Project presentation

Provide behaviour to XML/SVG elements

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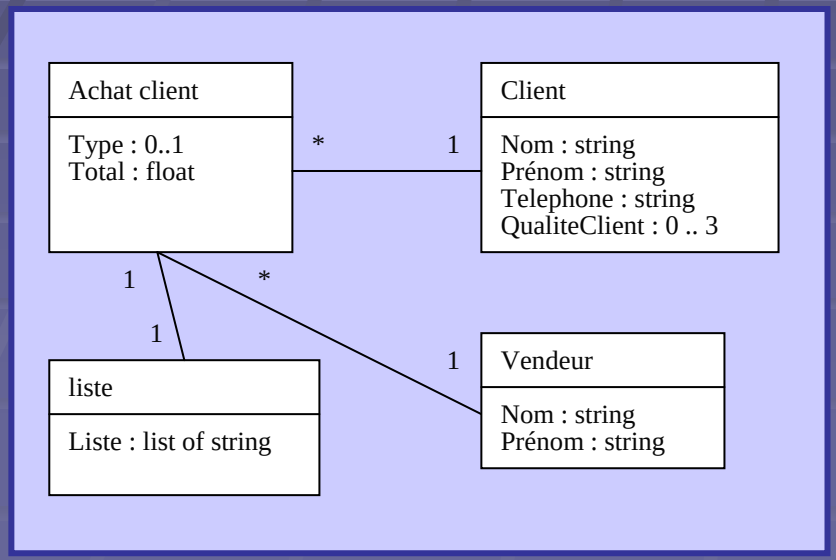
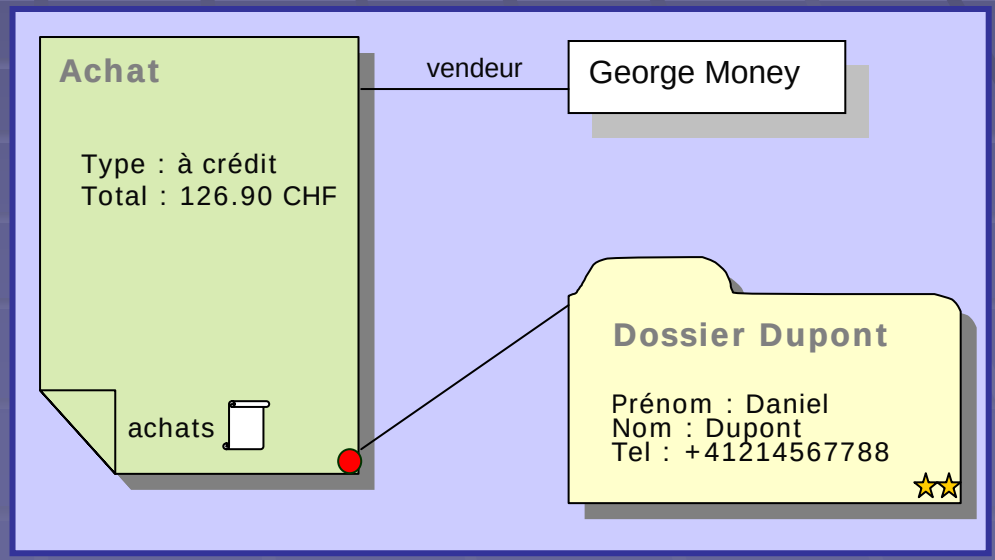
What we'd like to do

- Definition of a language
  - Abstract synthax
  - Concrete synthax
- Concrete synthax graphical edition tool



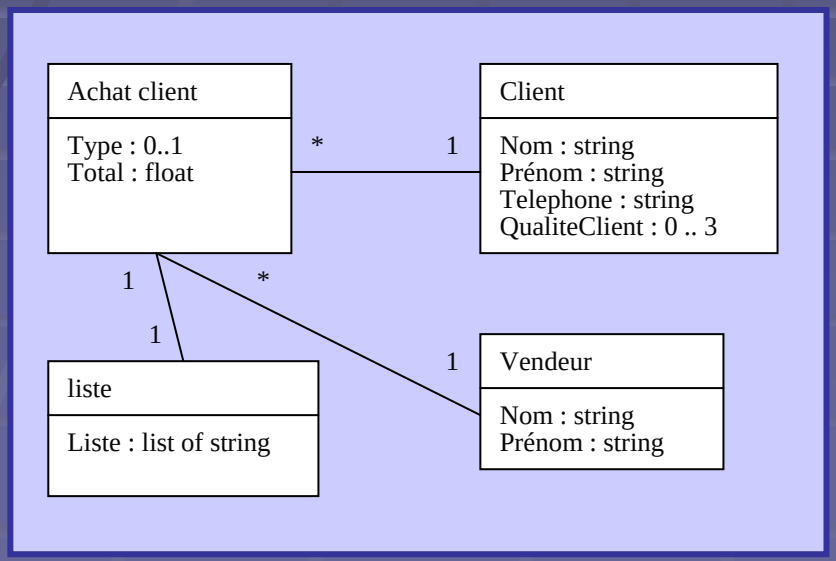


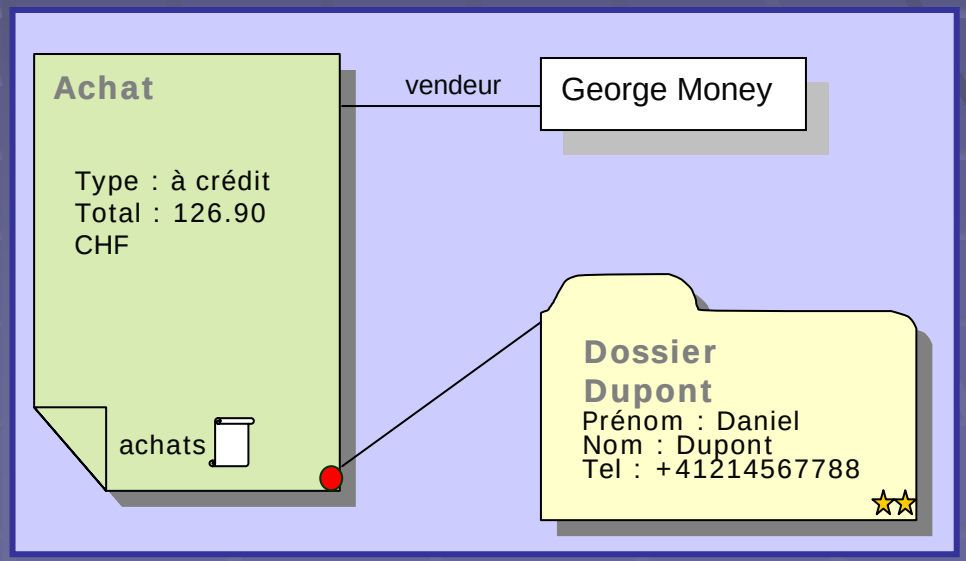
SVG

- W3C standard that allows to define :
  - Vector graphics
  - Animations
  - Elements groups
  - Many styles
  - Text and picture
  - Complex shapes
- Advantages of SVG
  - Standard (programms, programmation)
  - Source file is in text
  - Free

Problematic

- SVG is static
- Complex interactions impossible
- We would like automated behaviour
  - Links
  - Imbricated shapes
  - Editing component
- Handle interaction in a modular and easy way



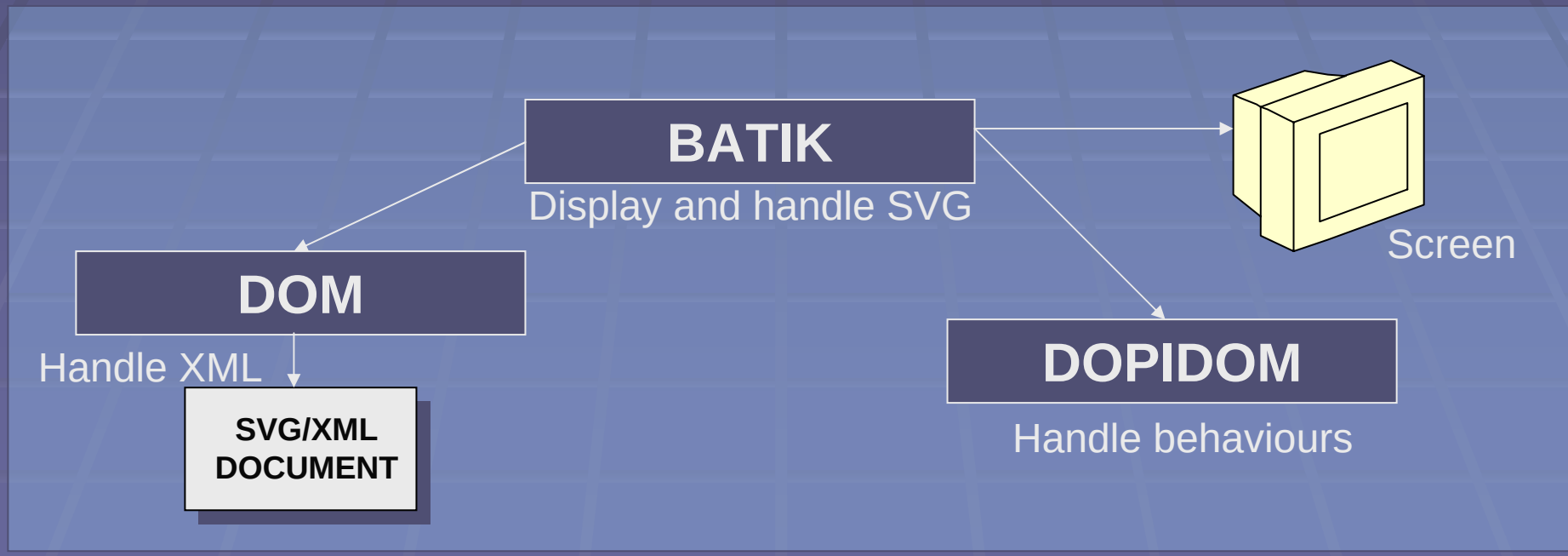


SVG extension example

```
<rect
    width = ‘100’
    height = ‘200’
    dpi:component = ‘components.BasicContainer’
 />
```

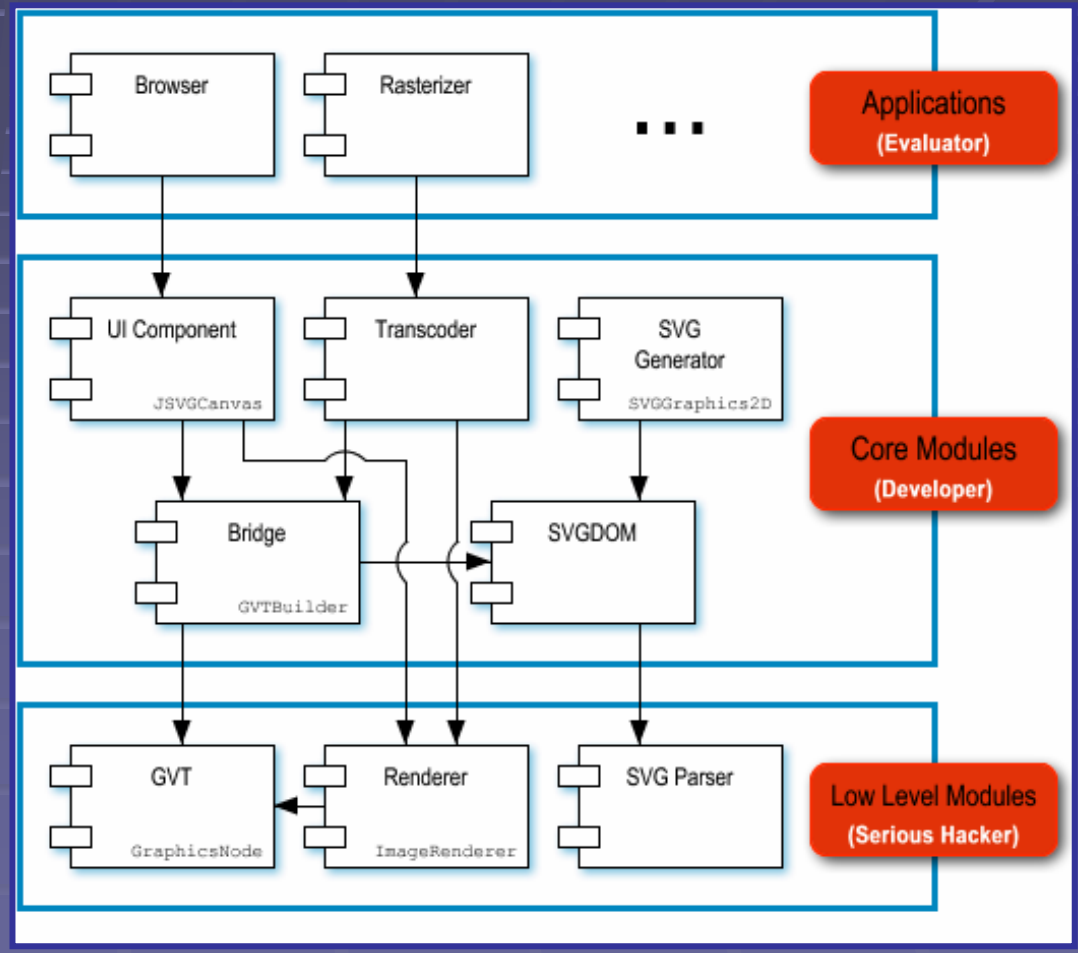
Résolution du problème

- Java for programming
- SVG display with Batik
- XML gestion with Dom
- SVG elements behaviours with DOPIDOM



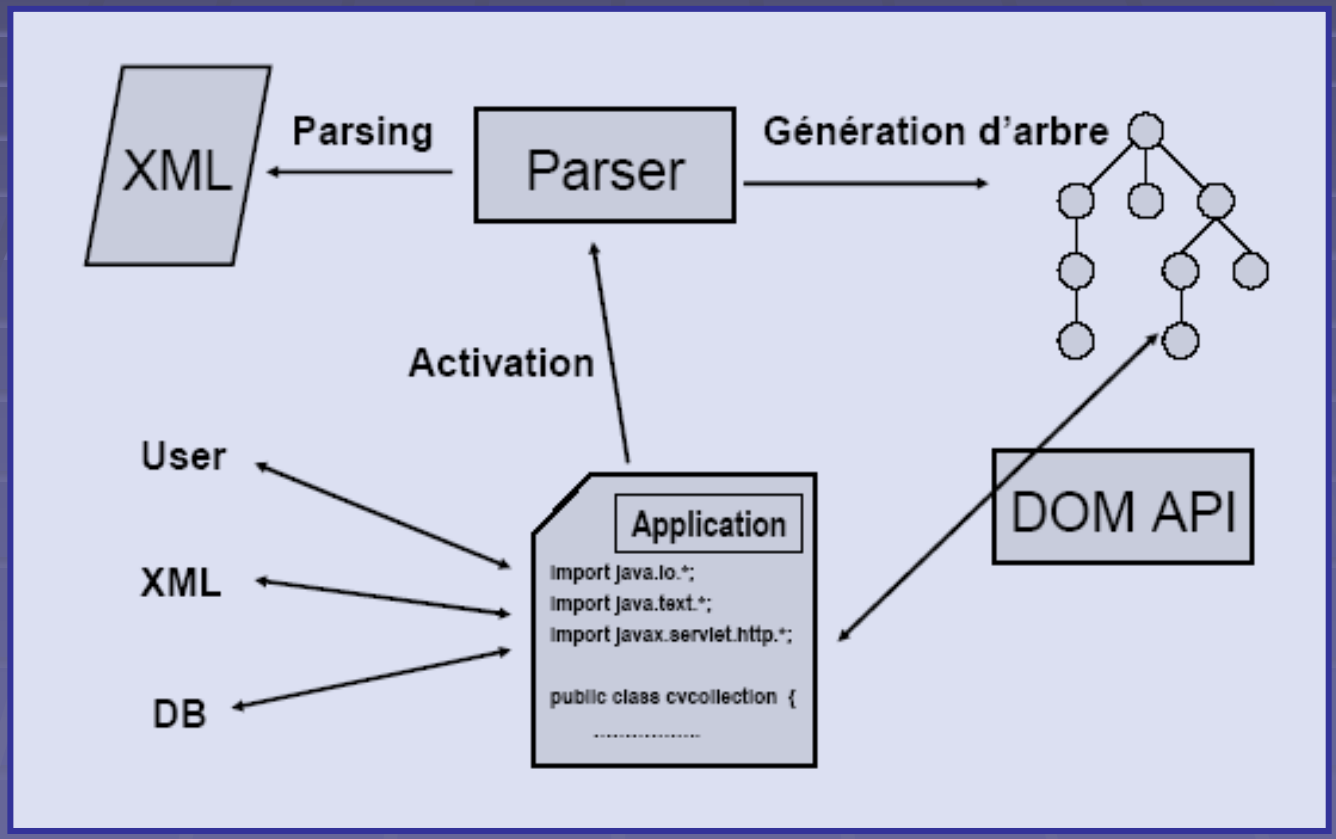
Batik

- Used in the project
  - SVG parsing
  - SVG rendering
- Other modules
  - Generator
  - Browser



Dom

- Allow to dynamically access XML documents.
- Many different types of nodes, implementing methods accessing and navigation



Dopidom

- Provide behaviour to SVG component
- DOPIDOM = Document presentation instrument
- Based on DOM and SVG
- Wraps DOM component to interactives components.
- Interactions and components are defined separately
- Specify consomable actions and queries

Interactors

- Interaction by mean of tools (interactor)
- Components will consume actions and queries they can execute

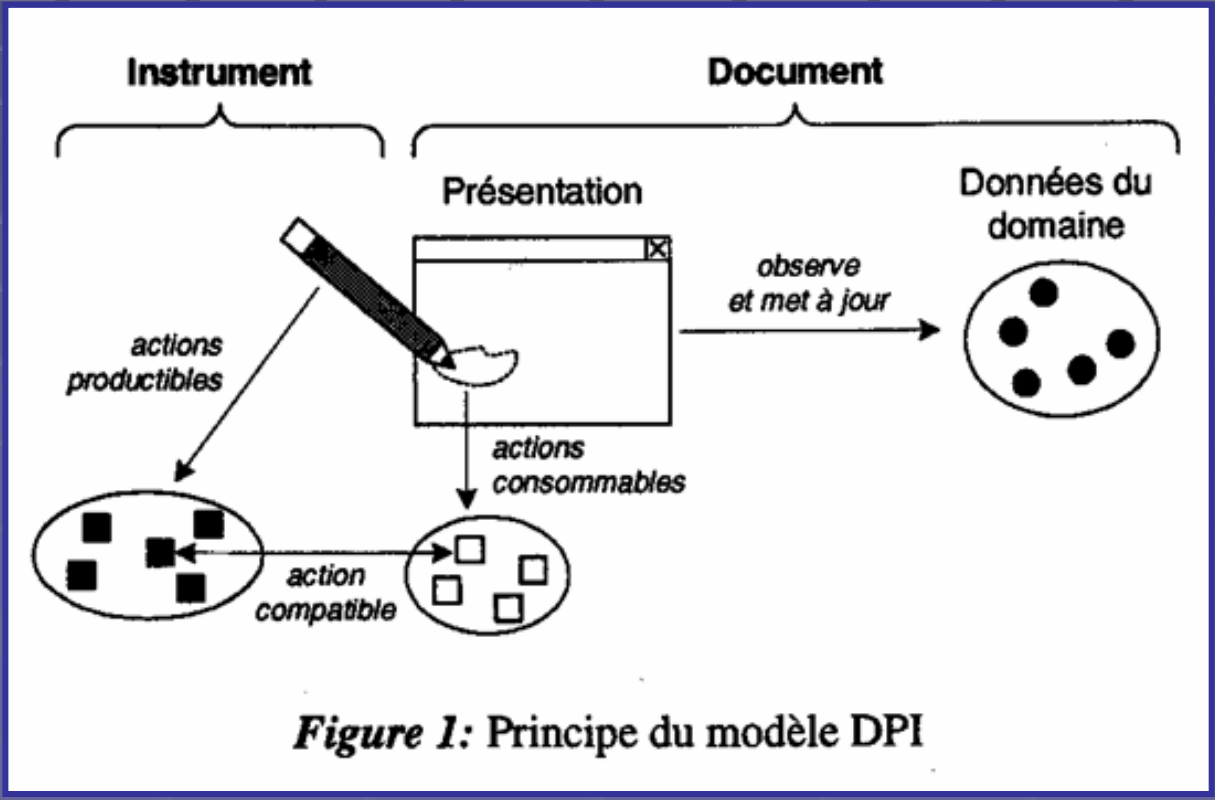


Figure 1: Principe du modèle DPI

UML model of components

- Interactive components are attached to SVG nodes (wrapping)
- Actions modify component
- Queries return an information

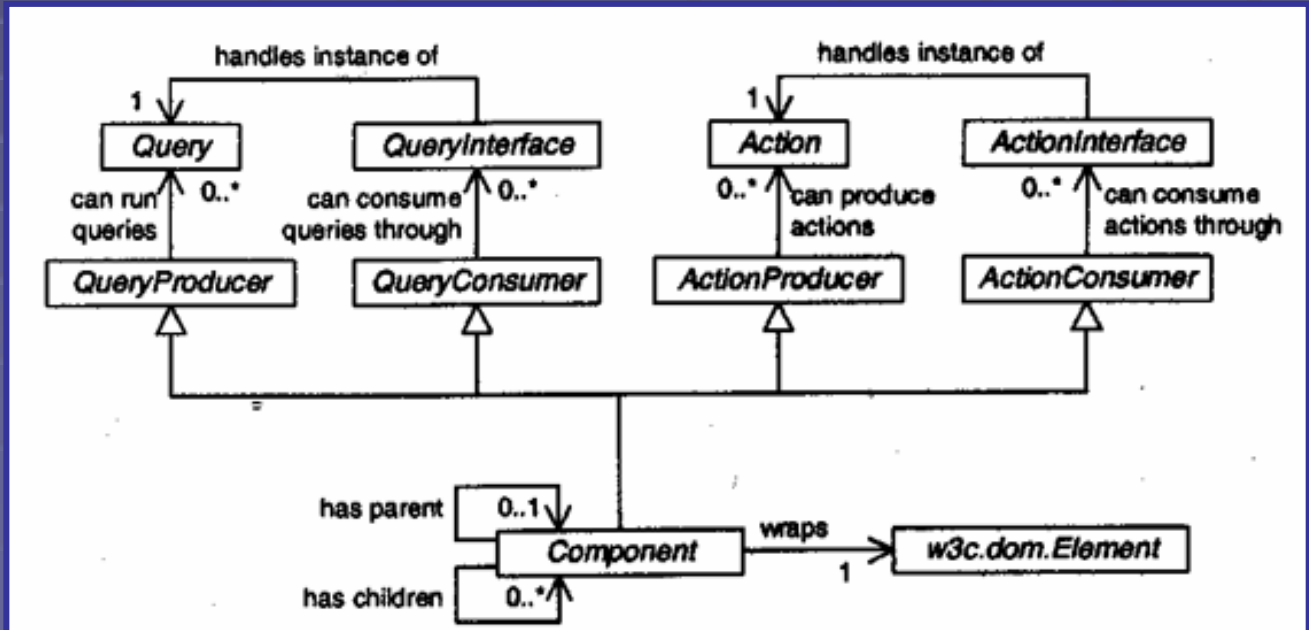


Figure 2: Modèle UML des composants interactifs

Dopidom

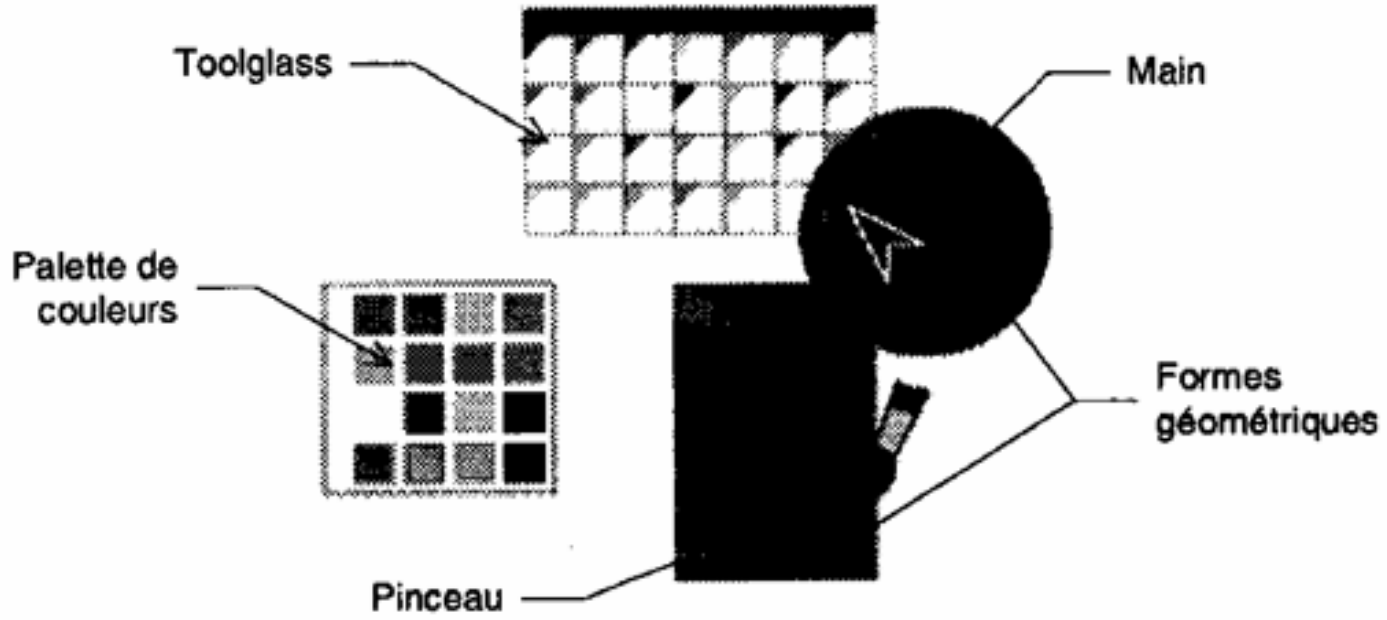


Figure 3: Application d'une couleur à des formes géométriques

Dopidom

- Interactors
  - Hand
  - Paint Brush
  - PaintGlass Button
- Passives components
  - Palette
  - Basic Shape
  - Paint Color

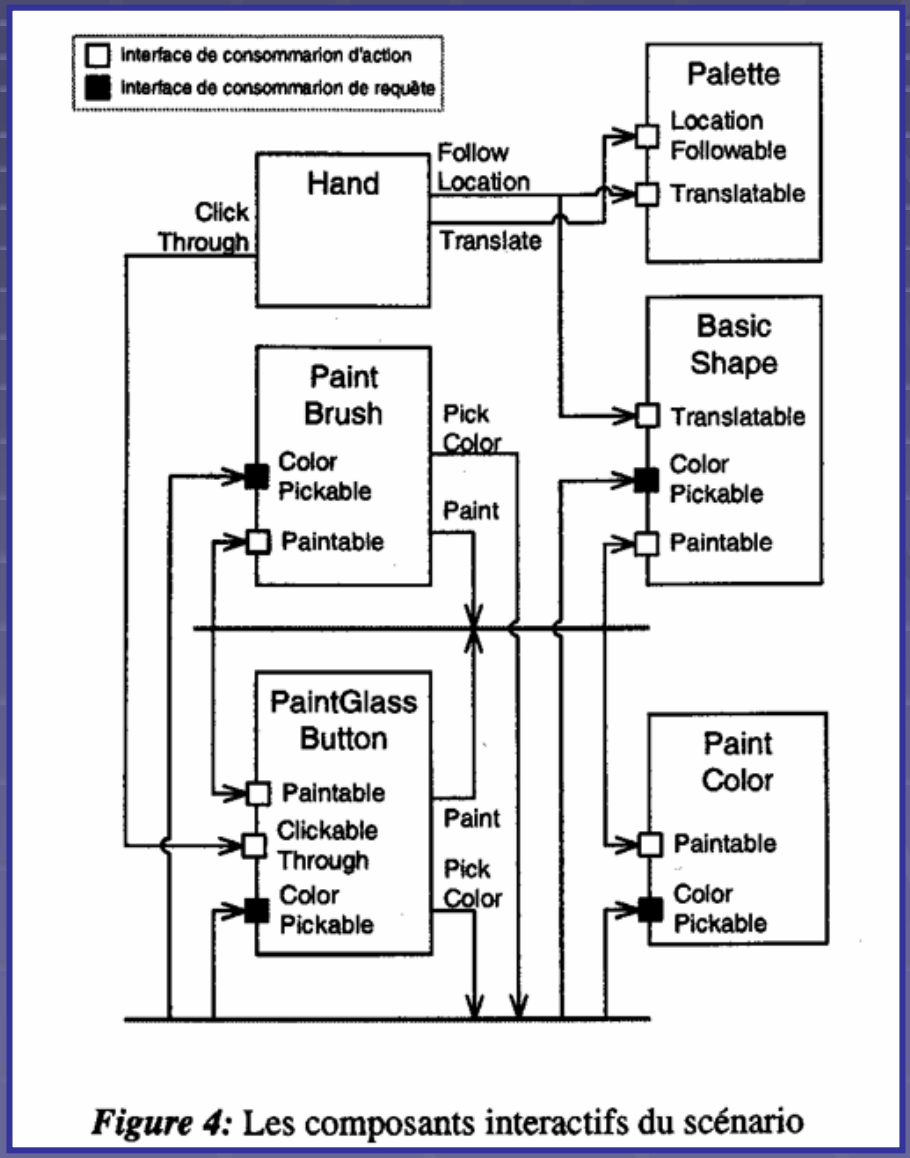


Figure 4: Les composants interactifs du scénario

TODO :

- Kind of components
  - Links
  - Containers
- Interactors
  - To move components
  - To edit or create new components
- Editing components
  - Combo
  - Listbox
  - Text Fields