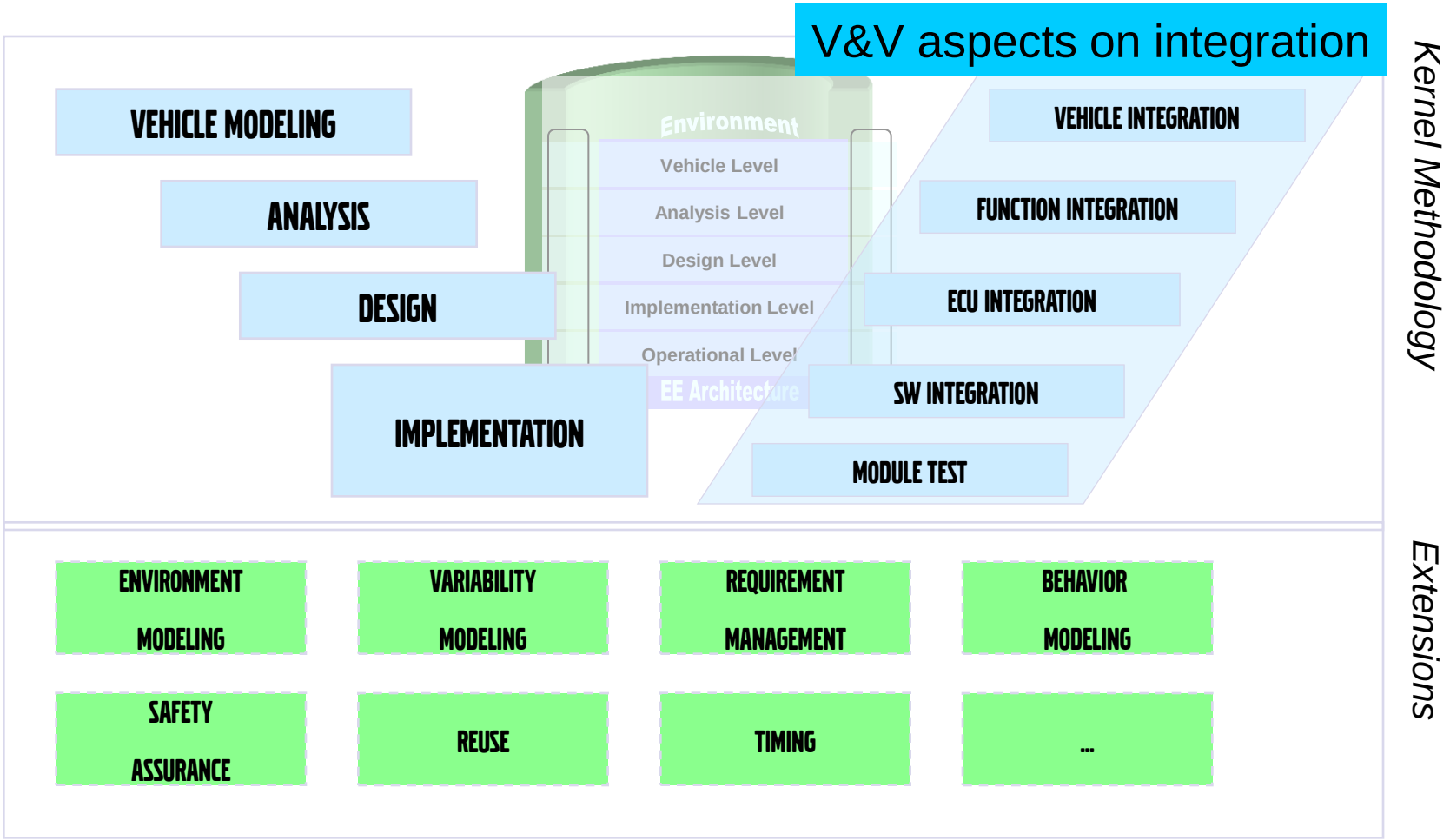
Notations:

- SPEM
  (Software Process Engineering Metamodel)
- BPMN
  (Business Process Methodology Notation)

Tools:

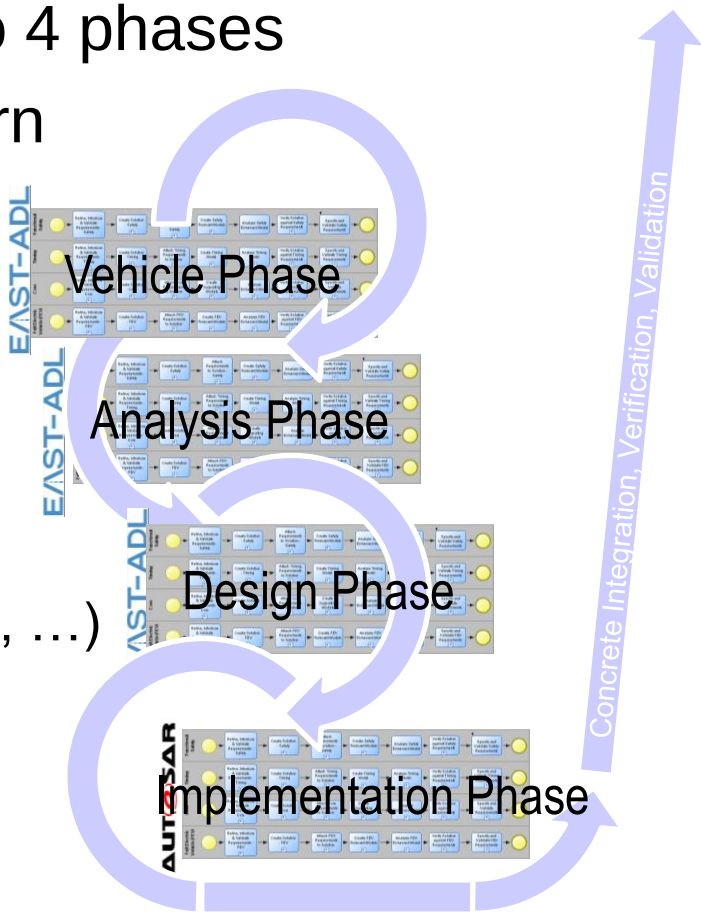
- EPF (Eclipse Process Framework) for SPEM
- ADONIS for BPMN

V-model as reference



EAST-ADL Methodology

- Methodology organized according to 4 phases
- Each phase follows a Generic Pattern
  1. Introduce and Refine Requirements
  2. Create Initial Solution
  3. Attach Requirements to Solution
  4. Refine Solution
  5. Analyze Solution
  6. Verify Solution
  7. Specify and Validate Requirements
- Different aspects have individual "Swimlanes" (Safety, timing, variability, …)
- Methodology Model
  - SPEM (EPF tool)
  - BPMN (ADONIS tool)

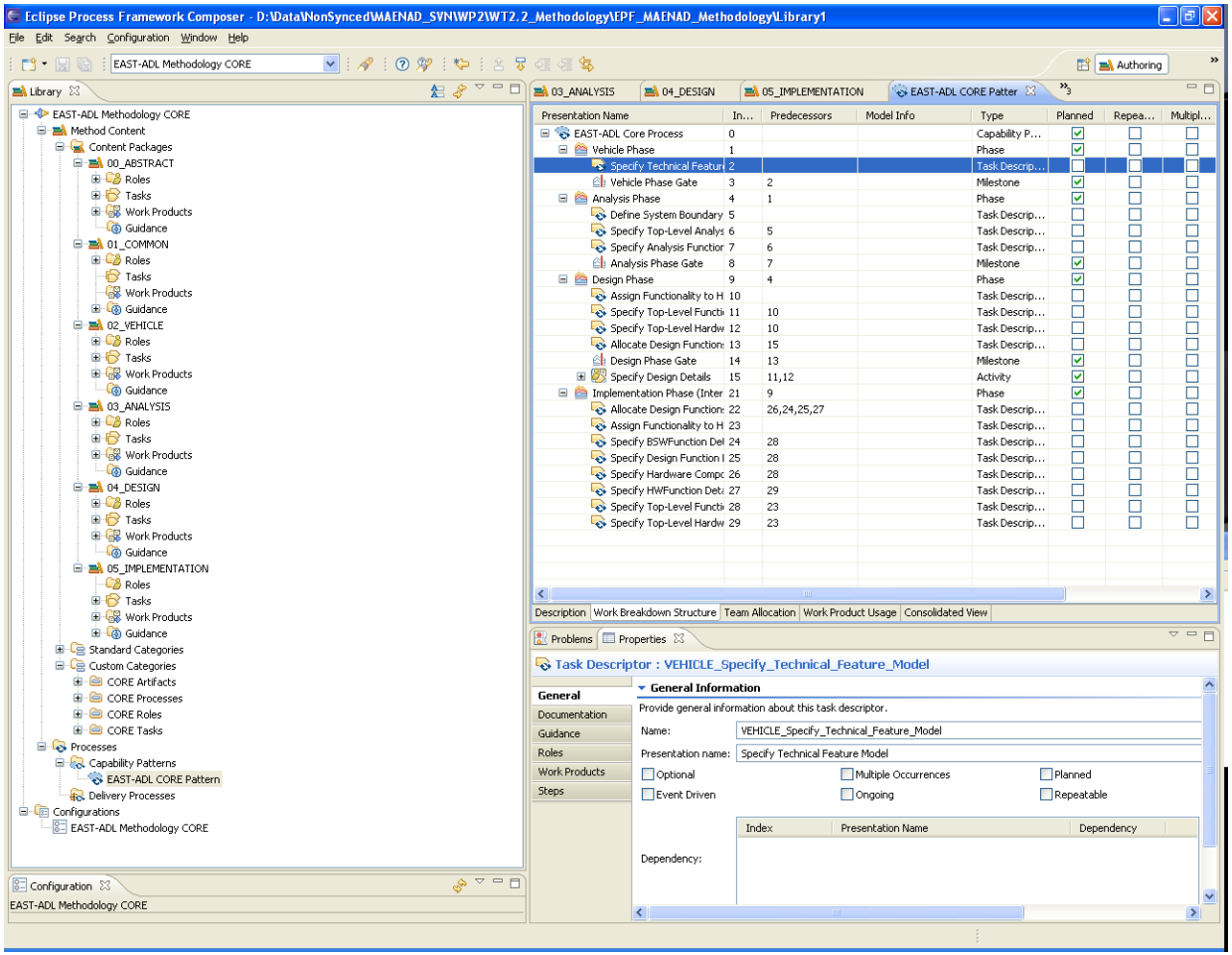


Methodology Artifacts

For the end-user: Html-export from Tool

For the methodology expert: The methodology model in EPF or Adonis , allowing for modifying existing plug-ins, adding new method plug-ins and for configuring specific methodology variants

The Methodology Model in EPF tool



Summary

- The EAST-ADL methodology provides guidelines for system modeling and analysis using EAST-ADL
- Purpose is to show how EAST-ADL can be applied in an ideal top-down sequence
  - Bottom-up, middle-out or combinations will occur in practce
- The results can be used both directly by the end-user (HTML Export) and by expert users tailoring the methodology model to company needs.