



Semantics of Business Vocabulary and business Rules (SBVR)

Bellemans Jonah Caerts Stijn
Dimova Yana Lambrichts Midas
Verhoest Elise Vos Pieter

KU Leuven

16 december 2016

Outline

Scope

Relevantie

Definities

Scope

Scope

- **Purpose:** definiëren van vocabulary en regels -> semantiek
documenteren van bedrijfsvocabulary en -regels
- **Goal:**
 - uitwisselen van vocabulary en regels tussen organisaties en software tools
 - bedrijfsregels begrijpbaar maken voor niet-IT werknemers

Hoe?

- Vocabulary
- Semantische regels over vocabulary

Voorbeeld

concept type

Definition:

object type that *specializes* the concept 'concept'

Note:

A concept is related to a concept type by being an instance of the concept type.

Example:

fact type, role, concept type

Uitbreiding: Creatie v. eigen vocabularies

car movement

- Definition: planned movement of a rental car of a specified car group from a sending branch to a receiving branch
- Reference Scheme: movement-id
- Description: A car movement meets the business requirement that a car of a given group has to be moved between branches (“we need to move a full-size car from the London City branch to the Heathrow Airport branch”). A specific car will be assigned to it at some time, not necessarily when the requirement is first identified.
- Note: car movements play roles in both ‘rental’ and ‘car transfer’ and car movements are scheduled in these roles.

car movement has movement-id

- Necessity: Each car movement has exactly one movement-id.

car movement has receiving branch

- Necessity: Each car movement has exactly one receiving branch.

car movement has sending branch

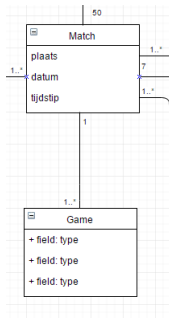
- Necessity: Each car movement has exactly one sending branch.

car movement specifies car group

- Synonymous Form: car group is specified in car movement
- Necessity: Each car movement specifies exactly one car group.

Toepasbaarheid ivm. cursus

Eenvoudige omzetting van en naar UML:



Figuur: “it is necessary that each match has at least one game”

Relevantie

Bedrijfsregels: Wat?

- Regel binnen het bedrijf
 - vb. “Alle werknemers moeten om 10u rapporteren aan het onthaal.”
- Bedrijf heeft alle “jurisdictie” over de regels
- Regels of aanzet tot regels zijn niet opgelegd door externe instanties
- Enforceerbaar, niet-ambigu
- Regels zijn onderling onafhankelijk
- In de taal van het bedrijf
- Aanpasbaar

Bedrijfsregels: Waarom?

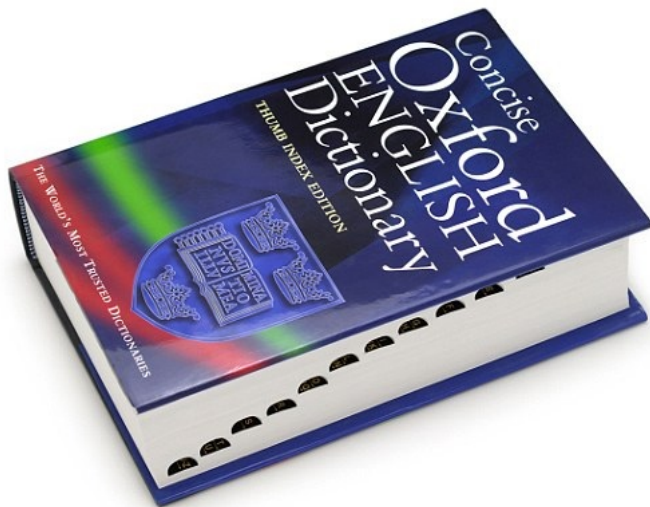
- Duidelijkheid
- Transparantie
- Structuur

Definities

Bouwstenen SBVR Modellen

1. Vocabularies and terminology dictionaries
2. Noun and verb concepts
3. Definitional and operative business rules

1) Vocabularies and terminological dictionaries



2) Noun concept

noun concept

Definition: concept that is the meaning of a noun or noun phrase

2 types:

- general noun concepts

Definition: noun concept that classifies things on the basis of their common properties

– aangeduid met term

- individual noun concepts

Definition: noun concept that corresponds to at most one thing in all possible worlds

– aangeduid met naam

2) Noun concept

Voorbeeld

2) Definition

Definition: representation of a concept by a descriptive statement [expression] which serves to differentiate it from related concepts

concept has definition

Definition: the definition *represents* the concept

- intensional definition

Definition: definition which describes the intension of a concept by stating the superordinate concept and the delimiting characteristics

- extensional definition

Definition: description of a concept by enumerating all of its subordinate concepts under one criterion of subdivision

2) Verb concept

verb concept

Definition:

concept that *specializes* the concept 'state of affairs' and that *is* the meaning of a verb phrase that involves *one or more* verb concept roles

→ Verb concepts have verb concept wordings

verb concept wording

Definition:

representation of a verb concept by an expression that has a syntactic structure involving a signifier for the verb concept and signifiers for its verb concept roles

Voorbeeld

- country *is included in* continent
- continent *includes* country

3) Definitional and operational business rules

business rule

Definition: rule *that is* under business jurisdiction

business rule *is derived from* business policy

Synonymous Form: business policy *is basis for* business rule

business policy

Definition: element of governance *that is not directly enforceable* whose purpose is to guide an enterprise

Voorbeeld

- Policy: Wedstrijden horen eerlijk te verlopen.
- Rule: Een scheidsrechter moet observeren of een wedstrijd eerlijk verloopt en ingrijpen als dit niet het geval is.

3) Definitional and operative business rules

- Definitional/structural business rule

- structural rule

- Definition: rule **that** is a claim of necessity

- Synonym: definitional rule

- structural business rule

- Definition: structural rule **that is a** business rule

- Necessity: **Each** structural business rule **is practicable.**

- Operative/behavioral business rule

- operative business rule

- Definition: business rule **that** is a claim of obligation

- Definition: element of governance **that is** *directly enforceable*

- Enforcement level

- Geeft aan hoe strikt de regel wordt gehandhaafd.

Bedankt voor uw aandacht