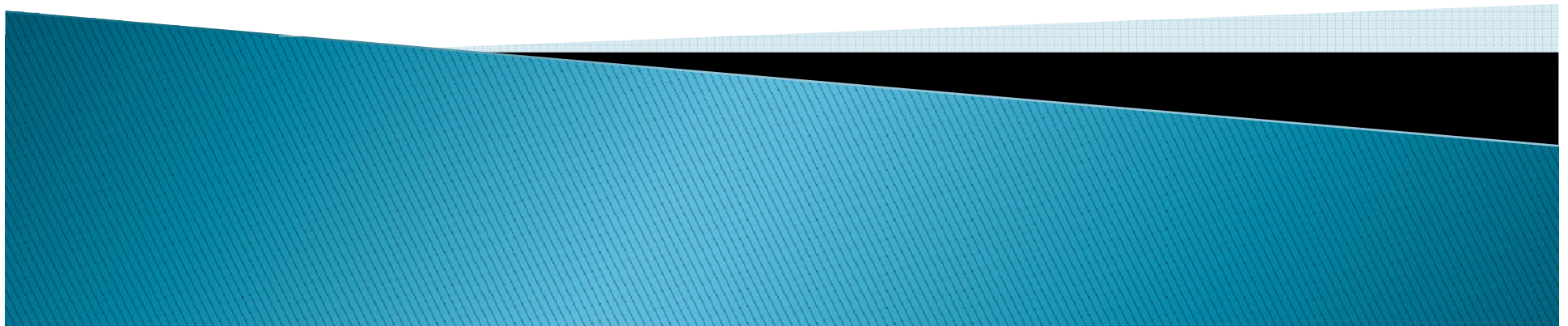


# Pounamu

Chunhui Han

a meta-tool for exploratory domain-specific  
visual language tool development

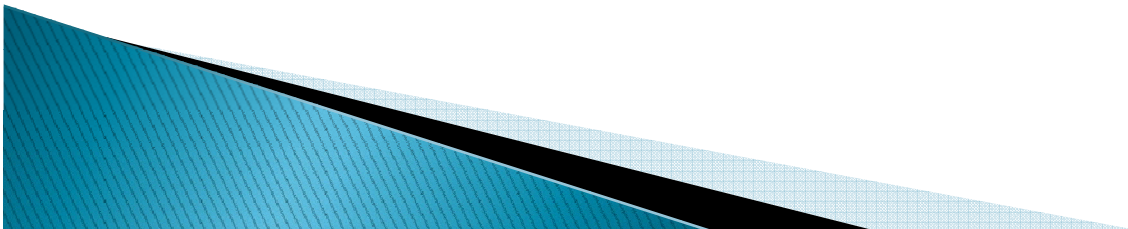


# Reference

Nianping Zhu, John Grundy, John Hosking, Na Liu, Shuping Cao and Akhil Mehra.

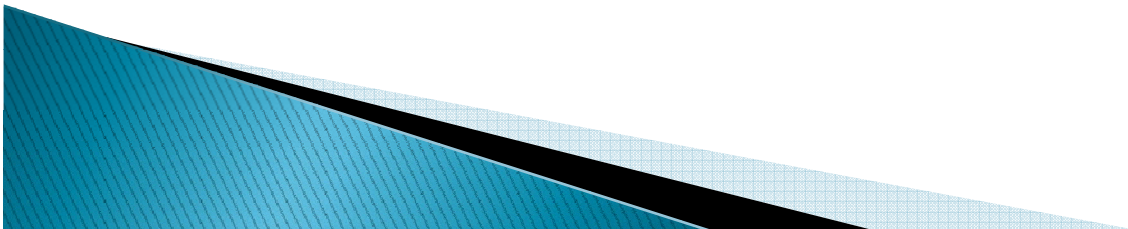
**Pounamu: a meta-tool for exploratory domain-specific visual language tool development.**

Journal of Systems and Software 80(2007)  
1390–1407



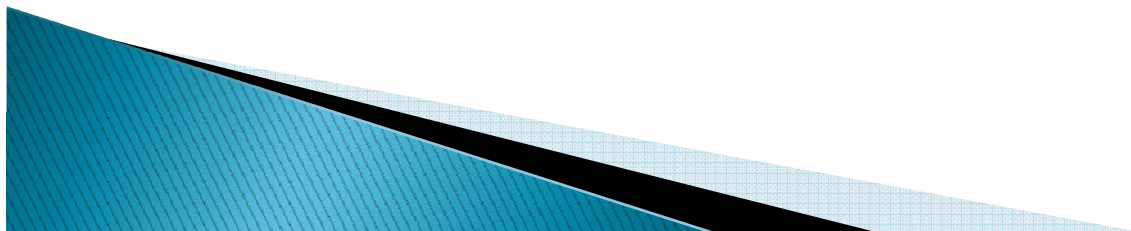
# Outline

- ▶ Introduction to Pounamu
- ▶ Pounamu structure
- ▶ Pounamu features
- ▶ Pounamu usage example



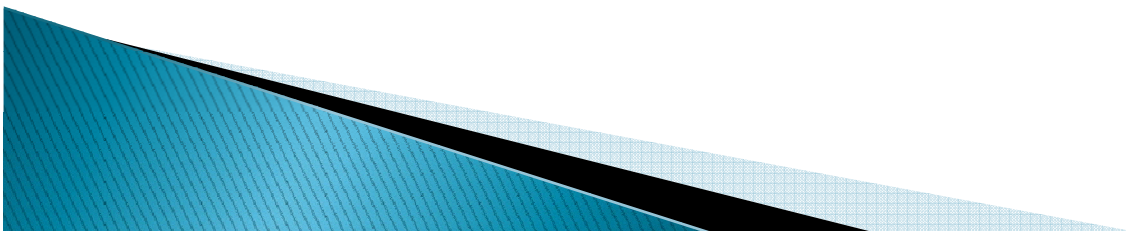
# Introduction

- ▶ Pounamu is the Maori word for greenstone jade, used by Maori to produce tools.
- ▶ A meta-tool for realising Domain-Specific Visual Language (DSVL) environments.
- ▶ Implemented in Java, using the Xerces XML parsing libraries, Swing user interface packages and Java web services toolkit.

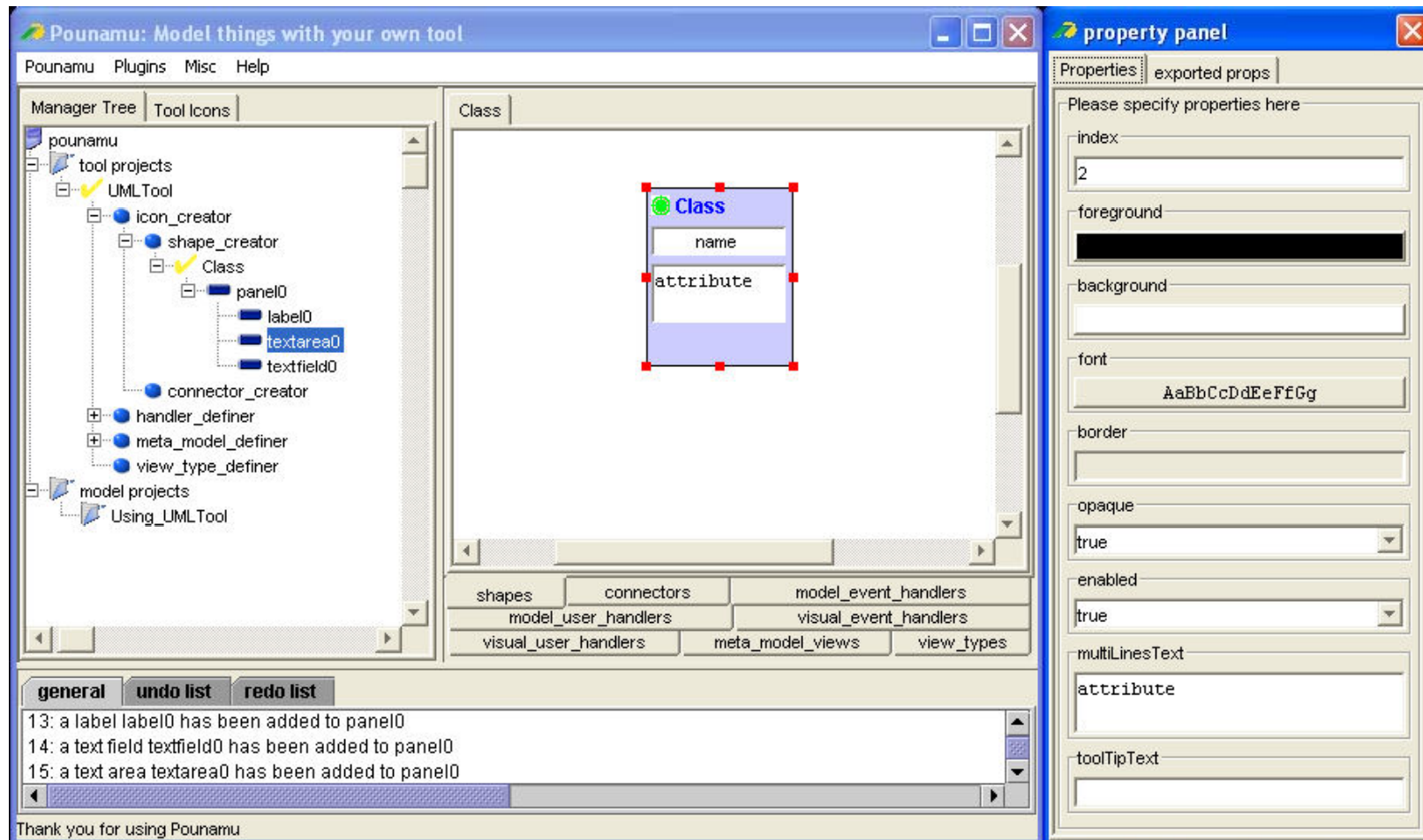


# Structure

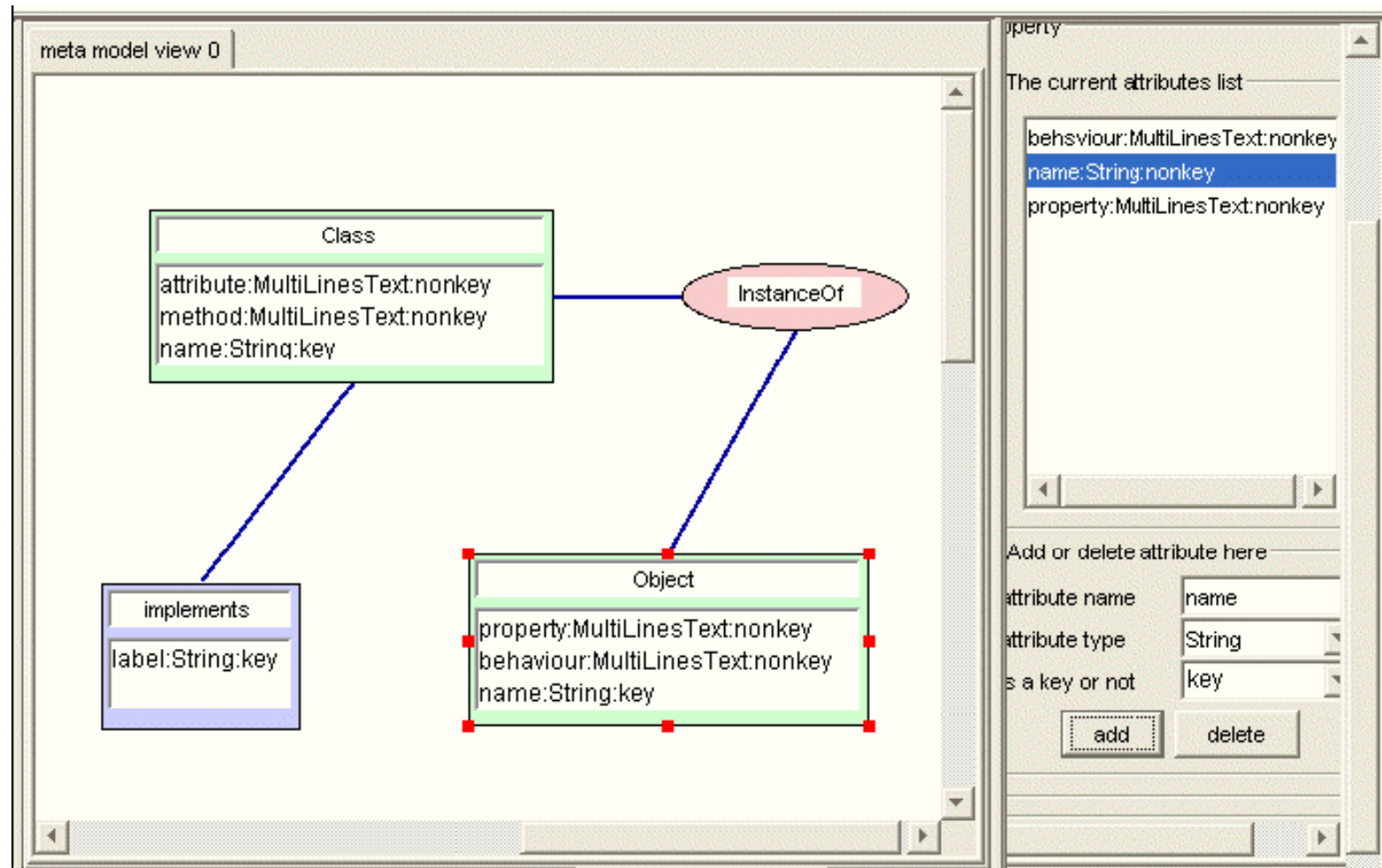
- ▶ **Shape Designer:** define the appearance of visual language notation components.
- ▶ **View Designer:** define views for graphical display and editing of information.
- ▶ **Meta-model Designer:** define tool's meta model.
- ▶ **Event Handler Designer:** define event handlers to control behaviour semantics.



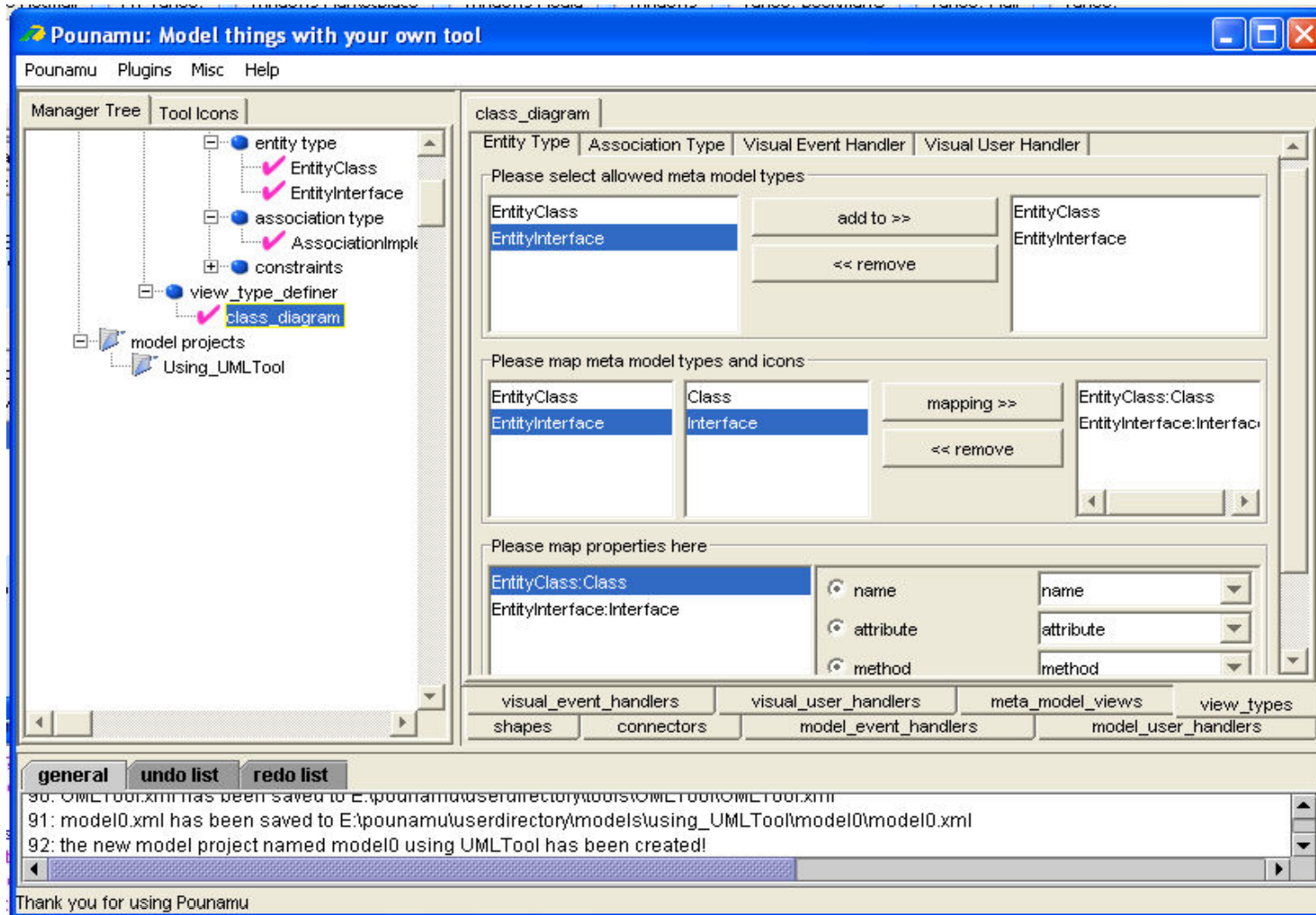
# Shape Designer



# Meta-model Designer



# View Designer



# Event Handler Designer

PrintLine DeleteConnectors

Please specify the events this visual handler will response to

NewShapeEvent       NewConnectorEvent       RemoveShapeEvent

RemoveConnectorEvent       MoveShapeEvent       ResizeShapeEvent

ChangePropertyEvent       all

Please import any class you want here

```
import javax.swing.*;
```

Please input the action code here

```
RemoveShapeEvent event = (RemoveShapeEvent)e;  
PounamuShape shape = event.getShape();  
ModellerPanel panel = getPanel();  
Vector shapesConnectors = getConnectedConnectors(panel, shape  
if(! shapesConnectors.isEmpty()) {
```

Please input the helper methods code here

```
public Vector getConnectedConnectors(ModellerPanel panel, Pow  
    Vector connectors = new Vector();  
    Component[] components = panel.getComponents();  
    for (int i = 0; i < components.length; i++) {
```

Please briefly describe this handler here

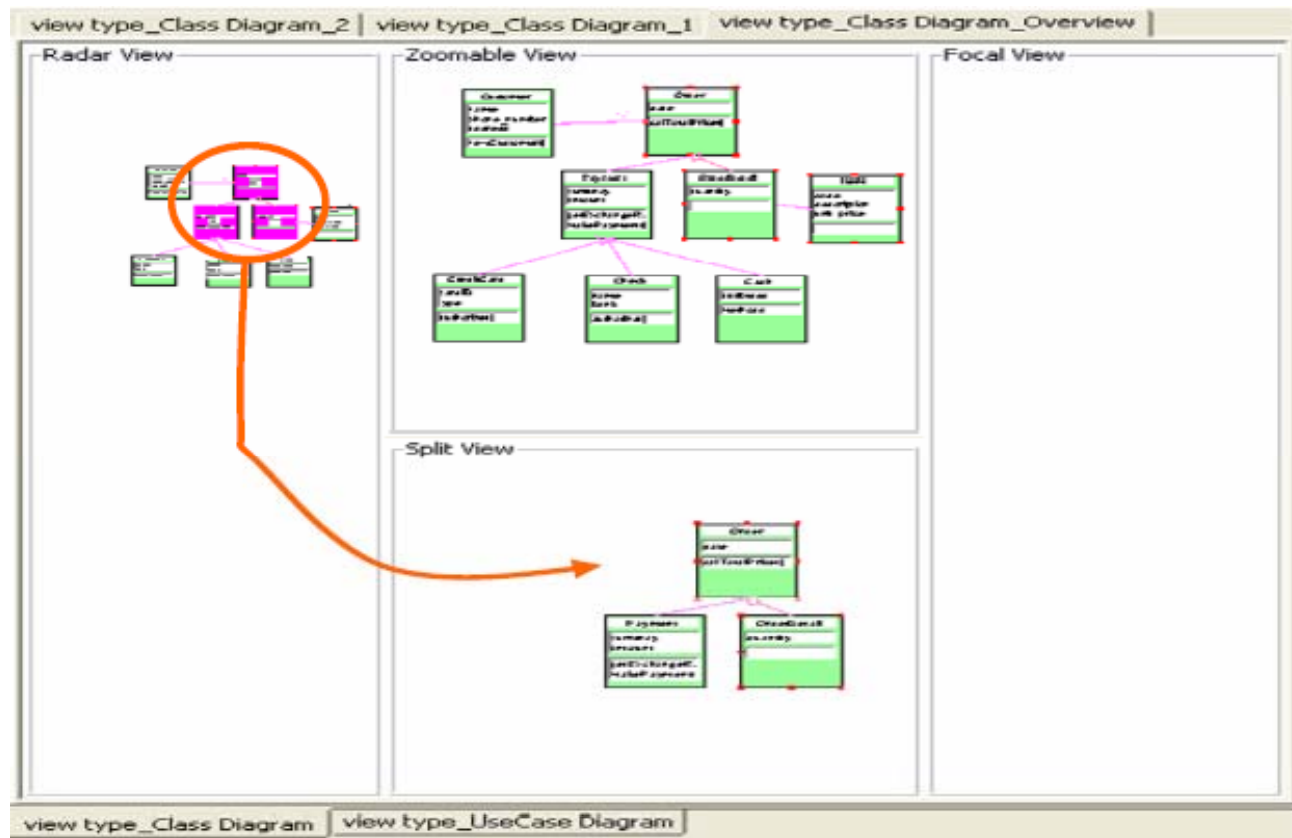
```
Deletes all connectors of a deleted shape.
```

visual\_event\_handlers      visual\_user\_handlers      meta\_model\_views      view\_types

shapes      connectors      model\_event\_handlers      model\_user\_handlers

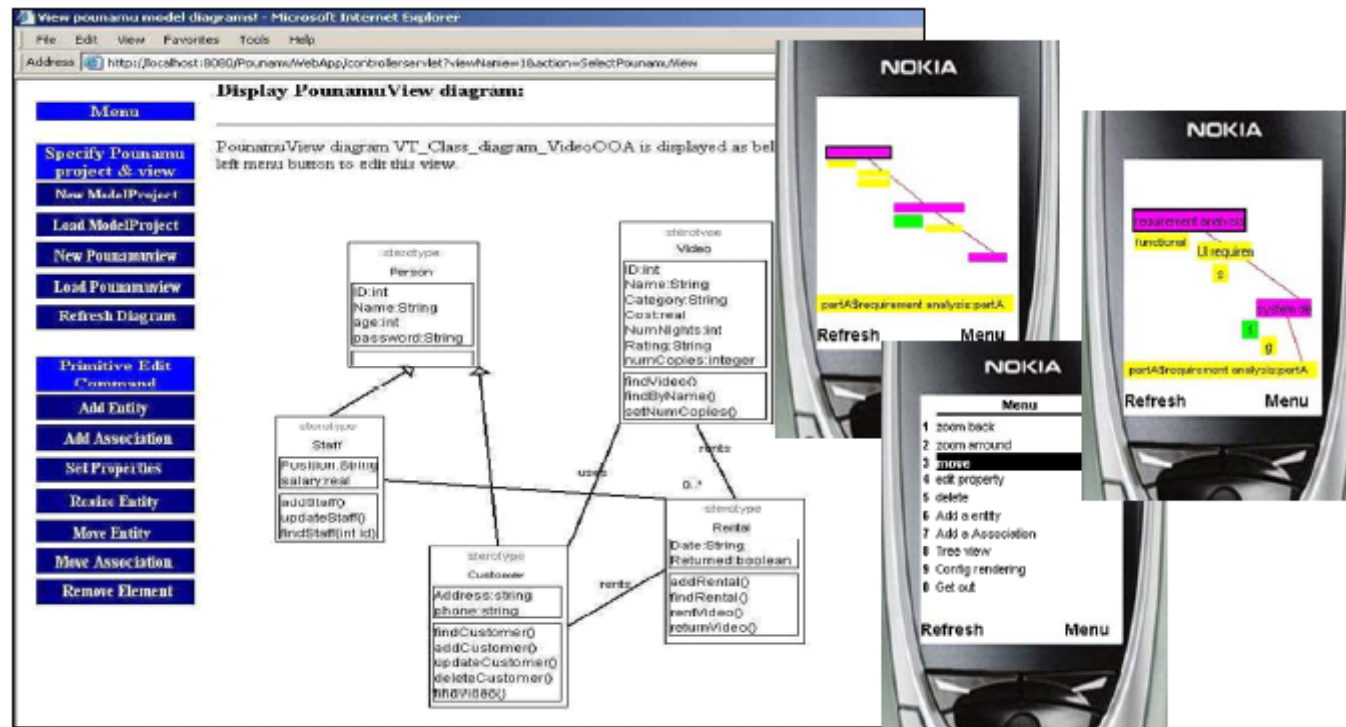
# Feature

- ▶ Zoomable View



# Feature

- ▶ Web services–based API
- ▶ Thin client web–based editing interface



# Feature

- ▶ Collaborative editing of models

