#### **MARIA**

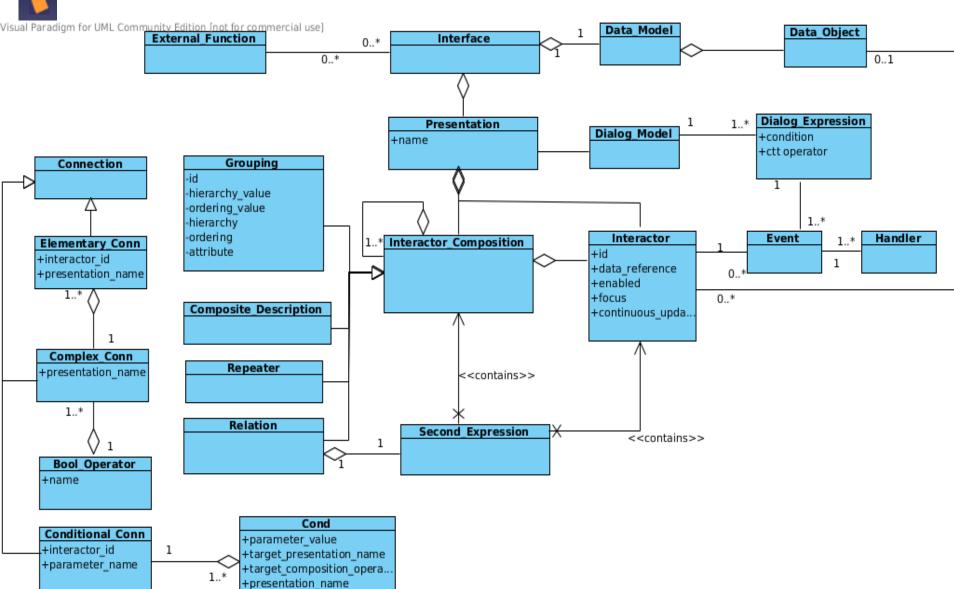
Fabio Paternò, Carmen Santoro, Davide Spano CNR-ISTI, HIIS Laboratory Pisa, Italy http://giove.isti.cnr.it

#### **MARIA XML Features**

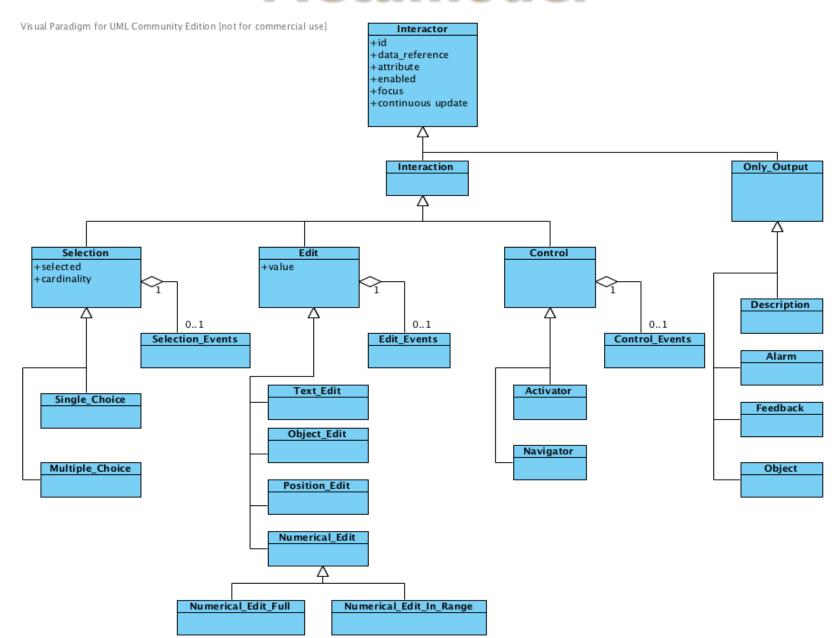
- Support for Data Model
  - Useful for specifying the format of input values, association of various data objects to the various interactors, ...
- Events at abstract/concrete levels
  - Property change events / Activation events (e.g. access to a web service or a database)
- Extended Dialogue Model
  - Conditions and CTT operators for event handlers, including support for parallel input
- Able to support user interfaces including complex and Ajax scripts
  - Continuously updating of fields without explicit user request
- Dynamic set of user interface elements
  - Conditional connections between presentations
  - Possibility to change only a part of a UI



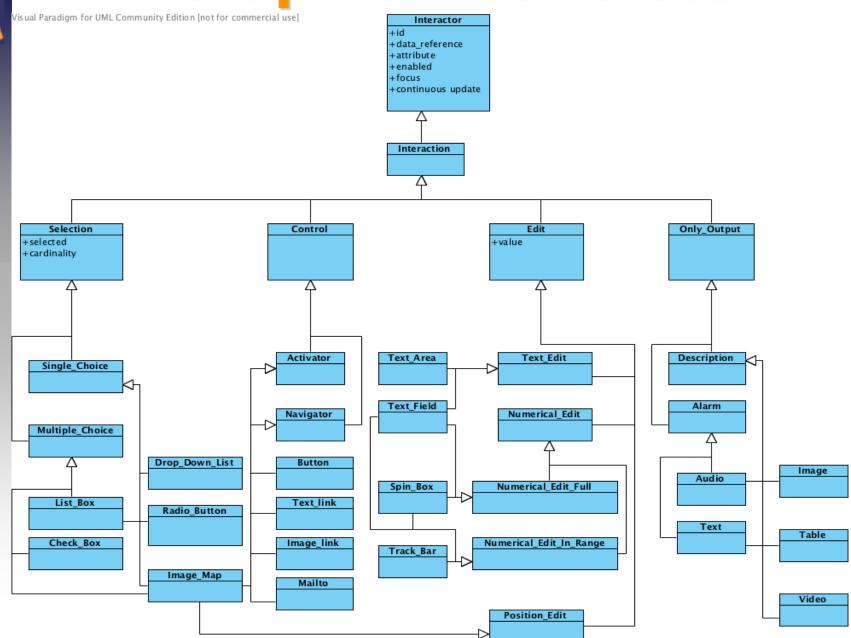
### Metamodel



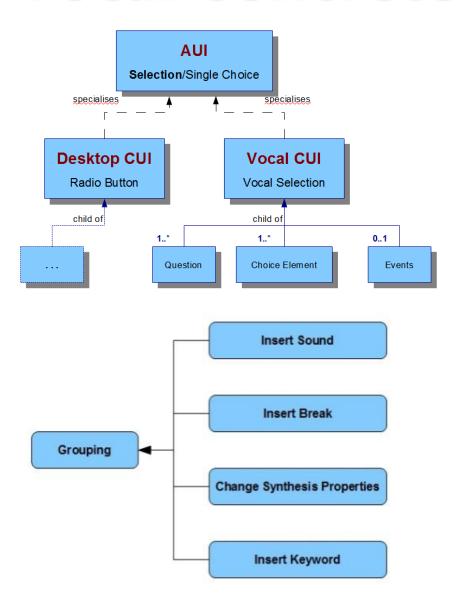
## Metamodel



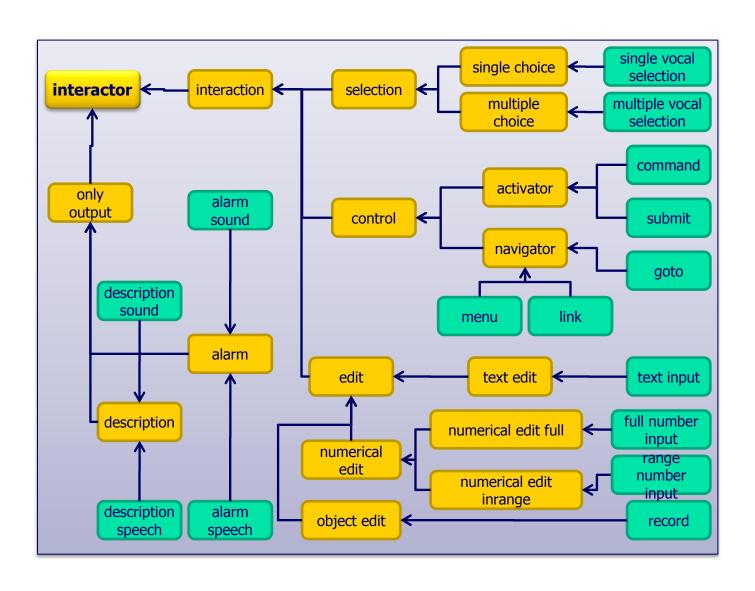
**Graphical Concrete** 



## **Vocal Concrete**



### **Vocal Concrete**



#### **MARIA Current State**

- Concrete Languages: Vocal, Desktop,
  Smartphone with touch, Mobile, Multimodal desktop, Multimodal mobile
- Implementation languages: XHTML, SMIL,
  VoiceXML, X+V Working on HTML 5

## MARIA AUI Example



Kitchen light

Kitchen



- When value changed event of the text\_edit interactor occurs
- A function is called using an abstract script, which retrieves relevant values that populate the suggestion data
- And the *hidden* property of the single choice interactor is changed to false, thus visualising the suggestions
- When value selected event occurs then the choice hides itself and the input of the text\_edit is completed with this value
- When selected element in text\_edit changes, two activators (Select and Monitor) are enabled to access further detail

# **MARIA Example**

5 .	To.		
Device na		9	
	Selec	)immer light bulb Bathroom light Citchen light	Living Room Bathroom Kitchen
Dovide Liete			
Device List:			
Device List: Device na	me: D	immer light bulb	

