

# Magritte

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# Agenda

- Introduction
  - Example
  - Usage
- Implementation
- Adaptive Model

# Magritte

## Introduction

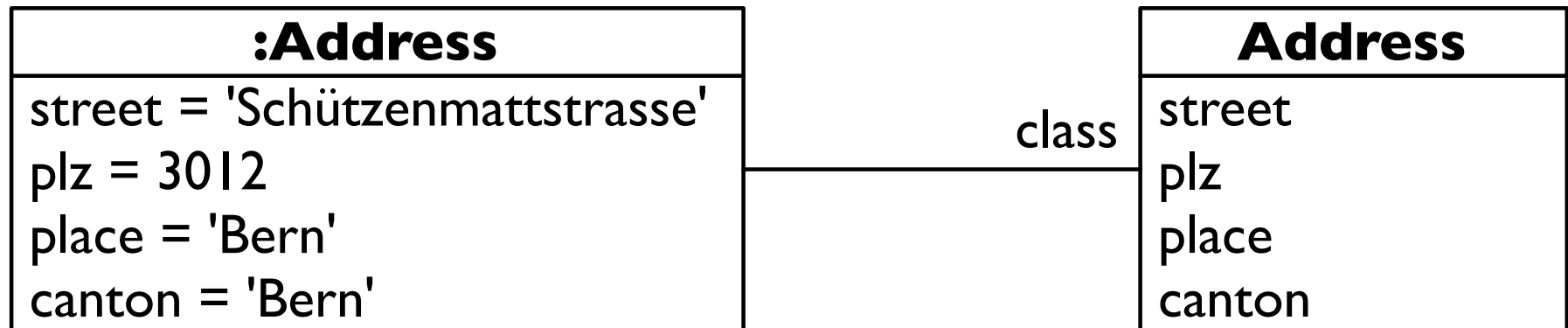
Describe once,  
Get everywhere



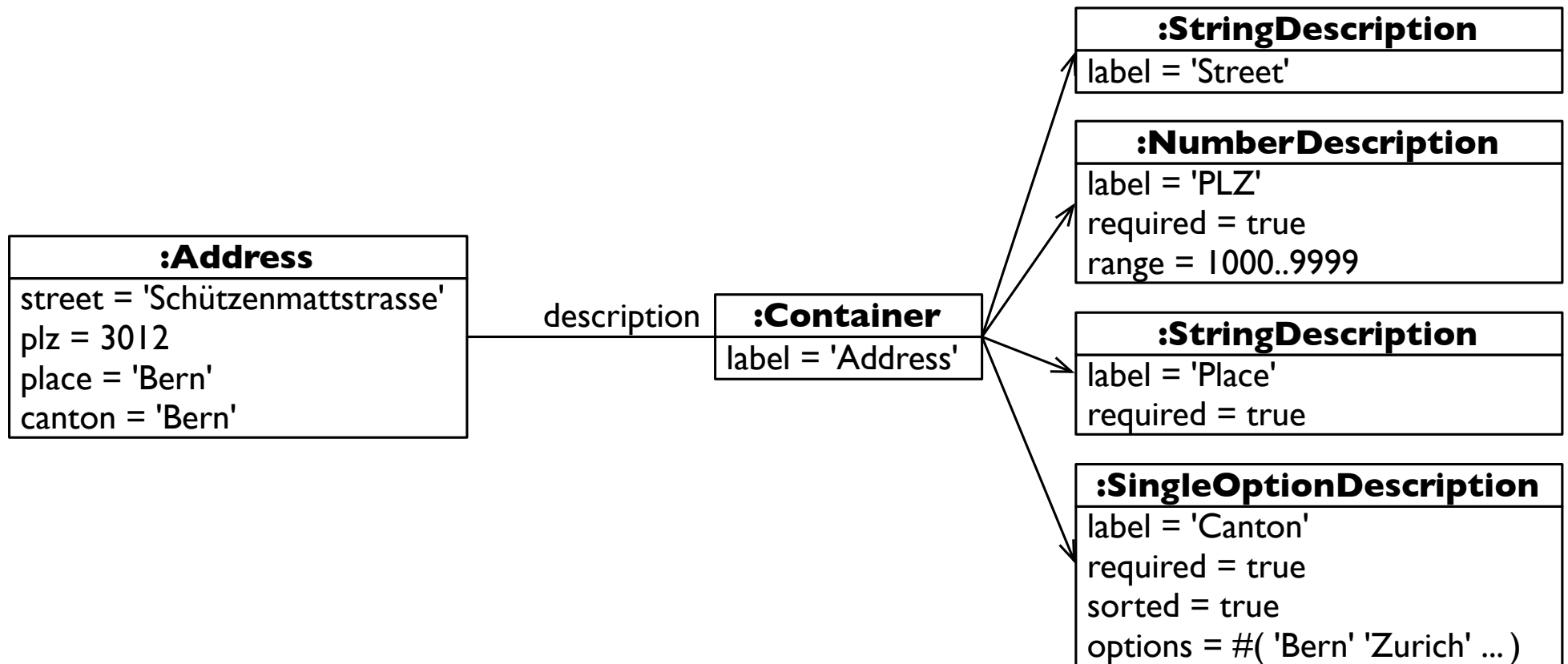
# Address Object

<b>:Address</b>
street = 'Schützenmattstrasse' plz = 3012 place = 'Bern' canton = 'Bern'

# Address Class



# Address Description



# User Interface (I)

Street:

PLZ:

Place:

Canton:

# User Interface (2)

**Address**

Street: Schutzenmattstrasse

PLZ: 3012 \*

Place: Bern \*

Canton: Aargau  
Appenzell  
Basel  
**Bern** \*  
Freiburg  
Geneve  
Glarus

save cancel



# Demo

# What is it useful for?

- Introspection
  - Reflection
  - Documentation
  - Viewer building
  - Editor building
  - Report building
  - Data validation
  - Query processing
  - Object persistency
  - Object indexing
  - Object setup
  - Object verification
  - Object adaption
  - Object customization
- and much more

# Why is it cool?

- Describe once, get everywhere.
- Be more productive.
- Lower coupling in software components.
- Do more, with less code.
- Do more, with less hacking.
- It is self-described.

# What is it used for? (I)

- Pier – a meta-described collaborative web-application framework.
- Aare – a workflow definition and runtime engine with integrated document management system.
- Conrad – a conference registration and management system.

# What is it used for? (2)

- Seaside-Hosting – free hosting service for non-commercial Seaside applications.
- DigiSens – a monitoring system for high precision sensors.
- cmsbox – the next generation of a content management system.



# Pier 1.0.2

[View](#)[Edit](#)

## Views

History  
Wiki  
View  
Report

## Commands

Add  
Change Group  
Change Other  
**Change Owner**  
Copy  
Edit  
Login  
View

## Tree

- Pier  
+ Information

## Change Owner

Recursive: ☒ Recursive

Owner:

Operation:

Commands:

- Copy
- Edit Component
- Edit File
- Edit Form
- Edit Meta
- Edit Page
- Move
- Remove
- Settings
- View

# Pier

# Content Management

[> Home](#)
[v Register](#)
[1. Disclaimer](#)
[2. Personal](#)
[3. Background](#)
[4. Site](#)
[> Support](#)

## 2. Personal

Please provide all the necessary information requested below. This data, with the exception of your name, will not be made public and will not be used for any commercial purposes.

First Name:

Last Name:

Address:

Country:

Phone:

Email:

[Next Step](#)

# Seaside-Hosting Hosting Application

Edit Workflow

Close

Save

Export

Roles

Run

Help

General

Graph

Diagram

Activities

Versions

Edit Activity: New Activity

Close

Help

General

Documents

Form

Conditions

Transitions

Versions

Label	Default	Type	
<a href="#">Name</a>		Text Field	<a href="#">[remove]</a> <a href="#">[up]</a> <a href="#">[down]</a>
<a href="#">Income</a>	EUR 0.00	Money Field	<a href="#">[remove]</a> <a href="#">[up]</a> <a href="#">[down]</a>
<a href="#">Age</a>		Number Field	<a href="#">[remove]</a> <a href="#">[up]</a> <a href="#">[down]</a>

✓ Text Field

Memo Field

Number Field

Money Field

---

Check-Box

Option-Box

---

Date Field

Time Field

Timestamp Field

Duration Field

---

Simple Document

Managed Document

---

Nested

Table

Add

Preview

Aare

Workflow System



# Magritte

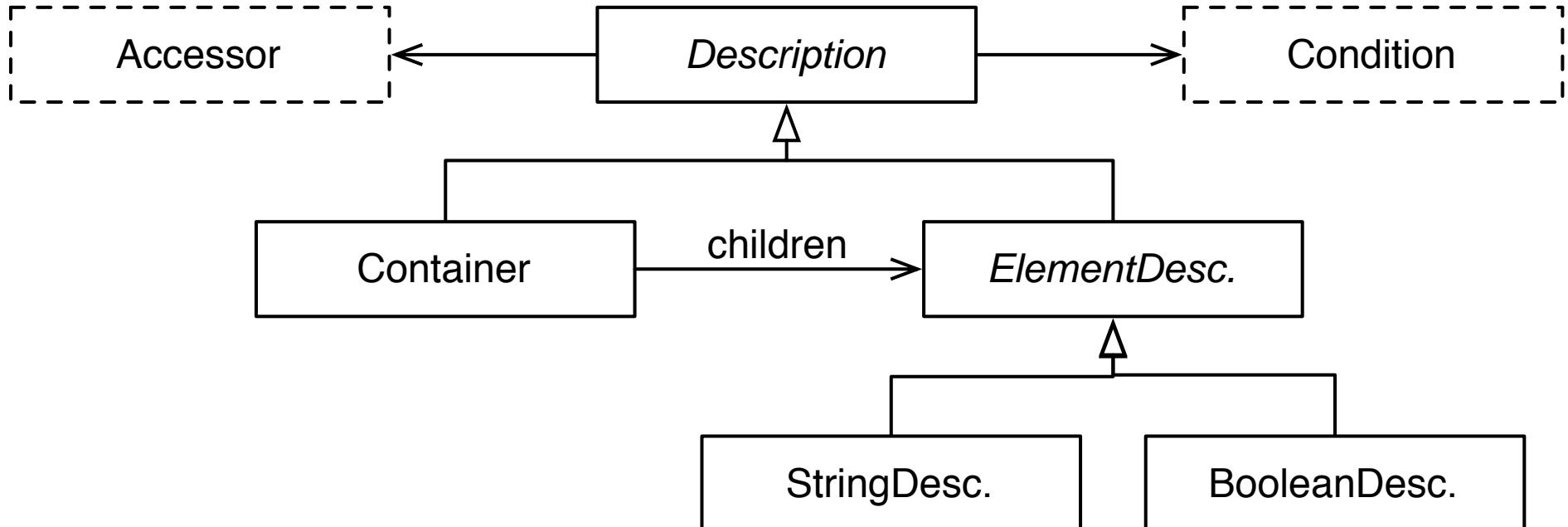
Implementation

Describe once,  
Get everywhere

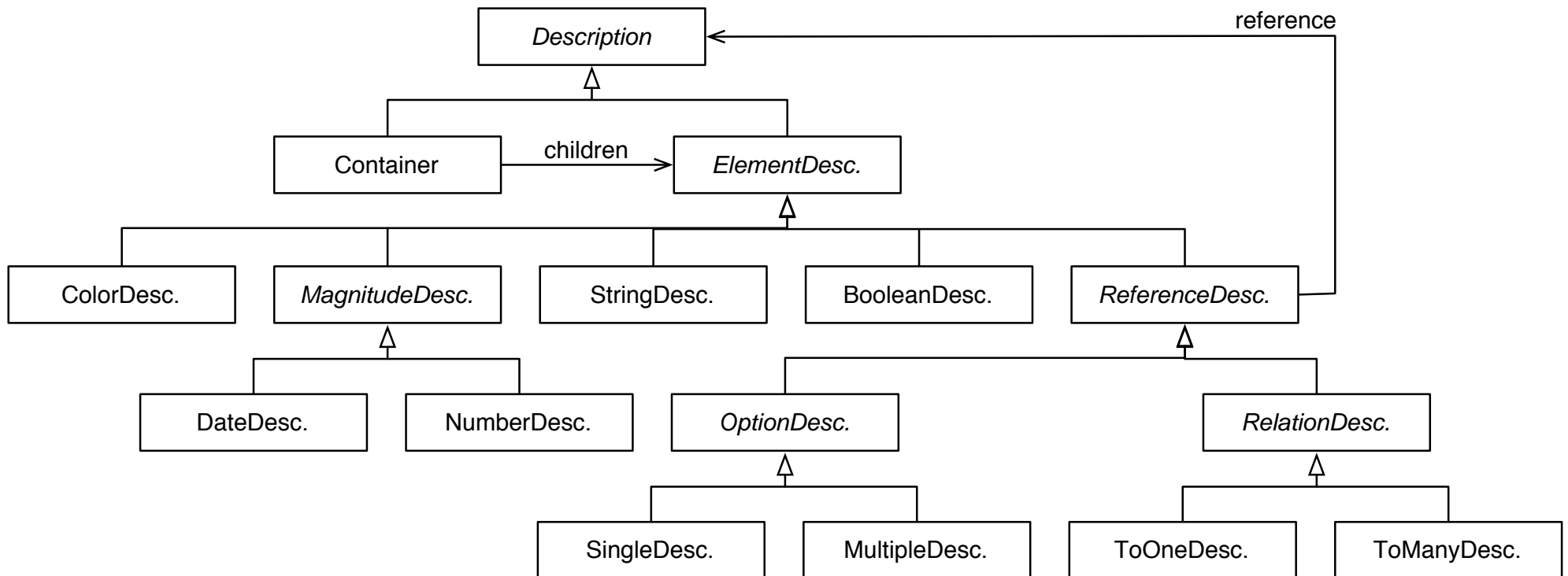


# Descriptions

a composite pattern  
to describe model-classes/-instances



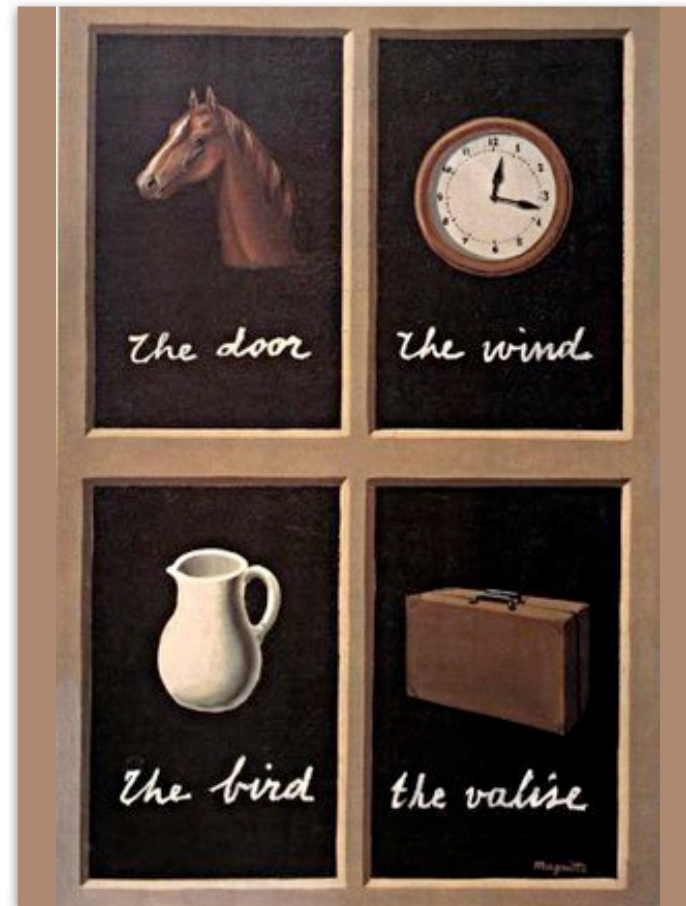
# Descriptions



# Magritte

Adaptive Model

Describe once,  
Get everywhere



# Adaptive Model

- Magritte is self-described.
- Enable quick changes in software.
- Enable end users to customize the software.

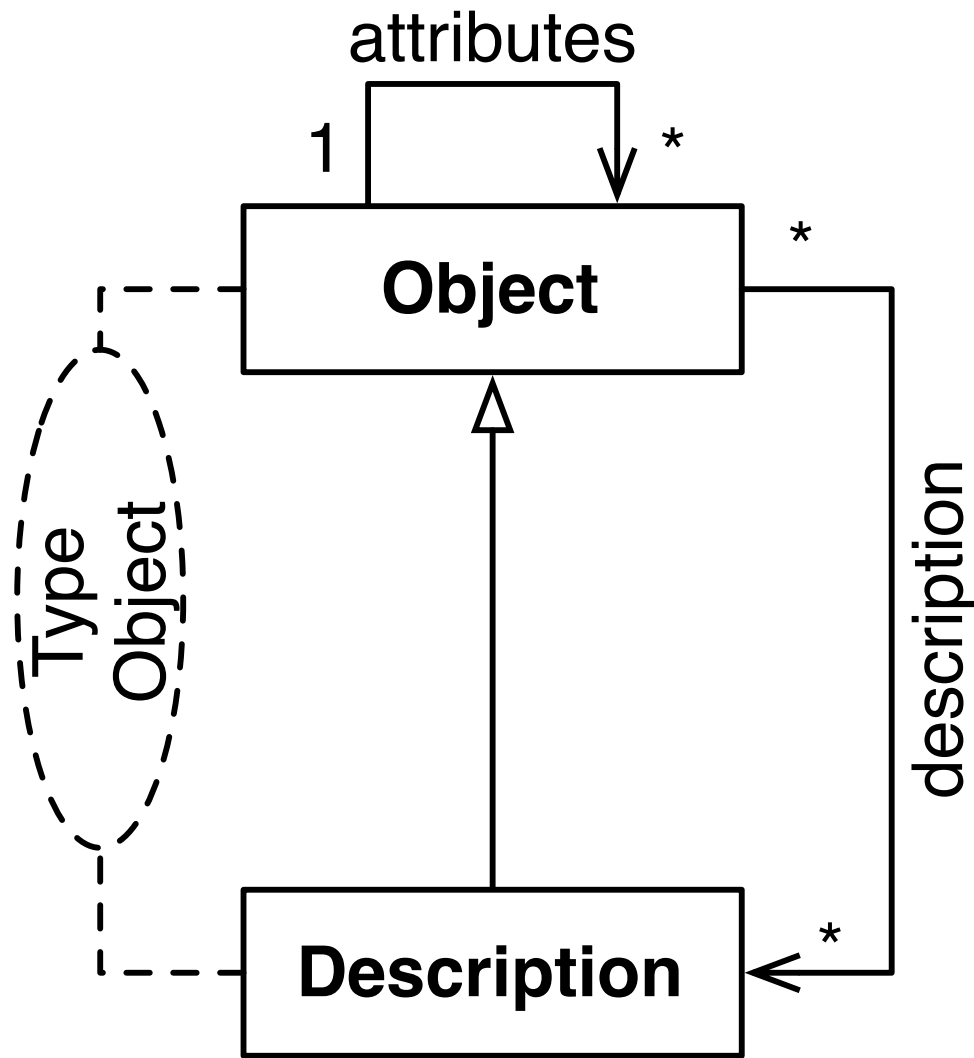
Copies the values, but  
not necessarily associated  
descriptions.

**Adaptive  
Model**

+ copy()

**Object**

**Description**



(b) Magritte

# Demo



# Conclusion

- Describe once, get everywhere.
- Ensure extensibility and maintainability.
- Automate boring tasks, like building and validating GUIs.
- Be adaptive.