

Generation of User Interface from Business Process Model Notation (BPMN)

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Introduction

Motivation:

Analysts that build the BPMN models are not the same designers who implement the user interface, generating a gap between what is described in the BPMN models and what it is really implemented in the interface.

Objective:

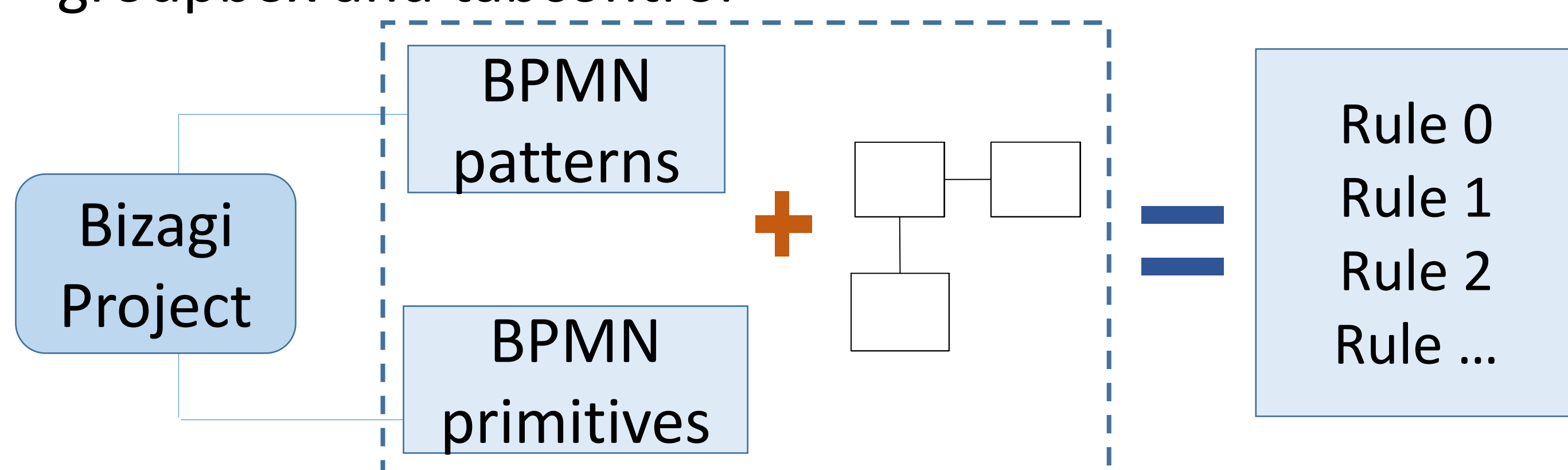
- Our approach develops a Method to generate user interfaces.
- We define a set of rules for the automatic generation.
- We define stereotypes to specify which alternative of the rules we want to use.
- We define a set usability recommendations when rules have several alternatives.

Development of the proposal



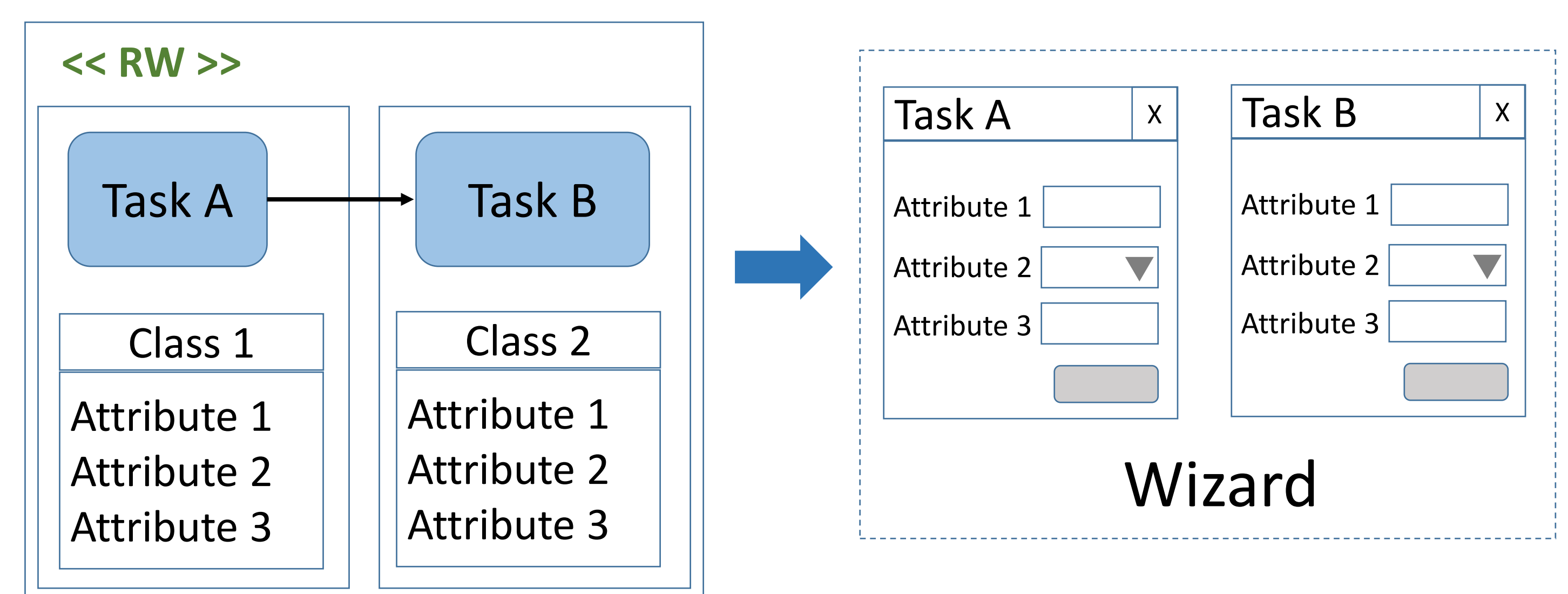
Rules:

- We extracted commons rules of 7 BIZAGI projects in different contexts: administrative, sales and education.
- We focused on BPMN patterns widely used in BPMN projects: Sequence, Exclusive Decision, Synchronization, Implicit Decision and Structure Union synchronization.
- BPMN patterns are complemented with Class Diagrams.
- Each rule has several alternatives to generate user interfaces. For example Rule 1 can generate wizard, groupbox and tabcontrol



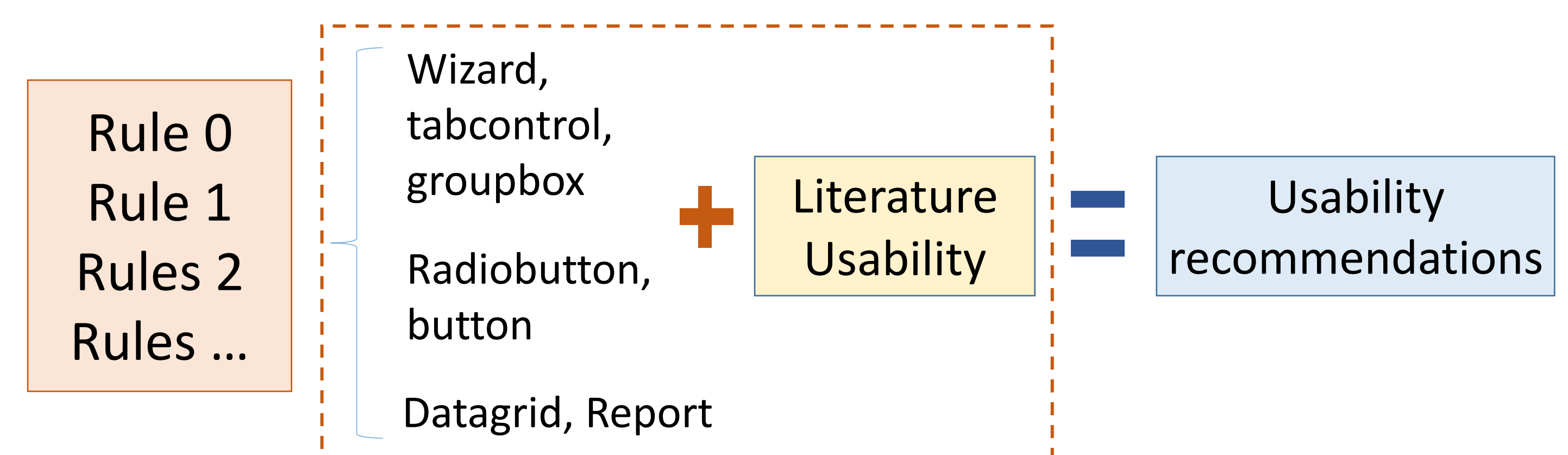
Stereotypes:

- Each alternative of the rules is depicted by a stereotype and an unambiguous semantic.
- For example << RW >> generates wizard, << RG >> generates groupbox and << RT >> generates tabcontrol.



Usability recommendations:

- In order to help the analyst to get usable interfaces when rules have several alternatives.
- We propose classifying the alternatives according to usability recommendations previously defined in the literature.
- Using our classification, the analyst can choose which alternative is more usable without being an expert at usability.



Results to date

- We have defined a set of 14 rules to generate user interfaces.
- We have defined a set of 15 usability recommendations
- A validation of rules and usability recommendations.
- A Proposal of stereotype to generate user interfaces.
- We have implemented a tool that supports the proposed stereotypes. (<http://hci.dsic.upv.es/bpmn/>)