



Departamento de
Informática,
Campus de Gualtar,
Braga, Portugal

eL-Architect

A meta-platform

*Using a Design Flow
e-Learning Tool in
CAD/EDA and VLSI education*

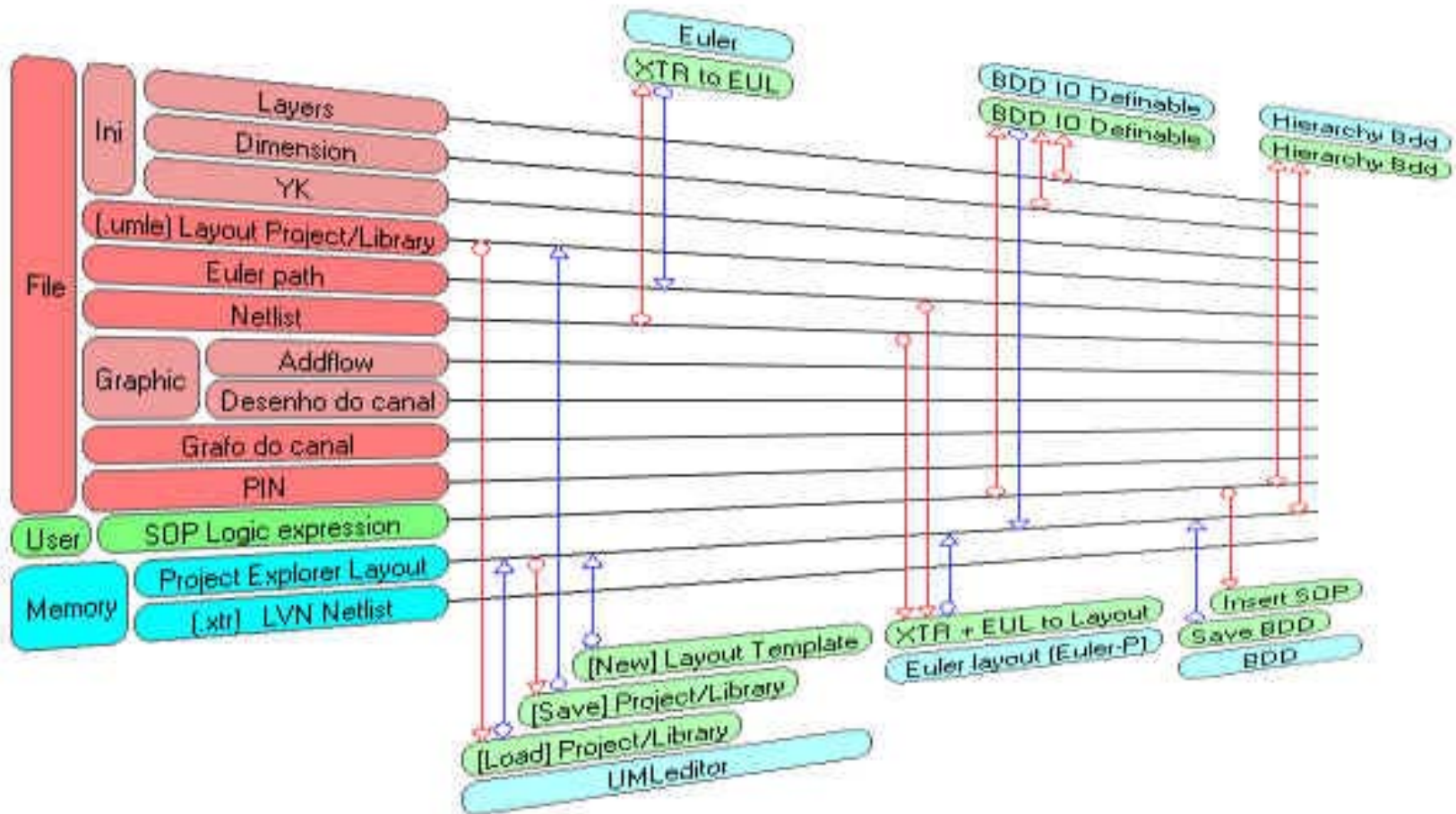


Over Viewing Key Aspects

- ◆ How does one learn about Design-Flow tooling?
- ◆ The UML/UEDK CAD/EDA Open platform:
 - Fundamental Features and Design Concepts
 - Resulting Design-Flow and Documentation Challenges
- ◆ What is the *eL-Architect e-learning meta-platform*?
- ◆ [*eL/D*]-*Architect*
 - Specifications & Design Concepts
 - Key Features and associated Technologies



The eL-Architect





Using eL-Architect (demonstration)

- ◆ Creating a XML Knowledge-Base for Design:
 - Describing a Structural Model of the System
 - Modules, Types, IO Actions using a *DOF* representation:
 - Adding *e-content* for System's Behavior and Documentation
 - Information Views, KB filtering and Work-Flow Design-Views
- ◆ Systems' Design Consistency and Information Updating
- ◆ Creating and Updating Design-Flows
 - Design-Flow Customization and Forking
- ◆ Computer Assisted Creation of HTML Design-Flow Tutorials
- ◆ Design Evaluation using XML/HTML Quiz Generation
- ◆ Solution Submission, Organization and Evaluation



Conclusion & Future Work

- ◆ Creating *eL-Architect* Subject Specific Templates
- ◆ Include features, for Web centric Design-Flow Integration
- ◆ Protocols, Data and Control Integration
- ◆ Solution Proliferation
- ◆ Document & Tool Versioning Management



R&D Team

- ◆ *Prof. José Augusto D. F. Lima, Ph.D.*
- ◆ *Marco Aurélio Costa, Ph.D.*
- ◆ *Vitor Manuel Campos Rodrigues, Lic.*