SBVR in a Nutshell…

Baba Piprani
2008-09-05
What is SBVR…

SBVR :
‘Semantics of Business requirements Vocabulary and Business Rules’

SBVR is an OMG Specification (Dec 2007)
• for expressing business models for business requirements
• in the language that is understandable to the business domain users
SBVR...

- defines a structured sub-set of English vocabulary for defining business vocabularies and business rules
- defined with the aim that business people can understand “models” without needing IT skills
SBVR...

- Based on fact-orientation models like ORM/NIAM
- Underpinned with formal (first-order) logic
The Building Blocks of SBVR Models…

• Applied within the general notion of OMG’s model-driven architecture (MDA)

• Targeted at
  – business rules,
  – business concepts and
  – business vocabularies

that describe businesses rather than the possible IT system that might support the business
5 most important aspects of SBVR

1. Formal (first-order predicate) logic
2. recognition of the existences of user sub-communities having their own languages and specialized vocabularies
3. A body of shared meanings, represented in concepts, fact types, and business rules for these sub-communities underpinned by formal logic,
5 most important aspects of SBVR

4. Logical formulation, for capturing the semantics of a body of shared meanings, that supports multiple forms of representation and is underpinned by formal logic.

5. A business representation for the logical formulation of semantics using vocabularies acceptable to the (speech) sub-community.
SBVR refers to semantics…

The main building blocks for semantics in SBVR are the following:

– Vocabularies and terminology dictionaries,
– Noun- and verb concepts, and,
– Definitional and operational business rules.
Verb concepts in SBVR

• A concept that is the meaning of a verb phrase that involves one or more noun concepts and whose instances are all actualities

• An example of an expression of a verb-concept or fact type expressed in SBVR-structured english is the following:
  
  “rental car is stored at branch”
Types of business rules in SBVR

- subset of the English Language
  - SBVR’s structured english
  - RuleSpeak business rule notation

- There is no formal notation yet (out with RFP)

- example of a rule expression in SBVR
  RuleSpeak is the following:
  “each rental car is stored at at most one branch”
Main types of rule statements...

- The **structural rule** statement, and
- **Operative business** rule statement

- **Structural rule** statement is a claim of necessity
  - necessity business rule statement,
  - impossibility business rule statement, restricted
  - possibility rule statement.
Main types of rule statements…

• The **structural rule** statement, and
• **Operative business rule** statement

• **Structural rule** statement is a claim of necessity
  – necessity business rule statement,
    ‘It is necessary that each rental has exactly one requested car group.’
Main types of rule statements…

• The structural rule statement, and
• Operative business rule statement

• Structural rule statement is a claim of necessity
  – necessity business rule statement,
  – impossibility business rule statement, restricted
    ‘It is impossible that the pick-up branch of a one-way rental is the return branch of that rental.’
Main types of rule statements...

- The **structural rule** statement, and
- **Operative business rule** statement

- **Structural rule** statement is a claim of necessity
  - necessity business rule statement,
  - impossibility business rule statement, restricted
  - possibility rule statement
    
    ‘It is possible that a rental is an open rental only if the rental car of the rental has been picked up.’
Main types of rule statements...

• The **structural rule** statement, and
• **Operative business rule** statement

• **Operative business rule** statement is a claim of obligation
  – obligation statement,
  – prohibitive statement and
  – restricted permissive statement..
Main types of rule statements…

- The **structural rule** statement, and
- **Operative business rule** statement

**Operative business rule** statement is a claim of obligation
  - obligation statement,
    ‘A rental must incur a location penalty charge if the drop-off location of the rental is not the EU-Rent site of the return branch of the rental.’
Main types of rule statements...

- The **structural rule** statement, and
- **Operative business** rule statement

**Operative business rule** statement is a claim of obligation
- obligation statement,
- prohibitive statement
  ‘A rental must not be open if a driver of the rental is a barred driver.’
Main types of rule statements...

• The **structural rule** statement, and

• **Operative business rule** statement

• **Operative business rule** statement is a claim of obligation
  – obligation statement
  – prohibitive statement
  – restricted permissive statement..
    ‘It is permitted that a rental is open only if an estimated rental charge is provisionally charged to the credit card of the renter of the rental.’
SBVR

• gives us the modeling concepts to define most, if not all business rules that can be encountered within organizations
• a major step forward in the process of making business domain knowledge explicit and transferable
• does not, however, give a procedure or methodology on how to arrive at complete and correct SBVR models