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Initiative for developing eProcurement Ontology

Transformation of the eProcurement UML model into a formal OWL ontology

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Abstract

TBD

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1 Introduction

2 Transformation rules

2.1 Classes

UML represents atomic classes as named elements of type *Class* without further features. In OWL, the atomic class, `owl:Class`, has no intension. It can only be interpreted by its name that has a meaning in the world outside the ontology. The atomic class is a class description that is simultaneously a class axiom. [Kiko2008]

(a) UML class

(b) OWL class

Figure 1: Visual representation in UML and OWL of a prototypical class

```
Class: C
 skos:prefLabel "label"[en]
 skos:definition "definition"
```

Listing 1: OWL Class

Rule 1 (Class)**.** Given an UML element E of type *Class* with a name and optionally with a description create an OWL class C.

- The name is transformed into URI and the label of C.
- The description of E is transformed into

2.2 Generalisation

...

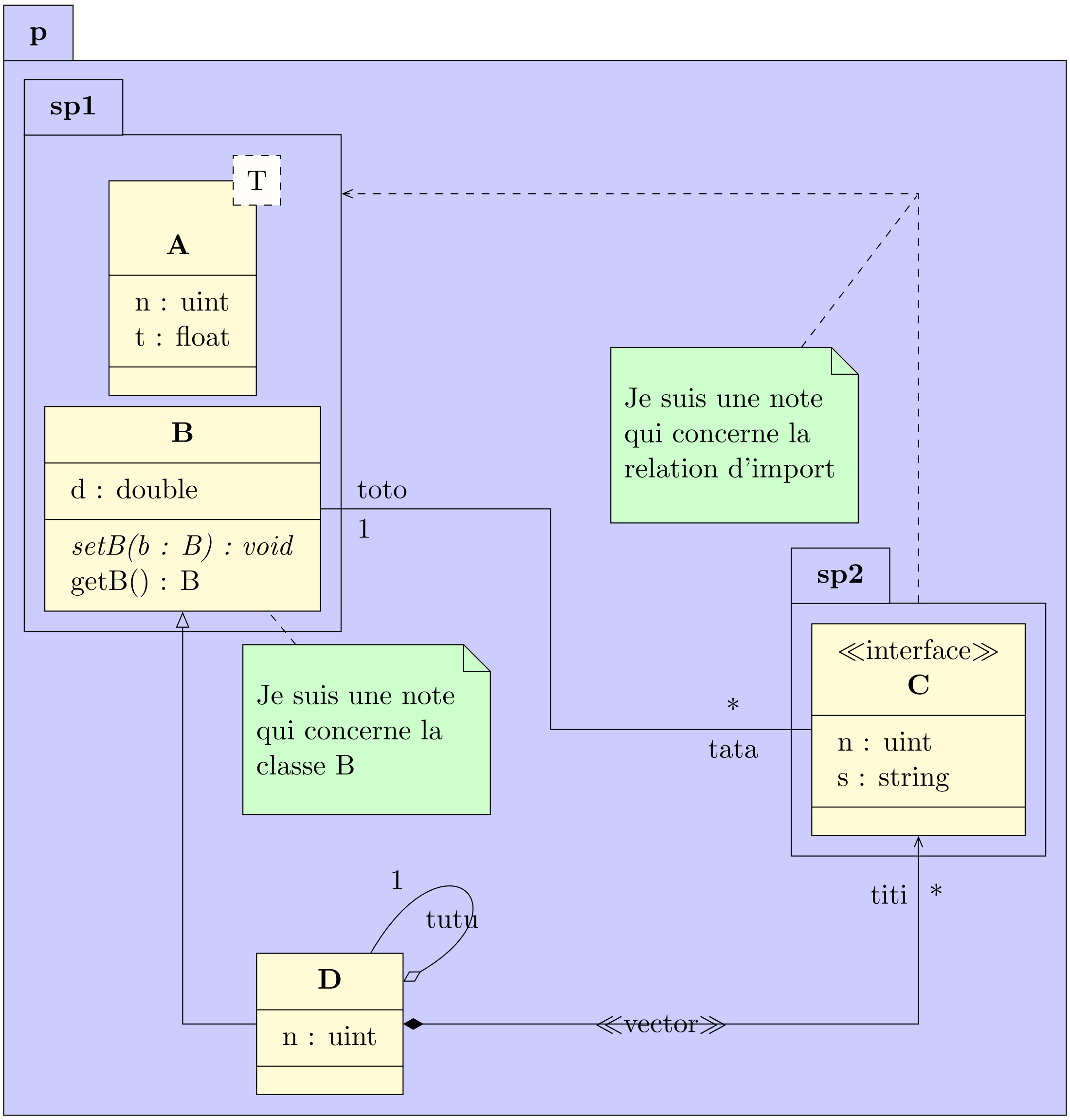

Figure 2: This is a UML diagram

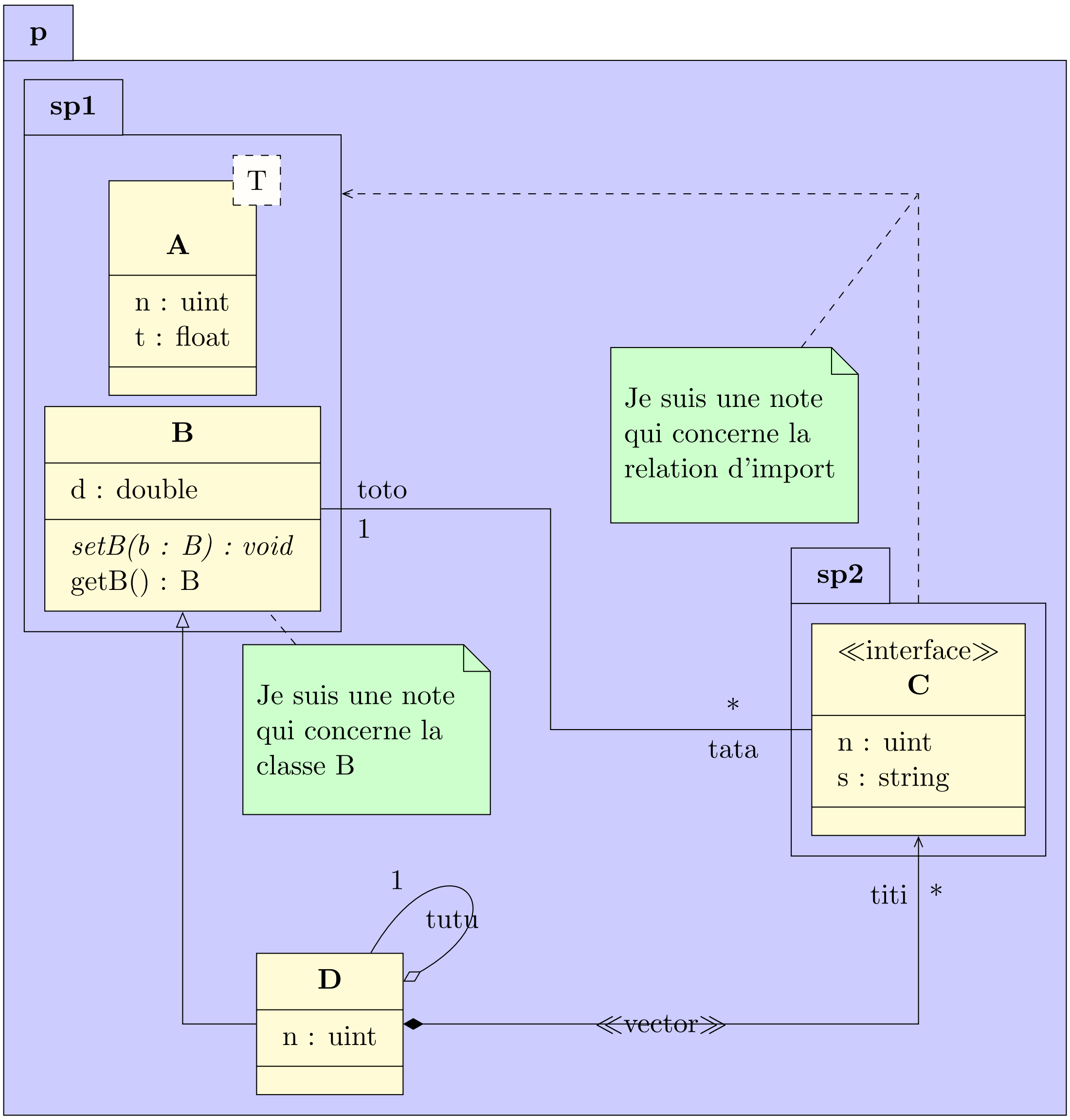

Figure 3: This is a UML diagram

3 Final word

Bibliography