

**VERCORS Components Environment  
(Environnement pour la spécification des Composants  
Répartis)**

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Entreprise

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Encadrant  
du projet

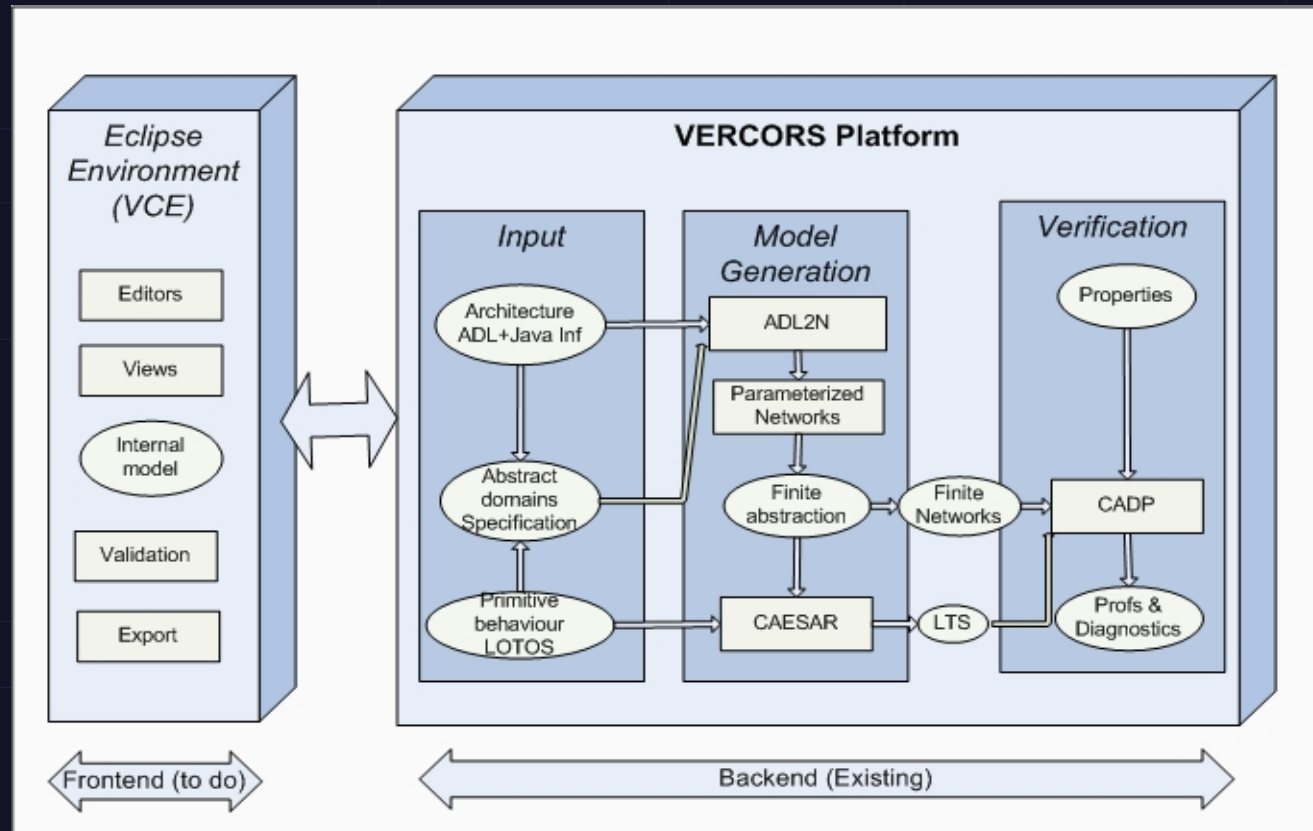
Eric Madelaine

Conseiller

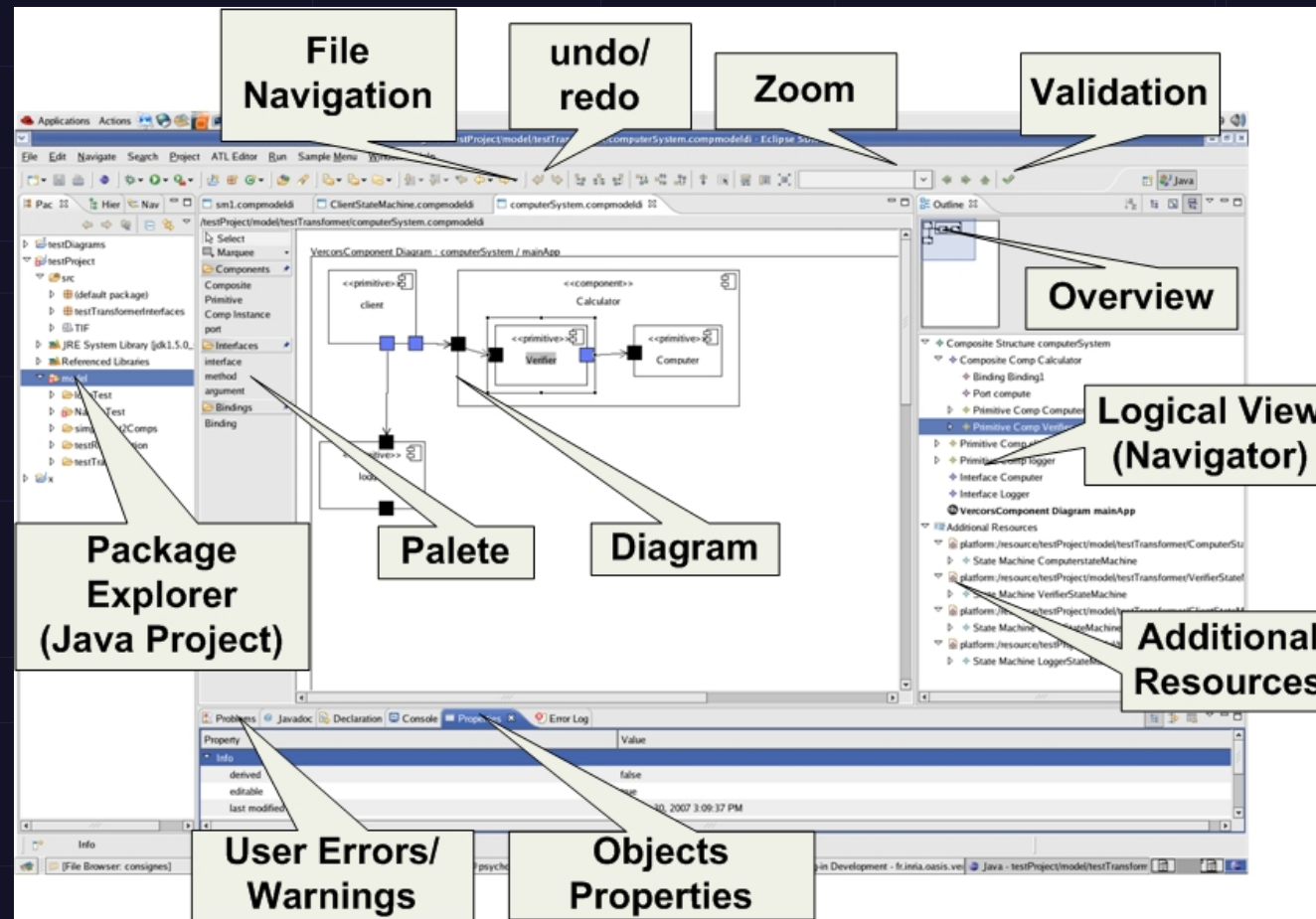
Antonio Cansado



# VERCORS Components Environment Motivation



## Vue globale de l'environnement



## Vue globale de l'environnement

The image displays a screenshot of the Eclipse IDE interface, annotated with labels for various components and views. The main window shows a UML diagram of a Calculator component, with a callout for 'Logical View' pointing to a detailed view of the component's internal structure. A blue arrow points from the main diagram to a zoomed-in view of a State Machine Diagram (BufferSM) in the lower right. The BufferSM diagram shows a state 'Stock' with transitions for 'put?x via Puttf' and 'get?x via Gettf', each with associated guards and actions like 'triggerAlarm via AlarmIf' and 'stock=stock+x'.

Labels and components shown:

- File Navigation
- undo/redo
- Zoom
- Validation
- Overview
- Logical View
- Package Explorer (Java Project)
- Palette
- Diagram
- User Errors/Warnings
- Objects Properties

## Validation du modèle utilisateur

The screenshot shows a UML modeling environment with a component diagram and a validation error dialog. The diagram, titled "VercorsComponent Diagram : computerSystem / mainApp", shows a "client" component connected to a "Calculator" component. The "Calculator" component contains two primitive components: "Verifier" and "Computer". A "logger" component is also shown, connected to the "client". A red circle highlights the "logger" component in the diagram. The "Validation errors" dialog box displays the message: "The model is not valid. Reason: Root diagnostic. The port logger.logBis doesn't have provided nor required interfaces". The "Problems" view at the bottom shows two errors, with the second error circled in red: "The port logger.logBis doesn't have provided nor required interfaces".

Description	Resource	Path	Location
Message test via port vvv not found. Verify method name and port.	sm1.compmodeldi	testProject/model/NamesTest	Unknown
The port logger.logBis doesn't have provided nor required interfaces	computerSystem.compmodeldi	testProject/model/testTransforme	Unknown

## Validation

- ✓ par rapport au méta-modèle
- ✓ par rapport a la sémantique

## Export/Import

- vérification formelle du modèle
  - Export TIF (format interne de TTool)
  - passerelle vers les formats d'entrée des model-checkers
- aide au développement
  - Export/Import en format ADL (Architecture Description Language)
- aide a l'impression
  - Export en format graphique (jpg,gif,png,svg,bmp)

## VCE - Technologies utilisées

- **Eclipse et Eclipse Plugin Development Environment**
  - très haut niveau d'intégration des outils
- **Eclipse Modeling Framework (EMF)**
  - Plate-forme de modélisation et génération du code
  - basé sur un modèle de données structuré (méta-modèle)
- **Le projet Topcased**
  - méta-outil pour la transformation des modèles et le développement des éditeurs graphiques
  - « Model Driven Architecture »

