

# Business Rules Group Current Work in Progress<sup>1</sup>

## “A Semantic Model for Structuring Business Vocabulary for Business Rules”

By Business Rules Group

<http://www.BusinessRulesGroup.org>

### **Focus of the Standard**

The Business Rules Group’s current work-in-progress standard, "Structuring Business Vocabulary for Business Rules," is focused on “things a community has to deal with and *communicating* ideas about them” from the perspective of the “*people* involved”. The key to positioning this standard with respect to other standards is *business people communicating*.

Immediately, we realize that this is not the natural domain of information technologists. It is the world of language, dictionaries, thought, and the pursuit of reality -- the world of the linguist, lexicologist, cognitive psychologist, and philosopher. It is the world of *meaning*.

### **Motivation for the Standard**

Why then should a group about Business Rules, coming largely from an IT background, be tackling such a standard? And how can we hope to do it justice?

The reason the Business Rules Group is working on ‘structuring business vocabulary’ now is quite simple. You can’t express Business Rules that will be clear to business people unless there is clarity in the language they are using to run the business. In the end, Business Rules must be precise. Therefore the business language used to express them must also be ‘precise enough.’ It must be precise enough to adequately minimize misunderstanding among business people, and precise enough to delegate the best practice reflected in the Business Rules to computers for automated execution.

More importantly, an agreed terminology for the business -- one that reflects the way things really are in the business and is precise enough not to be easily misinterpreted -- enables business staff to run the business much more effectively. They can think more clearly about business issues, make to better decisions, communicate & collaborate more effectively, and share knowledge more meaningfully.

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<sup>1</sup> Version 1d, January 8, 2003. Edited by Donald R. Chapin

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## 1 ***Approach to the Standard***

2 The key question determining the standard's content, then, is "what kind of meta-model will  
3 gather up reality into meanings and terminology that is sufficient to support both  
4 communicating with minimal misinterpretation and stating Business Rules precisely?" The  
5 approach that is being used is one of understanding and defining the molecular structure of  
6 Business Rules.

7 The elemental concept for "Structuring Business Vocabulary for Business Rules" is the Latin  
8 term, *res*, (meaning "literally anything" – closest English term is '***thing***' – see Glossary) with  
9 the emphasis on **a community's perception of each '*thing*' as relevant to its business.**  
10 (Note: Wherever we use the term *business* in this discussion we mean it in the dictionary  
11 sense of "organized purposeful human work activity").

12 The Business Rules Approach builds on this elemental concept in this manner:

- 13 • ***Rules*** are based on ***Facts***.
- 14 • ***Facts*** are based on the ***Things*** they are about.
- 15 • The essence of ***Things*** (as perceived) is conveyed using ***Terms***.

16 An analogy to molecular structure is helpful in understanding the structure of business  
17 language and its use to express Business Rules:

18 The sub-atomic particles within "nuclei of meaning" are:

- 19 • ***things*** in the real world
- 20 • perceptions of ***things*** in people's minds
- 21 • definitions of ***things*** as perceived
- 22 • ***terms*** and symbols to convey the essence of ***things*** as perceived
- 23 • specific ***things*** and their classification into concepts
- 24 • 'whole' concepts to gather all these sub-atomic particles into nuclei of  
25 meaning

26 The atoms are the ***facts***, which assert real world connections among things –as  
27 perceived by people in order to:

- 28 • know and describe something
- 29 • know what state something is in
- 30 • know about the involvement things have with each other

32 The molecules are the ***rules*** made up of:

- 33 • facts, and
- 34 • 'rule words' (e.g. must, no, only if, etc.)

35 The principle governing the sequence for developing parts of this standard is to design the  
36 subatomic particles well enough before trying to build atoms with them, and to design the  
37 atoms well enough before trying to build molecules with them.

38

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1 The Discussion Topics for this standard are:

1. Business Concepts and Terminology: The Basics
2. Communities, Subject Contexts, and Semantic Domains
3. Taxonomies, Classifications, and Categories
4. Making Mental Connections: Business Facts  
(Facts INDEPENDENT of Symbols/Terms)
5. Ideas that Specify  
(Who, What, When, Where, How, Why)
6. Making Logical Connections: Business Rules  
(Rules INDEPENDENT of Symbols/Terms)
7. Formal Definitions
8. Statements and Messages (incl. Fact & Rule Statements)  
(Facts and Rules expressed with Symbols/Terms)
9. 'Smart' Codes

## 2 ***Business Vocabularies based on this Standard***

### 3 Shift of Purpose

4 Success in stating Business Rules meaningfully and 'precisely enough' will require a *shift of*  
5 *purpose*. Philosophers say that to gain an understanding of reality one must pursue  
6 knowledge of it for no other purpose than the sheer good of knowing that reality. To be  
7 successful in finding out how things really are in the business, the work must be done for no  
8 other reason, including the purpose of building an improved system, than the good of  
9 discovering that reality and documenting it in the language of business in a *structured*  
10 *business vocabulary*.

11 Having done that for its own sake, then all the good of the reality that is bound up in the  
12 business language is there to use for running the business, defining Business Rules, and  
13 extracting business requirements for building systems that work the way people think and  
14 speak, and that automate the best practice reflected in Business Rules in an optimal, adaptive  
15 form.

16 A Structured Business Vocabulary is for and about business people communicating their  
17 ideas of 'things'. Its purposes are:

- 18 • to enable members of a business community to share the same clear understanding of  
19 the 'things' they work with by agreeing definitions that reflect the essence of those  
20 'things'.

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- 1 • to structure knowledge, describe ‘things’, and provide an integrated semantic view of  
2 the business as understood by the business people for business purposes, showing  
3 business ‘things’ in their wider context of other business ‘things’.
- 4 • to gain agreement among members of a business community regarding the business  
5 terminology they use to refer to ‘things, so they can use terminology consistently  
6 when referring to those ‘things’.
- 7 • to accommodate Chomsky’s notion of ‘deep meaning’<sup>2</sup> i.e. to separate definitions of  
8 discrete meanings (the essence) of ‘things’ from the symbols (terms, names, words,  
9 codes, icons, etc) used to express them.
- 10 • to document, define, illustrate, and publish the language of business as a widely  
11 available resource for business staff.
- 12 • to enable business people to improve the quality of their:
  - 13 ○ Thinking
  - 14 ○ Communication
  - 15 ○ Relationships
  - 16 ○ Decision-making
  - 17 ○ Collaboration & effectiveness
  - 18 ○ Writing & record-keeping
  - 19 ○ Knowledge sharing & re-use of Best Practice
- 20 • to provide a comprehensive vocabulary for any Business Rule that needs to be  
21 expressed.
- 22 • to provide the business foundation for designing the system solution, especially  
23 logical data models, logical system interface & collaboration models, and logical  
24 processing component models.

## 25 Dictionary Metaphor

26 The closest metaphor for a Structured Business Vocabulary is the internal logic of the  
27 contents of a dictionary (e.g., Merriam Webster’s or New Oxford Dictionary of English),  
28 which follows basic principles of organization. A Structured Business Vocabulary is like a  
29 dictionary in all the following respects:

- 30 1. Provides precise definitions.
- 31 2. Indicates the proper usage of terms.
- 32 3. Distinguishes the meanings of terms in different contexts of usage.
- 33 4. Requires that any term used in a definition must also be defined (or a common  
34 definition accepted by default).

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<sup>2</sup> Chomsky, Noam 1957, 1975. “Syntactic Structures” The Hague: Mouton de Gruyter. ISBN 311 015 4129

- 1 5. Considers any term used to organize the vocabulary also to be a term included in the  
2 vocabulary.
- 3 6. Expects any term used to organize the vocabulary itself – i.e., core vocabulary – to be  
4 relatively stable over time.
- 5 7. Can be characterized as "deep" in the sense that the vocabulary covers many levels of  
6 class and instance. (In other words, an instance of a class may be a class itself with  
7 many instances, and so on.)
- 8 8. Can be characterized as "rich" in the sense that fine distinctions may be made  
9 between concepts that differ only in some special aspect(s).
- 10 9. Will be highly technical if the subject matter (e.g., product/service of an enterprise)  
11 itself is technical.
- 12 10. Does not necessarily include IT concepts – unless IT itself is the subject matter of the  
13 vocabulary.
- 14 11. Is able to grow naturally and evolve over time – often quite rapidly – as it is used for  
15 new and challenging circumstances.

16 In contrast to a dictionary, a Structured Business Vocabulary aims to be semantically more  
17 robust, more precise, less subtle, and to support the adoption of other Structured Business  
18 Vocabularies in a specified, maintained way.

#### 19 Scope of a Structured Business Vocabulary

- 20 • Can include the entire vocabulary needed for all aspects of a given business area or the  
21 entire enterprise, including terms for which structured data will never be recorded by  
22 the business, with scope of coverage decided by business management.
- 23 • Incorporates facts and rules (which themselves are treated as ‘things’).
- 24 • Likely to include categorization schemes.
- 25 • Seamlessly incorporates specific (instance level) ‘things’ that are pre-defined and pre-  
26 identified, on a large scale, as needed.

#### 27 Characteristics of a Structured Business Vocabulary

- 28 • Defines business ‘things’ in business, not IT, terms (as opposed to definitions of data  
29 for IT purposes).
- 30 • Uses the terminology of the business, the terms actually used in everyday business  
31 language.
- 32 • Uses natural language words and definitions wherever they are adequate for the  
33 Vocabulary’s purposes, rather than inventing new terms and definitions.
- 34 • Has entries that are reusable just as each meaning of every word in a dictionary is  
35 reusable.

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- 1     • Is clearly delimited.
- 2     • Has a coherent structure.
- 3     • Includes every ‘thing’ (and its term(s)) needed to understand and/or define the essence
- 4       of every other ‘thing’ in the Business Vocabulary by:
  - 5           ○ inclusion of its own definition,
  - 6           ○ adoption of another Business Vocabulary, or
  - 7           ○ reference to natural language definitions.
- 8     • Defines every ‘thing’ in the same way using one definition construct.

9     **First Order Predicate Logic Provides Rigor and Clarity to a Structured Business Vocabulary**

10    First Order Predicate Logic and its value is well known to the OMG community through its  
 11    application to OCL 2.0 (Object Constraint Language). Its application to a Structured  
 12    Business Vocabulary is different in that its purpose is people-centered, not software-  
 13    centered. In a Structured Business Vocabulary, First Order Predicate Logic is used to ensure  
 14    clarity of meaning and a minimum of ambiguity as a community defines and shares its  
 15    perceptions of the ‘things’ its members have to deal with. It also provides integrity for  
 16    Business Rules expressed in terms of the Structured Business Vocabulary.

17    ***Relation of this Standard to OMG and other Standards***

18    Relation to ISO Standards

19    ISO Standards that are Similar

20    The ISO Terminology Standard (ISO 704, 1087-1, 1087-2, 10241, 12620, 860 and 15188) is  
 21    the ISO standard that is most similar to “Structuring Business Vocabulary for Business  
 22    Rules”. The ISO Terminology Standard has ***nothing to do with systems or information***  
 23    ***technology***. Some of the features of the ISO Terminology Standard that could be adopted  
 24    into “Structuring Business Vocabulary for Business Rules” are:

- 25     • Relationships among ‘things’
- 26     • Taxonomies
- 27     • Comprehensive definition capabilities
- 28     • Term formation best practice

29    Conversely “Structuring Business Vocabulary for Business Rules” complements the ISO  
 30    Terminology Standard by providing, among other things, the means to:

- 31     • relate terminology to the specific business communities that share the understanding
- 32       and business language.
- 33     • define meaning once and reuse it regardless of what symbols are used to express it.
- 34     • structure the vocabulary using First Order Predicate Logic.

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- 1 • specify the full semantics of categorization schemes.
- 2 • specify ‘state’ and relate Business Rules to ‘state’.
- 3 • define Business Rules in a structured fashion based on the structured vocabulary.

4 Also closely related are:

- 5 • ISO 2788 “Documentation - Guidelines for the Establishment and Development of  
6 Monolingual Thesauri”
- 7 • ISO 5964 “Documentation - Guidelines for the Establishment and Development of  
8 Multilingual Thesauri”

9 which deal with similar ideas such as preferred term, synonym, broader term, narrower term,  
10 and related term, but do not include any constructs for definitions.

### 11 ISO Standards that are Different

12 It is very important to note that ISO/IEC 10746 “Reference Model of Open Distributed  
13 Processing (RM-ODP)”, which is the subject of much discussion within the OMG Business  
14 Rules Working Group, deals with a **completely different subject area** than does “Structuring  
15 Business Vocabulary for Business Rules”.

16 “Reference Model of Open Distributed Processing (RM-ODP)” deals with the system  
17 specification while “Structuring Business Vocabulary for Business Rules” deals with the  
18 language and rules business people use to communicate to each other independent of the  
19 system. Even the “RM-ODP Enterprise Viewpoint” is an systems perspective on the  
20 business (plus actual systems specifications for system interfaces and collaborations) – rather  
21 than a business perspective on the business for business, not record keeping systems,  
22 purposes.

23 The relation between the two is a system design transformation from the language and rules  
24 of business (“Structuring Business Vocabulary for Business Rules”), via decisions about  
25 what the record keeping system will record and do, to system design specifications for  
26 system interfaces and collaborations, logical data models, logical processing components,  
27 etc. (“Reference Model of Open Distributed Processing”).

### 28 Relation to OMG Unified Modeling Language

29 Several BRWG email discussions have clearly established that UML is primarily a software  
30 modeling standard even though it may be used by systems people to model business ‘things’.  
31 It has been similarly established that UML does not contain any formal means to specify the  
32 terms in which a particular use of UML is expressed; i.e. business terms, logical system  
33 design terms, chosen technology terms, vendor product terms.

34 The closest link between “Structuring Business Vocabulary for Business Rules” and UML  
35 would be where UML used the **ORM-based MOF metamodel** and the UML constructs were  
36 expressed **exclusively in business terms and the language of business people**. Even in this

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1 use of UML there are still a number of differences in perspective that would require a  
2 transformation between “Structuring Business Vocabulary for Business Rules” and UML.  
3

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1 The Work-in-Progress Standard

2 Core Concept Examples<sup>3</sup>

3 Most of the examples are drawn from “EU-Rent” a (fictitious) car rental company used in  
4 BRG publications and working papers. EU-Rent offers typical car rental services in several  
5 countries.

6 Note that “Essence of Thing” means just that – the abstract idea, regardless of how it is  
7 expressed. But we have to use a means of expression to communicate each idea; each  
8 instance of “Essence of Thing” must have at least one means of expression. In these  
9 examples, we have mainly used vernacular English as the means of expression.

10 We might have expressed the examples in, say, French or German or some graphical  
11 convention or some formal logic convention. Their essence would have remained the same.

12

Diagram Component	Examples
Thing / Identity / Existence	Car owned by EU-Rent
Thing / Identity / Aspect	1. Car as rental car 2. Car as capital asset 3. Car as unit of demand on maintenance resources
Thing / Identity / Role	1. Car group as used to request a type of car for rental 2. Car group as used to permit upgrade for car group requested for rental
Thing / Specificity / Specific Thing	Driver John Smith (individually identified)
Thing / Specificity / Generic Thing	1. Driver (when it is not referring to an individual) 2. Passenger who is not a named driver (in EU Rent such passengers are not individually identified) 3. Car Group
Community / Speech Community	1. People in the car rental business 2. EU-Rent employees 3. EU-Rent employees who speak English 4. EU-Rent employees who speak German
Scope / Universe of Discourse	1. The Car Rental Business 2. EU-Rent’s Business

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<sup>3</sup> Edited by John Hall

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Diagram Component	Examples
Scope / Area of Knowledge	<ol style="list-style-type: none"> <li>1. Vehicle Maintenance</li> <li>2. Corporate Finance</li> <li>3. IT Support</li> </ol>
Fact	<ol style="list-style-type: none"> <li>1. Customer rents car</li> <li>2. Car group is permitted as upgrade for car group</li> </ol>
Rule	An upgraded car must be allocated to the rental if there is no available car in the requested car group and there is an available car in a permitted upgrade car group
Element of Vocabulary / Vocabulary	<p>EU-Rent's business vocabulary – all the ways of expressing the things whose essence EU-Rent employees share understanding of.</p> <p>An individual employee might not understand every mode of expression. For example, a French-speaking employee might not recognize that "Kunde mietet Auto" is a way of expressing the fact that he knows as "Le client loue la voiture". But all EU-Rent employees share understanding of customers renting cars (as we express it in English).</p> <p>"A subset of EU Rent vocabulary 'Definitions, Fact Statements and Rule Statements' (Means of Expression) as selected by German (Mode of Expression) is used to convey 'all the understanding of things shared by EU Rent employees' (Universe of Discourse) to German EU Rent Employees."</p>
Element of Vocabulary / Mode of Expression	<ol style="list-style-type: none"> <li>1. English</li> <li>2. German</li> <li>3. Arithmetic Equations</li> <li>4. ORM graphical notation</li> </ol>
Means of Expression / Symbol / Term	<ol style="list-style-type: none"> <li>1. Three terms for the Essence of Thing defined below and called "Customer" in English. Area of Knowledge is Car Rentals. Community is EU Rent. Signifiers are: <ul style="list-style-type: none"> <li>• Customer (mode of expression: English)</li> <li>• Kunde (mode of expression: German)</li> <li>• Client (mode of expression: French)</li> </ul> </li> <li>2. The same Signifier: Client (mode of expression: English) is used in a different term to mean the Essence of Thing defined below as "Client". Area of Knowledge is IT. Community is IT Support within EU Rent.</li> </ol>
Means of Expression / Symbol / Icon	<ol style="list-style-type: none"> <li>1. EU-Rent Logo</li> <li>2. Graphic of human figures and suitcases to indicate capacity of type of car</li> </ol>

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Diagram Component	Examples																												
Means of Expression / Composite Means of Expression / Definition	<p>Customer: a person who fits at least one of the following criteria:</p> <ul style="list-style-type: none"> <li>• Has a reservation for a rental that has not yet started</li> <li>• Has a rental in progress</li> <li>• Has completed at least one rental in the past 3 months</li> <li>• Is a member of EU-Rent's loyalty club</li> </ul> <p>Client: the software on an EU Rent employee's workstation that enables use of EU Rent's IT service.</p>																												
Means of Expression / Composite Means of Expression / Fact Statement	<p>Three Fact Statements for the same Fact</p> <ul style="list-style-type: none"> <li>• Customer rents car (mode of expression: English)</li> <li>• Kunde mietet Auto (mode of expression: German)</li> <li>• Le client loue la voiture (mode of expression: French)</li> </ul>																												
Means of Expression / Composite Means of Expression / Rule Statement	<p>Two rule statements for the same rule:</p> <ul style="list-style-type: none"> <li>• An upgraded car must be allocated to the rental if there is no available car in the requested car group and there is an available car in a permitted upgrade car group</li> <li>• The above example rule is Rule 2 (R2) of the decision table:</li> </ul> <table border="1" data-bbox="704 911 1471 1251"> <thead> <tr> <th data-bbox="704 911 1243 961">Conditions</th> <th data-bbox="1243 911 1318 961">R1</th> <th data-bbox="1318 911 1393 961">R2</th> <th data-bbox="1393 911 1471 961">R3</th> </tr> </thead> <tbody> <tr> <td data-bbox="704 961 1243 1012">Car of requested group available?</td> <td data-bbox="1243 961 1318 1012">Y</td> <td data-bbox="1318 961 1393 1012">N</td> <td data-bbox="1393 961 1471 1012">N</td> </tr> <tr> <td data-bbox="704 1012 1243 1062">Car of permitted upgrade group available?</td> <td data-bbox="1243 1012 1318 1062">-</td> <td data-bbox="1318 1012 1393 1062">Y</td> <td data-bbox="1393 1012 1471 1062">N</td> </tr> <tr> <th data-bbox="704 1062 1243 1113">Outcomes</th> <td colspan="3"></td> </tr> <tr> <td data-bbox="704 1113 1243 1163">Car of requested group allocated</td> <td data-bbox="1243 1113 1318 1163">x</td> <td data-bbox="1318 1113 1393 1163"></td> <td data-bbox="1393 1113 1471 1163"></td> </tr> <tr> <td data-bbox="704 1163 1243 1213">Car of upgrade group allocated</td> <td data-bbox="1243 1163 1318 1213"></td> <td data-bbox="1318 1163 1393 1213">x</td> <td data-bbox="1393 1163 1471 1213"></td> </tr> <tr> <td data-bbox="704 1213 1243 1264">Rental refused</td> <td data-bbox="1243 1213 1318 1264"></td> <td data-bbox="1318 1213 1393 1264"></td> <td data-bbox="1393 1213 1471 1264">x</td> </tr> </tbody> </table> <p>Two rule statements for the same rule:</p> <ul style="list-style-type: none"> <li>• VAT for Car Rental must be calculated as Car Rental Amount multiplied by 17½%.</li> <li>• VAT for Car Rental = Car Rental Amount * 0.175</li> </ul>	Conditions	R1	R2	R3	Car of requested group available?	Y	N	N	Car of permitted upgrade group available?	-	Y	N	Outcomes				Car of requested group allocated	x			Car of upgrade group allocated		x		Rental refused			x
Conditions	R1	R2	R3																										
Car of requested group available?	Y	N	N																										
Car of permitted upgrade group available?	-	Y	N																										
Outcomes																													
Car of requested group allocated	x																												
Car of upgrade group allocated		x																											
Rental refused			x																										

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2 Work-in-Progress Diagrams

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# “Structuring Business Vocabulary

## For Business Rules”

Business Rules Group

*Work in Progress*

submitted as response to

**OMG BRWG RFI**

10 January 2003



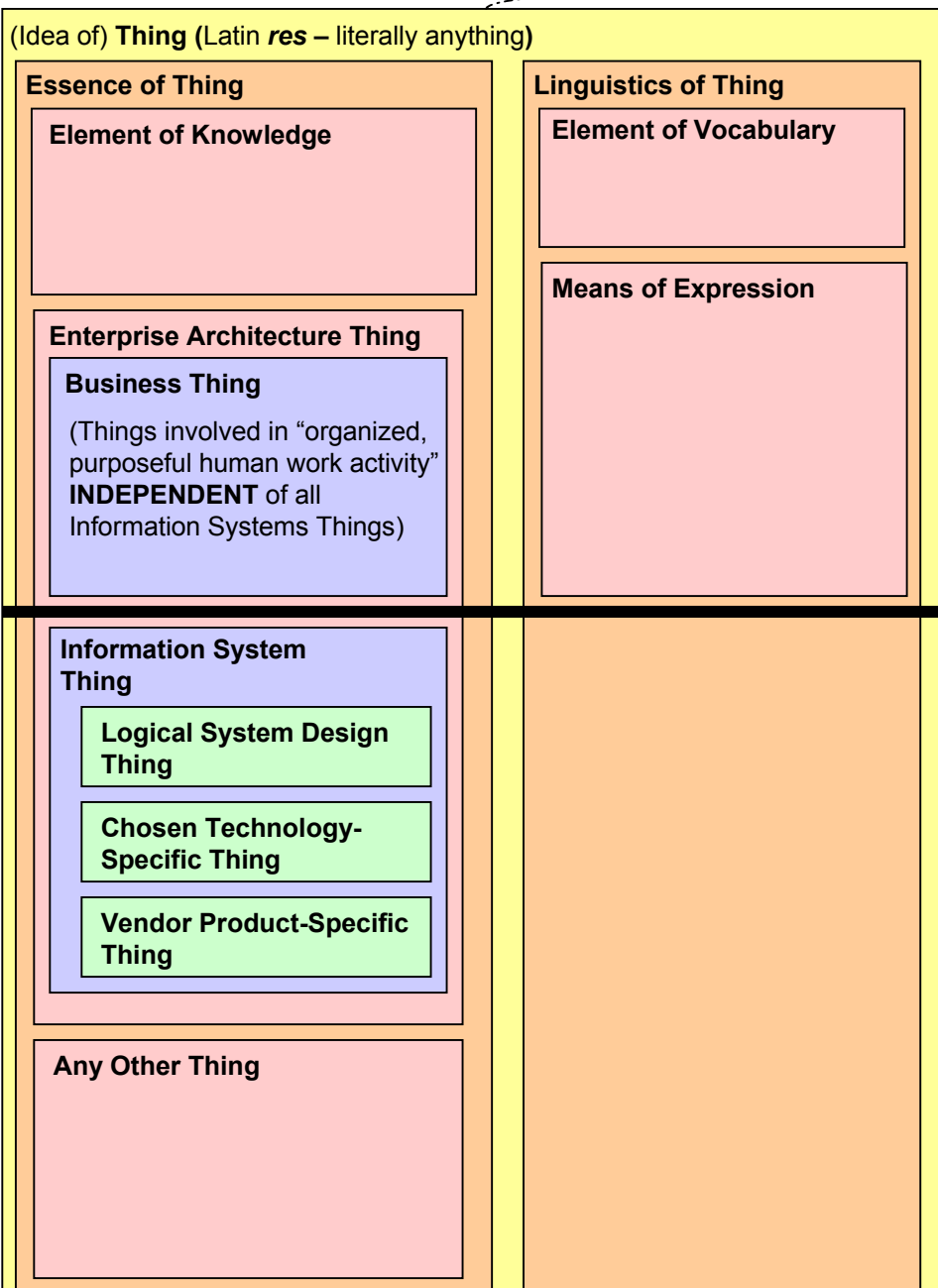
## Contextual Diagram

### Business Rules Approach

**Rules** are based on **Facts**

**Facts** are based on the **Things** they are about

The essence of **Things** (as perceived) is conveyed using **Terms**



### Key to Understanding:

As true for the contents of all dictionaries and models, the content of a Business Vocabulary is the **documentation** of a community’s **ideas** (perceptions) of **things in the real world**. Having affirmed this as a fundamental principle, it is not necessary to repeat the phrase ‘idea of’ in every box.

### Note:

The Business Rules Group has considered the application of this approach to Structuring Vocabulary to ‘Business Things’ ONLY. Its possible applicability to ‘Information Technology Things’ has been outside the scope of its current work.

# “Structuring Business Vocabulary For Business Rules”

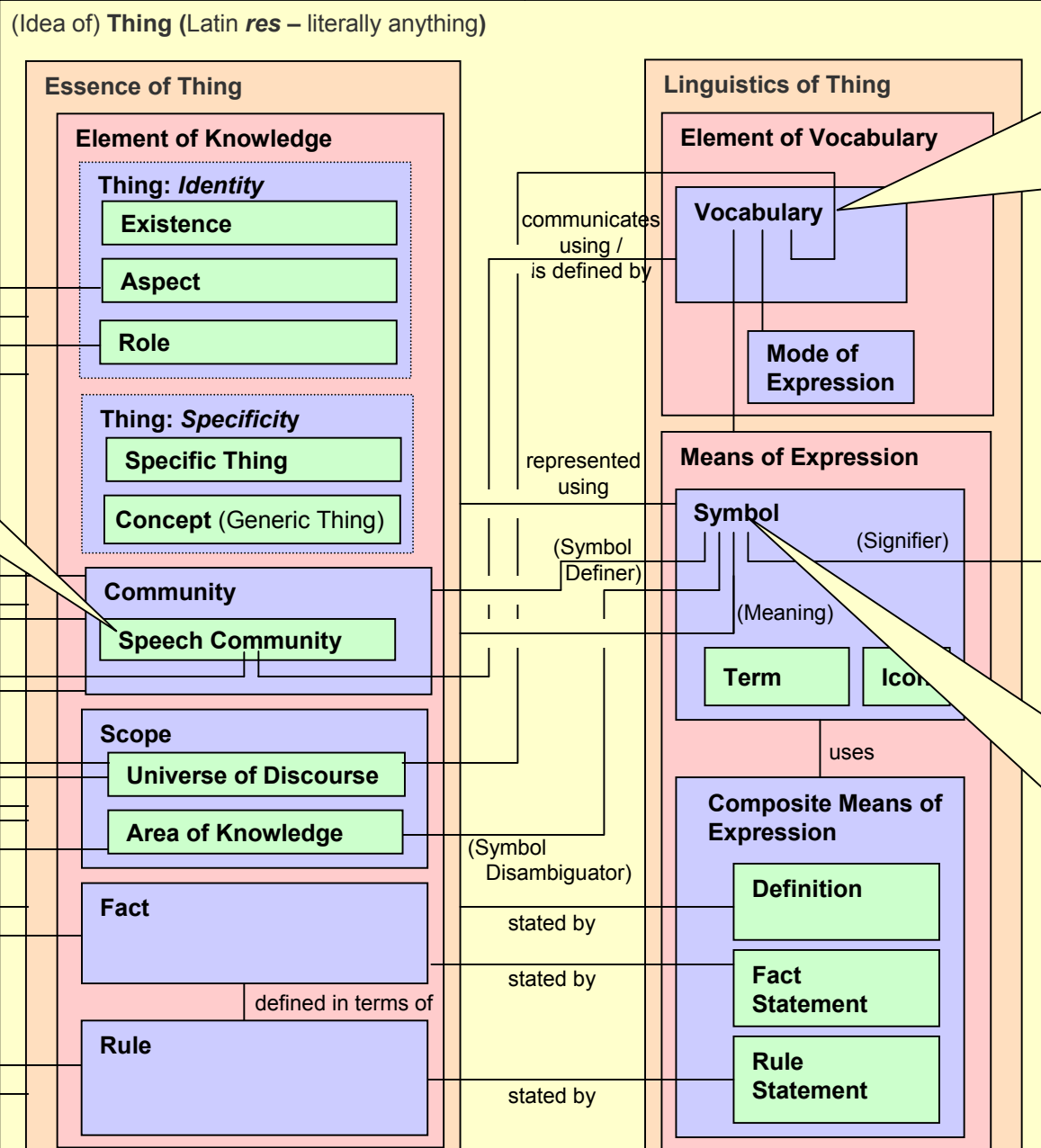


## Core Concepts Diagram

Business Rules Group  
*Work in Progress*  
 submitted  
 as response to  
**OMG BRWG RFI**  
 10 January 2003

**Speech Community is name of fact:**  
Community (Vocabulary Sharers) uses Vocabulary (Means of Communication)

shares understanding of  
 of  
 of  
 defines scope of its discourse using  
 Is made up of  
 defines scope of  
 plays role in  
 defined in terms of  
 constrains / enables



**Vocabulary is name of fact:**  
Means of Expression (Expression Options Provider) as selected by Mode of Expression (Expression Option Selector) is used to convey Universe of Discourse (Definer of Meaning).

NOTE: Roles of Things are shown in ( ).

NOTE: Signifier is most often, but not always, a Linguistic Thing

**Symbol is name of fact:**  
Community (Symbol Definer) agrees that Thing<sub>1</sub> (Signifier) when indicated within Area of Knowledge (Signifier Disambiguator) will denote Essence of Thing<sub>2</sub> (Meaning)

NOTE: Roles of Things are shown in ( ).

1 NOTE:

2 “Structuring Business Vocabulary for Business Rules” is outside the present scope of  
3 the OMG standard terminology and the MDA. It is therefore not possible to relate the  
4 terms in this Glossary to standard OMG terminology except by defining  
5 transformations between “Structuring Business Vocabulary for Business Rules” and  
6 OMG standards. Such transformations are outside the scope of this response to the  
7 OMG BRWG Request for Information.

8 **Area of Knowledge**

9 a Scope whose boundary is defined by a particular Concept (Generic Thing).

10 **Aspect**

11 a particular way in which some Thing may be considered: its particular nature, appearance  
12 or quality, a particular part or feature of it. {NODE}

13 **Business Thing**

14 a Thing involved in business -- organized, purposeful human work activity -- independent  
15 of all (not including any) Information System Things.  
16 (see Business: a person's regular occupation, profession, or trade {NODE})

17 **Chosen Technology-Specific Thing**

18 a Thing involved in a specific technology that is chosen to be part of the Physical System  
19 Design, independent of any specific vendor product.

20 **Community**

21 a group of people having a particular unifying characteristic in common. {NODE}

22 **Composite Means of Expression**

23 a Means of Expression that is composed of two or more other Means of Expression.

24 **Concept**

25 see “Generic Thing”.

26 **Element Of Knowledge**

27 a construct that defines a fundamental unit of knowledge independent of all linguistic  
28 expressions of that knowledge.

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1 **Element Of Vocabulary**

2 a construct that participates in defining a Vocabulary that contributes to the internal  
3 coherence of the Vocabulary.

4 **Enterprise Architecture Thing**

5 a Thing involved in specifying the architecture of an organization and the system that  
6 materializes it.

7 **Essence of Thing**

8 the intrinsic nature or indispensable quality of some Thing, especially something abstract,  
9 which determines its character. {NODE}

10 the individual, real, or ultimate nature of a Thing esp. as opposed to its existence.  
11 {MWCD}

12 **Existence**

13 the state or fact of having being. {MWCD}

14 **Fact**

15 some Thing that can happen or be known and is believed to be true by a certain  
16 community. An assertion about one or more Things that posits something relevant  
17 about the Things and/or indicates how the Things logically relate in the context of the  
18 business.

19 **Fact Statement**

20 a definite or clear expression of a Fact in speech or writing. {NODE}

21 **Generic Thing (Concept)**

22 a Thing that is characteristic of or relating to a class or group of Things; not a specific,  
23 particular Thing. {NODE}

24 **Icon**

25 a pictorial representation. {W3ID}

26 **Information System Thing**

27 a thing involved in any system (manual or automated) for recording or processing data  
28 and/or executing (carrying out) Business Rules.

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*Rules Group. (c) No part of the document, including title, content, copyright, and permission notice, is altered,*  
*abridged or extended in any manner.*

1	<b>Linguistics of Thing</b>	
2	of or relating to the method of human communication, either spoken or written, consisting	
3	of the use of words in a structured and conventional way to communicate the Essence	
4	of some Thing. {NODE}	
5	<b>Logical System Design Thing</b>	
6	a Thing involved in the logical design of a system; i.e. the system design decisions that	
7	deal with the laws of nature, independent of any specific technology or vendor product.	
8	<b>Meaning</b>	
9	the idea (Essence of a Thing) which something (Symbol) (as a word, a passage, a facial	
10	expression, an action, symbol, work of art or a situation) conveys to the mind or is	
11	intended to convey to the mind. {MWDS}	
12	<b>Means of Expression</b>	
13	a linguistic construct that conveys the Essence of some Thing.	
14	<b>Mode of Expression</b>	
15	one of possibly many cohesive sets of symbols used by one or more communities as the	
16	Means of Expression for a Universe of Discourse.	
17	<b>Role</b>	
18	the function assumed, behaviour expected, or part played by some Thing, or the use to	
19	which it is put, in a particular situation. {NODE}	
20	<b>Rule</b>	
21	a guide covering conduct, action, practice or procedure within a particular activity or	
22	sphere.	
23	<b>Rule Statement</b>	[0]
24	a definite or clear expression of a Rule in speech or writing. {NODE}	
25	<b>Scope</b>	
26	the extent of the area or subject matter that something deals with or to which it is relevant	
27	as defined by a clearly marked boundary. {NODE}	
28	<b>Signifier</b>	
29	a sign's physical form (such as a sound, printed word, or image) as distinct from its	
30	Meaning. {NODE}	

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1	<b>Specific Thing</b>	[0]
2	a Thing that is both discrete and persistently identifiable.	
3	a particular Thing. {SOED}	
4	a Thing that is clearly defined or identified. {NODE}	
5	<b>Speech Community</b>	
6	a group of people sharing a characteristic vocabulary, and grammatical and pronunciation	
7	patterns for use in their normal intercommunication. {W3ID}	
8	<b>Symbol</b>	[6]
9	a thing conventionally regarded as representing or recalling something else (by possessing	
10	analogous qualities or by association in fact or thought, especially a material object	
11	representing something abstract). (SOED)	
12	Symbol is the name of the fact: “ <u>Community (Symbol Definer)</u> agrees that <u>Thing<sub>1</sub></u>	
13	( <u>Signifier</u> ) when indicated within <u>Area of Knowledge (Signifier Disambiguator)</u> will	
14	denote <u>Essence of Thing<sub>2</sub> (Meaning)</u> ”	
15	<b>System Vendor Product-Specific Thing</b>	
16	a Thing that is particular to a specific system vendor product that is used to implement a	
17	Technology Specific (Physical) System Design.	
18	<b>Term</b>	[7]
19	a word or expression that has a precisely limited meaning in some uses, or is peculiar to a	
20	science, art, profession, trade or special subject. [W3ID]	
21	<b>Thing (Latin <i>res</i>) (in the Real World)</b>	[2]
22	Whatever; Literally anything (external to the mind of the thinker) that exists, can be	
23	thought about, or talked about:	
24	• specific or generic,	
25	• tangible or intangible,	
26	• unary or composite,	
27	• lexical or non-lexical,	
28	• animal, vegetable or mineral,	
29	• whether perceived as an event or an enduring thing,	
30	• whether or not its existence is perceived as continuing independently from the	
31	existence of other things	

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1 That which has actual, distinct and demonstrable existence outside of the mind, not  
2 restricted to direct knowledge through the senses, but including that for which its  
3 existence is inferred from its signs or effects. Something in the real world.  
4

5 NOTE: There is no adequate word in English for this core concept. In English ‘thing’,  
6 taken in its very broadest sense, is closest word. The all-inclusive nature of this is most  
7 closely indicated by:

- 8 • anything
- 9 • everything
- 10 • something
- 11 • all things

<b>Thing (Latin <i>res</i>) (Idea of)</b>	<b>[0]</b>
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13 a mental representation (an image in the mind) of a Thing (in the Real World).  
14 an image in the mind of the nature (essence) of some thing perceived through the senses, or  
15 visualized from bits of information with a specific scope. {MWDS + SOED-definition  
16 2}

<b>Thing: <i>Identity</i></b>
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18 Things (Idea of) classified by the type of perception they document regarding the fact of  
19 the Thing being who or what it is.  
20 see Identity {NODE}

<b>Thing: <i>Specificity</i></b>	<b>[0]</b>
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22 Things classified by whether or not they have the quality or condition of being specific  
23 (restricted to a particular individual, situation, relation, or effect). {MWCD}

<b>Universe of Discourse</b>
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25 the body of all the ‘Essence of Things’ the understanding of which is shared by a given  
26 Community.  
27 the set containing all objects or elements and of which all other sets are subsets. {NODE}

<b>Vocabulary</b>
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29 A sum or stock of words (Symbols) employed by a language, group, individual, or work,  
30 or in a field of knowledge. {MWCD}

1 **Dictionary Legend**

- 2 MWCD Merriam-Webster’s Collegiate Dictionary  
3 MWDS Merriam-Webster Dictionary of Synonyms  
4 MERL Microsoft Encarta Reference Library (Bloomsbury Dictionary)  
5 NODE The New Oxford Dictionary of English  
6 NOTE The New Oxford Thesaurus of English  
7 SOED Shorter Oxford Dictionary of English  
8 W3ID Webster’s 3<sup>rd</sup> New International Dictionary