# EMODE

GEFÖRDERT VOM

Bundesministerium
für Bildung
und Forschung

# EMODE Deliverable D2.4:
# Appendix D – Metamodel Documentation

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## *Note*

This document consists of the, by the modeling tool used in the EMODE project, automatically generated documentation.

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# Model Documentation

## Model Detail

This document provides a complete overview of all element details. For simpler and more focused reports, simply copy this initial template and turn off the sections not required.

## EMODE

*Type:* **Package «metamodel»**
*Status:* Proposed. Version 1.0.0. Phase 1.0.
*Package:* Logical View
*Detail:* *Created on 08.03.2006. Last modified on 08.03.2007*
*GUID:* {AEF13653-EF77-44d2-AEDC-D1B0FAACAC28}

**EMODE** - *(Logical diagram)*
*Created By:* J. Hößler *on* 07.03.2006
*Last Modified:* 21.09.2007
*Version:* 1.0. *Locked:* False
*GUID:* {F57E14E9-3390-488e-9534-CC862BB0B144}

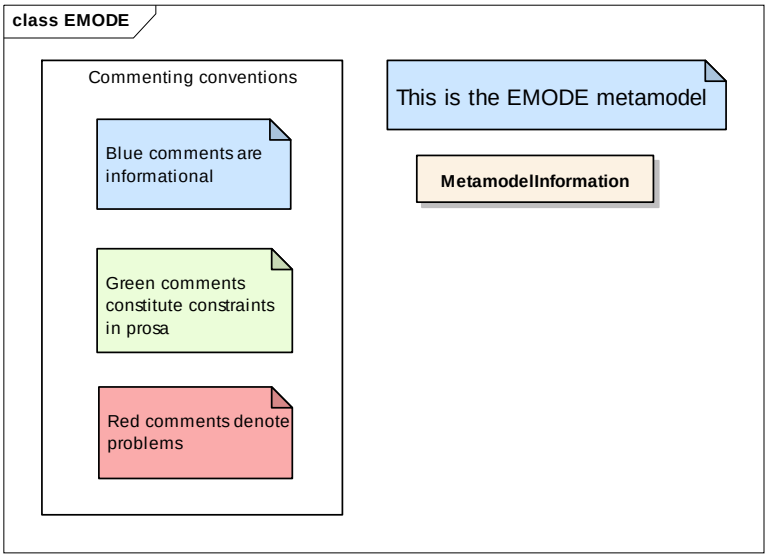



Figure: 1

## MetamodelInformation

*Type:* **Class**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODE *Keywords:*
*Detail:* *Created on* 30.08.2006. *Last modified on* 21.09.2007.
*GUID:* {F93A59BD-3695-4616-8FFB-AC3506ACA90C}

This text is parsed by a machine! Please do not edit.

Data about the metamodel

After this line, the information is placed (case and whitespace sensitive)
Version=1.19

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

## EMODESpecific

*Type:* **Package**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODE
*Detail:* *Created on 08.03.2006. Last modified on 19.04.2006*
*GUID:* {4CAC032A-8020-4778-B45E-DDCCB3EA7738}

**EMODESpecific** - *(Logical diagram)*
*Created By:* J. Hößler *on* 08.03.2006
*Last Modified:* 21.04.2006
*Version:* 1.0. *Locked:* False
*GUID:* {44CD051D-655E-47cd-B1FD-289EBDA4E49B}


Figure: 2

## Contexts

*Type:* **Package**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODESpecific
*Detail:* *Created on 07.03.2006. Last modified on 14.08.2006*
*GUID:* {CF810FDF-457C-4547-8FC7-4B8BD29C55E2}

**Context** - *(Logical diagram)*

*Created By:* J. Hößler *on* 07.03.2006
*Last Modified:* 11.06.2007
*Version:* 1.0. *Locked:* False
*GUID:* {56C87588-7B0D-40bc-9C62-C4ADDEE63E85}

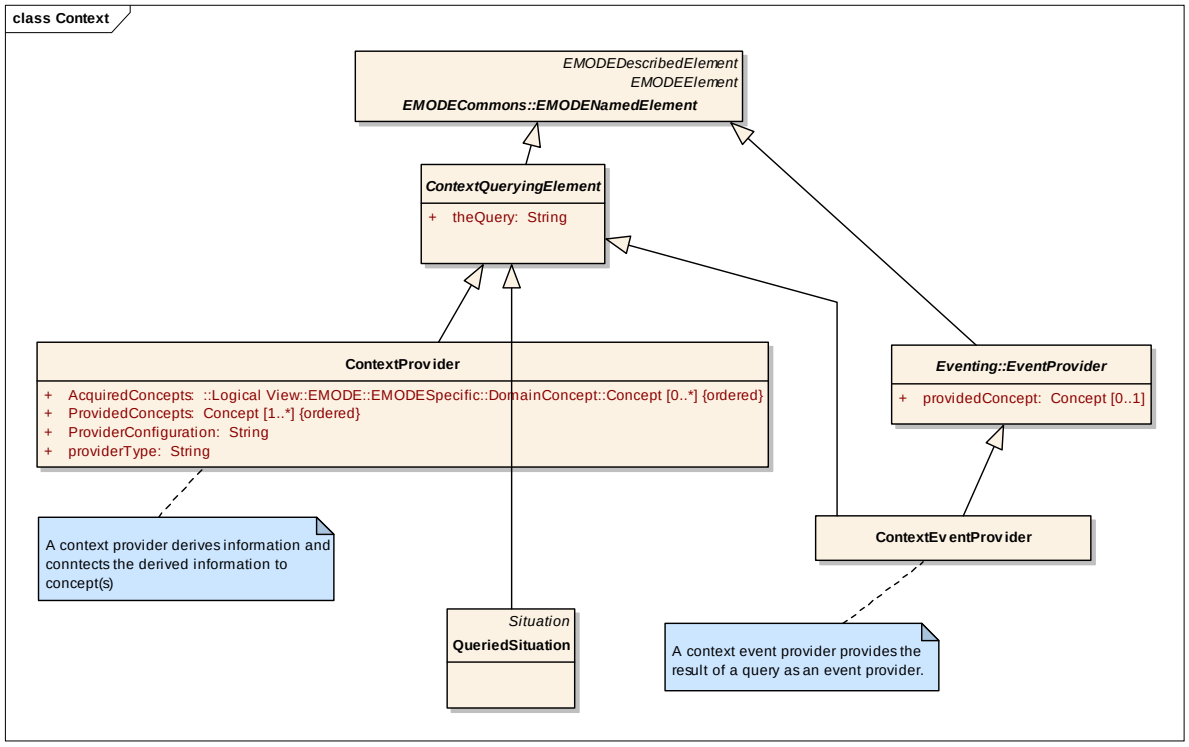



Figure: 3

## *ContextEventProvider*

*Type:* **Class** **ContextQueryingElement, EventProvider**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Contexts *Keywords:*
*Detail:* *Created on* 21.04.2006. *Last modified on* 23.05.2007.
*GUID:* {D55FE4A5-7E90-4613-85C8-34EFD9E86B42}

A query defines what information is retreived - it should not define how, since this is modeled with providers. It is applied to the concept/context model of the application.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink**<br>Source -> Destination | Public<br>Note | Public<br>ContextEventProvider | |
| **Generalization**<br>Source -> Destination | Public<br>ContextEventProvider | Public<br>ContextQueryingElement | |
| **Generalization**<br>Source -> Destination | Public<br>ContextEventProvider | Public<br>EventProvider | |

## *ContextProvider*

*Type:* **Class** **ContextQueryingElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Contexts *Keywords:*
*Detail:* *Created on* 07.03.2006. *Last modified on* 30.05.2006.
*GUID:* {0A515E07-F78C-477a-BE80-05282CA2B27B}

A ContextProvider is providing information. The information is of a certein type/concept. The view is that a provider encapsulates an engine - i.e. it can have several input and output channels. Since it collects its needed information itself, the input channels are not modelled.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink**<br>Source -> Destination | Public<br>Note | Public<br>ContextProvider | |
| **Generalization**<br>Source -> Destination | Public<br>ContextProvider | Public<br>ContextQueryingElement | |

### *Attributes*

| Attribute | Notes | Constraints and tags |
|---|---|---|

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **AcquiredConcepts** ::Logical View::EMODE::EMODESpecific::DomainConcept::Concept Public [0..*] | The concepts that this query asks for and returns to the "caller" | *Default:* [isStatic = false ] |
| **ProvidedConcepts** Concept Public [1..*] | The concepts, this provider provides. | *Default:* |
| **ProviderConfiguration** String Public | The serialized configuration of the provider module | *Default:* |
| **providerType** String Public | The type of the context provider as it will be recognized by the model to code transformation in order to produce stub classes. | *Default:* |

## *ContextQueryingElement*

*Type:* **Class** **EMODENamedElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Contexts *Keywords:*
*Detail:* *Created on* 31.05.2007. *Last modified on* 31.05.2007.
*GUID:* {F318CFC1-93A8-41d7-A76C-54467E0FA28F}

Element the queries a context

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>QueriedSituation | Public<br>ContextQueryingElement | |
| **Generalization**<br>Source -> Destination | Public<br>ContextEventProvider | Public<br>ContextQueryingElement | |
| **Generalization**<br>Source -> Destination | Public<br>ContextProvider | Public<br>ContextQueryingElement | |
| **Generalization**<br>Source -> Destination | Public<br>ContextQueryingElement | Public<br>EMODENamedElement | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **theQuery** String<br>Public | This query might be defined in a language like rdql, it should also include constraints on the metadata of the elements. In order to be functional on concepts without context, too, non existing metadata values are evaluated as a NULL entry. | *Default:* |

## *QueriedSituation*

*Type:* **Class** **ContextQueryingElement, Situation**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Contexts *Keywords:*
*Detail:* *Created on* 31.05.2007. *Last modified on* 31.05.2007.
*GUID:* {51D5B90D-E1F3-4454-BB9E-71585B5E25AF}

A situation which is checked for by querying the context service

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>QueriedSituation | Public<br>ContextQueryingElement | |
| **Generalization**<br>Source -> Destination | Public<br>QueriedSituation | Public<br>Situation | |

## Diagramming

*Type:* **Package**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODESpecific
*Detail:* *Created on 14.08.2006. Last modified on 14.08.2006*
*GUID:* {FFE2A3DF-B860-4cad-8716-78CD3190E50E}

**Diagramming** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 14.08.2006
*Last Modified:* 24.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {AEF5D2C7-6A2D-46ba-A5BF-7769C5777212}

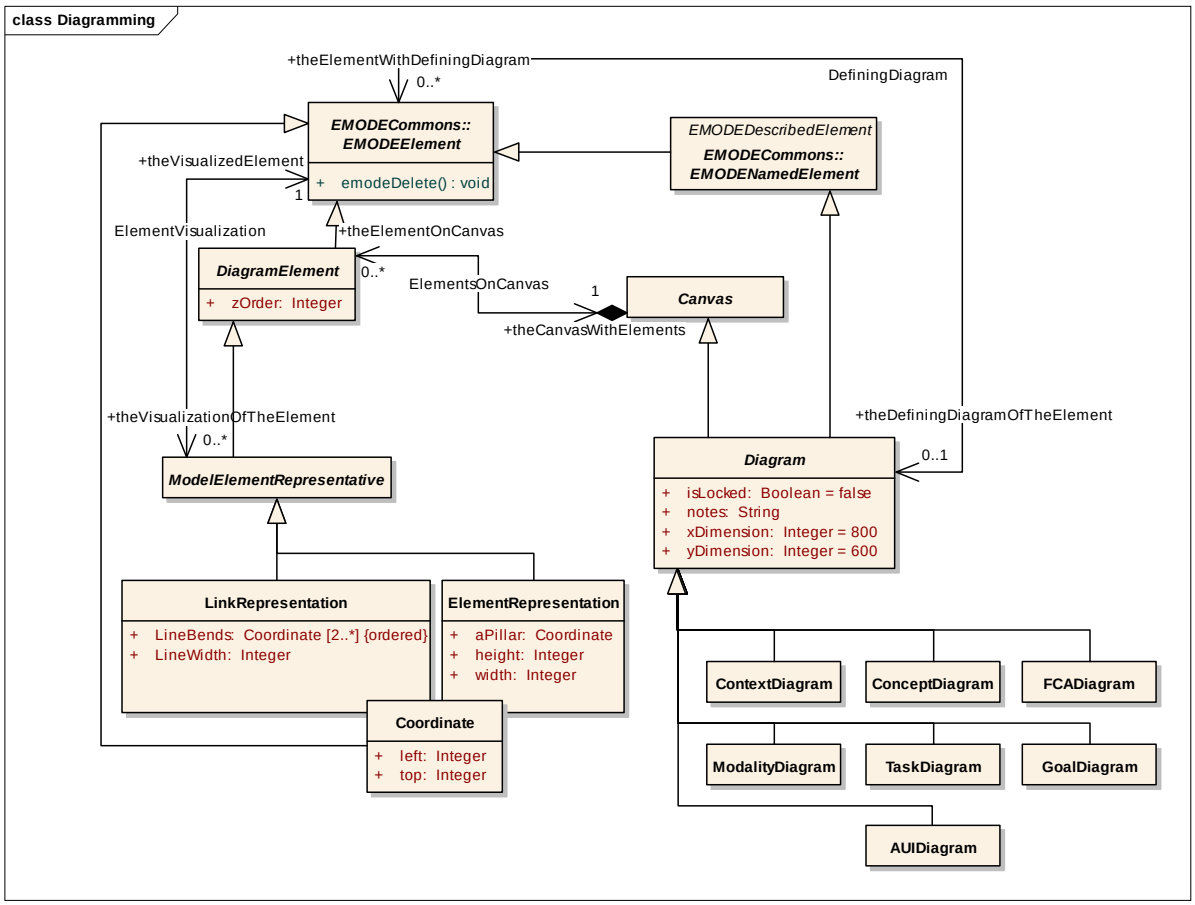



Figure: 4

**RulerGuides** - *(Logical diagram)*
*Created By:* *on* 24.05.2007
*Last Modified:* 11.06.2007
*Version:* 1.0. *Locked:* False
*GUID:* {216F2DE7-8D4E-4455-AD00-B772E28756DA}

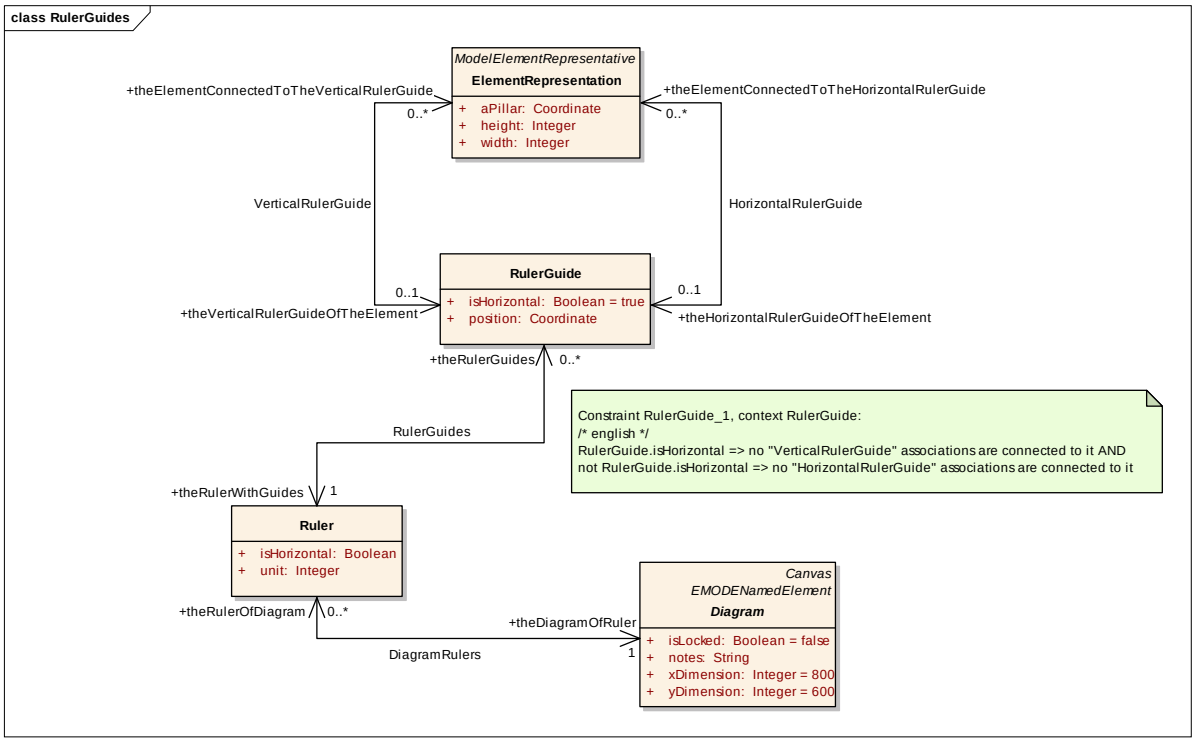



Figure: 5

## *AUIDiagram*

*Type:* **Class Diagram**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Diagramming *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 14.08.2006.
*GUID:* {3FE02F57-01C0-4a87-B485-6E4522A00E79}

An AUI diagram

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>AUIDiagram | Public<br>Diagram | |

## *Canvas*

*Type:* **Class**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Diagramming *Keywords:*
*Detail:* *Created on* 19.10.2005. *Last modified on* 14.08.2006.
*GUID:* {A7403855-8670-4a4e-A531-5465B1B2B39E}

A painting being composed of Diagram elements

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = true.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>Diagram | Public<br>Canvas | |
| **Association**<br>ElementsOnCanvas<br>Bi-Directional | Public<br>theElementOnCanvas<br>DiagramElement | Public<br>theCanvasWithElements<br>Canvas | |

## *ConceptDiagram*

*Type:* **Class** **Diagram**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Diagramming *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 14.08.2006.
*GUID:* {86B3F8D0-843A-4bad-BF2A-15A1F18306FB}

A concept diagram

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>ConceptDiagram | Public<br>Diagram | |

## *ContextDiagram*

*Type:* **Class** **Diagram**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Diagramming *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 14.08.2006.
*GUID:* {246E37B3-696F-44f3-9A5A-B21B0CCABCF5}

A context diagram

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>ContextDiagram | Public<br>Diagram | |

## *Coordinate*

*Type:* **Class** **EMODEElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Diagramming *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 14.08.2006.
*GUID:* {B67AAC41-E26C-44cf-9B71-4E12A0398D9C}

A drawing coordinate

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>Coordinate | Public<br>EMODEElement | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **left** Integer<br>Public | | *Default:* |
| **top** Integer<br>Public | | *Default:* |

## *Diagram*

*Type:* **Class** **Canvas, EMODENamedElement**
*Status:* Proposed. Version . Phase .
*Package:* Diagramming *Keywords:*
*Detail:* *Created on* 02.09.2005. *Last modified on* 14.08.2006.
*GUID:* {4DF8E0B2-96C7-4045-8702-426E1AA82617}

The class represents a diagram that is drawn with an editor. This element is trimmed to eclipse gef.

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>DefiningDiagram<br>Bi-Directional | Public<br>theElementWithDefiningDiagram<br>EMODEElement | Public<br>theDefiningDiagramOfTheElement<br>Diagram | The diagram, this element is further defined with. E.g., the diagram showing the definition of a task node |

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>ConceptDiagram | Public<br>Diagram | |
| **Generalization**<br>Source -> Destination | Public<br>ContextDiagram | Public<br>Diagram | |
| **Generalization**<br>Source -> Destination | Public<br>Diagram | Public<br>Canvas | |
| **Generalization**<br>Source -> Destination | Public<br>Diagram | Public<br>EMODENamedElement | |
| **Generalization**<br>Source -> Destination | Public<br>AUIDiagram | Public<br>Diagram | |
| **Generalization**<br>Source -> Destination | Public<br>GoalDiagram | Public<br>Diagram | |
| **Generalization**<br>Source -> Destination | Public<br>TaskDiagram | Public<br>Diagram | |
| **Generalization**<br>Source -> Destination | Public<br>ModalityDiagram | Public<br>Diagram | |
| **Generalization**<br>Source -> Destination | Public<br>FCADiagram | Public<br>Diagram | |
| **Association**<br>DiagramRulers<br>Bi-Directional | Public<br>theRulerOfDiagram<br>Ruler | Public<br>theDiagramOfRuler<br>Diagram | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **isLocked** Boolean<br>Public | Whether this diagram can be edited | *Default:* false<br><br>[isStatic = false ] |
| **notes** String<br>Public | Notes for this diagram | *Default:*<br><br>[isStatic = false ] |

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **xDimension** Integer<br>Public | The X dimension of the diagram | *Default:* 800<br><br>[isStatic = false ] |
| **yDimension** Integer<br>Public | The Y dimension of diagram | *Default:* 600<br><br>[isStatic = false ] |

## *DiagramElement*

*Type:* **Class** **EMODEElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Diagramming *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 14.08.2006.
*GUID:* {0CF76CD6-069A-4959-9DCF-CD1574918D31}

An element within a diagram

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>ModelElementRepresentative | Public<br>DiagramElement | |
| **Association**<br>ElementsOnCanvas<br>Bi-Directional | Public<br>theElementOnCanvas<br>DiagramElement | Public<br>theCanvasWithElements<br>Canvas | |
| **Generalization**<br>Source -> Destination | Public<br>DiagramElement | Public<br>EMODEElement | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **zOrder** Integer<br>Public | The zOrder of the element in the diagram | *Default:* |

## *ElementRepresentation*

*Type:* **Class** **ModelElementRepresentative**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Diagramming *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 14.08.2006.
*GUID:* {DF60C584-84F4-4dad-A0C6-F305AD4F7CAA}

The representation as an element

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>ElementRepresentation | Public<br>ModelElementRepresentative | |
| **Association**<br>HorizontalRulerGuide<br>Bi-Directional | Public<br>theHorizontalRulerGuideOfTheElement<br>RulerGuide | Public<br>theElementConnectedToTheHorizontalRulerGuide<br>ElementRepresentation | Connects an element to a horizontal ruler guide |
| **Association**<br>VerticalRulerGuide<br>Bi-Directional | Public<br>theElementConnectedToTheVerticalRulerGuide<br>ElementRepresentation | Public<br>theVerticalRulerGuideOfTheElement<br>RulerGuide | Connects an element to a vertical ruler guide |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **aPillar** Coordinate<br>Public | The a-pillar for the element visualization | *Default:* |
| **height** Integer<br>Public | | *Default:* |
| **width** Integer<br>Public | | *Default:* |

## *FCADiagram*

*Type:* **Class** **Diagram**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Diagramming *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 14.08.2006.
*GUID:* {9B4BA02A-A778-4a9e-87A3-E68078E29483}

A FCA diagram

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>FCADiagram | Public<br>Diagram | |

## GoalDiagram

*Type:* **Class** **Diagram**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Diagramming *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 14.08.2006.
*GUID:* {A6637300-D4AB-4a5d-8D61-625FB5978A64}

A goal diagram

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>GoalDiagram | Public<br>Diagram | |

## LinkRepresentation

*Type:* **Class** **ModelElementRepresentative**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Diagramming *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 14.08.2006.
*GUID:* {AB67A259-764B-4b40-8865-60986E908477}

A representation as a link

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>LinkRepresentation | Public<br>ModelElementRepresentative | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| | | | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **LineBends** Coordinate<br>Public<br><br>[2..*] | The list of points, where the line bends | *Default:* |
| **LineWidth** Integer<br>Public | | *Default:* |

## *ModalityDiagram*

*Type:* **Class** **Diagram**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Diagramming *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 14.08.2006.
*GUID:* {8C4349A5-7AAA-4136-8CFC-2E6CE205FD2A}

A modality diagram

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>ModalityDiagram | Public<br>Diagram | |

## *ModelElementRepresentative*

*Type:* **Class** **DiagramElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Diagramming *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 14.08.2006.
*GUID:* {7FA2D7B9-72AB-468a-9048-597AC5AD86B3}

A diagram element representing a meta model element

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = true.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>ElementRepresentation | Public<br>ModelElementRepresentative | |
| **Generalization**<br>Source -> Destination | Public<br>ModelElementRepresentative | Public<br>DiagramElement | |
| **Generalization**<br>Source -> Destination | Public<br>LinkRepresentation | Public<br>ModelElementRepresentative | |
| **Association**<br>ElementVisualization<br>Bi-Directional | Public<br>theVisualizationOfTheElement<br>ModelElementRepresentative | Public<br>theVisualizedElement<br>EMODEElement | Connects the visualization of an element to its model counterpart |

## *Ruler*

*Type:* **Class**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Diagramming *Keywords:*
*Detail:* *Created on* 11.06.2007. *Last modified on* 11.06.2007.
*GUID:* {28E3E2F6-C78F-4352-95F6-20555BDBE117}

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association** RulerGuides<br>Bi-Directional | Public<br>theRulerWithGuides<br>Ruler | Public theRulerGuides<br>RulerGuide | |
| **Association**<br>DiagramRulers<br>Bi-Directional | Public<br>theRulerOfDiagram<br>Ruler | Public<br>theDiagramOfRuler<br>Diagram | |

### *Attributes*

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **isHorizontal** Boolean<br>Public | | *Default:*<br><br>[isStatic = false ] |
| **unit** Integer<br>Public | | *Default:*<br><br>[isStatic = false ] |

## *RulerGuide*

*Type:* **Class**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Diagramming *Keywords:*
*Detail:* *Created on* 24.05.2007. *Last modified on* 24.05.2007.
*GUID:* {3E54FBD9-8971-4f44-9A1A-8D1714B1C35F}

A ruler guide is a virtual "line" that is used in the editor to align elements to. Element representatives can be aligned to one horizontal and one vertical ruler guide.

### *Custom Properties*

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association** HorizontalRulerGuide Bi-Directional | Public theHorizontalRulerGuideOfTheElement RulerGuide | Public theElementConnectedToTheHorizontalRulerGuide ElementRepresentation | Connects an element to a horizontal ruler guide |
| **Association** VerticalRulerGuide Bi-Directional | Public theElementConnectedToTheVerticalRulerGuide ElementRepresentation | Public theVerticalRulerGuideOfTheElement RulerGuide | Connects an element to a vertical ruler guide |
| **Association** RulerGuides Bi-Directional | Public theRulerWithGuides Ruler | Public theRulerGuides RulerGuide | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **isHorizontal** Boolean Public | If the ruler guide is a horizontal one (false meaning that it is a vertical one) | *Default:* true |
| **position** Coordinate Public | An arbitrary coordinate on the ruler guide. | *Default:* |

## *TaskDiagram*

*Type:* **Class Diagram**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Diagramming *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 14.08.2006.
*GUID:* {DC77F3D0-FE6D-4c79-A83C-1856E2DBB87F}

A task diagram

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>TaskDiagram | Public<br>Diagram | |

## DialogueSpace

*Type:* **Package**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODESpecific
*Detail:* *Created on 07.03.2006. Last modified on 15.03.2006*
*GUID:* {1C8B0298-4C01-4825-803B-1063AE3DCB71}

**AUIComponentRelationTypes** - *(Logical diagram)*
*Created By:* *on* 31.12.2006
*Last Modified:* 25.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {397DC30A-B3DA-45e6-9676-A9E976B93B8D}

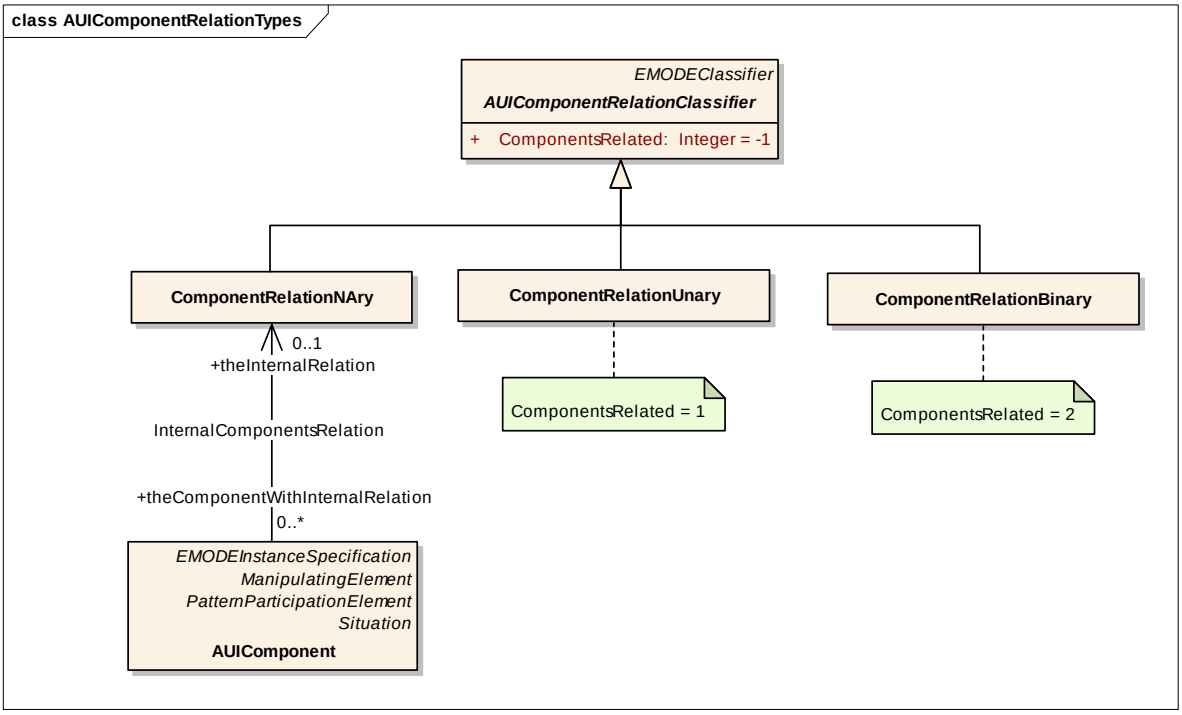



Figure: 6

**AUIElementInterplay** - *(Logical diagram)*
*Created By:* *on* 25.05.2007
*Last Modified:* 25.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {FFE99588-4EA6-4a9d-ABD3-6B8330A3ACE0}

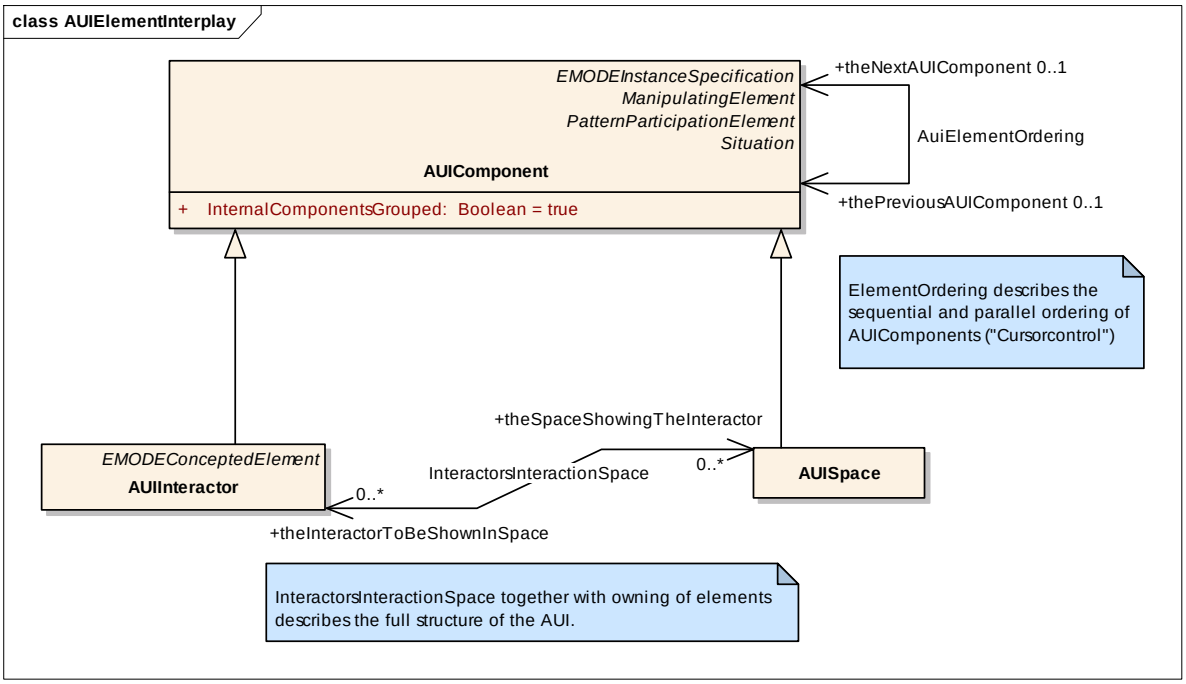



Figure: 7

**AUIElements** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 27.10.2006
*Last Modified:* 25.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {F91BC553-9551-4f12-AA28-0091D8545B03}

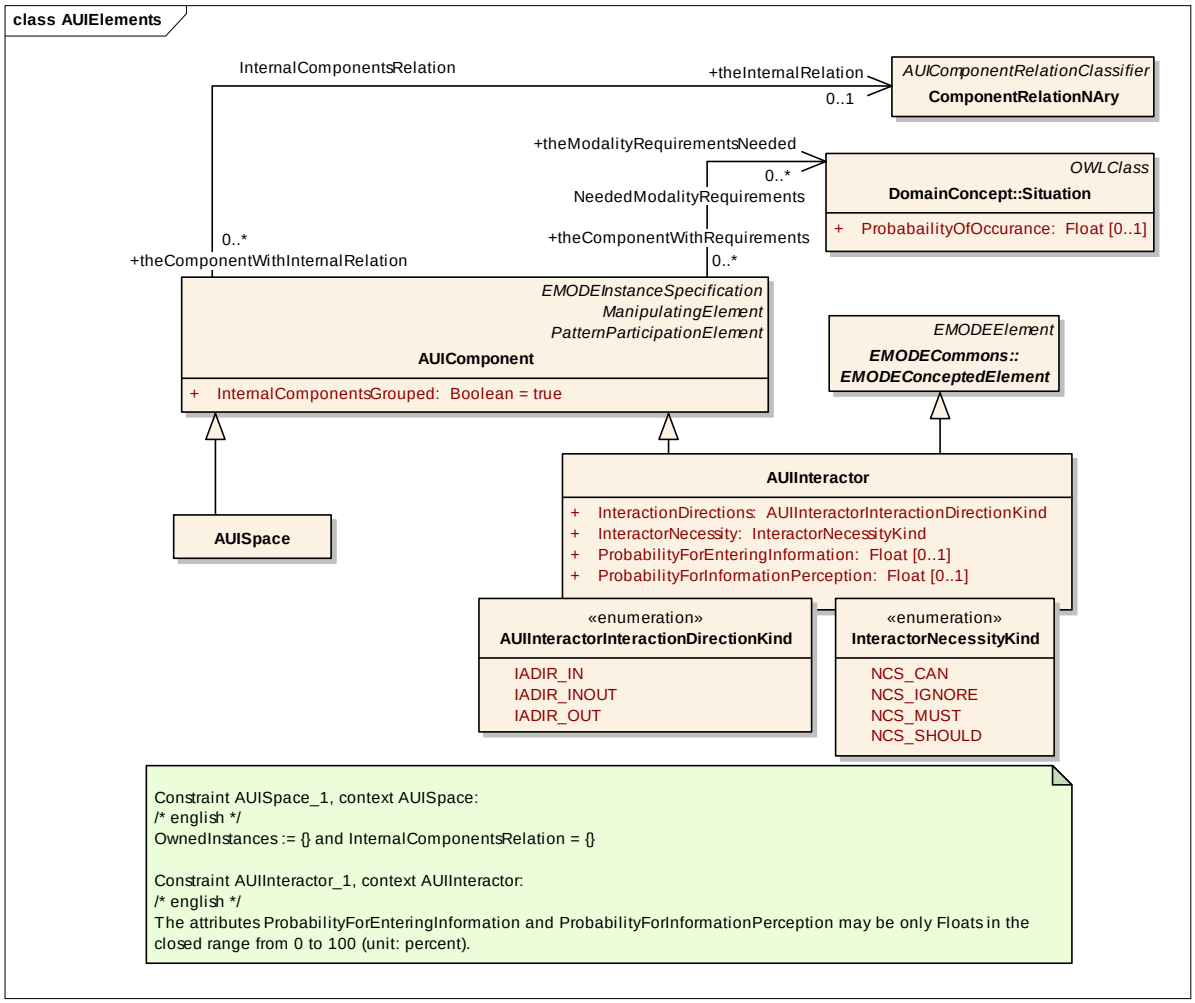



Figure: 8

**AUIRefinement** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 11.10.2006
*Last Modified:* 25.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {0ED3F4C3-0DE4-4339-98C2-26FFAE03295A}

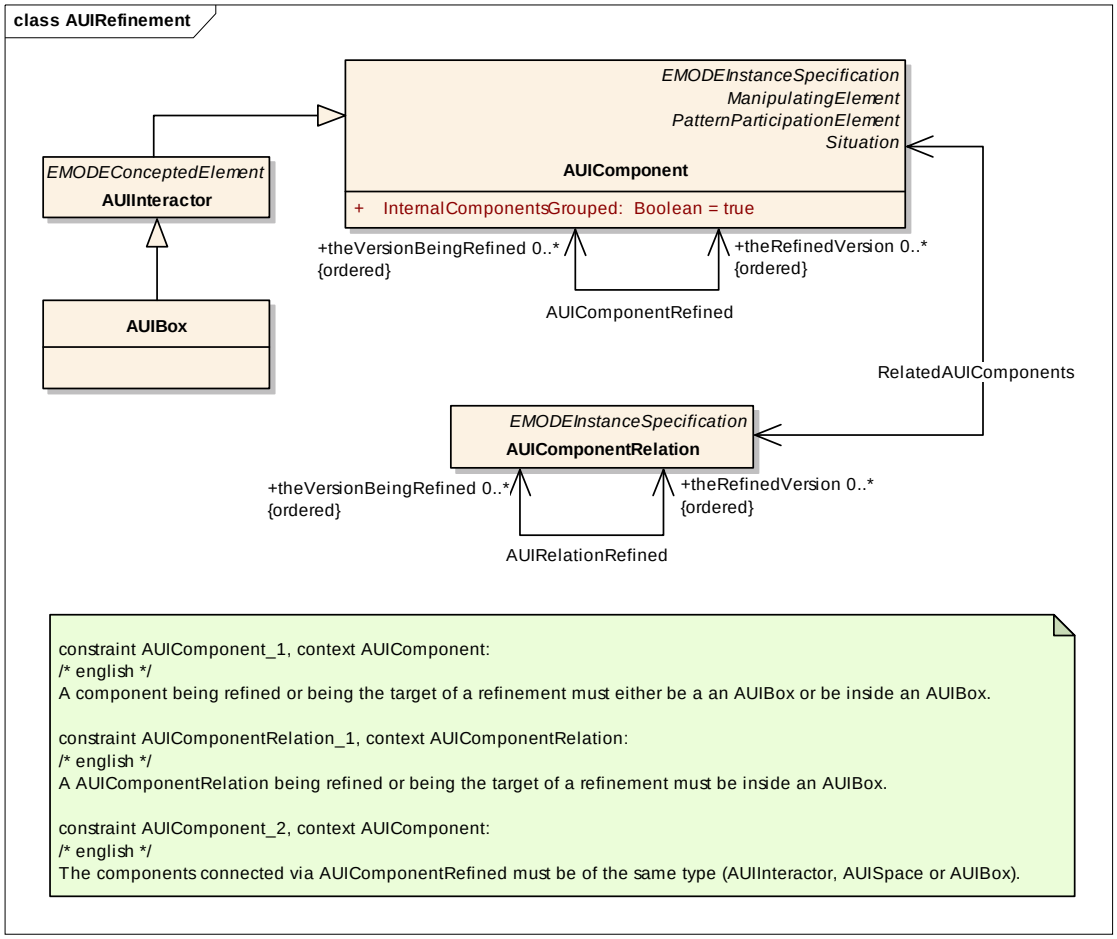



Figure: 9

**AbstractUIComponent** - *(Logical diagram)*
*Created By:* Andreas Petter *on* 22.03.2006
*Last Modified:* 23.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {F5823867-F28C-46bd-ACF3-D32F40919B05}

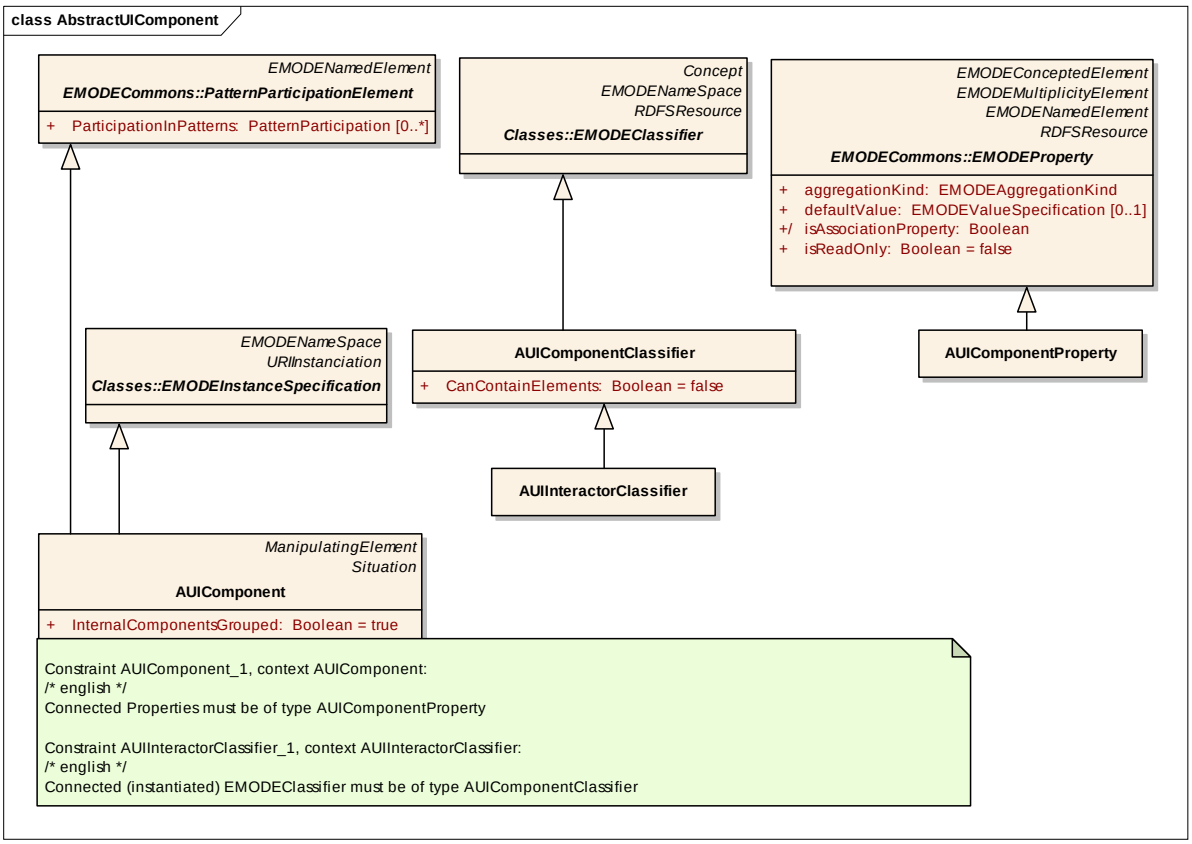



Figure: 10

**AbstractUIComponentRelations** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 14.06.2006
*Last Modified:* 23.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {7B2E120C-D5B5-4dfa-8A76-752B01199EE1}

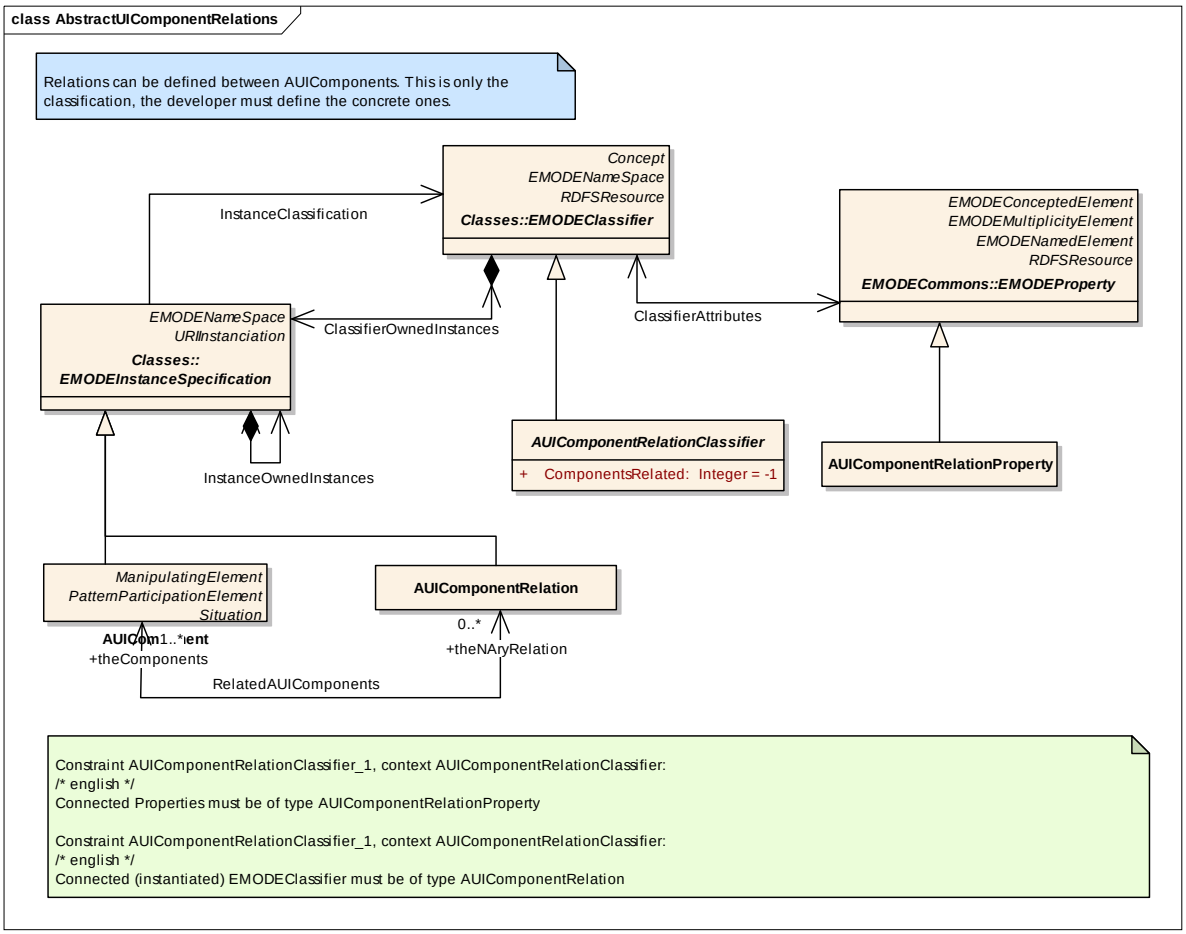



Figure: 11

**DialogueSpaceInheritance** - *(Object diagram)*
*Created By:* *on* 02.03.2007
*Last Modified:* 29.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {278574CD-CAE8-490d-B9F9-690EB3FA1360}

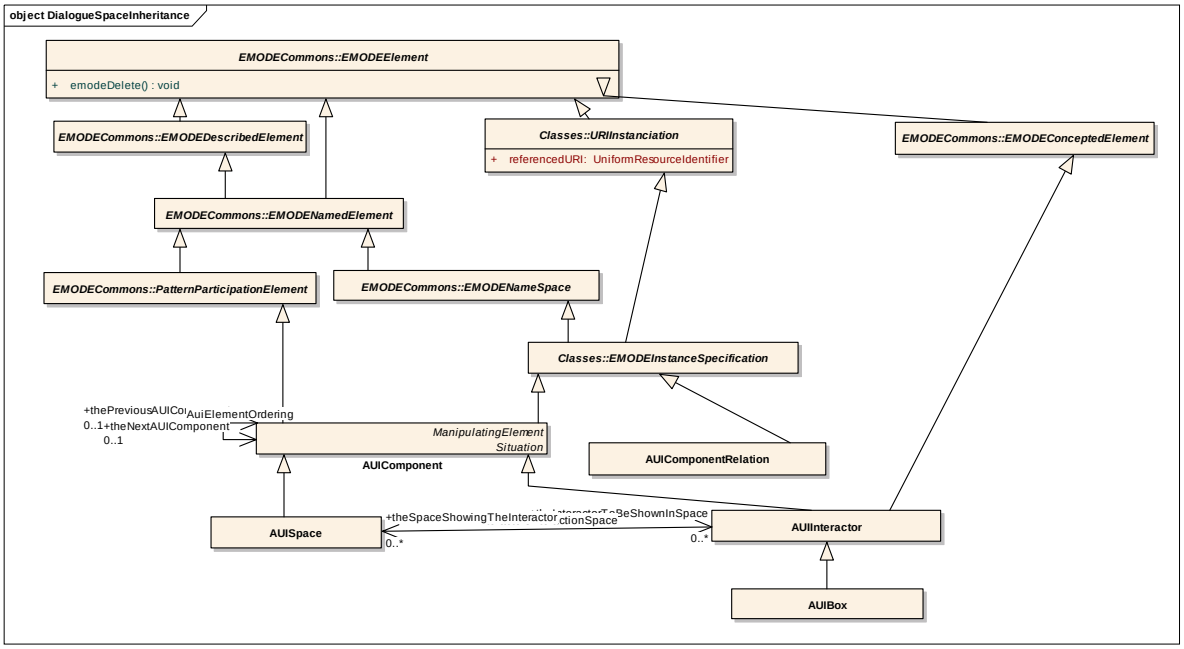



Figure: 12

## *AUIBox*

*Type:* **Class** **AUIInteractor**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* DialogueSpace *Keywords:*
*Detail:* *Created on* 29.10.2006. *Last modified on* 31.12.2006.
*GUID:* {2E3E3CEA-7C20-4839-B3F8-67E638C46602}

Collects different AUIs in order to compile part of or a full user interface of the application. The contained interactors belong to the user interface that is represented by this box.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>AUIBox | Public<br>AUIInteractor | |

## *AUIComponent*

*Type:* **Class** **EMODEInstanceSpecification, ManipulatingElement, PatternParticipationElement, Situation**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* DialogueSpace *Keywords:*
*Detail:* *Created on* 24.03.2006. *Last modified on* 30.10.2006.
*GUID:* {D65FC2CC-DDA9-40de-A6F7-963045E3916B}

The AUIComponent is the super element to all elements in an AUIModel - c.f. CompositePattern.

In its context, "Generalization" means that the specialized version supports only a constrained set of modalities.

Set to conrete in order to avoid code generation problems.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>AUISpace | Public<br>AUIComponent | |
| **Association**<br>RelatedAUIComponents<br>Bi-Directional | Public theNAryRelation<br>AUIComponentRelation | Public theComponents<br>AUIComponent | The component involved in a relation |
| **Generalization**<br>Source -> Destination | Public<br>AUIComponent | Public<br>ManipulatingElement | |
| **Generalization**<br>Source -> Destination | Public<br>AUIComponent | Public<br>PatternParticipationElement | |
| **Association**<br>AUIComponentRefined<br>Bi-Directional | Public<br>theVersionBeingRefined<br>AUIComponent | Public<br>theRefinedVersion<br>AUIComponent | Connects two aui components: a refined version and the version that is being refined. |
| **Generalization**<br>Source -> Destination | Public<br>AUIInteractor | Public<br>AUIComponent | |
| **Association**<br>InternalComponentsRelation<br>Source -> Destination | Public<br>theComponentWithInternalRelation<br>AUIComponent | Public<br>theInternalRelation<br>ComponentRelationNAry | Describes the relation the AUIComponents which are contained in this component have. No associated relation means that there is no relation. |
| **Association**<br>NeededModalityRequire | Public<br>theComponentWithReq | Public<br>theModalityRequireme | The modality restrictons that need to be enforced for this component |

| Connector | Source | Target | Notes |
|---|---|---|---|
| ments<br>Source -> Destination | uirements<br>AUIComponent | ntsNeeded<br>Situation | to be reificatable. |
| **Association**<br>AuiElementOrdering<br>Bi-Directional | Public<br>thePreviousAUIComponent<br>AUIComponent | Public<br>theNextAUIComponent<br>AUIComponent | Orders the elements in an UI. All elements that are connected with this association are hereby put into a sequence. Only one ordering association is allowed per element. In order to have several elements as a successor of another element, the succeeding elements must be grouped into an AUIInteractor with internalComponentsGrouped = true.<br><br>All elements that are in one grouping element at the same grouping level (a box or an AUIInteractor with internalComponentsGrouped = true), having no incoming ordering association are defined to be parallely active. |
| **Generalization**<br>Source -> Destination | Public<br>AUIComponent | Public<br>EMODEInstanceSpecification | |
| **Generalization**<br>Source -> Destination | Public<br>AUIComponent | Public<br>Situation | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **InternalComponentsGrouped** Boolean<br>Public | Whether this container should realize a grouping functionality on the components. | *Default:* true |

## *AUIComponentClassifier*

*Type:* **Class** **EMODEClassifier**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* DialogueSpace *Keywords:*
*Detail:* *Created on* 17.11.2006. *Last modified on* 17.11.2006.
*GUID:* {2F11C839-2C22-477e-82AA-31CB7F59863E}

Classifier for AUIComponent instances

Set to non-abstract in order to avoid generation problems.

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>AUIComponentClassifier | Public<br>EMODEClassifier | |
| **Generalization**<br>Source -> Destination | Public<br>AUIInteractorClassifier | Public<br>AUIComponentClassifier | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **CanContainElements**<br>Boolean<br>Public | Whether the element can be used as a container for otther elements | *Default:* false |

## *AUIComponentProperty*

*Type:* **Class** **EMODEProperty**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* DialogueSpace *Keywords:*
*Detail:* *Created on* 27.10.2006. *Last modified on* 27.10.2006.
*GUID:* {0432B95D-98C5-41d9-93FB-520A6CB8C68A}

A property of an AUIComponent

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>AUIComponentProperty | Public<br>EMODEProperty | |

## *AUIComponentRelation*

*Type:* **Class** **EMODEInstanceSpecification**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* DialogueSpace *Keywords:*
*Detail:* *Created on* 27.04.2006. *Last modified on* 31.12.2006.
*GUID:* {BDDECA98-D14E-4fb2-BD44-929FC92FEA58}

A relation between one or more AUI components

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>RelatedAUIComponents<br>Bi-Directional | Public theNAryRelation<br>AUIComponentRelation | Public theComponents<br>AUIComponent | The component involved in a relation |
| **Generalization**<br>Source -> Destination | Public<br>AUIComponentRelation | Public<br>EMODEInstanceSpecification | |
| **Association**<br>AUIRelationRefined<br>Bi-Directional | Public<br>theVersionBeingRefined<br>AUIComponentRelation | Public<br>theRefinedVersion<br>AUIComponentRelation | Refines an AUIRelation |

## *AUIComponentRelationClassifier*

*Type:* **Class** **EMODEClassifier**

*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* DialogueSpace *Keywords:*
*Detail:* *Created on* 31.12.2006. *Last modified on* 31.12.2006.
*GUID:* {2A11A2CA-EB1F-42eb-9287-FDA0A945DDD1}

A classifier for AUI Component Relations

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public ComponentRelationUnary | Public AUIComponentRelationClassifier | |
| **Generalization**<br>Source -> Destination | Public ComponentRelationBinary | Public AUIComponentRelationClassifier | |
| **Generalization**<br>Source -> Destination | Public ComponentRelationNAry | Public AUIComponentRelationClassifier | |
| **Generalization**<br>Source -> Destination | Public AUIComponentRelationClassifier | Public EMODEClassifier | |

### *Attributes*

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **ComponentsRelated**<br>Integer<br>Public | The number of components that can be related (-1 = arbitrary) via this relation | *Default:* -1 |

## *AUIComponentRelationProperty*

*Type:* **Class** **EMODEProperty**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* DialogueSpace *Keywords:*

*Detail:* *Created on* 31.12.2006. *Last modified on* 31.12.2006.
*GUID:* {479C161B-6775-4713-B561-E9B3E4C3355E}

A property of an AUIComponentRelationClassifier

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>AUIComponentRelationProperty | Public<br>EMODEProperty | |

## *AUIInteractor*

*Type:* **Class** **AUIComponent, EMODEConceptedElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* DialogueSpace *Keywords:*
*Detail:* *Created on* 22.03.2006. *Last modified on* 16.08.2006.
*GUID:* {DACF0A51-5229-460f-862E-E79E8FEAACD3}

Interactor is the superclass of all interactors. Basicly there exist 3 types of interactors: Interactors, that are used for input, interactors that are used for output and containers, which organize interactors.
An interactor itself can be an abstraction being composed of multiple interactors itself. I.e. it represents a more complex interactor being able to manipulate more complex structures.

The concept of the interactor is the one, which describes the interactor best. If no concept is given, the developer will need to take care of the description herself.

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>TaskIsEnactedBy | Public<br>theTaskNode2BeEnacte | Public<br>theAUIInteractor2Enact | Describes the connection between task nodes and AUI components, |

| Connector | Source | Target | Notes |
|---|---|---|---|
| Bi-Directional | d<br>TaskExecutionNode | TheTask<br>AUIInteractor | which the interaction layout. This is a tight relationship, since the one (tasks) describe timely behaviour, whereas the other describe the layout. |
| **Association**<br>DefinitionIsEnactedBy<br>Bi-Directional | Public<br>theDefinitionUsingTheAUI<br>TaskDefinition | Public<br>theAUIForTheDefinition<br>AUIInteractor | The TaskDefinition has a AUIInteractor associated with it that is used to interact with the user.<br><br>Teh definition is the fallback option that can be used when there is no other AUI attached to the TaskExecutionNode, which is defined by the TaskDefinition. |
| **Association**<br>InteractorsInteractionSpace<br>Bi-Directional | Public<br>theInteractorToBeShownInSpace<br>AUIInteractor | Public<br>theSpaceShowingTheInteractor<br>AUISpace | Associates AUIInteractors to the spaces that they are shown in. |
| **Generalization**<br>Source -> Destination | Public<br>AUIInteractor | Public<br>EMODEConceptedElement | |
| **Generalization**<br>Source -> Destination | Public<br>AUIBox | Public<br>AUIInteractor | |
| **Generalization**<br>Source -> Destination | Public<br>AUIInteractor | Public<br>AUIComponent | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **InteractionDirections**<br>AUIInteractorInteractionDirectionKind<br>Public | The way (directions) of interaction with the user | *Default:* |
| **InteractorNecessity**<br>InteractorNecessityKind<br>Public | (see InteractorNecessityKind) | *Default:*<br><br>[isStatic = false ] |

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **ProbabilityForEnteringInformation** Float<br>Public<br><br>[0..1] | The probability that information is being entered into this interactor by the user | *Default:* |
| **ProbabilityForInformationPerception** Float<br>Public<br><br>[0..1] | The probability that information conveyed by this interactor is actually perceived by the user. | *Default:* |

## *AUIInteractorClassifier*

*Type:* **Class** **AUIComponentClassifier**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* DialogueSpace *Keywords:*
*Detail:* *Created on* 17.11.2006. *Last modified on* 17.11.2006.
*GUID:* {B41EC567-2718-4e9a-90DE-22EDAB04FE3B}

The classifier for AUIInteractors

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>AUIInteractorClassifier | Public<br>AUIComponentClassifier | |

## *AUIInteractorInteractionDirectionKind*

*Type:* **Enumeration**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* DialogueSpace *Keywords:*
*Detail:* *Created on* 27.04.2006. *Last modified on* 31.08.2006.

*GUID:* {0A40651F-9327-43e6-A276-EB2B86AE07EE}

Describes what directions of interaction the interactor uses with the user - not taking into accout the incitataion automatically generated by the system.

***Custom Properties***

- isActive = False

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **IADIR_IN**<br>Public | | *Default:* |
| **IADIR_INOUT**<br>Public | | *Default:* |
| **IADIR_OUT**<br>Public | | *Default:* |

## *AUISpace*

*Type:* **Class** **AUIComponent**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* DialogueSpace *Keywords:*
*Detail:* *Created on* 02.06.2006. *Last modified on* 05.07.2006.
*GUID:* {C6C52A15-2BD9-4385-9CB4-394691E33ABE}

This component serves as a placeholder, where other interactors can be placed in.

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>AUISpace | Public<br>AUIComponent | |
| **Association**<br>TaskIsInteractedAt<br>Bi-Directional | Public<br>theTaskToBeInteracted<br>TaskExecutionNode | Public<br>theSpace4Interaction<br>AUISpace | Details, where the interaction should take place |
| **Association**<br>InteractorsInteractionSpace<br>Bi-Directional | Public<br>theInteractorToBeShownInSpace<br>AUIInteractor | Public<br>theSpaceShowingTheInteractor<br>AUISpace | Associates AUIInteractors to the spaces that they are shown in. |

## *ComponentRelationBinary*

*Type:* **Class** **AUIComponentRelationClassifier**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* DialogueSpace *Keywords:*
*Detail:* *Created on* 27.04.2006. *Last modified on* 05.07.2006.
*GUID:* {4BA21F31-A692-44fe-837A-1D39353959BB}

A directed relation between two components

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink**<br>Source -> Destination | Public<br>Note | Public<br>ComponentRelationBinary | |
| **Generalization**<br>Source -> Destination | Public<br>ComponentRelationBinary | Public<br>AUIComponentRelationClassifier | |

## *ComponentRelationNAry*

*Type:* **Class** **AUIComponentRelationClassifier**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* DialogueSpace *Keywords:*
*Detail:* *Created on* 27.04.2006. *Last modified on* 05.07.2006.
*GUID:* {DCA48D11-A7E7-45f2-B3F2-BEE55635508D}

A n-ary relation between interactors

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>ComponentRelationNAry | Public<br>AUIComponentRelationClassifier | |
| **Association**<br>InternalComponentsRelation<br>Source -> Destination | Public<br>theComponentWithInternalRelation<br>AUIComponent | Public<br>theInternalRelation<br>ComponentRelationNAry | Describes the relation the AUIComponents which are contained in this component have. No associated relation means that there is no relation. |

## *ComponentRelationUnary*

*Type:* **Class** **AUIComponentRelationClassifier**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* DialogueSpace *Keywords:*
*Detail:* *Created on* 27.04.2006. *Last modified on* 05.07.2006.
*GUID:* {9146DE75-C3E8-4c9d-820F-803F8B35D063}

An attribute/mark attached to an interactor. The attached mark is a relation.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink**<br>Source -> Destination | Public<br>Note | Public<br>ComponentRelationUnary | |
| **Generalization**<br>Source -> Destination | Public<br>ComponentRelationUnary | Public<br>AUIComponentRelationClassifier | |

## *InteractorNecessityKind*

*Type:* **Enumeration**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* DialogueSpace *Keywords:*
*Detail:* *Created on* 03.04.2006. *Last modified on* 31.08.2006.
*GUID:* {97D5F87C-5F95-449b-A0E3-E3C559F80BD3}

How necessary an interactor is in order to complete the task and have a good UI

***Custom Properties***

- isActive = False

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **NCS_CAN**<br>Public | | *Default:* |
| **NCS_IGNORE**<br>Public | | *Default:* |
| **NCS_MUST**<br>Public | | *Default:* |

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **NCS_SHOULD**<br>Public | | *Default:* |

## DomainConcept

*Type:* **Package**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODESpecific
*Detail:* *Created on 26.10.2006. Last modified on 26.10.2006*
*GUID:* {8BA83FDD-966C-48e1-AED2-DAA6F360274D}

**ConceptAccess** - *(Logical diagram)*
*Created By:* *on* 17.01.2007
*Last Modified:* 29.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {D1C00974-A8C0-49be-97F4-E7FA6BBB10EA}

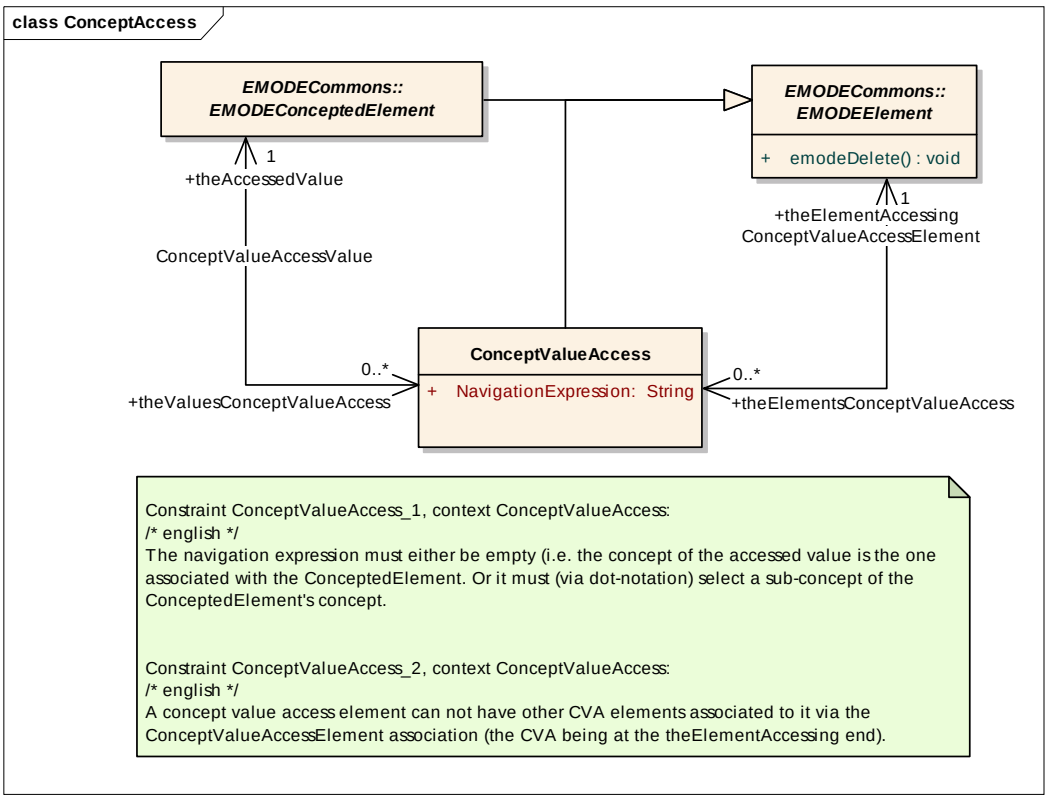



Figure: 13

**ConceptAccessEventing** - *(Logical diagram)*
*Created By:* *on* 23.05.2007
*Last Modified:* 29.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {0D251903-EB13-4087-AFB6-A82A26F34053}

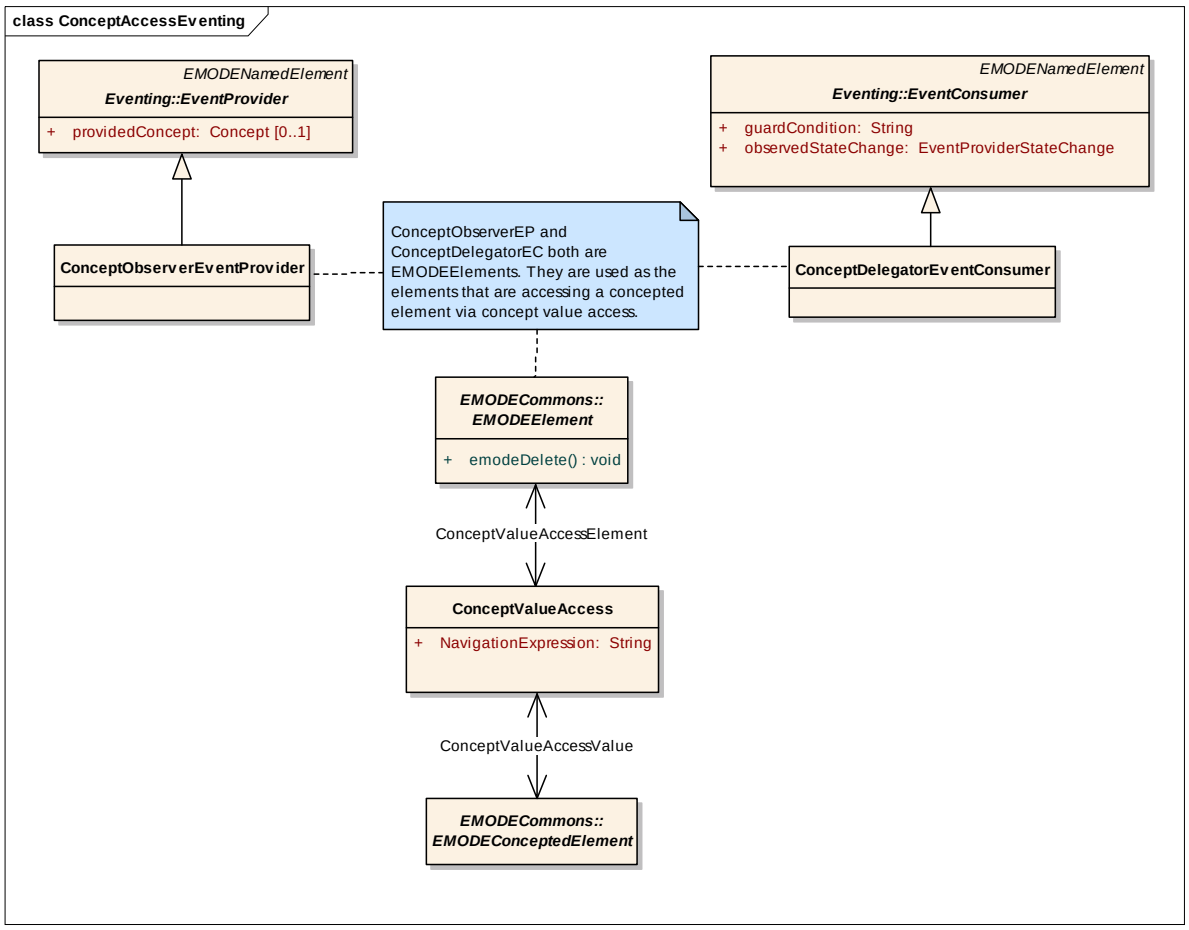



Figure: 14

**ConceptTypes** - *(Logical diagram)*
*Created By:* *on* 23.05.2007
*Last Modified:* 29.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {78DB3D56-9EBA-419f-9C1A-B89CA014FC22}

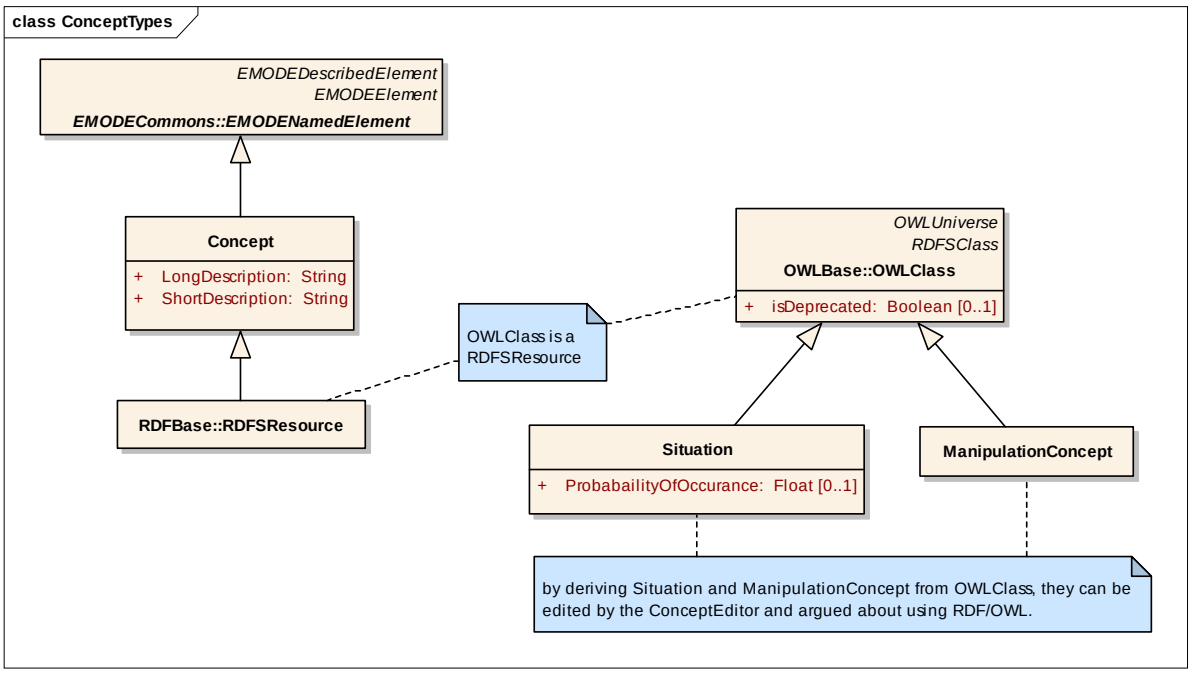



Figure: 15

**DomainConcept** - *(Logical diagram)*
*Created By:* Andreas Petter *on* 24.03.2006
*Last Modified:* 29.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {F1766269-D048-43f6-B44F-C970009F3CDB}
The domain concept model is the model that describes the relations between all possible entities. A concept - which is the EMODE name for entity - has an associated type and may or may not be abstract or persitent.

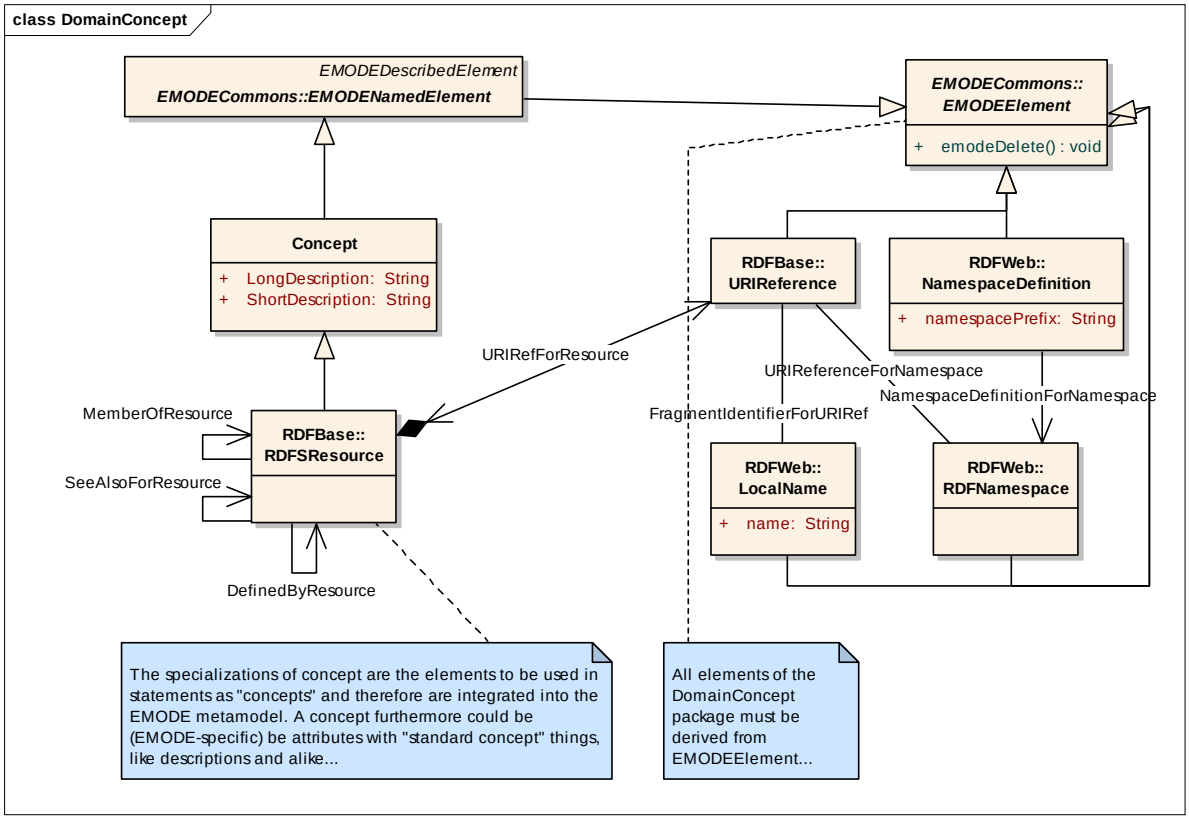



Figure: 16

**LiteralIntegration** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 27.10.2006
*Last Modified:* 29.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {BFA0E6AC-5E27-4907-A844-75451F0909F1}


Figure: 17

**ManipulationIntegration** - *(Logical diagram)*
*Created By:* *on* 23.05.2007
*Last Modified:* 29.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {4D1E8430-4E11-4e0d-8CE7-ABE8AEE180F2}

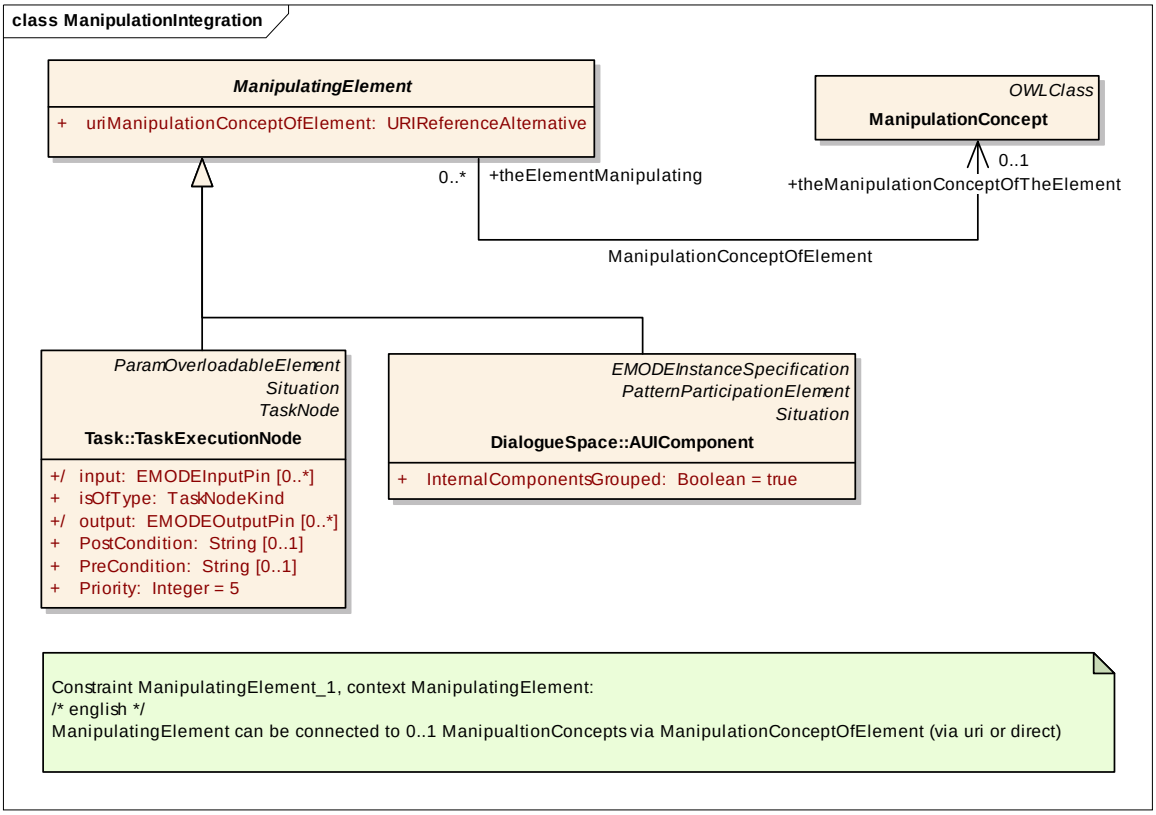



Figure: 18

**Rules** - *(Logical diagram)*
*Created By:* *on* 29.05.2007
*Last Modified:* 29.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {6B36DE16-5EDC-46a3-84FD-6A4838993A3F}

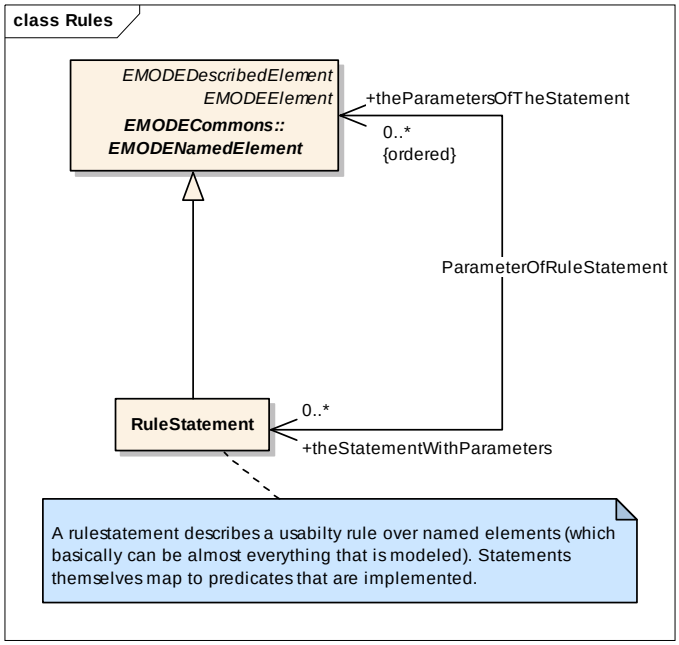



Figure: 19

**SituationIntegration** - *(Logical diagram)*
*Created By:* *on* 23.05.2007
*Last Modified:* 31.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {7F3D9FAC-0848-4c3a-A9DF-DC3A53137301}

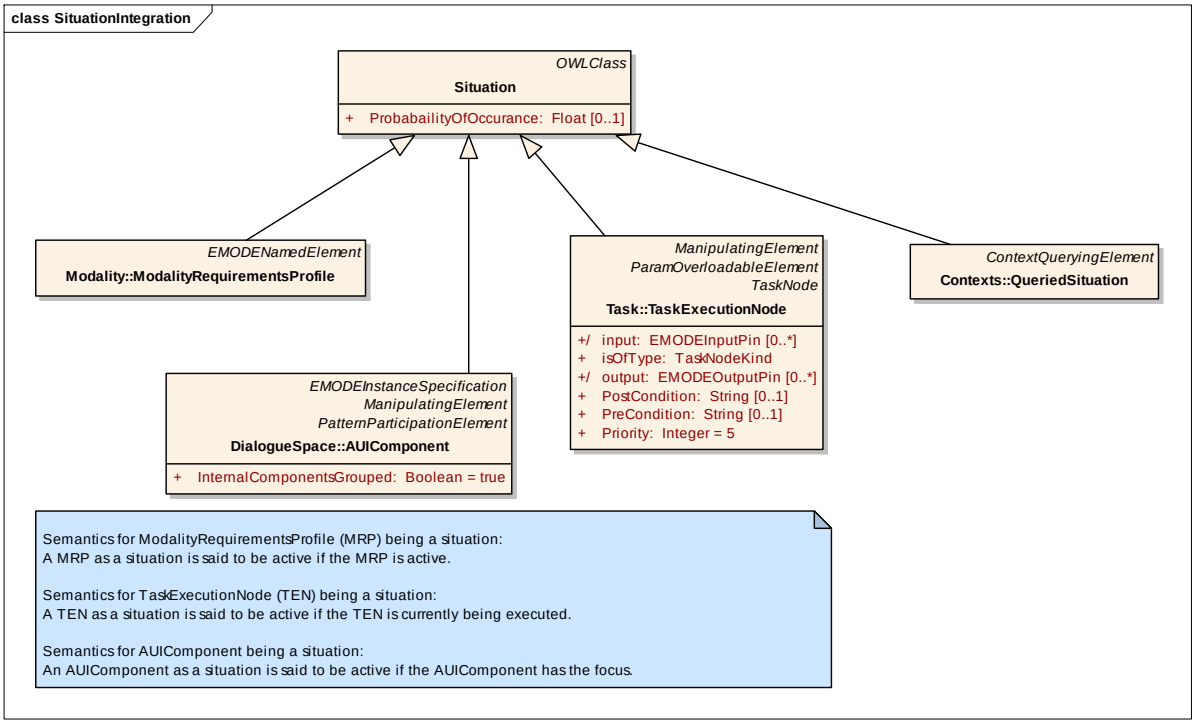



Figure: 20

**Situations** - *(Logical diagram)*
*Created By:* *on* 07.03.2007
*Last Modified:* 29.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {46443EAA-A774-4305-B410-00DB41A5C1F2}

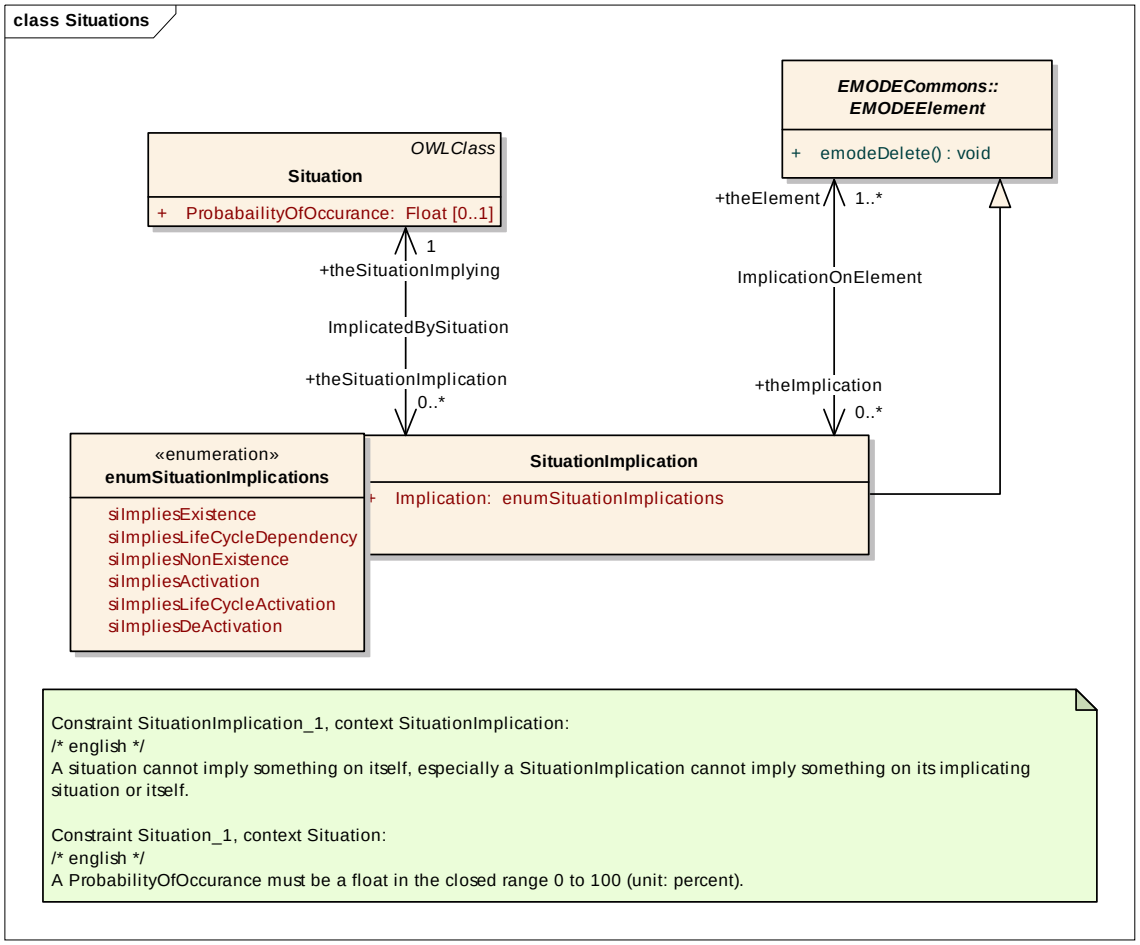



Figure: 21

**URIReferencing** - *(Logical diagram)*
*Created By:* *on* 24.05.2007
*Last Modified:* 29.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {0487A948-C0CC-4a7f-9135-4FA6A9B8A28B}

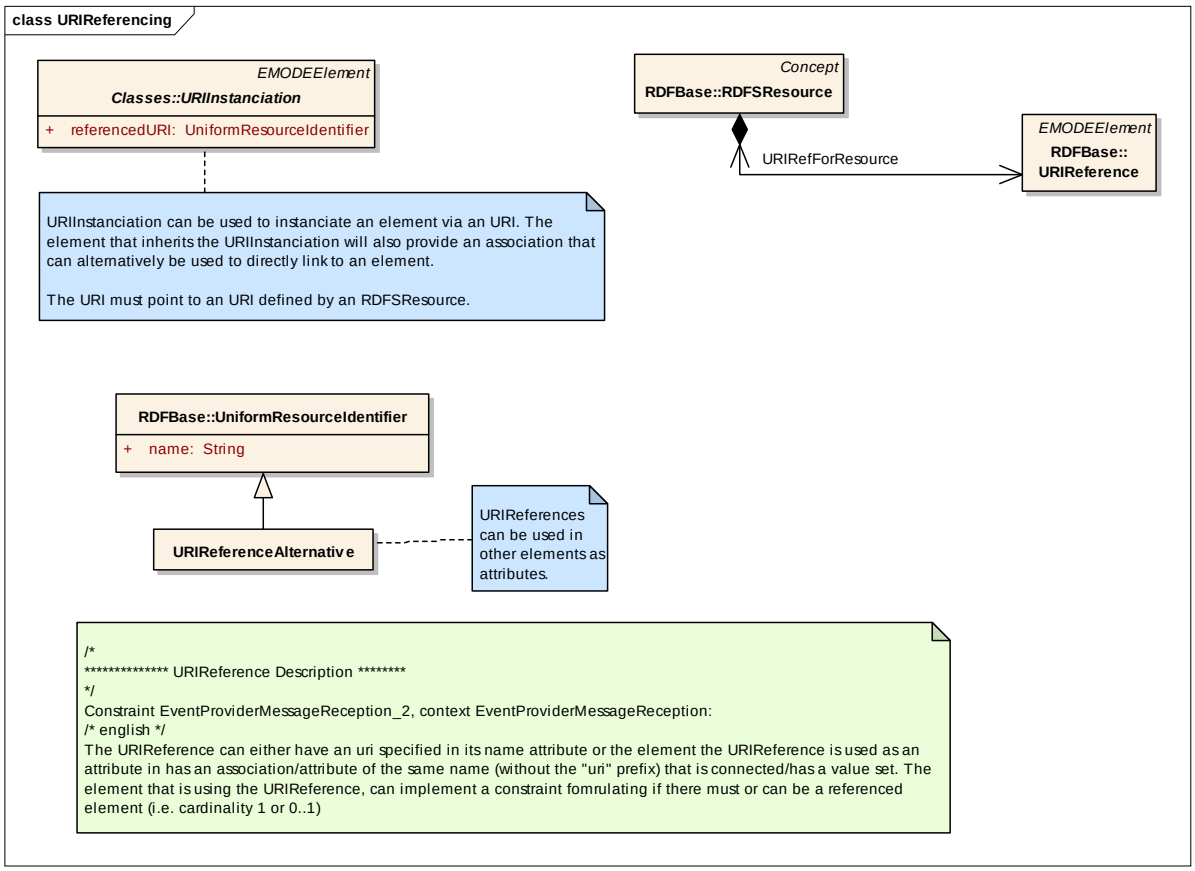



Figure: 22

## *Concept*

*Type:* **Class** **EMODENamedElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* DomainConcept *Keywords:*
*Detail:* *Created on* 24.03.2006. *Last modified on* 23.05.2007.
*GUID:* {F6B30081-D73B-472d-B4FA-E6D03293F84D}

A concept is a representation of an entity of the application.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization** | Public | Public | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| Source -> Destination | EMODEPrimitiveType | Concept | |
| **Association**<br>Conceptization<br>Source -> Destination | Public<br>theConceptedElementEnd<br>EMODEConceptedElement | Public<br>theConceptedElementConceptEnd<br>Concept | Specifies the concept this element is of |
| **Generalization**<br>Source -> Destination | Public<br>RDFSResource | Public<br>Concept | |
| **Generalization**<br>Source -> Destination | Public<br>Concept | Public<br>EMODENamedElement | |
| **Generalization**<br>Source -> Destination | Public<br>EMODEClassifier | Public<br>Concept | |
| **Generalization**<br>Source -> Destination | Public<br>MessageEndDefinition | Public<br>Concept | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **LongDescription** String<br>Public | Describes the concept in an extensive way as a detailed information for the user | *Default:* |
| **ShortDescription** String<br>Public | Describes the concept in an short way as a hint for the user | *Default:* |

## *ConceptDelegatorEventConsumer*

*Type:* **Class** **EventConsumer**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* DomainConcept *Keywords:*
*Detail:* *Created on* 24.05.2007. *Last modified on* 24.05.2007.
*GUID:* {AF74EA85-FEAF-4d35-A2D3-F3D35727ED76}

Provides a consumer that uses the event consumption to deliver a value to the concepted element this delegation is connected to.

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>ConceptDelegatorEvent Consumer | Public<br>EventConsumer | |
| **NoteLink**<br>Source -> Destination | Public<br>Note | Public<br>ConceptDelegatorEvent Consumer | |

## *ConceptObserverEventProvider*

*Type:* **Class** **EventProvider**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* DomainConcept *Keywords:*
*Detail:* *Created on* 24.05.2007. *Last modified on* 24.05.2007.
*GUID:* {EEA9363A-CE82-4f70-819A-EFEC27419F45}

Observes a concepted element and delivers the value of it as a source for events.

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>ConceptObserverEvent Provider | Public<br>EventProvider | |
| **NoteLink**<br>Source -> Destination | Public<br>Note | Public<br>ConceptObserverEvent Provider | |

## *ConceptValueAccess*

*Type:* **Class** **EMODEElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* DomainConcept *Keywords:*
*Detail:* *Created on* 17.01.2007. *Last modified on* 17.01.2007.
*GUID:* {1CA2A9E8-D0A1-4829-B24F-90206D613AA4}

Describes the access to a value of a concept by another model element.

This can, e.g., either be to access an EMODEPin value by an AUIInteractor in order to read (for InputPins) or write (for OutputPins) its value. Or, e.g., it could be an AUIInteractor that describes a button and this button invokes a certain OutputPin upon closing the form.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>ConceptValueAccess | Public<br>EMODEElement | |
| **Association**<br>ConceptValueAccessElement<br>Bi-Directional | Public<br>theElementAccessing<br>EMODEElement | Public<br>theElementsConceptValueAccess<br>ConceptValueAccess | Connects the element that would like to access a value to the ConceptValueAccess class. |
| **Association**<br>ConceptValueAccessValue<br>Bi-Directional | Public<br>theValuesConceptValueAccess<br>ConceptValueAccess | Public<br>theAccessedValue<br>EMODEConceptedElement | Connects the element that holds tha value to be accessed to the ConceptValueAccess class. |

### *Attributes*

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **NavigationExpression**<br>String<br>Public | The expression that qualifies which subelement of the accessed value is really being accessed by the emode-element | *Default:* |

## *ManipulatingElement*

*Type:* **Class**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* DomainConcept *Keywords:*
*Detail:* *Created on* 23.05.2007. *Last modified on* 25.05.2007.
*GUID:* {545E70DD-9780-41be-9CEF-33811EF1E8AE}

An element that can be used to manipulate other elements

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = true.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>TaskExecutionNode | Public<br>ManipulatingElement | |
| **Generalization**<br>Source -> Destination | Public<br>AUIComponent | Public<br>ManipulatingElement | |
| **Association**<br>ManipulationConceptOfElement<br>Source -> Destination | Public<br>theElementManipulating<br>ManipulatingElement | Public<br>theManipulationConceptOfTheElement<br>ManipulationConcept | Connects a manipulating element with a manipulation concept. |

### *Attributes*

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **uriManipulationConceptOfElement**<br>URIReferenceAlternative<br>Public | The uri referencing to a manipulation concept | *Default:* |

## *ManipulationConcept*

*Type:* **Class** **OWLClass**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* DomainConcept *Keywords:*
*Detail:* *Created on* 23.05.2007. *Last modified on* 23.05.2007.
*GUID:* {5B19C37E-6990-4cd9-8F26-2E20A8CC179E}

A manipulation concept expresses the manipulation of a concept.

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink**<br>Source -> Destination | Public<br>Note | Public<br>ManipulationConcept | |
| **Generalization**<br>Source -> Destination | Public<br>ManipulationConcept | Public<br>OWLClass | |
| **Association**<br>ManipulationConceptOfElement<br>Source -> Destination | Public<br>theElementManipulating<br>ManipulatingElement | Public<br>theManipulationConceptOfTheElement<br>ManipulationConcept | Connects a manipulating element with a manipulation concept. |

## *RuleStatement*

*Type:* **Class** **EMODENamedElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* DomainConcept *Keywords:*
*Detail:* *Created on* 29.05.2007. *Last modified on* 29.05.2007.
*GUID:* {DE81DCAF-AF90-4f09-B9E6-2EA8F0123025}

A rule statement describes a usabilty rule over named elements (which basically can be almost everything that is modeled). Statements themselves map to predicates that are implemented.

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink**<br>Source -> Destination | Public<br>Note | Public<br>RuleStatement | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| | | | |
| **Association**<br>ParameterOfRuleStatement<br>Bi-Directional | Public<br>theStatementWithParameters<br>RuleStatement | Public<br>theParametersOfTheStatement<br>EMODENamedElement | |
| **Generalization**<br>Source -> Destination | Public<br>RuleStatement | Public<br>EMODENamedElement | |

## *Situation*

*Type:* **Class** **OWLClass**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* DomainConcept *Keywords:*
*Detail:* *Created on* 07.03.2007. *Last modified on* 07.03.2007.
*GUID:* {A50AD4C8-A118-40fb-86F2-61B6878E6EA2}

A situation is a an entity that cam be used to differentiate between different usages of the application, respectively different contexts of use for the application. A situation can imply existence of model elements or non-existence (denial) of model elements.

It further is important to note that situations can overlap.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink**<br>Source -> Destination | Public<br>Note | Public<br>Situation | |
| **Association**<br>NeededModalityRequirements<br>Source -> Destination | Public<br>theComponentWithRequirements<br>AUIComponent | Public<br>theModalityRequirementsNeeded<br>Situation | The modality restrictons that need to be enforced for this component to be reificatable. |
| **Association**<br>ImplicatedBySituation<br>Bi-Directional | Public<br>theSituationImplication<br>SituationImplication | Public<br>theSituationImplying<br>Situation | The association to the situation implying something |
| **Generalization**<br>Source -> Destination | Public<br>ModalityRequirements | Public<br>Situation | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| | Profile | | |
| **Generalization**<br>Source -> Destination | Public<br>Situation | Public<br>OWLClass | |
| **Generalization**<br>Source -> Destination | Public<br>AUIComponent | Public<br>Situation | |
| **Generalization**<br>Source -> Destination | Public<br>QueriedSituation | Public<br>Situation | |
| **Generalization**<br>Source -> Destination | Public<br>TaskExecutionNode | Public<br>Situation | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **ProbabailityOfOccurance**<br>Float<br>Public<br><br>[0..1] | The probability that the situation will occur. It (heuristically) denotes the share of time that the application will run in this situation.<br><br>Furthermore, it is important to note that situations can overlap and hence their probability does not necessarily computes to 1. | *Default:* |

## *SituationImplication*

*Type:* **Class** **EMODEElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* DomainConcept *Keywords:*
*Detail:* *Created on* 07.03.2007. *Last modified on* 07.03.2007.
*GUID:* {AC8D9789-5C2B-40e5-9F7F-5C3D8B5A9DC7}

Implications that a situation can have on an EMODEElement

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>SituationImplication | Public<br>EMODEElement | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>ImplicatedBySituation<br>Bi-Directional | Public<br>theSituationImplication<br>SituationImplication | Public<br>theSituationImplying<br>Situation | The association to the situation implying something |
| **Association**<br>ImplicationOnElement<br>Bi-Directional | Public theImplication<br>SituationImplication | Public theElement<br>EMODEElement | The association to the eölement the implication implies something on |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **Implication**<br>enumSituationImplications<br>Public | The implication of the situation on the EMODEElement | *Default:* |

## *URIReferenceAlternative*

*Type:* **Class** **UniformResourceIdentifier**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* DomainConcept *Keywords:*
*Detail:* *Created on* 24.05.2007. *Last modified on* 25.05.2007.
*GUID:* {FF3AB811-1B75-4263-80EF-3AC6DE7551C4}

URIReferenceAlternative is used to reference an element via an URI (like an URIInstanciation does). It can be used as an attribute in an element. Hereby the element will have an association or another attribute that references the target element, too - but not via an uwi, but directly. The attributes for the uri reference has the same name as the real reference (association or attribute), but with the prefix "uri".

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>URIReferenceAlternative | Public<br>UniformResourceIdentifier | |
| **NoteLink**<br>Source -> Destination | Public<br>Note | Public<br>URIReferenceAlternative | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| | | | |

## *enumSituationImplications*

*Type:* **Enumeration**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* DomainConcept *Keywords:*
*Detail:* *Created on* 07.03.2007. *Last modified on* 07.03.2007.
*GUID:* {4783EA1D-E513-4422-AF40-7389E6755193}

The different implications that a situation can have on an EMODEElement

### *Custom Properties*

- isActive = False

### *Attributes*

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **siImpliesExistence**<br>Public | The situation implies the existance of a model element, it hence might need to be created. | *Default:* |
| **siImpliesLifeCycleDependency**<br>Public | The situation implies that the model element will be created with it and destroyed with the end of the situation. | *Default:* |
| **siImpliesNonExistence**<br>Public | The situation implies that the model element may not exist - i.e. it must be removed. | *Default:* |
| **siImpliesActivation**<br>Public | The situation implies that within the given situation, the element will be activated. The activation might not accur during immediately after situation is at hand - but will eventually. | *Default:* |

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **siImpliesLifeCycleActivation**<br>Public | The situation implies the activation of the element when the situation is entered and the deactivation of the element as soon as the situation is left. | *Default:* |
| **siImpliesDeActivation**<br>Public | The situation implies that its occurance deactivates the element. | *Default:* |

## *OWL*

*Type:* **Package**
*Status:* Proposed. Version . Phase 1.0.
*Package:* DomainConcept
*Detail:* *Created on 28.08.2006. Last modified on 28.08.2006*
*GUID:* {19DEDB94-4800-4124-B30C-48E889392BB3}

## OWLBase

*Type:* **Package**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* OWL
*Detail:* *Created on 11.08.2006. Last modified on 11.08.2006*
*GUID:* {53BCC043-3C12-40bb-9A84-81A576EA7783}

**ClassDescriptions** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 14.08.2006
*Last Modified:* 26.09.2006
*Version:* 1.0. *Locked:* False
*GUID:* {EF613B7E-1A11-4d9d-9E6B-EE77A560514E}

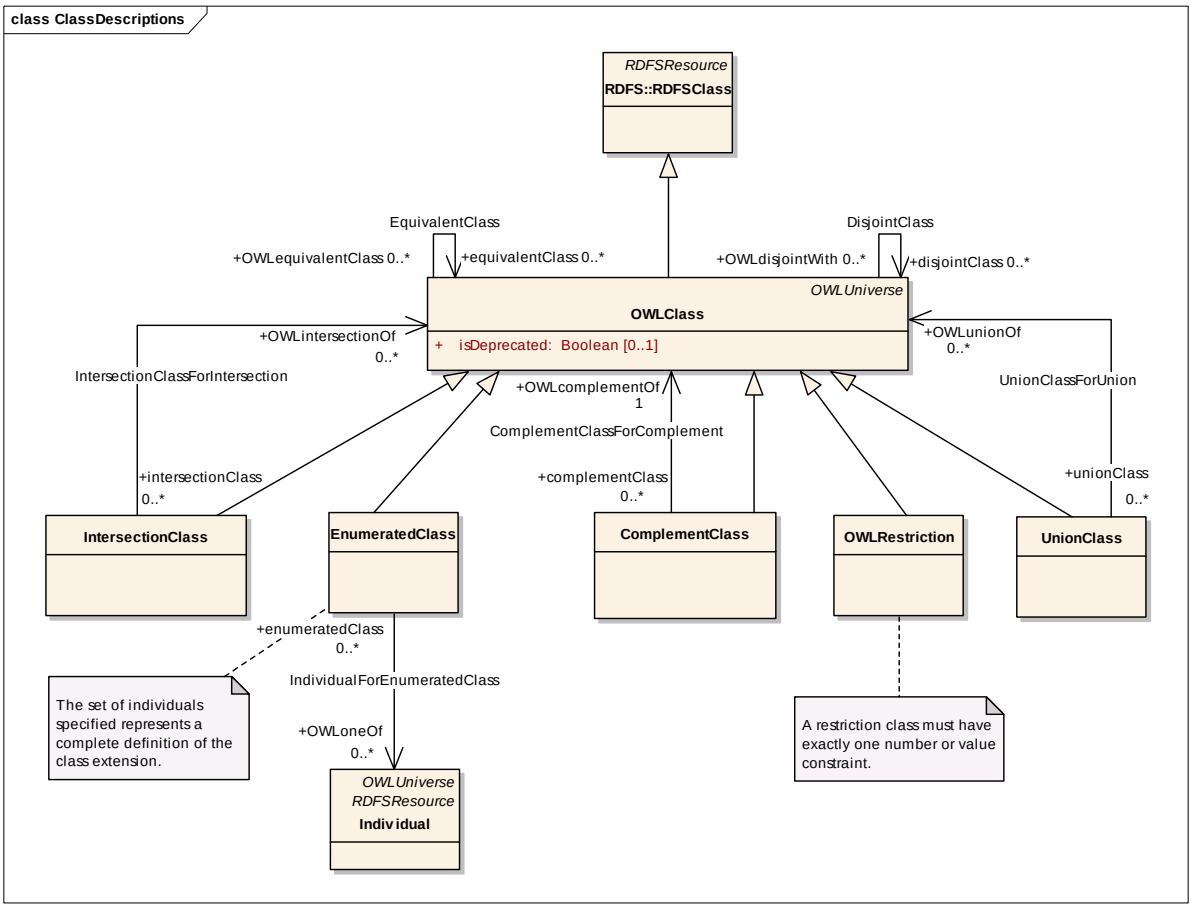



Figure: 23

**Datatypes** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 15.08.2006
*Last Modified:* 18.09.2006
*Version:* 1.0. *Locked:* False
*GUID:* {3E03A875-92FA-420a-8555-B9D3DDD316BF}

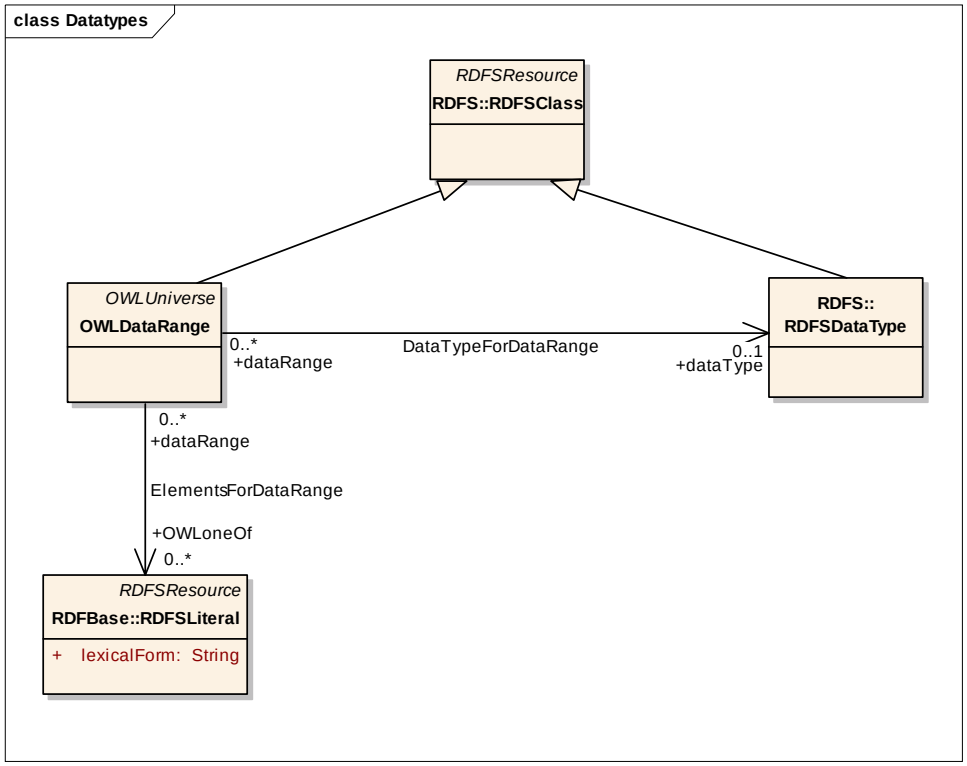



Figure: 24

**Individuals** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 15.08.2006
*Last Modified:* 18.09.2006
*Version:* 1.0. *Locked:* False
*GUID:* {151A5C6C-FE90-4277-9D2C-B966BDD752EB}

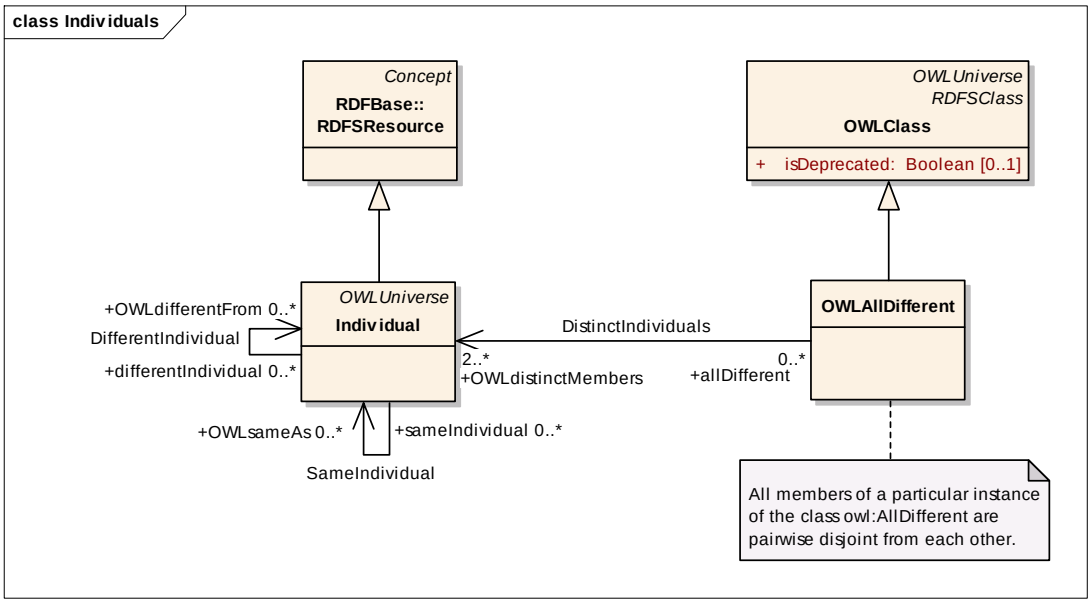



Figure: 25

**OWLOntology** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 11.08.2006
*Last Modified:* 18.09.2006
*Version:* 1.0. *Locked:* False
*GUID:* {3B5C578C-C98A-4ae8-9988-71E37C8F450B}

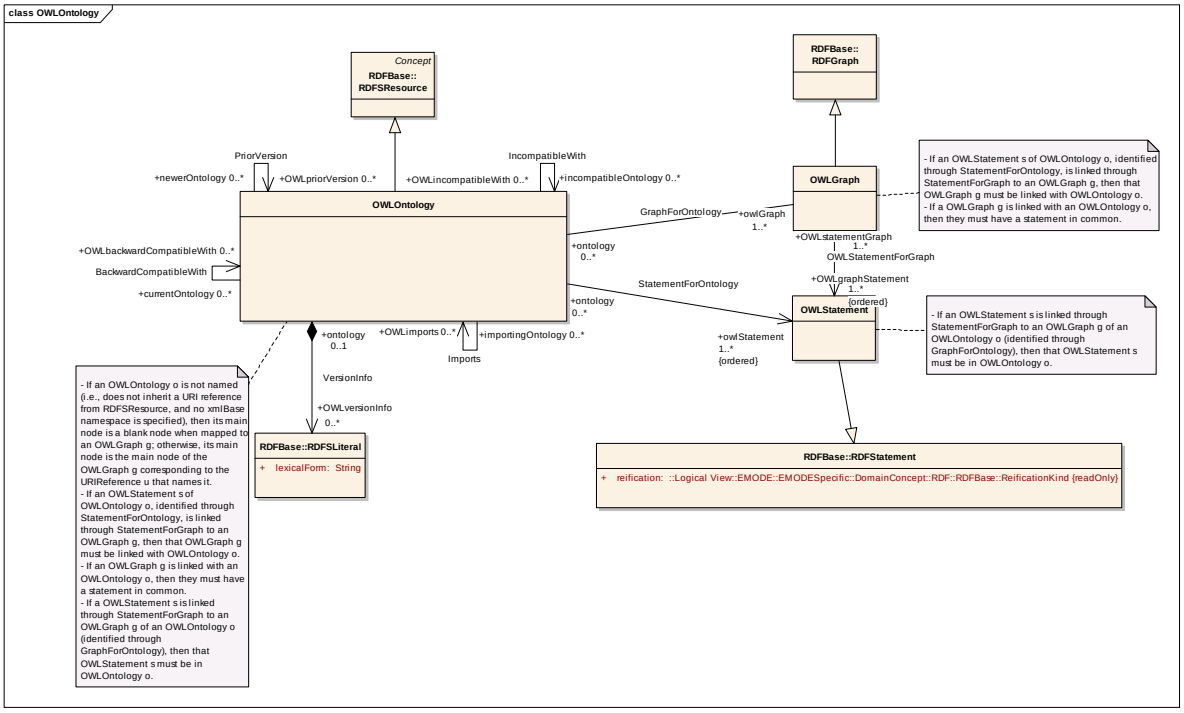



Figure: 26

**OWLProperties** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 15.08.2006
*Last Modified:* 18.09.2006
*Version:* 1.0. *Locked:* False
*GUID:* {CA51AF23-8B95-4bd5-A4E0-AB0A545880AE}

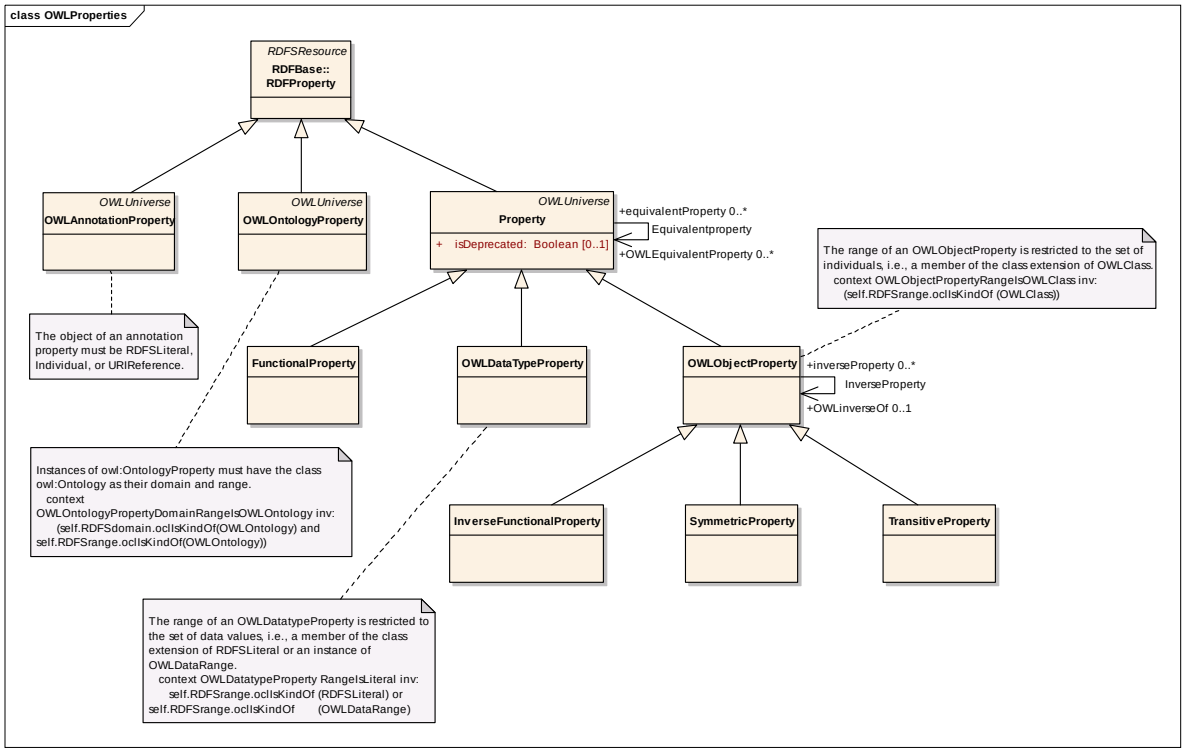



Figure: 27

**OWLRestrictions** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 14.08.2006
*Last Modified:* 18.09.2006
*Version:* 1.0. *Locked:* False
*GUID:* {92B25DF0-CEA9-4750-A150-A3043EF8E53C}

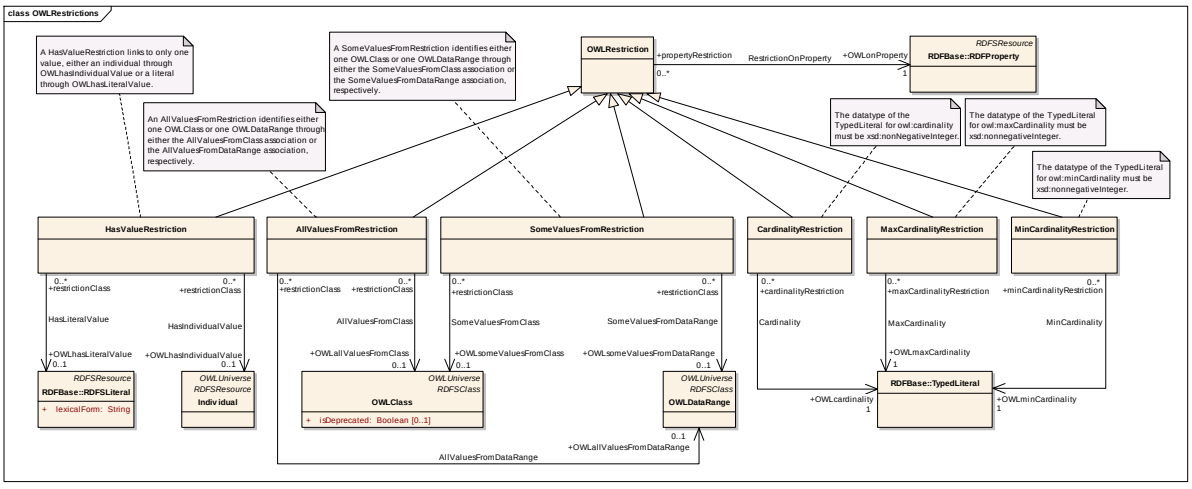



Figure: 28

**OWLUniverse** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 28.08.2006
*Last Modified:* 18.09.2006

*Version:* 1.0. *Locked:* False
*GUID:* {18BFF4A0-EB1D-4fd5-8EA9-3B1BDEAD128C}

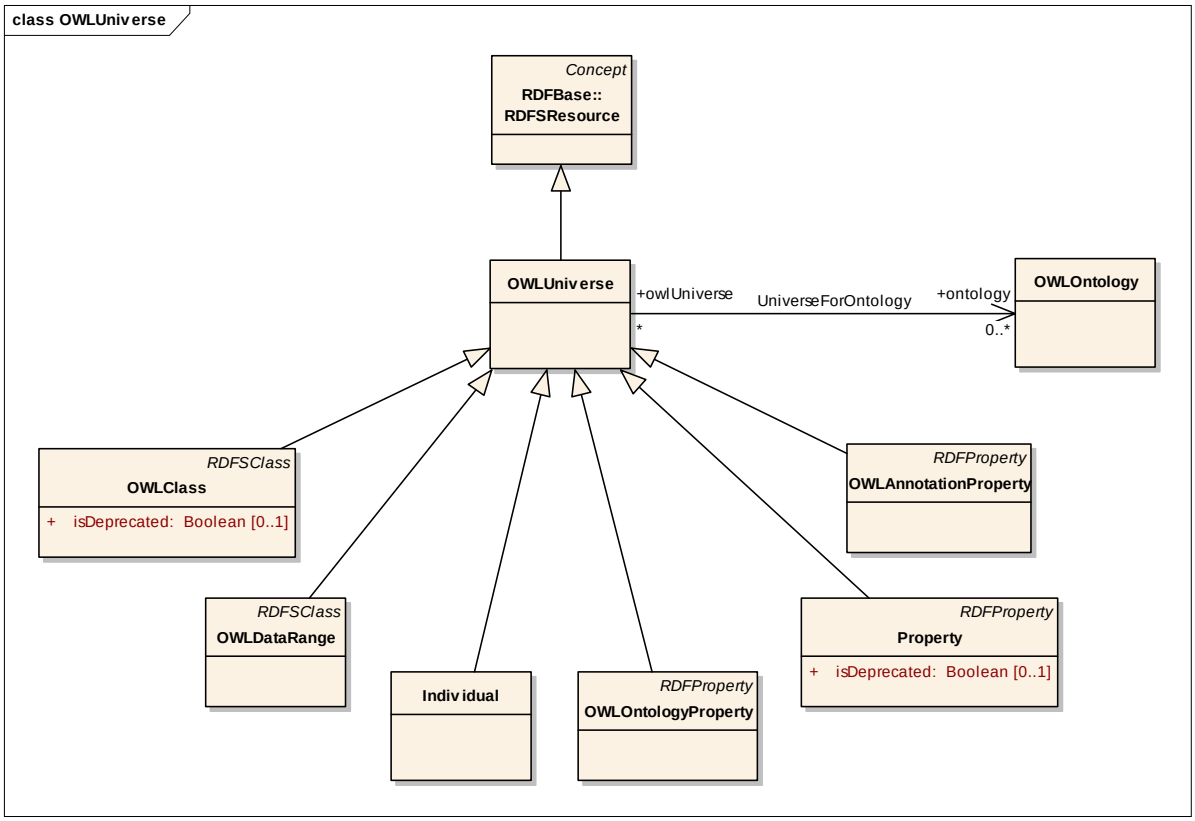



Figure: 29

## AllValuesFromRestriction

*Type:* **Class** **OWLRestriction**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* OWLBase *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 18.09.2006.
*GUID:* {36F2683E-7E1B-44c2-8D8F-21354E831A54}

An AllValuesFromRestriction describes a class for which all values of the property under consideration are either members of the class extension of the class description or are data values within the specified data range. In other words, it defines a class of individuals x for which holds that if the pair (x, y) is an instance of P (the property concerned), then y should be an instance of the class description or a value in the data range, respectively.
Constraints:
An AllValuesFromRestriction identifies either one OWLClass or one OWLDataRange through either the AllValuesFromClass association or the AllValuesFromDataRange association, respectively.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>AllValuesFromRestriction | Public<br>OWLRestriction | |
| **Association**<br>AllValuesFromDataRange<br>Source -> Destination | Public restrictionClass links a data range to an owl:allValuesFrom restriction for which it provides the range (or set of values)<br>AllValuesFromRestriction | Public<br>OWLallValuesFromDataRange links the restriction class to the data range containing all of the data values in its range<br>OWLDataRange | |
| **Association**<br>AllValuesFromClass<br>Source -> Destination | Public restrictionClass<br>AllValuesFromRestriction | Public<br>OWLallValuesFromClass links the restriction class to the class description containing all of the individuals in its range<br>OWLClass | |
| **NoteLink** | Public<br>AllValuesFromRestriction | Public<br>Note | |
| **NoteLink** | Public<br>AllValuesFromRestriction | Public<br>Note | |

## CardinalityRestriction

*Type:* **Class** **OWLRestriction**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* OWLBase *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 28.08.2006.
*GUID:* {AF19BD37-03AD-46a5-A8D6-ECACE4CE15D5}

The cardinality constraint owl:cardinality is a built-in OWL property that links a restriction class to a data value belonging to the range of the XML Schema datatype xsd:nonNegativeInteger. A restriction containing an owl:cardinality constraint describes a class of all individuals that have exactly N semantically distinct values (individuals or data values) for the property concerned, where N is the value of the cardinality constraint. Syntactically, the cardinality constraint is represented as an RDF property element with the corresponding rdf:datatype attribute.
Constraints:
- The datatype of the TypedLiteral for owl:cardinality must be xsd:nonNegativeInteger.

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink** | Public<br>CardinalityRestriction | Public<br>Note | |
| **Generalization**<br>Source -> Destination | Public<br>CardinalityRestriction | Public<br>OWLRestriction | |
| **Association** Cardinality<br>Source -> Destination | Public<br>cardinalityRestriction links an OWL restriction class to a cardinality constraint<br>CardinalityRestriction | Public OWLcardinality links a property to the cardinality of its range<br>TypedLiteral | |

## ComplementClass

*Type:* **Class** **OWLClass**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* OWLBase *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 24.08.2006.
*GUID:* {018C8E43-5155-4809-BDDF-AC9D714D40E0}

An owl:complementOf statement describes a class for which the class extension contains exactly those individuals that do not belong to the class extension of the class description that is the object of the statement. It is analogous to logical negation: the class extension consists of those individuals that are NOT members of the class extension of the complement class.
Constraints:
none

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>ComplementClassForComplement<br>Source -> Destination | Public<br>complementClass links a class to another class defined as its set complement.<br>ComplementClass | Public<br>OWLcomplementOf links a class to its set complement<br>OWLClass | |
| **Generalization**<br>Source -> Destination | Public<br>ComplementClass | Public<br>OWLClass | |

## EnumeratedClass

*Type:* **Class** **OWLClass**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* OWLBase *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 24.08.2006.
*GUID:* {3158C434-DBD9-4a3b-AEBB-759A50B099AF}

A class description of the “enumeration” kind is defined with the owl:oneOf property. The value of this built-in OWL property must be a list of individuals that are the instances of the class. This enables a class to be described by exhaustively enumerating its instances. The class extension of a class described with owl:oneOf contains exactly the enumerated individuals, no more, no less. The list of individuals is typically represented with the help of the RDF construct rdf:parseType="Collection", which provides a convenient shorthand for writing down a set of list elements.
Constraints:
The set of individuals specified represents a complete definition of the class extension.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>IndividualForEnumeratedClass<br>Source -> Destination | Public enumeratedClass links an individual to zero or more enumerated classes of which it is a member<br>EnumeratedClass | Public OWLoneOf links a class to the list of individuals that are its instances<br>Individual | |
| **Generalization**<br>Source -> Destination | Public<br>EnumeratedClass | Public<br>OWLClass | |
| **NoteLink** | Public<br>Note | Public<br>EnumeratedClass | |

## FunctionalProperty

*Type:* **Class** **Property**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* OWLBase *Keywords:*
*Detail:* *Created on* 15.08.2006. *Last modified on* 28.08.2006.
*GUID:* {5D0B22BA-0E59-4ef3-BB3D-D61FE84E6926}

A functional property is a property that can have only one (unique) value y for each instance x, i.e. there cannot be two distinct values y1 and y2 such that the pairs (x, y1) and (x, y2) are both instances of this property. Both object properties and datatype properties can be declared as "functional". For this purpose, OWL defines the built-in class owl:FunctionalProperty as a special subclass of the RDF class rdf:Property.
Constraints:
none

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>FunctionalProperty | Public<br>Property | |

## HasValueRestriction

*Type:* **Class** **OWLRestriction**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* OWLBase *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 18.09.2006.
*GUID:* {F6947B2F-7047-4ef1-872D-EBE96D06F956}

A HasValueRestriction describes a class of all individuals for which the property concerned has at least one value semantically equal to V (it may have other values as well).
Constraints:
A HasValueRestriction links to only one value, either an individual through OWLhasIndividualValue or a literal through OWLhasLiteralValue.

### *Custom Properties*

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink** | Public<br>HasValueRestriction | Public<br>Note | |
| **NoteLink** | Public<br>HasValueRestriction | Public<br>Note | |
| **Association**<br>HasIndividualValue<br>Source -> Destination | Public restrictionClass<br>HasValueRestriction | Public<br>OWLhasIndividualValue links the restriction class to the class description containing the individual that fills its value role<br>Individual | |
| **Association**<br>HasLiteralValue<br>Source -> Destination | Public restrictionClass<br>HasValueRestriction | Public<br>OWLhasLiteralValue links the restriction class to the literal that fills its value role<br>RDFSLiteral | |
| **Generalization**<br>Source -> Destination | Public<br>HasValueRestriction | Public<br>OWLRestriction | |

## Individual

*Type:* **Class** **OWLUniverse, RDFSResource**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* OWLBase *Keywords:*
*Detail:* *Created on* 15.08.2006. *Last modified on* 28.08.2006.
*GUID:* {8A4428E1-0D80-42d6-9243-3A9C2CCBA26A}

Individuals are defined with individual axioms (also called “facts”). Two types of facts are supported in OWL: (1) Facts about class membership and property values of individuals, and (2) Facts about individual identity. Many facts are statements that define class membership of individuals and property values of individuals; these can also refer to anonymous individuals.
Constraints:
none

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>IndividualForEnumeratedClass<br>Source -> Destination | Public enumeratedClass links an individual to zero or more enumerated classes of which it is a member<br>EnumeratedClass | Public OWLoneOf links a class to the list of individuals that are its instances<br>Individual | |
| **Association**<br>SameIndividual<br>Source -> Destination | Public sameIndividual<br>Individual | Public OWLsameAs<br>Individual | |
| **Association**<br>DistinctIndividuals<br>Source -> Destination | Public allDifferent<br>OWLAllDifferent | Public OWLdistinctMembers specifies that a particular set of individuals are distinct from one another.<br>Individual | |
| **Generalization**<br>Source -> Destination | Public<br>Individual | Public<br>OWLUniverse | |
| **Association**<br>DifferentIndividual<br>Source -> Destination | Public differentIndividual<br>Individual | Public OWLdifferentFrom<br>Individual | |
| **Generalization**<br>Source -> Destination | Public<br>Individual | Public<br>RDFSResource | |
| **Association**<br>HasIndividualValue<br>Source -> Destination | Public restrictionClass<br>HasValueRestriction | Public OWLhasIndividualValue links the restriction class to the class description containing the individual that fills its value role<br>Individual | |

## IntersectionClass

*Type:* **Class** **OWLClass**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* OWLBase *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 24.08.2006.
*GUID:* {D4C9EB96-0211-4a02-B2BB-760618FD1934}

The owl:intersectionOf property links a class to a list of class descriptions. An owl:intersectionOf statement

describes a class for which the class extension contains precisely those individuals that are members of the class extension of all class descriptions in the list.
Constraints:
none

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>IntersectionClassForIntersection<br>Source -> Destination | Public intersectionClass<br>links a class to zero or more intersections that it participates in<br>IntersectionClass | Public<br>OWLintersectionOf<br>links an intersection class to the classes participating in the intersection.<br>OWLClass | |
| **Generalization**<br>Source -> Destination | Public<br>IntersectionClass | Public<br>OWLClass | |

## InverseFunctionalProperty

*Type:* **Class** **OWLObjectProperty**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* OWLBase *Keywords:*
*Detail:* *Created on* 15.08.2006. *Last modified on* 28.08.2006.
*GUID:* {B2B332C7-459F-452a-A98A-586D92FA1A94}

If a property is declared to be inverse-functional, then the object of a property statement uniquely determines the subject (some individual). More formally, if we state that P is an owl:InverseFunctionalProperty, then this asserts that a value y can only be the value of P for a single instance x, i.e. there cannot be two distinct instances x1 and x2 such that both pairs (x1, y) and (x2, y) are instances of P.
Syntactically, an inverse-functional property axiom is specified by declaring the property to be an instance of the built-in OWL class owl:InverseFunctionalProperty, which is a subclass of the OWL class owl:ObjectProperty.
Inverse-functional properties resemble the notion of a key in databases.
Constraints:
none

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>InverseFunctionalProperty | Public<br>OWLObjectProperty | |

## MaxCardinalityRestriction

*Type:* **Class** **OWLRestriction**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* OWLBase *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 18.09.2006.
*GUID:* {1BD79CD1-A632-4909-A6A9-D5F4B279459F}

The cardinality constraint owl:maxCardinality is a built-in OWL property that links a restriction class to a data value belonging to the value space of the XML Schema datatype xsd:nonNegativeInteger. A restriction containing an owl:maxCardinality constraint describes a class of all individuals that have at most N semantically distinct values (individuals or data values) for the property concerned, where N is the value of the cardinality constraint. Syntactically, the cardinality constraint is represented as an RDF property element with the corresponding rdf:datatype attribute.
Constraints:
- The datatype of the TypedLiteral for owl:maxCardinality must be xsd:nonnegativeInteger.

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>MaxCardinalityRestriction | Public<br>OWLRestriction | |
| **Association**<br>MaxCardinality<br>Source -> Destination | Public<br>maxCardinalityRestriction links an OWL restriction class to a maximum cardinality constraint MaxCardinalityRestriction | Public<br>OWLmaxCardinality links a property to the maximum cardinality of its range TypedLiteral | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink** | Public<br>MaxCardinalityRestriction | Public<br>Note | |

## MinCardinalityRestriction

*Type:* **Class** **OWLRestriction**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* OWLBase *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 28.08.2006.
*GUID:* {1EAFB7D9-0E2F-4cf2-988E-0CF415FD727F}

The cardinality constraint owl:minCardinality is a built-in OWL property that links a restriction class to a data value belonging to the value space of the XML Schema datatype xsd:nonNegativeInteger. A restriction containing an owl:minCardinality constraint describes a class of all individuals that have at least N semantically distinct values (individuals or data values) for the property concerned, where N is the value of the cardinality constraint. Syntactically, the cardinality constraint is represented as an RDF property element with the corresponding rdf:datatype attribute.
Constraints:
- The datatype of the TypedLiteral for owl:minCardinality must be xsd:nonnegativeInteger.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>MinCardinality<br>Source -> Destination | Public<br>minCardinalityRestriction links an OWL restriction class to a minimum cardinality constraint<br>MinCardinalityRestriction | Public<br>OWLminCardinality links a property to the minimum cardinality of its range<br>TypedLiteral | |
| **Generalization**<br>Source -> Destination | Public<br>MinCardinalityRestriction | Public<br>OWLRestriction | |
| **NoteLink** | Public<br>MinCardinalityRestriction | Public<br>Note | |

## OWLAllDifferent

*Type:* **Class** **OWLClass**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* OWLBase *Keywords:*
*Detail:* *Created on* 15.08.2006. *Last modified on* 28.08.2006.
*GUID:* {C041766A-2C07-4950-A3C3-D609F004735F}

For ontologies in which the unique-names assumption holds, the use of owl:differentFrom is likely to lead to a large number of statements, as all individuals have to be declared pairwise disjoint. For such situations OWL provides a special idiom in the form of the construct owl:AllDifferent. owl:AllDifferent is a special built-in OWL class, for which the property owl:distinctMembers is defined, which links an instance of owl:AllDifferent to a list of individuals. The intended meaning of such a statement is that all individuals in the list are all different from each other.
Note that instances of owl:AllDifferent are blank nodes.
Constraints:
- All members of a particular instance of the class owl:AllDifferent are pairwise disjoint from each other.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>OWLAllDifferent | Public<br>OWLClass | |
| **Association**<br>DistinctIndividuals<br>Source -> Destination | Public allDifferent<br>OWLAllDifferent | Public<br>OWLdistinctMembers<br>specifies that a particular set of individuals<br>are distinct from one another.<br>Individual | |
| **NoteLink** | Public<br>OWLAllDifferent | Public<br>Note | |

## OWLAnnotationProperty

*Type:* **Class** **OWLUniverse, RDFProperty**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* OWLBase *Keywords:*
*Detail:* *Created on* 15.08.2006. *Last modified on* 18.09.2006.
*GUID:* {D153223D-2D5F-4b90-856A-C8E11B13DA52}

OWL Full does not put any constraints on annotations in an ontology. OWL DL allows annotations on classes, properties, individuals and ontology headers, as outlined in Section 11.8.1, “Classes in OWL DL.
Five annotation properties are predefined by OWL, namely:
• owl:versionInfo
• rdfs:label
• rdfs:comment
• rdfs:seeAlso
• rdfs:isDefinedBy
In addition to the associations given in the metamodel representing these properties, they are defined in the model library provided in Appendix A
Constraints:
The object of an annotation property must be RDFSLiteral, Individual, or URIReference.

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink** | Public<br>Note | Public<br>OWLAnnotationProperty | |
| **NoteLink** | Public<br>OWLAnnotationProperty | Public<br>Note | |
| **Generalization**<br>Source -> Destination | Public<br>OWLAnnotationProperty | Public<br>RDFProperty | |
| **Generalization**<br>Source -> Destination | Public<br>OWLAnnotationProperty | Public<br>OWLUniverse | |

## OWLClass

*Type:* **Class** **OWLUniverse, RDFSClass**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* OWLBase *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 24.08.2006.
*GUID:* {8C34711B-788D-4429-84D8-6BE05EC6787E}

A class description describes an OWL class, either by a class name or by specifying the class extension of an unnamed anonymous class.
Constraints:
none

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink** | Public<br>OWLClass | Public<br>Note | |
| **Association**<br>UnionClassForUnion<br>Source -> Destination | Public unionClass links a class to zero or more unions that it participates in.<br>UnionClass | Public OWLunionOf links a union class to the class descriptions that participate in the union<br>OWLClass | |
| **Generalization**<br>Source -> Destination | Public<br>UnionClass | Public<br>OWLClass | |
| **Generalization**<br>Source -> Destination | Public<br>EnumeratedClass | Public<br>OWLClass | |
| **Association**<br>ComplementClassForComplement<br>Source -> Destination | Public complementClass links a class to another class defined as its set complement.<br>ComplementClass | Public OWLcomplementOf links a class to its set complement<br>OWLClass | |
| **Generalization**<br>Source -> Destination | Public<br>ComplementClass | Public<br>OWLClass | |
| **Association**<br>AllValuesFromClass<br>Source -> Destination | Public restrictionClass AllValuesFromRestriction | Public OWLallValuesFromClass links the restriction class to the class description containing all of the individuals in its range<br>OWLClass | |
| **NoteLink**<br>Source -> Destination | Public<br>Note | Public<br>OWLClass | |
| **Generalization**<br>Source -> Destination | Public<br>Situation | Public<br>OWLClass | |
| **Generalization** | Public | Public | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| Source -> Destination | ManipulationConcept | OWLClass | |
| **Association**<br>IntersectionClassForIntersection<br>Source -> Destination | Public intersectionClass links a class to zero or more intersections that it participates in<br>IntersectionClass | Public OWLintersectionOf links an intersection class to the classes participating in the intersection.<br>OWLClass | |
| **Generalization**<br>Source -> Destination | Public<br>IntersectionClass | Public<br>OWLClass | |
| **Generalization**<br>Source -> Destination | Public<br>OWLRestriction | Public<br>OWLClass | |
| **Association**<br>SomeValuesFromClass<br>Source -> Destination | Public restrictionClass SomeValuesFromRestriction | Public OWLsomeValuesFromClass links the restriction class to a class description containing at least one of the values in its range<br>OWLClass | |
| **Generalization**<br>Source -> Destination | Public<br>OWLAllDifferent | Public<br>OWLClass | |
| **Association**<br>EquivalentClass<br>Source -> Destination | Public equivalentClass<br>OWLClass | Public<br>OWLequivalentClass<br>OWLClass | links a class to zero or more classes that it is considered equivalent to. |
| **Association**<br>DisjointClass<br>Source -> Destination | Public disjointClass<br>OWLClass | Public<br>OWLdisjointWith<br>OWLClass | links a class to zero or more classes that it is disjoint with. |
| **Generalization**<br>Source -> Destination | Public<br>OWLClass | Public<br>OWLUniverse | |
| **Generalization**<br>Source -> Destination | Public<br>OWLClass | Public<br>RDFSClass | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **isDeprecated** Boolean<br>Public<br><br>[0..1] | indicates that use of this class description is deprecated. | *Default:*<br><br>[isStatic = false ] |

## OWLDataRange

*Type:* **Class** **OWLUniverse, RDFSClass**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* OWLBase *Keywords:*
*Detail:* *Created on* 15.08.2006. *Last modified on* 28.08.2006.
*GUID:* {EB21D2D0-01EC-43a6-8A23-03361BFC66C2}

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>AllValuesFromDataRange<br>Source -> Destination | Public restrictionClass links a data range to an owl:allValuesFrom restriction for which it provides the range (or set of values)<br>AllValuesFromRestriction | Public OWLallValuesFromDataRange links the restriction class to the data range containing all of the data values in its range<br>OWLDataRange | |
| **Association**<br>SomeValuesFromDataRange<br>Source -> Destination | Public restrictionClass links a class to an owl:someValuesFrom restriction for which it provides the range (or set of values)<br>SomeValuesFromRestriction | Public OWLsomeValuesFromDataRange links the restriction class to a data range containing at least one of the data values in its range<br>OWLDataRange | |
| **Association**<br>ElementsForDataRange<br>Source -> Destination | Public dataRange<br>OWLDataRange | Public OWLoneOf<br>RDFSLiteral | |
| **Association**<br>DataTypeForDataRange<br>Source -> Destination | Public dataRange<br>OWLDataRange | Public dataType<br>RDFSDataType | |
| **Generalization**<br>Source -> Destination | Public<br>OWLDataRange | Public<br>RDFSClass | |
| **Generalization**<br>Source -> Destination | Public<br>OWLDataRange | Public<br>OWLUniverse | |

## OWLDataTypeProperty

*Type:* **Class** **Property**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* OWLBase *Keywords:*
*Detail:* *Created on* 15.08.2006. *Last modified on* 28.08.2006.
*GUID:* {6575B0CA-0725-4611-9E58-46334C670083}

Datatype properties are used to link individuals to data values. A datatype property is defined as an instance of the built-in OWL class owl:DatatypeProperty.
Constraints:
The range of an OWLDatatypeProperty is restricted to the set of data values, i.e., a member of the class extension of RDFSLiteral or an instance of OWLDataRange.

context OWLDatatypeProperty RangeIsLiteral inv:
self.RDFSrange.oclIsKindOf (RDFSLiteral) or self.RDFSrange.oclIsKindOf (OWLDataRange)

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink** | Public<br>OWLDataTypeProperty | Public<br>Note | |
| **NoteLink** | Public<br>Note | Public<br>OWLDataTypeProperty | |
| **Generalization**<br>Source -> Destination | Public<br>OWLDataTypeProperty | Public<br>Property | |

## OWLGraph

*Type:* **Class** **RDFGraph**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* OWLBase *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 24.08.2006.
*GUID:* {85AB7219-3907-4698-A823-92F39819B90C}

An RDF graph is a set of RDF triples. The set of nodes of an RDF graph is the set of subjects and objects of triples in the graph. Not all RDF graphs are valid OWL graphs, however.
The OWLGraph class specifies the subset of RDF graphs that are valid OWL graphs.
Constraints:
- If an OWLStatement s of OWLOntology o, identified through StatementForOntology, is linked through StatementForGraph to an OWLGraph g, then that OWLGraph g must be linked with OWLOntology o.

- If a OWLGraph g is linked with an OWLOntology o, then they must have a statement in common.

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink** | Public<br>OWLGraph | Public<br>Note | |
| **Generalization**<br>Source -> Destination | Public<br>OWLGraph | Public<br>RDFGraph | |
| **Association**<br>OWLStatementForGraph<br>Source -> Destination | Public<br>OWLstatementGraph<br>links an OWL graph to the set of triples it contains<br>OWLGraph | Public<br>OWLgraphStatement<br>links an OWL graph to the ordered set of triples it contains<br>OWLStatement | Due to generation/compilation issues this association had to be renamed from "/StatementForGraph" - as well as its association ends ("/owlGraph" and "/owlStatement") |
| **Association**<br>GraphForOntology<br>Unspecified | Public ontology relates zero or more ontologies to the graphs they contain<br>OWLOntology | Public owlGraph links an ontology to one or more graphs containing the statements that define it<br>OWLGraph | |

## OWLObjectProperty

*Type:* **Class** **Property**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* OWLBase *Keywords:*
*Detail:* *Created on* 15.08.2006. *Last modified on* 28.08.2006.
*GUID:* {F3FB066F-B482-4d61-8BEB-8B9D1F403BFD}

An object property relates an individual to other individuals. An object property is defined as an instance of the builtin OWL class owl:ObjectProperty.
Constraints:
The range of an OWLObjectProperty is restricted to the set of individuals, i.e., a member of the class extension of OWLClass.

```
context OWLObjectPropertyRangeIsOWLClass inv:
  (self.RDFSrange.oclIsKindOf (OWLClass))
```

***Custom Properties***

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink** | Public<br>OWLObjectProperty | Public<br>Note | |
| **Generalization**<br>Source -> Destination | Public<br>TransitiveProperty | Public<br>OWLObjectProperty | |
| **Generalization**<br>Source -> Destination | Public<br>InverseFunctionalProperty | Public<br>OWLObjectProperty | |
| **Generalization**<br>Source -> Destination | Public<br>OWLObjectProperty | Public<br>Property | |
| **Association**<br>InverseProperty<br>Source -> Destination | Public inverseProperty<br>OWLObjectProperty | Public OWLinverseOf<br>OWLObjectProperty | |
| **Generalization**<br>Source -> Destination | Public<br>SymmetricProperty | Public<br>OWLObjectProperty | |
| **NoteLink** | Public<br>OWLObjectProperty | Public<br>Note | |

## OWLOntology

*Type:* **Class** **RDFSResource**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* OWLBase *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 18.09.2006.
*GUID:* {5F490F27-F24C-4e98-AB65-5C40C63E80CB}

An OWL ontology contains a sequence of annotations, axioms, and facts. Annotations on OWL ontologies can be used to record authorship and other information associated with an ontology, including imports references to other ontologies. The main content of OWLOntology is carried in its axioms and facts, which provide information about classes, properties, and individuals in the ontology.
Names of ontologies are used in the abstract syntax to carry the meaning associated with publishing an ontology on the Web. The intent is that the name of an ontology in the abstract syntax is the URI where it can be found, although this is not part of the formal meaning of OWL. Imports annotations, in effect, are directives to retrieve a Web document and treat it as an OWL ontology.
Constraints:
- If an OWLOntology o is not named (i.e., does not inherit a URI reference from RDFSResource, and no xmlBase namespace is specified), then its main node is a blank node when mapped to an OWLGraph g; otherwise, its main node is the main node of the OWLGraph g corresponding to the URIReference u that names it.

- If an OWLStatement s of OWLOntology o, identified through StatementForOntology, is linked through StatementForGraph to an OWLGraph g, then that OWLGraph g must be linked with OWLOntology o.
- If an OWLGraph g is linked with an OWLOntology o, then they must have a statement in common.
- If a OWLStatement s is linked through StatementForGraph to an OWLGraph g of an OWLOntology o (identified through GraphForOntology), then that OWLStatement s must be in OWLOntology o.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink** | Public<br>Note | Public<br>OWLOntology | |
| **Association**<br>BackwardCompatibleWith<br>Source -> Destination | Public currentOntology<br>OWLOntology | Public<br>OWLbackwardCompatibleWith<br>OWLOntology | links an ontology to zero or more other ontologies it has backwards compatibility with. |
| **Association**<br>IncompatibleWith<br>Source -> Destination | Public<br>incompatibleOntology<br>OWLOntology | Public<br>OWLincompatibleWith<br>OWLOntology | links an ontology to zero or more other ontologies it is not compatible with (typically used to say that a newer version of a particular ontology introduces destructive changes from a prior version) |
| **Association**<br>StatementForOntology<br>Source -> Destination | Public ontology relates zero or more ontologies to the statements they contain<br>OWLOntology | Public owlStatement links an ontology to one or more ordered statements it contains<br>OWLStatement | |
| **Generalization**<br>Source -> Destination | Public<br>OWLOntology | Public<br>RDFSResource | |
| **Association** PriorVersion<br>Source -> Destination | Public newerOntology<br>OWLOntology | Public<br>OWLpriorVersion<br>OWLOntology | links an ontology to zero or more other ontologies that are earlier versions of the current ontology. |
| **Association** Imports<br>Source -> Destination | Public<br>importingOntology<br>OWLOntology | Public OWLimports<br>OWLOntology | links an ontology to zero or more other ontologies it imports |
| **Association**<br>UniverseForOntology<br>Source -> Destination | Public owlUniverse specifies an OWL universe(s) for this ontology | Public ontology specifies one or more OWLOntology that members of this | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| | OWLUniverse | universe are associated with/describe OWLOntology | |
| **Aggregation** VersionInfo Destination -> Source | Public OWLversionInfo links an ontology to an annotation providing version information RDFSLiteral | Public ontology links an owl:versionInfo annotation to the ontology it describes OWLOntology | |
| **Association** GraphForOntology Unspecified | Public ontology relates zero or more ontologies to the graphs they contain OWLOntology | Public owlGraph links an ontology to one or more graphs containing the statements that define it OWLGraph | |

## OWLOntologyProperty

*Type:* **Class** **OWLUniverse, RDFProperty**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* OWLBase *Keywords:*
*Detail:* *Created on* 15.08.2006. *Last modified on* 28.08.2006.
*GUID:* {9B47C862-2B97-402d-9707-E6D267CA2D04}

A document describing an ontology typically contains information about the ontology itself. An ontology is a resource, so it may be described using properties from the OWL and other namespaces. An ontology property is essentially an annotation property that allows us to say things about the current and other ontologies, such as indicating that a particular ontology is a prior version of the current ontology.
Several ontology properties are predefined by OWL, namely:
• owl:imports
• owl:priorVersion
• owl:backwardCompatibleWith
• owl:incompatibleWith
Constraints:
Instances of owl:OntologyProperty must have the class owl:Ontology as their domain and range.

```
context OWLOntologyPropertyDomainRangeIsOWLOntology inv:
  (self.RDFSdomain.oclIsKindOf(OWLOntology) and      self.RDFSrange.oclIsKindOf(OWLOntology))
```

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink** | Public | Public | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| | OWLOntologyProperty | Note | |
| **NoteLink** | Public<br>OWLOntologyProperty | Public<br>Note | |
| **Generalization**<br>Source -> Destination | Public<br>OWLOntologyProperty | Public<br>RDFProperty | |
| **Generalization**<br>Source -> Destination | Public<br>OWLOntologyProperty | Public<br>OWLUniverse | |

## OWLRestriction

*Type:* **Class** **OWLClass**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* OWLBase *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 24.08.2006.
*GUID:* {FE76A86A-1DB0-4105-9514-7A2412A52CAB}

The class owl:Restriction is defined as a subclass of owl:Class. A restriction class should have exactly one triple linking the restriction to a particular property, using the owl:onProperty property. The restriction class should also have exactly one triple that represents the value or cardinality constraint on the property under consideration, e.g., that the cardinality of the property is exactly 1.
Property restrictions can be applied both to datatype properties (properties for which the value is a data literal) and object properties (properties for which the value is an individual).
Constraints:
A restriction class must have exactly one number or value constraint.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = true.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink** | Public<br>OWLRestriction | Public<br>Note | |
| **Generalization**<br>Source -> Destination | Public<br>AllValuesFromRestriction | Public<br>OWLRestriction | |
| **Generalization**<br>Source -> Destination | Public<br>MinCardinalityRestriction | Public<br>OWLRestriction | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>MaxCardinalityRestriction | Public<br>OWLRestriction | |
| **Generalization**<br>Source -> Destination | Public<br>OWLRestriction | Public<br>OWLClass | |
| **Association**<br>RestrictionOnProperty<br>Source -> Destination | Public<br>propertyRestriction links an OWL restriction class to the property it constrains<br>OWLRestriction | Public OWLonProperty<br>RDFProperty | |
| **Generalization**<br>Source -> Destination | Public<br>HasValueRestriction | Public<br>OWLRestriction | |
| **Generalization**<br>Source -> Destination | Public<br>SomeValuesFromRestriction | Public<br>OWLRestriction | |
| **Generalization**<br>Source -> Destination | Public<br>CardinalityRestriction | Public<br>OWLRestriction | |

## OWLStatement

*Type:* **Class** **RDFStatement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* OWLBase *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 24.08.2006.
*GUID:* {FD5C8900-4017-4d14-B782-FF6148FF4EE3}

An RDF statement represents the notion of an expression, or subgraph, containing a subject, predicate and object in RDF. Not all RDF statements are valid OWL statements, however. The OWLStatement class is intended to reflect the subset of RDF statements that are valid OWL statements.
Constraints:
- If an OWLStatement s is linked through StatementForGraph to an OWLGraph g of an OWLOntology o (identified through GraphForOntology), then that OWLStatement s must be in OWLOntology o.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>StatementForOntology<br>Source -> Destination | Public ontology relates zero or more ontologies to the statements they contain<br>OWLOntology | Public owlStatement links an ontology to one or more ordered statements it contains<br>OWLStatement | |
| **Association**<br>OWLStatementForGraph<br>Source -> Destination | Public<br>OWLstatementGraph links an OWL graph to the set of triples it contains<br>OWLGraph | Public<br>OWLgraphStatement links an OWL graph to the ordered set of triples it contains<br>OWLStatement | Due to generation/compilation issues this association had to be renamed from "/StatementForGraph" - as well as its association ends ("/owlGraph" and "/owlStatement") |
| **Generalization**<br>Source -> Destination | Public<br>OWLStatement | Public<br>RDFStatement | |
| **NoteLink** | Public<br>OWLStatement | Public<br>Note | |

## OWLUniverse

*Type:* **Class** **RDFSResource**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* OWLBase *Keywords:*
*Detail:* *Created on* 28.08.2006. *Last modified on* 28.08.2006.
*GUID:* {B88916CE-36E4-4f60-B5A7-D6BE172F492D}

This class is intended to simplify packaging / mapping requirements for cases where the ability to determine the set of classes, individuals, and properties that together comprise a particular OWL ontology is required.
Constraints:
none

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink** | Public<br>Note | Public<br>OWLUniverse | |
| **Generalization**<br>Source -> Destination | Public<br>OWLOntologyProperty | Public<br>OWLUniverse | |
| **Generalization** | Public | Public | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| Source -> Destination | OWLClass | OWLUniverse | |
| **Generalization**<br>Source -> Destination | Public<br>Individual | Public<br>OWLUniverse | |
| **Generalization**<br>Source -> Destination | Public<br>Property | Public<br>OWLUniverse | |
| **Association**<br>UniverseForOntology<br>Source -> Destination | Public owlUniverse specifies an OWL universe(s) for this ontology<br>OWLUniverse | Public ontology specifies one or more OWLOntology that members of this universe are associated with/describe<br>OWLOntology | |
| **Generalization**<br>Source -> Destination | Public<br>OWLDataRange | Public<br>OWLUniverse | |
| **Generalization**<br>Source -> Destination | Public<br>OWLAnnotationProperty | Public<br>OWLUniverse | |
| **Generalization**<br>Source -> Destination | Public<br>OWLUniverse | Public<br>RDFSResource | |

## Property

*Type:* **Class** **OWLUniverse, RDFProperty**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* OWLBase *Keywords:*
*Detail:* *Created on* 15.08.2006. *Last modified on* 28.08.2006.
*GUID:* {69E2567C-9346-40fb-9BB8-7E58C8561ABD}

Property is an abstract class that simplifies representation of property equivalence and deprecation, simplifies constraints for OWL DL and OWL Full, and facilitates mappings with other metamodels.
Constraints:
none

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>FunctionalProperty | Public<br>Property | |
| **Generalization**<br>Source -> Destination | Public<br>OWLObjectProperty | Public<br>Property | |
| **Generalization**<br>Source -> Destination | Public<br>Property | Public<br>OWLUniverse | |
| **Association**<br>Equivalentproperty<br>Source -> Destination | Public<br>equivalentProperty<br>Property | Public<br>OWLEquivalentProperty<br>Property | links a property to zero or more properties that it is considered equivalent to. |
| **Generalization**<br>Source -> Destination | Public<br>Property | Public<br>RDFProperty | |
| **Generalization**<br>Source -> Destination | Public<br>OWLDataTypeProperty | Public<br>Property | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **isDeprecated** Boolean<br>Public<br><br>[0..1] | indicates that use of this property is deprecated | *Default:*<br><br>[isStatic = false ] |

## SomeValuesFromRestriction

*Type:* **Class** **OWLRestriction**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* OWLBase *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 18.09.2006.
*GUID:* {F613BFF5-A549-47b1-AA5A-90FB4309B4F3}

A SomeValuesFromRestriction describes a class for which at least one value of the property under consideration is either a member of the class extension of the class description or is a data value within the specified data range. In other words, it defines a class of individuals x for which there is at least one y (either an instance of the class description or value in the data range) such that the pair (x, y) is an instance of P (the property concerned). This does not exclude that there are other instances (x, y') of P for which y' does not belong to the class description or data range.
Constraints:
A SomeValuesFromRestriction identifies either one OWLClass or one OWLDataRange through either the SomeValuesFromClass association or the SomeValuesFromDataRange association, respectively.

***Custom Properties***

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink** | Public<br>SomeValuesFromRestriction | Public<br>Note | |
| **Association**<br>SomeValuesFromClass<br>Source -> Destination | Public restrictionClass<br>SomeValuesFromRestriction | Public<br>OWLsomeValuesFromClass links the restriction class to a class description containing at least one of the values in its range<br>OWLClass | |
| **NoteLink** | Public<br>SomeValuesFromRestriction | Public<br>Note | |
| **Generalization**<br>Source -> Destination | Public<br>SomeValuesFromRestriction | Public<br>OWLRestriction | |
| **Association**<br>SomeValuesFromDataRange<br>Source -> Destination | Public restrictionClass links a class to an owl:someValuesFrom restriction for which it provides the range (or set of values)<br>SomeValuesFromRestriction | Public<br>OWLsomeValuesFromDataRange links the restriction class to a data range containing at least one of the data values in its range<br>OWLDataRange | |

## SymmetricProperty

*Type:* **Class** **OWLObjectProperty**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* OWLBase *Keywords:*
*Detail:* *Created on* 15.08.2006. *Last modified on* 28.08.2006.
*GUID:* {F24BA20C-5C79-4ec8-A650-DA27512AF014}

A symmetric property is a property for which holds that if the pair (x, y) is an instance of P, then the pair (y, x) is also an instance of P. Syntactically, a property is defined as symmetric by making it an instance of the built-in OWL class owl:SymmetricProperty, a subclass of owl:ObjectProperty.

Constraints:
none

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>SymmetricProperty | Public<br>OWLObjectProperty | |

## TransitiveProperty

*Type:* **Class** **OWLObjectProperty**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* OWLBase *Keywords:*
*Detail:* *Created on* 15.08.2006. *Last modified on* 28.08.2006.
*GUID:* {47A74715-C467-41da-9D38-04B6C0396D6E}

When one defines a property P to be a transitive property, this means that if a pair (x, y) is an instance of P, and the pair (y, z) is also instance of P, then we can infer the pair (x, z) is also an instance of P.
Syntactically, a property is defined as being transitive by making it an instance of the built-in OWL class owl:TransitiveProperty, which is defined as a subclass of owl:ObjectProperty.
Constraints:
none

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>TransitiveProperty | Public<br>OWLObjectProperty | |
| **NoteLink** | Public<br>TransitiveProperty | Public<br>Note | |

## UnionClass

*Type:* **Class** **OWLClass**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* OWLBase *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 24.08.2006.
*GUID:* {382CA003-EE6E-4c99-9999-87C1B338E1BE}

The owl:unionOf property links a class to a list of class descriptions. An owl:unionOf statement describes an anonymous class for which the class extension contains those individuals that occur in at least one of the class extensions of the class descriptions in the list.
Constraints:
none

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>UnionClassForUnion<br>Source -> Destination | Public unionClass links a class to zero or more unions that it participates in.<br>UnionClass | Public OWLunionOf links a union class to the class descriptions that participate in the union<br>OWLClass | |
| **Generalization**<br>Source -> Destination | Public<br>UnionClass | Public<br>OWLClass | |

## OWLDL

*Type:* **Package**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* OWL
*Detail:* *Created on 28.08.2006. Last modified on 28.08.2006*
*GUID:* {3D3886C3-8CE5-48c1-BAAF-182AFFAC5FBD}

**OWLDLConstraints** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 18.09.2006
*Last Modified:* 18.09.2006
*Version:* 1.0. *Locked:* False

*GUID:* {80419815-EBE2-4ef7-A4F1-CEC1D6CC33A8}

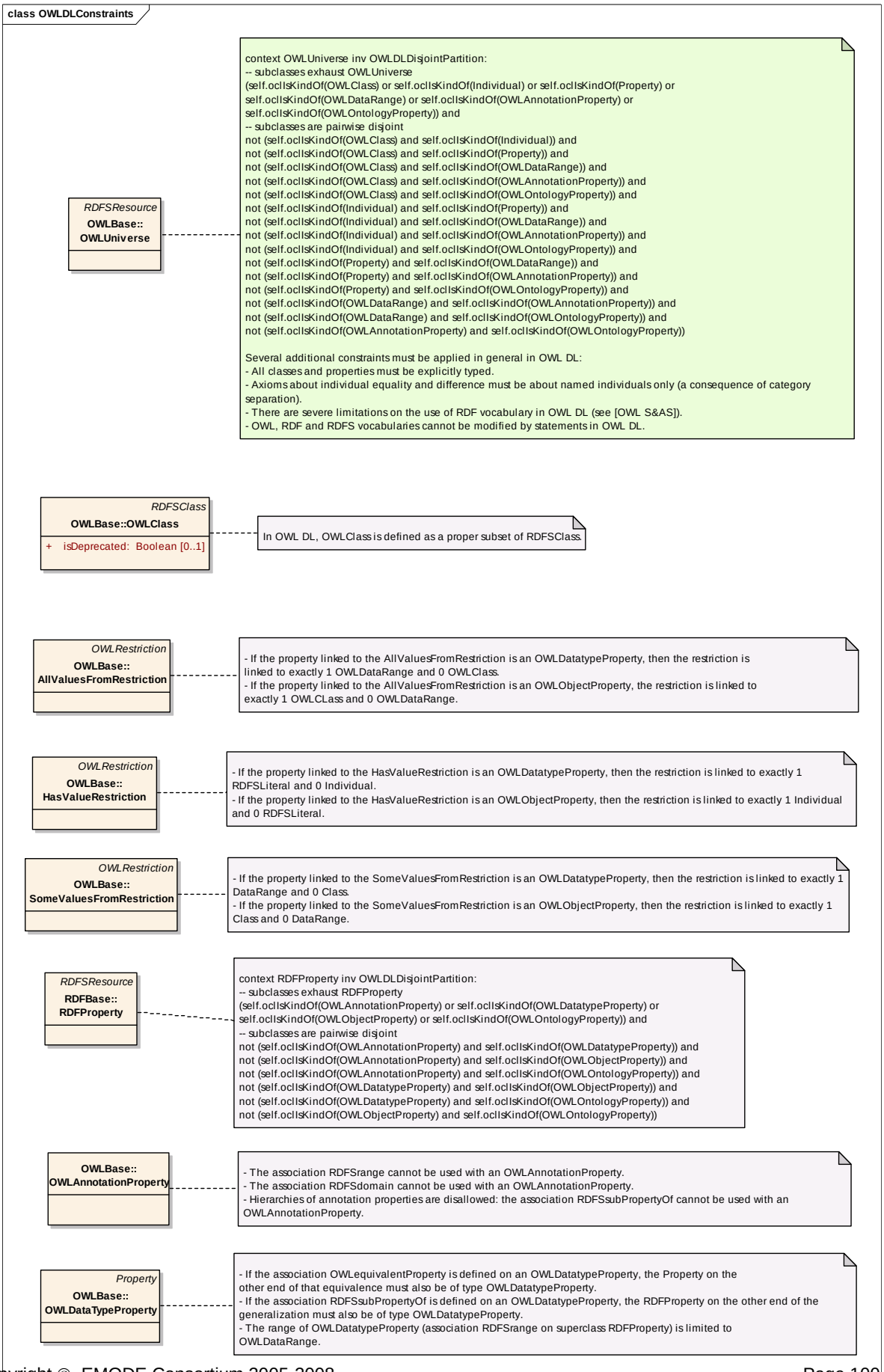


Figure: 30

## Note

*Type:* **Note**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* OWLDL *Keywords:*
*Detail:* *Created on* 18.09.2006. *Last modified on* 18.09.2006.
*GUID:* {0169B8D8-25BA-4efa-A50D-54117FBE7D76}

- If the property linked to the HasValueRestriction is an OWLDatatypeProperty, then the restriction is linked to exactly 1 RDFSLiteral and 0 Individual.
- If the property linked to the HasValueRestriction is an OWLObjectProperty, then the restriction is linked to exactly 1 Individual and 0 RDFSLiteral.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink** | Public<br>HasValueRestriction | Public<br>Note | |

## *RDF*

*Type:* **Package**
*Status:* Proposed. Version . Phase 1.0.
*Package:* DomainConcept
*Detail:* *Created on 28.08.2006. Last modified on 28.08.2006*
*GUID:* {7E8A222F-9CAD-4005-B947-0F77F15FDB39}

## RDFBase

*Type:* **Package**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* RDF
*Detail:* *Created on 11.08.2006. Last modified on 11.08.2006*
*GUID:* {3316C034-0161-4d91-BCE5-6D7D0557A7A5}

**RDFLiterals** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 14.08.2006
*Last Modified:* 27.10.2006
*Version:* 1.0. *Locked:* False
*GUID:* {8CB822C6-035C-400a-B743-EBCF9B8A3CE1}

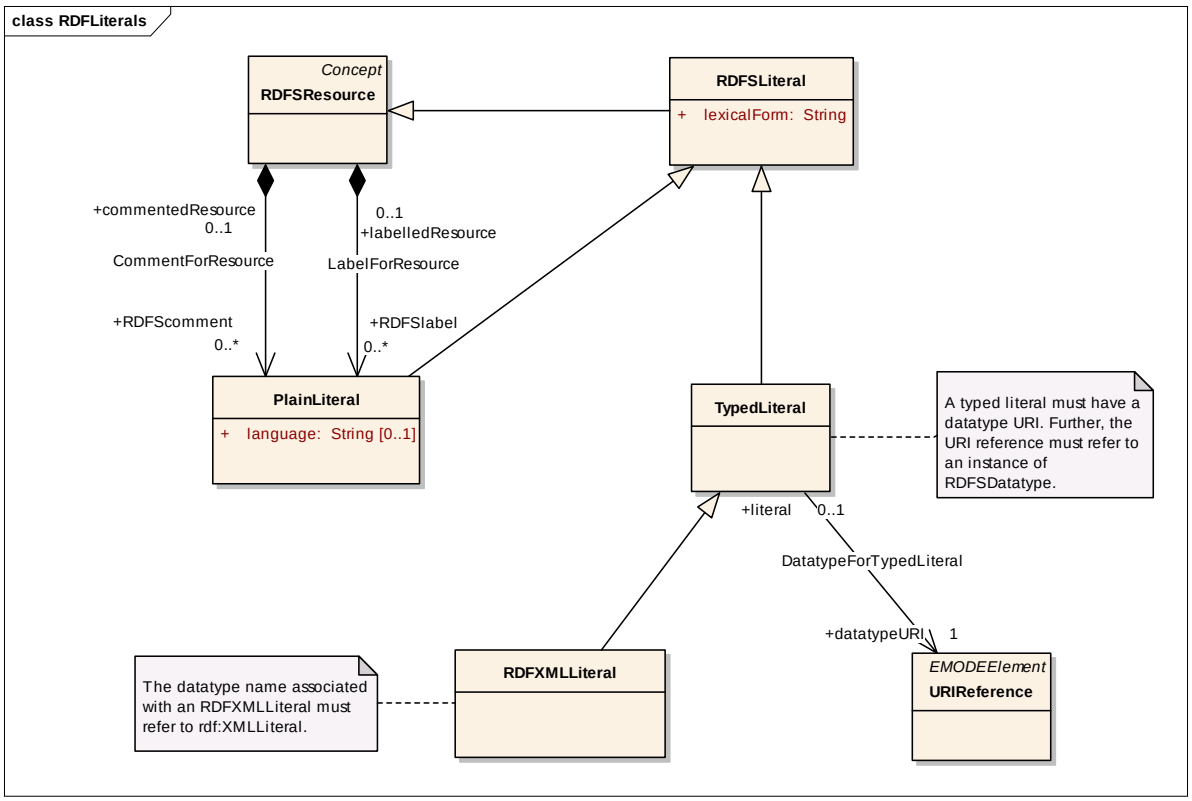



Figure: 31

**RDFStatements** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 11.08.2006
*Last Modified:* 29.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {FE828FF0-3D06-4b3d-86A9-5C77569FDEE1}

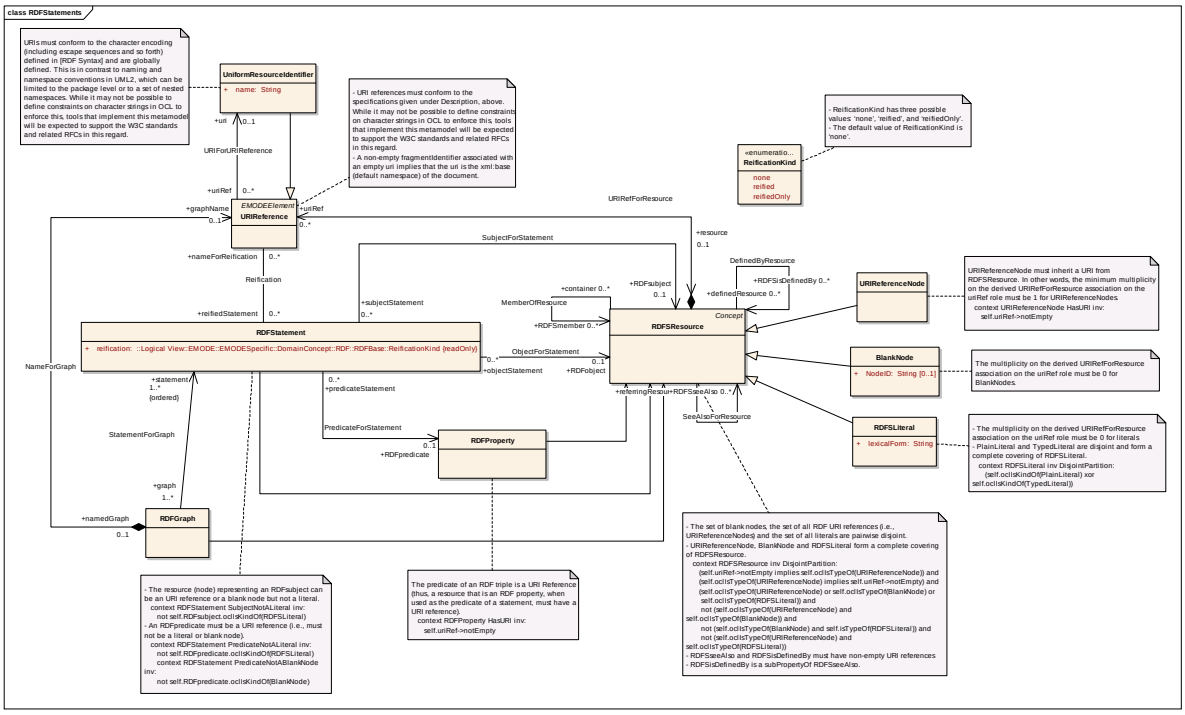



Figure: 32

## BlankNode

*Type:* **Class** **RDFSResource**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* RDFBase *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 24.08.2006.
*GUID:* {BC2A20F0-59EB-48a1-91DD-7CE4C29A470C}

A blank node is a node that is not a URI reference or a literal. In the RDF abstract syntax, a blank node is simply a unique node that can be used in one or more RDF statements, but has no intrinsic name.
A convention used to refer to blank nodes by some linear representations of an RDF graph is to use a blank node identifier, which is a local identifier that can be distinguished from URIs and literals. When graphs are merged, their blank nodes must be kept distinct if meaning is to be preserved. Blank node identifiers are not part of the RDF abstract syntax, and the representation of triples containing blank nodes is dependent on the particular concrete syntax used, thus no constraints are provided here on blank node identifiers. They are optional, included strictly as a placeholder for tool vendors whose applications require them, and in particular, for interoperability among such tools.
Constraints: The multiplicity on the derived URIRefForResource association on the uriRef role must be 0 for BlankNodes.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink** | Public<br>BlankNode | Public<br>Note | |
| **Generalization**<br>Source -> Destination | Public<br>BlankNode | Public<br>RDFSResource | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **NodeID** String<br>Public<br><br>[0..1] | the optional blank node identifier | *Default:*<br><br>[isStatic = false ] |

## PlainLiteral

*Type:* **Class** **RDFSLiteral**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* RDFBase *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 24.08.2006.
*GUID:* {F8B09932-1532-4d97-B392-AF1B80E20D37}

A plain literal is a string combined with an optional language tag. This may be used for plain text in a natural language.
Constraints:
none

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Aggregation**<br>LabelForResource<br>Destination -> Source | Public RDFSlabel links a resource to a human-readable name for that resource<br>PlainLiteral | Public labelledResource links a human readable label with a resource<br>RDFSResource | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Aggregation**<br>CommentForResource<br>Destination -> Source | Public RDFScomment links a resource to a comment, or human-readable description, about that resource<br>PlainLiteral | Public commentedResource links a comment to a resource<br>RDFSResource | |
| **Generalization**<br>Source -> Destination | Public<br>PlainLiteral | Public<br>RDFSLiteral | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **language** String<br>Public<br><br>[0..1] | the optional language tag | *Default:*<br><br>[isStatic = false ] |

## RDFGraph

*Type:* **Class** **RDFSResource**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* RDFBase *Keywords:*
*Detail:* *Created on* 11.08.2006. *Last modified on* 24.08.2006.
*GUID:* {33C19B3B-A024-4cc5-8AE9-A0DED6AB238F}

An RDF graph is a set of RDF triples. The set of nodes of an RDF graph is the set of subjects and objects of triples in the graph.
A number of classes in the metamodel, including RDFGraph, RDFStatement, Document, etc., are included (1) for the sake of completeness, and (2) are provided for vendors to use, as needed from an application perspective. They may not be necessary for all tools, and may not necessarily be accessible to end users, again, depending on the application
requirements.
Constraints: none

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>StatementForGraph<br>Source -> Destination | Public graph the graph(s) containing the statement<br>RDFGraph | Public statement links a graph to the ordered set of triples it contains<br>RDFStatement | |
| **Association**<br>NameForGraph<br>Source -> Destination | Public namedGraph links a URI reference to the graph it names<br>RDFGraph | Public graphName the optional name of a named graph, which must be a URI reference<br>URIReference | |
| **Generalization**<br>Source -> Destination | Public<br>RDFGraph | Public<br>RDFSResource | |
| **Generalization**<br>Source -> Destination | Public<br>OWLGraph | Public<br>RDFGraph | |

## RDFProperty

*Type:* **Class** **RDFSResource**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* RDFBase *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 24.08.2006.
*GUID:* {4C0803E1-804C-4e4a-BD8D-230A3E3367AE}

The RDF Concepts and Abstract Syntax specification [RDF Concepts] describes the concept of an RDF property as a relation between subject resources and object resources. Every property is associated with a set of instances, called the property extension. Instances of properties are pairs of RDF resources.
Constraints: The predicate of an RDF triple is a URI Reference (thus, a resource that is an RDF property, when used as the predicate of a statement, must have a URI reference).

```
context RDFProperty HasURI inv:
  self.uriRef->notEmpty
```

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink** | Public<br>RDFProperty | Public<br>Note | |
| **NoteLink** | Public<br>RDFProperty | Public<br>Note | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| | | | |
| **Association**<br>DomainForProperty<br>Bi-Directional | Public propertyForDomain links a class to a property for which it is the domain RDFProperty | Public RDFSdomain links a property to zero or more classes representing the domain of that property. A triple of the form: P rdfs:domain C . states that P is an instance of the class rdf:Property, that C is a instance of the class rdfs:Class and that the resources denoted by the subjects of triples whose predicate is P are instances of the class C. Where a property P has more than one rdfs:domain property, then the resources denoted by subjects of triples with predicate P are instances of all the classes stated by the rdfs:domain properties. RDFSClass | |
| **Association**<br>RangeForProperty<br>Bi-Directional | Public propertyForRange links a class to a property for which it is the range RDFProperty | Public RDFSrange links a property to zero or more classes representing the range of that property. A triple of the form: P rdfs:range C . states that P is an instance of the class rdf:Property, that C is a instance of the class rdfs:Class and that the resources denoted by the objects of triples whose predicate is P are instances of the class C. Where P has more than one rdfs:range property, then the resources denoted by the objects of triples with predicate P are instances of all the classes stated by the rdfs:range properties. RDFSClass | |
| **Association**<br>PredicateForStatement | Public predicateStatement | Public RDFpredicate links a statement (triple) | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| Source -> Destination | links a statement (triple) to the predicate of that triple<br>RDFStatement | to the property that is the predicate of the triple<br>RDFProperty | |
| **Generalization**<br>Source -> Destination | Public<br>RDFSContainerMembershipProperty | Public<br>RDFProperty | |
| **Generalization**<br>Source -> Destination | Public<br>RDFProperty | Public<br>RDFSResource | |
| **Association**<br>PropertyGeneralization<br>Source -> Destination | Public superProperty<br>links a property to another property that specializes it (note that superProperty is not an RDFS concept).<br>RDFProperty | Public<br>RDFSsubPropertyOf<br>links a property to another property that generalizes it. The property rdfs:subPropertyOf is used to state that all resources related by one property are also related by another. A triple of the form: P1 rdfs:subPropertyOf P2 . states that P1 is an instance of rdf:Property, P2 is an instance of rdf:Property and P1 is a subproperty of P2. The rdfs:subPropertyOf property is transitive.<br>RDFProperty | |
| **Generalization**<br>Source -> Destination | Public<br>OWLOntologyProperty | Public<br>RDFProperty | |
| **Generalization**<br>Source -> Destination | Public<br>Property | Public<br>RDFProperty | |
| **Association**<br>RestrictionOnProperty<br>Source -> Destination | Public<br>propertyRestriction<br>links an OWL restriction class to the property it constrains<br>OWLRestriction | Public OWLonProperty<br>RDFProperty | |
| **Generalization**<br>Source -> Destination | Public<br>OWLAnnotationProperty | Public<br>RDFProperty | |

## RDFSLiteral

*Type:* **Class** **RDFSResource**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* RDFBase *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 24.08.2006.
*GUID:* {E83C99BF-6C3B-47b9-AC00-F603B3C89AF3}

Literals are used to identify values such as numbers and dates by means of a lexical representation. Anything represented by a literal could also be represented by a URI, but it is often more convenient or intuitive to use literals. A literal may be the object of an RDF statement, but not the subject or the predicate.
Literals may be plain or typed:
• A plain literal is a string combined with an optional language tag. This may be used for plain text in a natural language.
• A typed literal is a string combined with a datatype URI.
Constraints:
• The multiplicity on the derived URIRefForResource association on the uriRef role must be 0 for literals
• PlainLiteral and TypedLiteral are disjoint and form a complete covering of RDFSLiteral.
context RDFSLiteral inv DisjointPartition:
(self.oclIsKindOf(PlainLiteral) xor self.oclIsKindOf(TypedLiteral))

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink** | Public<br>RDFSLiteral | Public<br>Note | |
| **Generalization**<br>Source -> Destination | Public<br>RDFSLiteral | Public<br>RDFSResource | |
| **Generalization**<br>Source -> Destination | Public<br>PlainLiteral | Public<br>RDFSLiteral | |
| **Generalization**<br>Source -> Destination | Public<br>TypedLiteral | Public<br>RDFSLiteral | |
| **Aggregation** VersionInfo<br>Destination -> Source | Public OWLversionInfo links an ontology to an annotation providing version information<br>RDFSLiteral | Public ontology links an owl:versionInfo annotation to the ontology it describes<br>OWLOntology | |
| **Association**<br>HasLiteralValue<br>Source -> Destination | Public restrictionClass<br>HasValueRestriction | Public<br>OWLhasLiteralValue links the restriction class to the literal that fills its value role<br>RDFSLiteral | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| | | | |
| **Association**<br>ElementsForDataRange<br>Source -> Destination | Public dataRange<br>OWLDataRange | Public OWLoneOf<br>RDFSLiteral | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **lexicalForm** String<br>Public | represents a Unicode string in Normal Form C | *Default:*<br><br>[isStatic = false ] |

## RDFSResource

*Type:* **Class** **Concept**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* RDFBase *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 25.05.2007.
*GUID:* {0406D6F7-9C32-427a-91BD-AF51A8D0BD58}

All things described by RDF are called resources. This is the class of everything. All other classes are subclasses of this class.
Note that the multiplicity on RDFtype is [1..*], meaning that every resource must be typed. Yet, many resources in RDF are not explicitly typed, so this may seem unintuitive from an RDF perspective. In essence, this says that every resource is, at a minimum, of type rdfs:Resource (required from a metamodelling and mapping perspective to support representation of RDF and OWL individuals without the addition of other artificial constructs). This does not, however, necessarily mean that vendors should add the inferred triples automatically when generating RDF/S and/or OWL from a model instance. This should only be done deliberately, depending on the application.
Constraints:
- The set of blank nodes, the set of all RDF URI references (i.e., URIReferenceNodes) and the set of all literals are pairwise disjoint.
- URIReferenceNode, BlankNode and RDFSLiteral form a complete covering of RDFSResource.
  context RDFSResource inv DisjointPartition:
    (self.uriRef->notEmpty implies self.oclIsTypeOf(URIReferenceNode)) and
    (self.oclIsTypeOf(URIReferenceNode) implies self.uriRef->notEmpty) and
    (self.oclIsTypeOf(URIReferenceNode) or self.oclIsTypeOf(BlankNode) or
     self.oclIsTypeOf(RDFSLiteral)) and
     not (self.oclIsTypeOf(URIReferenceNode) and self.oclIsTypeOf(BlankNode)) and
     not (self.oclIsTypeOf(BlankNode) and self.isTypeOf(RDFSLiteral)) and
     not (self.oclIsTypeOf(URIReferenceNode) and self.oclIsTypeOf(RDFSLiteral))
- RDFSseeAlso and RDFSisDefinedBy must have non-empty URI references
- RDFSisDefinedBy is a subPropertyOf RDFSseeAlso.

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink**<br>Source -> Destination | Public<br>Note | Public<br>RDFSResource | |
| **NoteLink** | Public<br>RDFSResource | Public<br>Note | |
| **NoteLink**<br>Source -> Destination | Public<br>Note | Public<br>RDFSResource | |
| **Generalization**<br>Source -> Destination | Public<br>OWLOntology | Public<br>RDFSResource | |
| **Generalization**<br>Source -> Destination | Public<br>RDFSResource | Public<br>Concept | |
| **Generalization**<br>Source -> Destination | Public<br>MessageEndDefinition | Public<br>RDFSResource | |
| **Generalization**<br>Source -> Destination | Public<br>ParamTypeSemantic | Public<br>RDFSResource | |
| **Generalization**<br>Source -> Destination | Public<br>GlobalMessageClass | Public<br>RDFSResource | |
| **Generalization**<br>Source -> Destination | Public<br>EMODEClassifier | Public<br>RDFSResource | |
| **Generalization**<br>Source -> Destination | Public<br>EMODEProperty | Public<br>RDFSResource | |
| **Generalization**<br>Source -> Destination | Public<br>RDFList | Public<br>RDFSResource | |
| **Generalization**<br>Source -> Destination | Public<br>RDFGraph | Public<br>RDFSResource | |
| **Generalization**<br>Source -> Destination | Public<br>RDFSClass | Public<br>RDFSResource | |
| **Association**<br>SubjectForStatement<br>Source -> Destination | Public subjectStatement<br>a resource represents zero or more subjects of RDF statements or triples<br>RDFStatement | Public RDFsubject<br>links a statement (triple) to the resource (node) that is the subject of the triple<br>RDFSResource | |
| **Association**<br>ObjectForStatement<br>Source -> Destination | Public objectStatement<br>a resource represents zero or more objects of | Public RDFobject links a statement (triple) to the resource (node) that | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| | RDF statements<br>RDFStatement | is the object of the triple<br>RDFSResource | |
| **Generalization**<br>Source -> Destination | Public<br>Document | Public<br>RDFSResource | |
| **Generalization**<br>Source -> Destination | Public<br>RDFStatement | Public<br>RDFSResource | |
| **Aggregation**<br>LabelForResource<br>Destination -> Source | Public RDFSlabel links a resource to a human-readable name for that resource<br>PlainLiteral | Public labelledResource links a human readable label with a resource<br>RDFSResource | |
| **Association**<br>FirstElementInList<br>Source -> Destination | Public theList relates a particular resource to the list(s) for which it is the initial element.<br>RDFList | Public RDFfirst links a list to its first element<br>RDFSResource | |
| **Generalization**<br>Source -> Destination | Public<br>URIReferenceNode | Public<br>RDFSResource | |
| **Aggregation**<br>URIRefForResource<br>Bi-Directional | Public uriRef the URI reference(s) associated with a resource<br>URIReference | Public resource links a URI reference to a resource<br>RDFSResource | |
| **Generalization**<br>Source -> Destination | Public<br>RDFSLiteral | Public<br>RDFSResource | |
| **Aggregation**<br>CommentForResource<br>Destination -> Source | Public RDFScomment links a resource to a comment, or human-readable description, about that resource<br>PlainLiteral | Public commentedResource links a comment to a resource<br>RDFSResource | |
| **Generalization**<br>Source -> Destination | Public<br>RDFSContainer | Public<br>RDFSResource | |
| **Generalization**<br>Source -> Destination | Public<br>RDFProperty | Public<br>RDFSResource | |
| **Association**<br>SeeAlsoForResource<br>Source -> Destination | Public referringResource relates a particular resource to other resources that it may assist in defining<br>RDFSResource | Public RDFSseeAlso relates a resource to another resource that may provide additional information about it<br>RDFSResource | |
| **Generalization**<br>Source -> Destination | Public<br>BlankNode | Public<br>RDFSResource | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| | | | |
| **Generalization**<br>Source -> Destination | Public<br>Individual | Public<br>RDFSResource | |
| **Association**<br>MemberOfResource<br>Source -> Destination | Public container relates a particular resource to other resources that are its members.<br>RDFSResource | Public RDFSmember relates a resource to another resource of which it is a member (i.e. a resource that contains it).<br>RDFSResource | |
| **Association**<br>DefinedByResource<br>Destination -> Source | Public<br>RDFSisDefinedBy relates a resource to another resource that defines it; rdfs:isDefinedBy is a subPropertyOf rdfs:seeAlso<br>RDFSResource | Public definedResource relates a particular resource to other resources that it defines<br>RDFSResource | |
| **Generalization**<br>Source -> Destination | Public<br>OWLUniverse | Public<br>RDFSResource | |
| **Association**<br>TypeForResource<br>Source -> Destination | Public typedResource links a class to a resource that is an instance of the class<br>RDFSResource | Public RDFtype relates a resource to its type (i.e., states that the resource is an instance of the class that is its type)<br>RDFSClass | |

## RDFStatement

*Type:* **Class** **RDFSResource**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* RDFBase *Keywords:*
*Detail:* *Created on* 11.08.2006. *Last modified on* 18.09.2006.
*GUID:* {4F77E7E1-1A14-478d-B3FF-25B7CF3F1B37}

An RDF triple contains three components:
• the subject, which is an RDF URI reference or a blank node.
• the predicate, which is an RDF URI reference, and represents a relationship.
• the object, which is an RDF URI reference, a literal or a blank node.
An RDF triple is conventionally written in the order subject, predicate, object. The relationship represented by the predicate is also known as the property of the triple. The direction of the arc is significant: it always points toward the object.
Constraints:
- The resource (node) representing an RDFsubject can be an URI reference or a blank node but not a literal.
  context RDFStatement SubjectNotALiteral inv:
    not self.RDFsubject.oclIsKindOf(RDFSLiteral)
- An RDFpredicate must be a URI reference (i.e., must not be a literal or blank node).

context RDFStatement PredicateNotALiteral inv:
not self.RDFpredicate.oclIsKindOf(RDFSLiteral)
context RDFStatement PredicateNotABlankNode inv:
not self.RDFpredicate.oclIsKindOf(BlankNode)

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink** | Public<br>RDFStatement | Public<br>Note | |
| **Association**<br>StatementForGraph<br>Source -> Destination | Public graph the graph(s) containing the statement<br>RDFGraph | Public statement links a graph to the ordered set of triples it contains<br>RDFStatement | |
| **Association** Reification<br>Unspecified | Public nameForReification the URI reference that reifies the statement<br>URIReference | Public reifiedStatement links URIReference to zero or more statements it reifies<br>RDFStatement | |
| **Association**<br>PredicateForStatement<br>Source -> Destination | Public predicateStatement links a statement (triple) to the predicate of that triple<br>RDFStatement | Public RDFpredicate links a statement (triple) to the property that is the predicate of the triple<br>RDFProperty | |
| **Association**<br>SubjectForStatement<br>Source -> Destination | Public subjectStatement a resource represents zero or more subjects of RDF statements or triples<br>RDFStatement | Public RDFsubject links a statement (triple) to the resource (node) that is the subject of the triple<br>RDFSResource | |
| **Association**<br>ObjectForStatement<br>Source -> Destination | Public objectStatement a resource represents zero or more objects of RDF statements<br>RDFStatement | Public RDFobject links a statement (triple) to the resource (node) that is the object of the triple<br>RDFSResource | |
| **Generalization**<br>Source -> Destination | Public<br>RDFStatement | Public<br>RDFSResource | |
| **Association** | Public statement links a | Public document the | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| StatementForDocument<br>Unspecified | document to the set of triples (statements) it contains (ordered).<br>RDFStatement | document(s) containing the statement.<br>Document | |
| **Generalization**<br>Source -> Destination | Public<br>OWLStatement | Public<br>RDFStatement | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **reification** ::Logical View::EMODE::EMODESpecific::DomainConcept::RDF::RDFBase::ReificationKind<br>Public<br>Const | indicates whether or not a particular statement (triple) is reified but not asserted, reified, or neither; default value is “none” | *Default:*<br><br>[isStatic = false ] |

## RDFXMLLiteral

*Type:* **Class** **TypedLiteral**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* RDFBase *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 24.08.2006.
*GUID:* {37A843F2-AE57-4bbf-B31D-77CF8217936A}

The class rdf:XMLLiteral is the class of XML literal values. It is an instance of RDFSDatatype and a subclass of TypedLiteral.
Constraints:
The datatype name associated with an RDFXMLLiteral must refer to rdf:XMLLiteral.

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink** | Public<br>Note | Public<br>RDFXMLLiteral | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>RDFXMLLiteral | Public<br>TypedLiteral | |

## ReificationKind

*Type:* **Enumeration**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* RDFBase *Keywords:*
*Detail:* *Created on* 11.08.2006. *Last modified on* 24.08.2006.
*GUID:* {33ADFDFA-A613-40bb-B4DE-919985171D0A}

ReificationKind is an enumerated type used by the reification property on RDFStatement. It has three possible values: none, which is the default value, (meaning that a triple is asserted but not reified in the present vocabulary), reified (meaning that a statement is both asserted and reified in this vocabulary), and reifiedOnly (meaning that a statement is reified but not asserted in this vocabulary). This allows us to make statements about statements in the current RDF vocabulary as well as those that occur in other vocabularies.
Contstraints:
- ReificationKind has three possible values: ‘none’, ‘reified’, and ‘reifiedOnly’.
- The default value of ReificationKind is ‘none’.

### *Custom Properties*

- isActive = False

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink** | Public<br>ReificationKind | Public<br>Note | |

### *Attributes*

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **none**<br>Public | | *Default:* |
| **reified**<br>Public | | *Default:* |

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **reifiedOnly**<br>Public | | *Default:* |

## TypedLiteral

*Type:* **Class** **RDFSLiteral**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* RDFBase *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 24.08.2006.
*GUID:* {B4BFFDF6-4C90-4d97-9BFE-3E6DE01F07A9}

Typed literals have a lexical form, which is a Unicode string, and a datatype URI being an RDF URI reference.
Constraints:
A typed literal must have a datatype URI. Further, the URI reference must refer to an instance of RDFSDatatype.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink** | Public<br>TypedLiteral | Public<br>Note | |
| **Association**<br>MinCardinality<br>Source -> Destination | Public<br>minCardinalityRestriction links an OWL restriction class to a minimum cardinality constraint<br>MinCardinalityRestriction | Public<br>OWLminCardinality links a property to the minimum cardinality of its range<br>TypedLiteral | |
| **Association**<br>MaxCardinality<br>Source -> Destination | Public<br>maxCardinalityRestriction links an OWL restriction class to a maximum cardinality constraint<br>MaxCardinalityRestricti | Public<br>OWLmaxCardinality links a property to the maximum cardinality of its range<br>TypedLiteral | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| | on | | |
| **Generalization**<br>Source -> Destination | Public<br>RDFXMLLiteral | Public<br>TypedLiteral | |
| **Association**<br>DatatypeForTypedLiteral<br>Source -> Destination | Public literal<br>TypedLiteral | Public datatypeURI the link between the typed literal and the RDFSDatatype that defines its type (of which it is an instance), specifying the URI for the datatype specification.<br>URIReference | |
| **Generalization**<br>Source -> Destination | Public<br>TypedLiteral | Public<br>RDFSLiteral | |
| **Association** Cardinality<br>Source -> Destination | Public<br>cardinalityRestriction links an OWL restriction class to a cardinality constraint<br>CardinalityRestriction | Public OWLcardinality links a property to the cardinality of its range<br>TypedLiteral | |

## URIReference

*Type:* **Class** **EMODEElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* RDFBase *Keywords:*
*Detail:* *Created on* 11.08.2006. *Last modified on* 24.05.2007.
*GUID:* {2FE959A2-B461-4e9a-803E-E320830CE37E}

RDF uses URI references to identify resources and properties. A URI reference within an RDF graph (an RDF URI reference) is a Unicode string conforming to the characteristics defined in [RDF Concepts] and [RDF Syntax].
RDF URI references can be:
• given as XML attribute values interpreted as relative URI references that are resolved against the in-scope base URI to give absolute RDF URI references
• transformed from XML namespace-qualified element and attribute names (QNames)
• transformed from rdf:ID attribute values.
More on URI references and transformations from QNames is given in the discussion in section 11.7 and in [RDF Syntax].
Constraints:
- URI references must conform to the specifications given under Description, above. While it may not be possible to define constraints on character strings in OCL to enforce this, tools that implement this metamodel will be expected to support the W3C standards and related RFCs in this regard.
- A non-empty fragmentIdentifier associated with an empty uri implies that the uri is the xml:base (default namespace) of the document.

***Custom Properties***

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink** | Public<br>URIReference | Public<br>Note | |
| **Generalization**<br>Source -> Destination | Public<br>URIReference | Public<br>EMODEElement | |
| **Association**<br>URIForURIReference<br>Destination -> Source | Public uri links URIReference to the URI it contains/represents UniformResourceIdentifier | Public uriRef zero or more URI references associated with the URI<br>URIReference | |
| **Association**<br>NameForGraph<br>Source -> Destination | Public namedGraph links a URI reference to the graph it names<br>RDFGraph | Public graphName the optional name of a named graph, which must be a URI reference<br>URIReference | |
| **Association**<br>URIReferenceForNamespace<br>Unspecified | Public theNamespaceForURI links a URI reference to a namespace<br>RDFNamespace | Public namespaceURIRef links a namespace to the corresponding URI reference.<br>URIReference | |
| **Association**<br>DatatypeForTypedLiteral<br>Source -> Destination | Public literal<br>TypedLiteral | Public datatypeURI the link between the typed literal and the RDFSDatatype that defines its type (of which it is an instance), specifying the URI for the datatype specification.<br>URIReference | |
| **Association**<br>FragmentIdentifierForURIRef<br>Unspecified | Public fragmentIdentifier links URIReference to an optional fragment identifier.<br>LocalName | Public uriRef links the fragment identifier to zero or more URIs that reference it.<br>URIReference | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| | | | |
| **Generalization**<br>Source -> Destination | Public<br>UniformResourceIdentifier | Public<br>URIReference | |
| **Association** Reification<br>Unspecified | Public<br>nameForReification the URI reference that reifies the statement<br>URIReference | Public reifiedStatement links URIReference to zero or more statements it reifies<br>RDFStatement | |
| **Aggregation**<br>URIRefForResource<br>Bi-Directional | Public uriRef the URI reference(s) associated with a resource<br>URIReference | Public resource links a URI reference to a resource<br>RDFSResource | |

## URIReferenceNode

*Type:* **Class** **RDFSResource**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* RDFBase *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 24.08.2006.
*GUID:* {AEC503D5-0006-4552-9A57-09090F32CF2D}

A URI reference or literal used as a node identifies what that node represents. URIReferenceNode is included in order to more precisely model the intended semantics in UML (i.e., not all URI references are nodes). A URI reference used as a predicate identifies a relationship between the things represented by the nodes it connects. A predicate URI reference may also be a node in the graph.
Constraints:
URIReferenceNode must inherit a URI from RDFSResource. In other words, the minimum multiplicity on the derived URIRefForResource association on the uriRef role must be 1 for URIReferenceNodes.

```
context URIReferenceNode HasURI inv:
  self.uriRef->notEmpty
```

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink** | Public<br>URIReferenceNode | Public<br>Note | |
| **Generalization**<br>Source -> Destination | Public<br>URIReferenceNode | Public<br>RDFSResource | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| | | | |

## UniformResourceIdentifier

*Type:* **Class** **URIReference**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* RDFBase *Keywords:*
*Detail:* *Created on* 11.08.2006. *Last modified on* 24.08.2006.
*GUID:* {AF9F7DF0-04B7-45bd-A271-7FEFC07526A2}

The RDF abstract syntax is concerned primarily with URI references. The definition of a URI, distinct from URI reference, is included for mapping purposes. See [RDF Syntax] for definition details.
Constraints:
URIs must conform to the character encoding (including escape sequences and so forth) defined in [RDF Syntax] and are globally defined. This is in contrast to naming and namespace conventions in UML2, which can be limited to the package level or to a set of nested namespaces. While it may not be possible to define constraints on character strings in OCL to enforce this, tools that implement this metamodel will be expected to support the W3C standards and related RFCs in this regard.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink** | Public<br>Note | Public<br>UniformResourceIdentifier | |
| **Generalization**<br>Source -> Destination | Public<br>URIReferenceAlternative | Public<br>UniformResourceIdentifier | |
| **Association**<br>URIForURIReference<br>Destination -> Source | Public uri links URIReference to the URI it contains/represents<br>UniformResourceIdentifier | Public uriRef zero or more URI references associated with the URI<br>URIReference | |
| **Generalization**<br>Source -> Destination | Public<br>UniformResourceIdentifier | Public<br>URIReference | |
| **Generalization**<br>Source -> Destination | Public<br>XSDbuiltinPrimitveTyp | Public<br>UniformResourceIdenti | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| | e | fier | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **name** String<br>Public | the string representing the URI | *Default:*<br><br>[isStatic = false ] |

## RDFS

*Type:* **Package**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* RDF
*Detail:* *Created on 11.08.2006. Last modified on 11.08.2006*
*GUID:* {86BD5E37-97F9-4184-90FC-894DCCF45CBE}

**ClassesAndUtilities** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 14.08.2006
*Last Modified:* 18.09.2006
*Version:* 1.0. *Locked:* False
*GUID:* {5EFD24CC-41D9-42c0-96F2-FB6A128B9706}

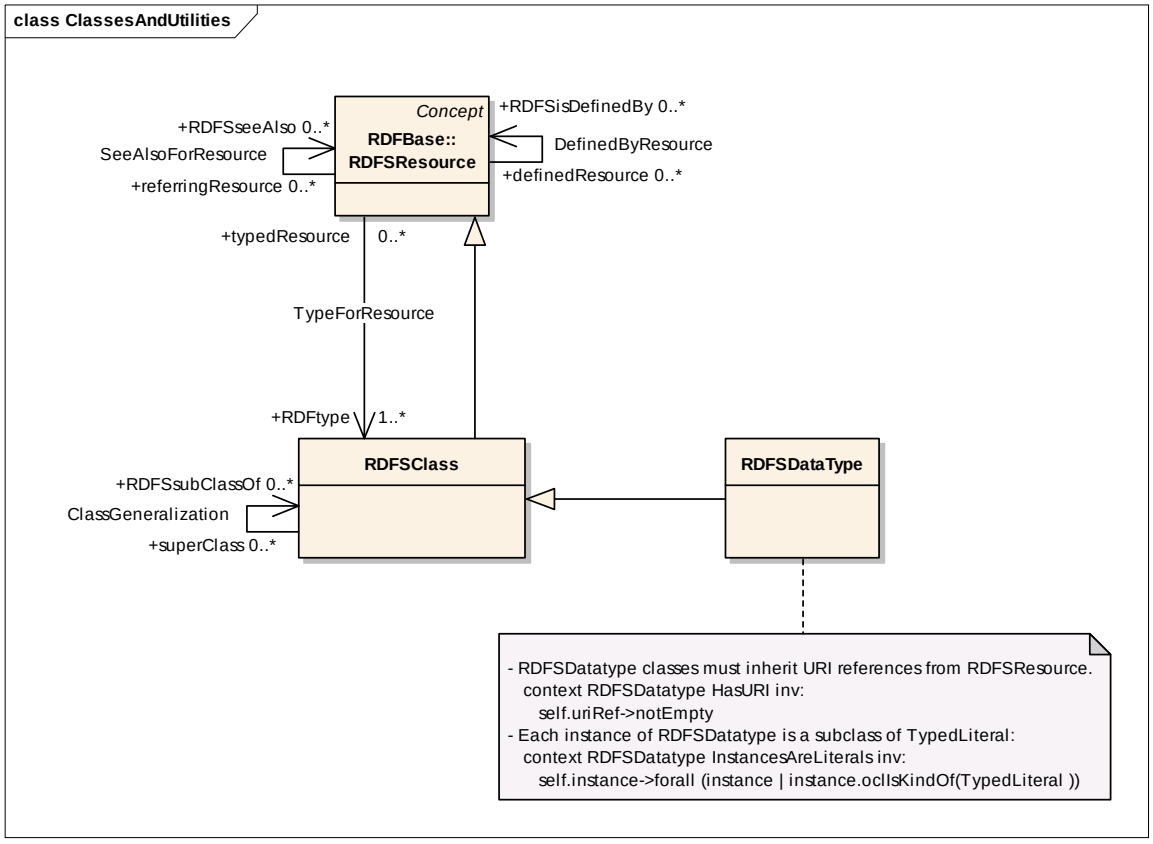



Figure: 33

**ContainersAndCollections** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 14.08.2006
*Last Modified:* 18.09.2006
*Version:* 1.0. *Locked:* False
*GUID:* {D489EEB4-D1FE-405f-99C6-B872A432E88A}

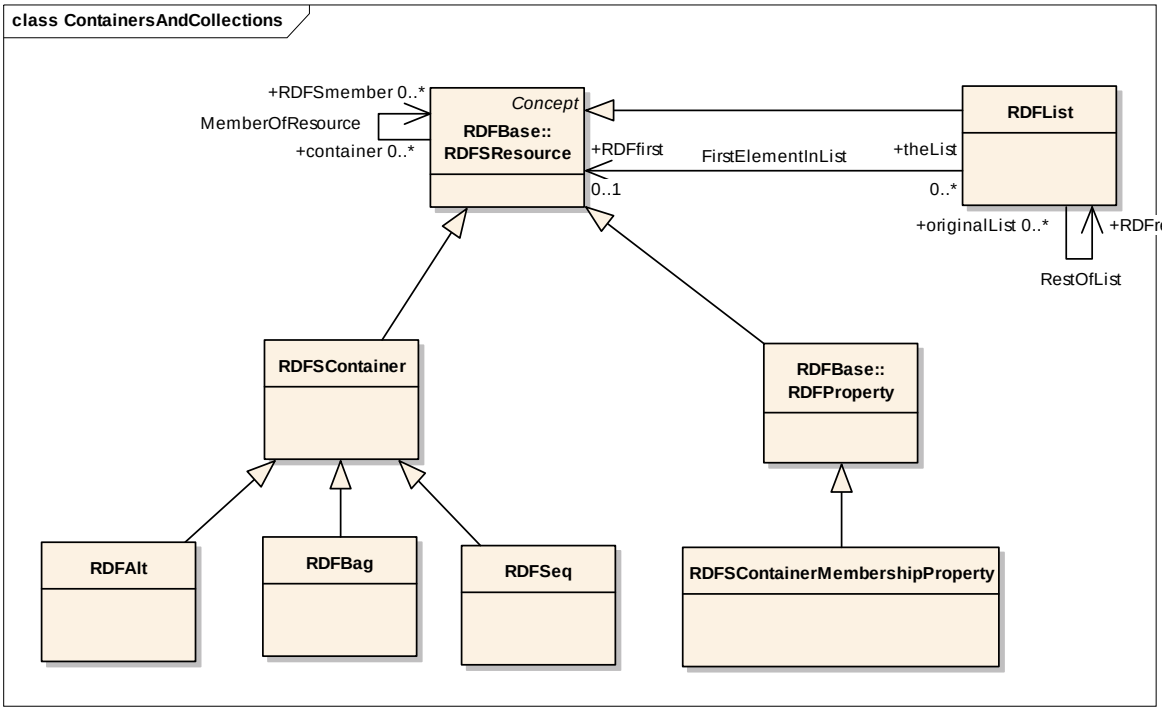



Figure: 34

**RDFProperties** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 14.08.2006
*Last Modified:* 06.10.2006
*Version:* 1.0. *Locked:* False
*GUID:* {ADA99FE5-0DFF-4b93-8C51-EB35343EFD4A}

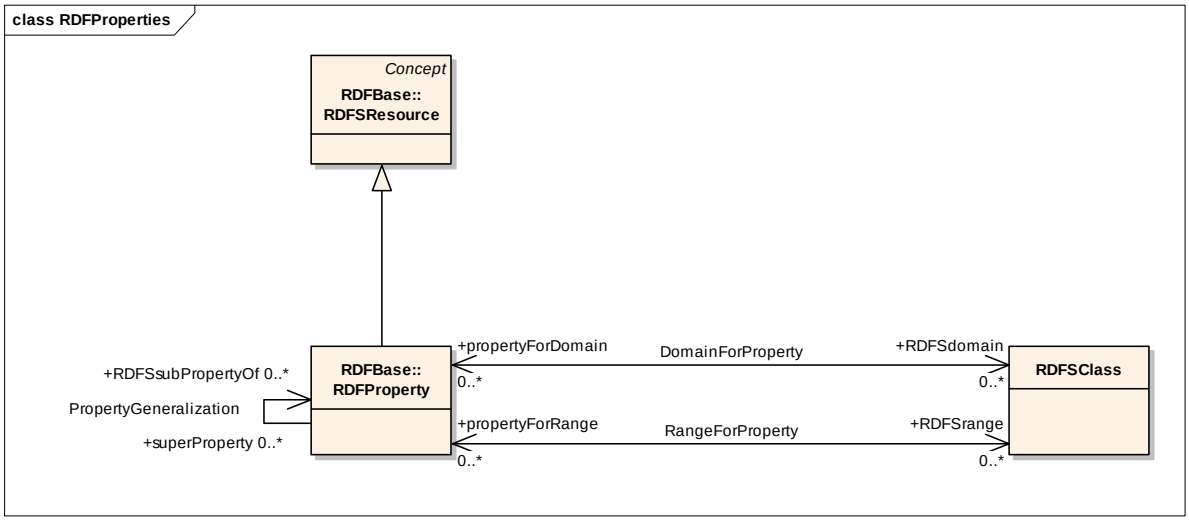



Figure: 35

## RDFAlt

*Type:* **Class** **RDFSContainer**

*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* RDFS *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 24.08.2006.
*GUID:* {98E49C76-217A-4dec-8877-9F5347D5CF7E}

This is the class of RDF “Alternative” containers. The rdf:Alt class is used conventionally to indicate to a human reader that typical processing will be to select one of the members of the container. The first member of the container, i.e,. the value of the rdf:_1 property, is the default choice.
Constraints:
none

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>RDFAlt | Public<br>RDFSContainer | |

## RDFBag

*Type:* **Class** **RDFSContainer**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* RDFS *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 24.08.2006.
*GUID:* {5D0B6E88-6C1E-4f23-9775-77541AD118F1}

This is the class of RDF “Bag” containers. It is used conventionally to indicate that the container is intended to be unordered.

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>RDFBag | Public<br>RDFSContainer | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| | | | |

## RDFList

*Type:* **Class** **RDFSResource**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* RDFS *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 24.08.2006.
*GUID:* {A2DC0E3C-964E-4fcd-BB14-86B918C777E6}

This class represents descriptions of RDF collections, conventionally called lists and other list-like structures.
Constraints:
none

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>RDFList | Public<br>RDFSResource | |
| **Association**<br>FirstElementInList<br>Source -> Destination | Public theList relates a particular resource to the list(s) for which it is the initial element.<br>RDFList | Public RDFfirst links a list to its first element<br>RDFSResource | |
| **Association** RestOfList<br>Destination -> Source | Public RDFrest links a list to its sublist excluding its first element<br>RDFList | Public originalList the original list for rdf:rest<br>RDFList | |

## RDFSClass

*Type:* **Class** **RDFSResource**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* RDFS *Keywords:*
*Detail:* *Created on* 24.08.2006. *Last modified on* 24.08.2006.
*GUID:* {2EDDF3F5-1A3F-4594-9BFF-63FB264D875F}

The group of resources that are RDF Schema classes is itself a class, called rdfs:Class. Classes provide an

abstraction mechanism for grouping resources with similar characteristics.
If a class C is a subClass of a class C', then all instances of C will also be instances of C'. The rdfs:subClassOf property may be used to state that one class is a subclass of another. The term superClass is used as the inverse of subClass. If a class C' is a superClass of a class C, then all instances of C are also instances of C'.
Constraints:
none

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>DomainForProperty<br>Bi-Directional | Public propertyForDomain links a class to a property for which it is the domain RDFProperty | Public RDFSdomain links a property to zero or more classes representing the domain of that property. A triple of the form: P rdfs:domain C . states that P is an instance of the class rdf:Property, that C is a instance of the class rdfs:Class and that the resources denoted by the subjects of triples whose predicate is P are instances of the class C. Where a property P has more than one rdfs:domain property, then the resources denoted by subjects of triples with predicate P are instances of all the classes stated by the rdfs:domain properties. RDFSClass | |
| **Association**<br>RangeForProperty<br>Bi-Directional | Public propertyForRange links a class to a property for which it is the range RDFProperty | Public RDFSrange links a property to zero or more classes representing the range of that property. A triple of the form: P rdfs:range C . states that P is an instance of the class rdf:Property, that | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| | | C is a instance of the class rdfs:Class and that the resources denoted by the objects of triples whose predicate is P are instances of the class C. Where P has more than one rdfs:range property, then the resources denoted by the objects of triples with predicate P are instances of all the classes stated by the rdfs:range properties.<br>RDFSClass | |
| **Generalization**<br>Source -> Destination | Public<br>RDFSClass | Public<br>RDFSResource | |
| **Generalization**<br>Source -> Destination | Public<br>RDFSDataType | Public<br>RDFSClass | |
| **Association**<br>ClassGeneralization<br>Source -> Destination | Public superClass links a class to another class that specializes it (note that superClass is not an RDF concept)<br>RDFSClass | Public<br>RDFSsubClassOf links a class to another class that generalizes it<br>RDFSClass | |
| **Generalization**<br>Source -> Destination | Public<br>OWLClass | Public<br>RDFSClass | |
| **Generalization**<br>Source -> Destination | Public<br>OWLDataRange | Public<br>RDFSClass | |
| **Association**<br>TypeForResource<br>Source -> Destination | Public typedResource links a class to a resource that is an instance of the class<br>RDFSResource | Public RDFtype relates a resource to its type (i.e., states that the resource is an instance of the class that is its type)<br>RDFSClass | |

## RDFSContainer

*Type:* **Class** **RDFSResource**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* RDFS *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 18.09.2006.
*GUID:* {30BED589-3A67-447c-9A60-14003D39FF49}

This is a super-class of RDF container classes.
Constraints:

none

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>RDFSContainer | Public<br>RDFSResource | |
| **Generalization**<br>Source -> Destination | Public<br>RDFAlt | Public<br>RDFSContainer | |
| **Generalization**<br>Source -> Destination | Public<br>RDFSeq | Public<br>RDFSContainer | |
| **Generalization**<br>Source -> Destination | Public<br>RDFBag | Public<br>RDFSContainer | |

## RDFSContainerMembershipProperty

*Type:* **Class** **RDFProperty**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* RDFS *Keywords:*
*Detail:* *Created on* 24.08.2006. *Last modified on* 24.08.2006.
*GUID:* {2FA8D202-3C2C-4b46-9D68-6D9FA17E814E}

The rdfs:ContainerMembershipProperty class has as instances the properties rdf:_1, rdf:_2, rdf:_3 ... that are used to state that a resource is a member of a container. Each instance of this class is an rdfs:subPropertyOf the rdfs:memberOf property.
Constraints:
none

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>RDFSContainerMembershipProperty | Public<br>RDFProperty | |

## RDFSDataType

*Type:* **Class** **RDFSClass**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* RDFS *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 18.09.2006.
*GUID:* {B23336F5-8694-45a8-BCB3-B0B4E38BEEF8}

Datatypes are used by RDF in the representation of values such as integers, floating point numbers and dates. A datatype consists of a lexical space, a value space and a lexical-to-value mapping.
RDF predefines just one datatype rdf:XMLLiteral, used for embedding XML in RDF. There are no built-in concepts for numbers, dates or other common values. Rather, RDF defers to datatypes that are defined separately and identified with URI references. The predefined XML Schema Datatypes [XML Schema Datatypes] are expected to be used for this purpose. Additionally, RDF provides no mechanism for defining new datatypes. XML Schema provides a framework suitable for defining new datatypes for use in RDF.
rdfs:Datatype is the class of datatypes. All instances of rdfs:Datatype correspond to the RDF model of a datatype described in the RDF Concepts specification [RDF Concepts]. rdfs:Datatype is both an instance of and a subclass of rdfs:Class. Each instance of rdfs:Datatype is a subclass of rdfs:Literal.
Constraints:
- RDFSDatatype classes must inherit URI references from RDFSResource.
  context RDFSDatatype HasURI inv:
    self.uriRef->notEmpty
- Each instance of RDFSDatatype is a subclass of TypedLiteral:
  context RDFSDatatype InstancesAreLiterals inv:
    self.instance->forall (instance | instance.oclIsKindOf(TypedLiteral ))

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink** | Public<br>RDFSDataType | Public<br>Note | |
| **Generalization**<br>Source -> Destination | Public<br>RDFSDataType | Public<br>RDFSClass | |
| **Association**<br>DataTypeForDataRange<br>Source -> Destination | Public dataRange<br>OWLDataRange | Public dataType<br>RDFSDataType | |

## RDFSeq

*Type:* **Class** **RDFSContainer**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* RDFS *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 24.08.2006.
*GUID:* {736A06B2-CFAA-4a2e-9552-D5ACBE85F5BC}

This is the class of RDF “Sequence” containers. It is used conventionally to indicate that the numerical ordering of the container membership properties of the container is intended to be significant.
Constraints:
none

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>RDFSeq | Public<br>RDFSContainer | |

## RDFWeb

*Type:* **Package**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* RDF
*Detail:* *Created on 11.08.2006. Last modified on 11.08.2006*
*GUID:* {986317B1-B6BC-4bd7-9493-DCD06447206B}

**Documents** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 11.08.2006
*Last Modified:* 26.09.2006
*Version:* 1.0. *Locked:* False
*GUID:* {76905E84-F139-44b4-A771-8DCFA760B44E}

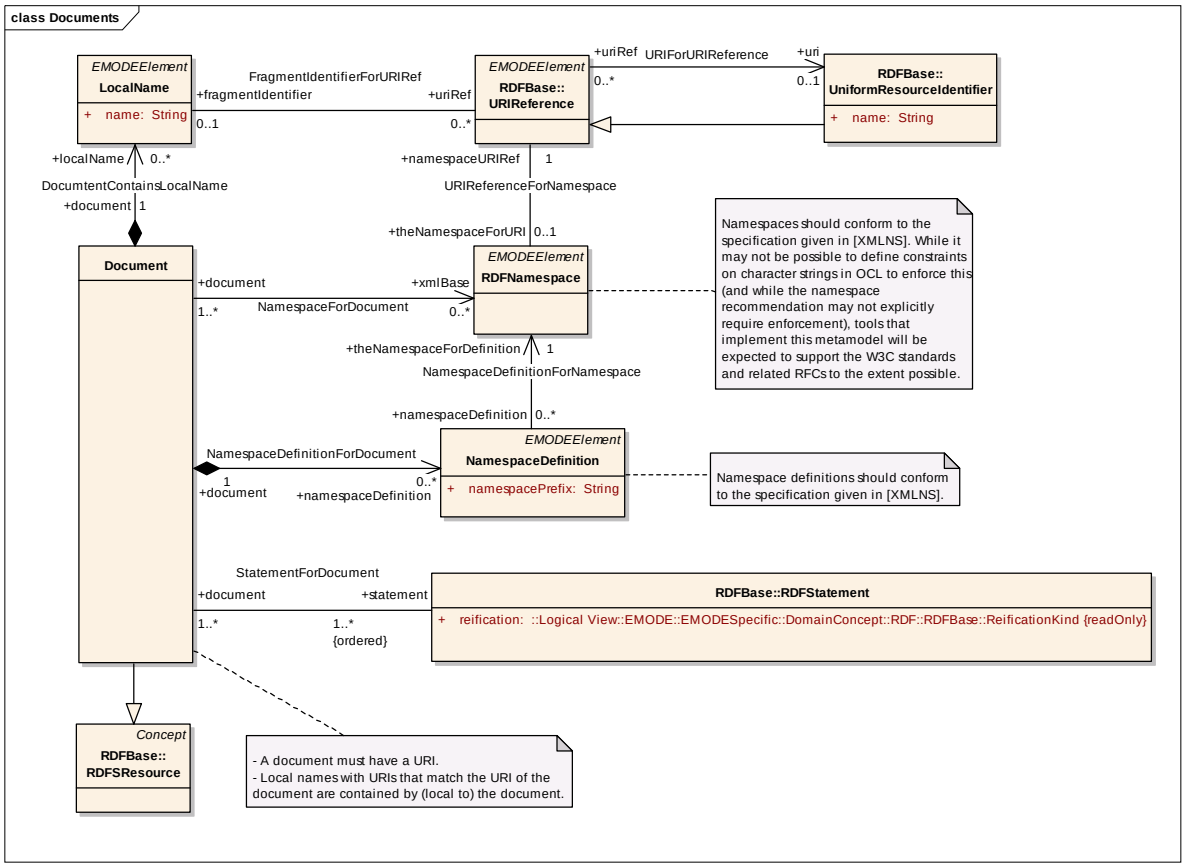



Figure: 36

## Document

*Type:* **Class** **RDFSResource**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* RDFWeb *Keywords:*
*Detail:* *Created on* 24.08.2006. *Last modified on* 18.09.2006.
*GUID:* {043CA33F-87E1-448f-92C3-A40F93B426FD}

RDF's conceptual model is a graph. RDF also provides an XML syntax for writing down and exchanging RDF graphs, called RDF/XML. An RDF document is a serialization of an RDF graph into a concrete syntax, as specified in [RDF Syntax], which provides the container for the graph, and conventionally also contains declarations of the XML namespaces referenced by the statements in the document.
RDF refers to a set of URI references as a vocabulary. Often, the URI references in such vocabularies are organized so that they can be represented as sets of QNames using common prefixes. URI references that are contained in the vocabulary are formed by appending individual local names to the relevant prefix. This practice is also commonly used in OWL ontology development for improved readability. While the metamodel does not explicitly support QNames, the elements required to enable such support in vendor implementations are provided.
Constraints:
- A document must have a URI.
- Local names with URIs that match the URI of the document are contained by (local to) the document.

### ***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink** | Public<br>Document | Public<br>Note | |
| **Generalization**<br>Source -> Destination | Public<br>Document | Public<br>RDFSResource | |
| **Association**<br>NamespaceDefinitionFor Document<br>Destination -> Source | Public<br>namespaceDefinition links a document to zero or more namespace definitions that may be used in any RDF (or OWL) assertions contained within the document.<br>NamespaceDefinition | Public document the document(s) using the namespace definition.<br>Document | |
| **Association**<br>NamespaceForDocument<br>Source -> Destination | Public document the document(s) for which it is the default namespace (or xml:base).<br>Document | Public xmlBase links a document to one or more default namespaces (xml:base namespaces) associated with the statements in the document.<br>RDFNamespace | |
| **Association**<br>StatementForDocument<br>Unspecified | Public statement links a document to the set of triples (statements) it contains (ordered).<br>RDFStatement | Public document the document(s) containing the statement.<br>Document | |
| **Association**<br>DocumtentContainsLocal Name<br>Source -> Destination | Public document links local names to the document that contains them.<br>Document | Public localName links a document to the set of local<br>names it contains.<br>LocalName | |

## LocalName

*Type:* **Class** **EMODEElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* RDFWeb *Keywords:*
*Detail:* *Created on* 24.08.2006. *Last modified on* 27.10.2006.

*GUID:* {32846A4E-5674-4ff4-BFCD-924487F03E8A}

RDF uses an RDF URI Reference, which may include a fragment identifier, as a context free identifier for a resource.
The meaning of a fragment identifier depends on the MIME content-type of a document, i.e. is context dependent. These apparently conflicting views are reconciled by considering that a URI reference in an RDF graph is treated with respect to the MIME type application/rdf+xml. Given an RDF URI reference consisting of an absolute URI and a fragment identifier, the fragment identifier identifies the same thing that it does in an application/rdf+xml representation of the resource identified by the absolute URI component.
The typical practice is to split a URI reference into two parts such that the right is maximal being an NCName as specified by XML Namespaces, which might best be implemented by vendors as a method on the model. Atypical (but formally permitted) practice includes allowing multiple LocalNames for each URIReference, i.e. any split as above, without the right part being maximal. Also note that some URIrefs (specifically those suggested for user defined datatypes in XML Schema) cannot be split in this way, since they have no rightmost NCName.
The definitions provided in this metamodel are also sufficient to generate QNames: split each URI reference as above (or using LocalName), look the first half up as a namespace, and then form a qname.
Constraints:
none

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>LocalName | Public<br>EMODEElement | |
| **Association**<br>FragmentIdentifierForURIRef<br>Unspecified | Public<br>fragmentIdentifier links URIReference to an optional fragment identifier.<br>LocalName | Public uriRef links the fragment identifier to zero or<br>more URIs that reference it.<br>URIReference | |
| **Association**<br>DocumtentContainsLocalName<br>Source -> Destination | Public document links local names to the document that contains them.<br>Document | Public localName links a document to the set of local<br>names it contains.<br>LocalName | |

### *Attributes*

| Attribute | Notes | Constraints and tags |
|---|---|---|

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **name** String<br>Public | the string representing the local name or fragment identifier. | *Default:*<br><br>[isStatic = false ] |

## NamespaceDefinition

*Type:* **Class** **EMODEElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* RDFWeb *Keywords:*
*Detail:* *Created on* 24.08.2006. *Last modified on* 24.08.2006.
*GUID:* {7A705135-F35A-42df-80A9-80DE279E271D}

A namespace is declared using a family of reserved attributes. These attributes, like any other XML attributes, may be provided directly or by default. Some names in XML documents (constructs corresponding to the nonterminal Name) may be given as qualified names. The prefix provides the namespace prefix part of the qualified name, and must be associated with a namespace URI in a namespace declaration.
Constraints:
Namespace definitions should conform to the specification given in [XMLNS].

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink** | Public<br>NamespaceDefinition | Public<br>Note | |
| **Association**<br>NamespaceDefinitionFor Namespace<br>Source -> Destination | Public<br>namespaceDefinition links a namespace definition to the namespace it describes (resolves to).<br>NamespaceDefinition | Public<br>theNamespaceForDefinition indicates that a namespace definition, if it exists, resolves to exactly one namespace.<br>RDFNamespace | |
| **Generalization**<br>Source -> Destination | Public<br>NamespaceDefinition | Public<br>EMODEElement | |
| **Association**<br>NamespaceDefinitionFor | Public<br>namespaceDefinition | Public document the document(s) using the | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| Document<br>Destination -> Source | links a document to zero or more namespace definitions that may be used in any RDF (or OWL) assertions contained within the document.<br>NamespaceDefinition | namespace definition.<br>Document | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **namespacePrefix** String<br>Public | | *Default:*<br><br>[isStatic = false ] |

## RDFNamespace

*Type:* **Class** **EMODEElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* RDFWeb *Keywords:*
*Detail:* *Created on* 24.08.2006. *Last modified on* 26.09.2006.
*GUID:* {58E62945-2DA6-48c6-9B16-5C76AF945330}

An XML namespace is a collection of names, identified by a URI reference, which are used in XML documents as element types and attribute names.
Constraints:
Namespaces should conform to the specification given in [XMLNS]. While it may not be possible to define constraints on character strings in OCL to enforce this (and while the namespace recommendation may not explicitly require enforcement), tools that implement this metamodel will be expected to support the W3C standards and related RFCs to the extent possible.

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink** | Public<br>RDFNamespace | Public<br>Note | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| | | | |
| **Association**<br>NamespaceDefinitionForNamespace<br>Source -> Destination | Public<br>namespaceDefinition links a namespace definition to the namespace it describes (resolves to).<br>NamespaceDefinition | Public<br>theNamespaceForDefinition indicates that a namespace definition, if it exists, resolves to exactly one namespace.<br>RDFNamespace | |
| **Generalization**<br>Source -> Destination | Public<br>RDFNamespace | Public<br>EMODEElement | |
| **Association**<br>URIReferenceForNamespace<br>Unspecified | Public<br>theNamespaceForURI links a URI reference to a namespace<br>RDFNamespace | Public<br>namespaceURIRef links a namespace to the corresponding URI reference.<br>URIReference | |
| **Association**<br>NamespaceForDocument<br>Source -> Destination | Public document the document(s) for which it is the default namespace (or xml:base).<br>Document | Public xmlBase links a document to one or more default namespaces (xml:base namespaces) associated with the statements in the document.<br>RDFNamespace | |

## *XMLSchema*

*Type:* **Package**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* DomainConcept
*Detail:* *Created on 23.10.2006. Last modified on 23.10.2006*
*GUID:* {147FC3D5-76A6-4546-88DD-6D9008CC743C}

**BuiltinPrimitiveTypes** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 17.10.2006
*Last Modified:* 23.10.2006
*Version:* 1.0. *Locked:* False
*GUID:* {4C95AA04-8B29-4515-B691-4C1E92F9531B}

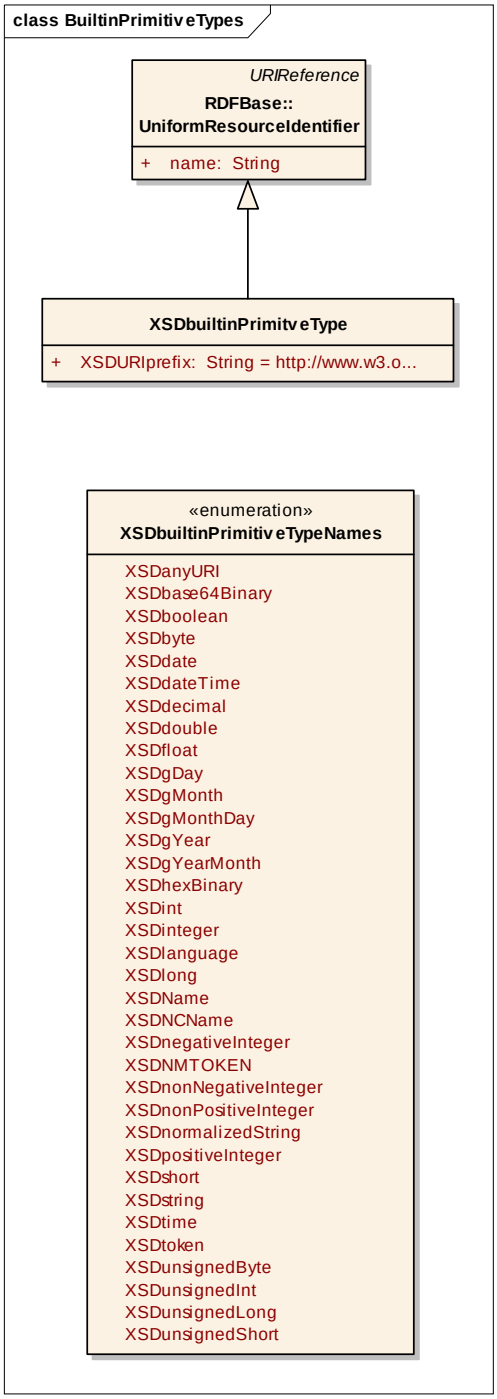



Figure: 37

## XSDbuiltinPrimitiveTypeNames

*Type:* **Enumeration**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* XMLSchema *Keywords:*
*Detail:* *Created on* 17.10.2006. *Last modified on* 17.10.2006.
*GUID:* {5C63A6C9-1AE4-48df-8CD3-B94030E5A7BC}

***Custom Properties***

- isActive = False

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **XSDanyURI**<br>Public | | *Default:* |
| **XSDbase64Binary**<br>Public | | *Default:* |
| **XSDboolean**<br>Public | | *Default:* |
| **XSDbyte**<br>Public | | *Default:* |
| **XSDdate**<br>Public | | *Default:* |

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **XSDdateTime**<br>Public | | *Default:* |
| **XSDdecimal**<br>Public | | *Default:* |
| **XSDdouble**<br>Public | | *Default:* |
| **XSDfloat**<br>Public | | *Default:* |
| **XSDgDay**<br>Public | | *Default:* |
| **XSDgMonth**<br>Public | | *Default:* |

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **XSDgMonthDay**<br>Public | | *Default:* |
| **XSDgYear**<br>Public | | *Default:* |
| **XSDgYearMonth**<br>Public | | *Default:* |
| **XSDhexBinary**<br>Public | | *Default:* |
| **XSDint**<br>Public | | *Default:* |
| **XSDinteger**<br>Public | | *Default:* |

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **XSDlanguage**<br>Public | | *Default:* |
| **XSDlong**<br>Public | | *Default:* |
| **XSDName**<br>Public | | *Default:* |
| **XSDNCName**<br>Public | | *Default:* |
| **XSDnegativeInteger**<br>Public | | *Default:* |
| **XSDNMTOKEN**<br>Public | | *Default:* |

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **XSDnonNegativeInteger**<br>Public | | *Default:* |
| **XSDnonPositiveInteger**<br>Public | | *Default:* |
| **XSDnormalizedString**<br>Public | | *Default:* |
| **XSDpositiveInteger**<br>Public | | *Default:* |
| **XSDshort**<br>Public | | *Default:* |
| **XSDstring**<br>Public | | *Default:* |

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **XSDtime**<br>Public | | *Default:* |
| **XSDtoken**<br>Public | | *Default:* |
| **XSDunsignedByte**<br>Public | | *Default:* |
| **XSDunsignedInt**<br>Public | | *Default:* |
| **XSDunsignedLong**<br>Public | | *Default:* |
| **XSDunsignedShort**<br>Public | | *Default:* |

### XSDbuiltinPrimitveType

*Type:* **Class** **UniformResourceIdentifier**

*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* XMLSchema *Keywords:*
*Detail:* *Created on* 17.10.2006. *Last modified on* 17.10.2006.
*GUID:* {FFC7F128-1C6A-4c8c-98EC-A91E81695863}

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>XSDbuiltinPrimitveType | Public<br>UniformResourceIdentifier | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **XSDURIprefix** String<br>Public | Must have the value "http://www.w3.org/2001/XMLSchema#" and should replace the "XSD" prefix in the labels from XSDBuiltinPrimitiveTypeNames enumeration when being used in a tool. | *Default:*<br>http://www.w3.org/2001/XMLSchema#<br><br>[isStatic = false ] |

# EMODECommons

*Type:* **Package**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODESpecific
*Detail:* *Created on 13.04.2006. Last modified on 13.04.2006*
*GUID:* {AEC46739-FFA1-4cd7-8B18-D6E9126A471B}

**Annotations** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 27.04.2006
*Last Modified:* 29.06.2006
*Version:* 1.0. *Locked:* False
*GUID:* {0F7E953F-A6AB-4c29-BD6E-581E34651D51}

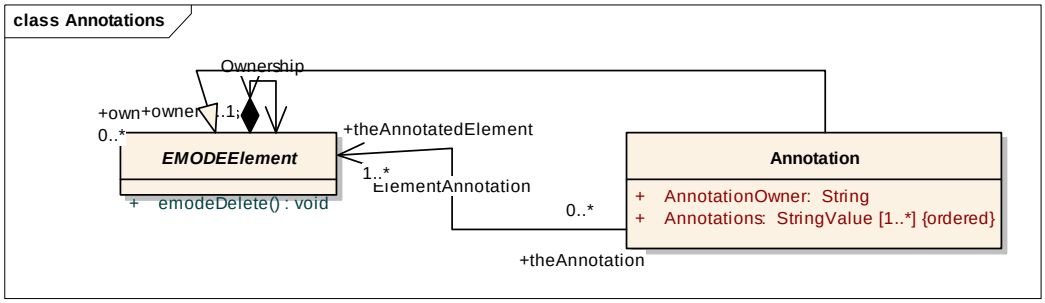



Figure: 38

**Associations** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 08.08.2006
*Last Modified:* 31.12.2006
*Version:* 1.0. *Locked:* False
*GUID:* {1D4C6B61-B3BE-46dc-906B-51A897368CB1}

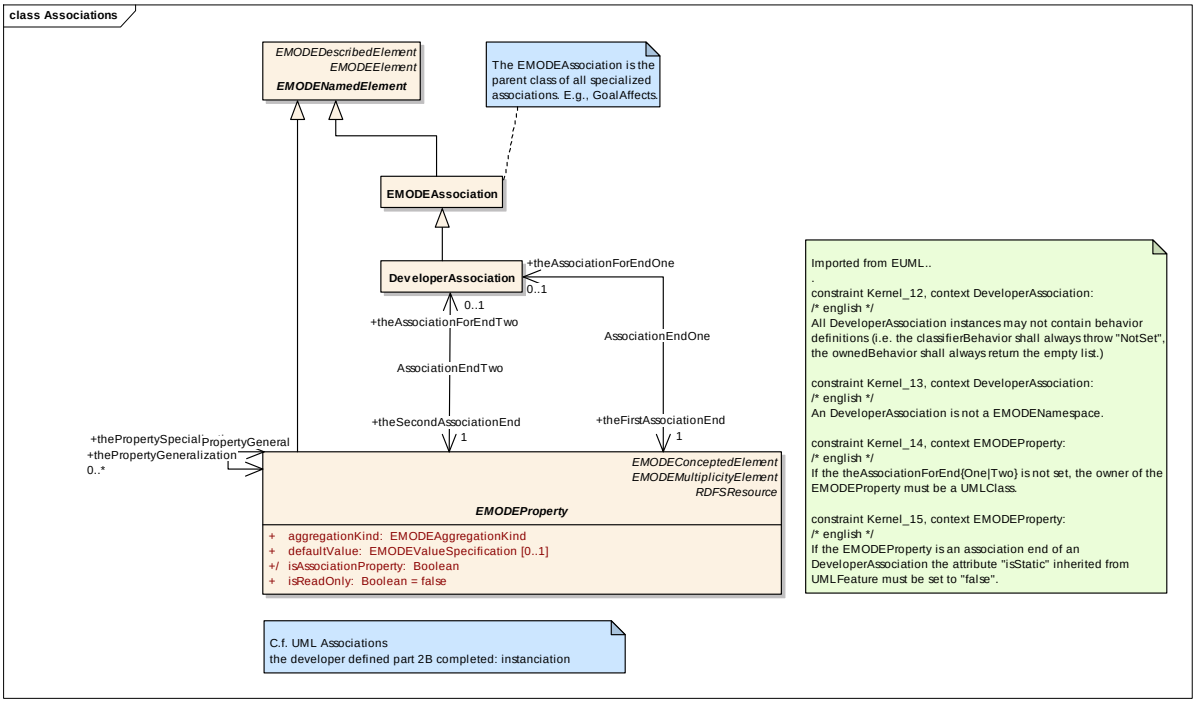



Figure: 39

**BehaviorRealization** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 16.08.2006
*Last Modified:* 04.10.2006
*Version:* 1.0. *Locked:* False
*GUID:* {6A176C7C-5422-46a8-934B-112C33063DEC}

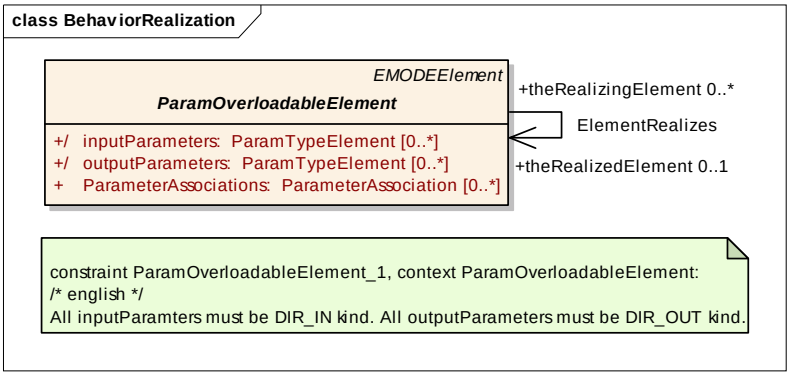



Figure: 40

**EMODECommons** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 13.04.2006
*Last Modified:* 21.06.2006
*Version:* 1.0. *Locked:* False
*GUID:* {DAA40ED5-8208-49b1-AA48-6FFF7778D213}

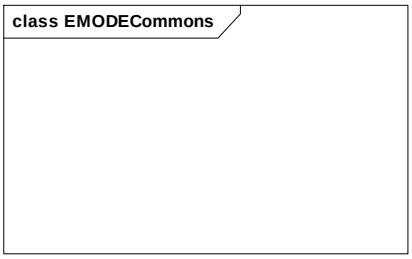



Figure: 41

**EMODEModel** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 21.06.2006
*Last Modified:* 31.12.2006
*Version:* 1.0. *Locked:* False
*GUID:* {BCA46387-703D-4b45-87F4-AB6F39F06FB0}

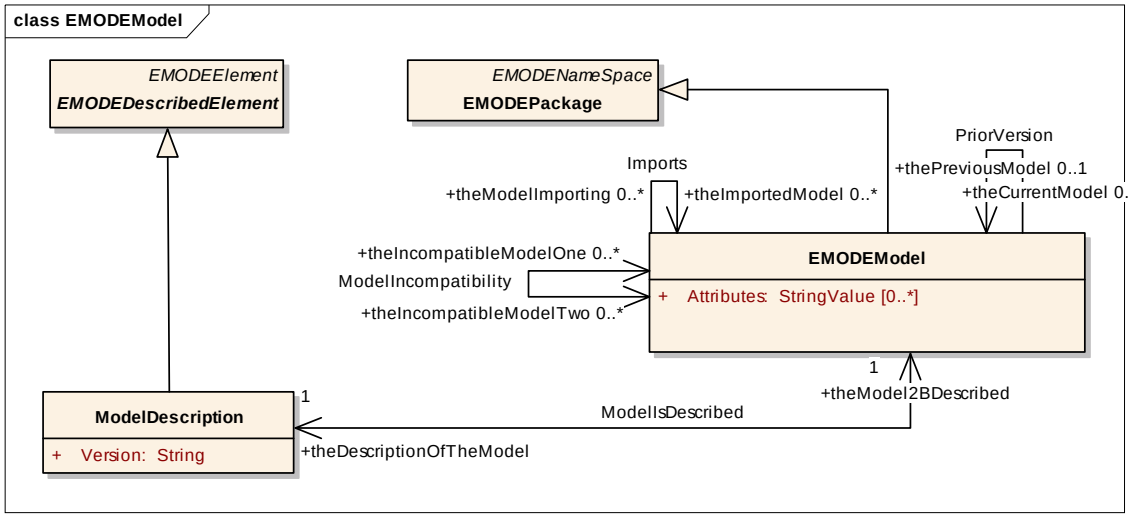



Figure: 42

**Generic** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 16.06.2006
*Last Modified:* 23.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {232BE106-0DFB-4d31-BEE6-206135B8669B}

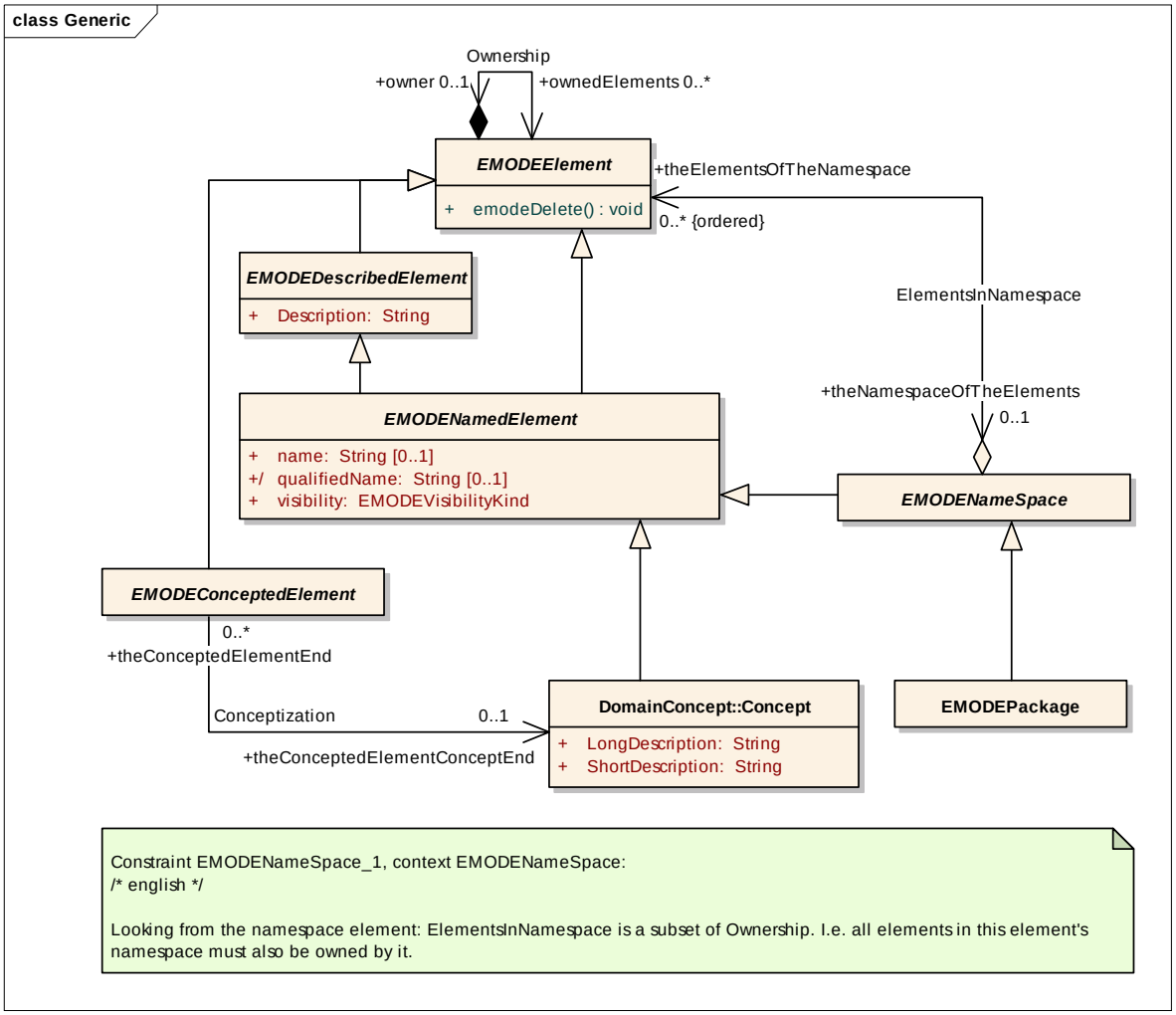



Figure: 43

**Library** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 21.04.2006
*Last Modified:* 28.02.2007
*Version:* 1.0. *Locked:* False
*GUID:* {F036633D-3391-4906-9E5A-D66D2A58B64A}

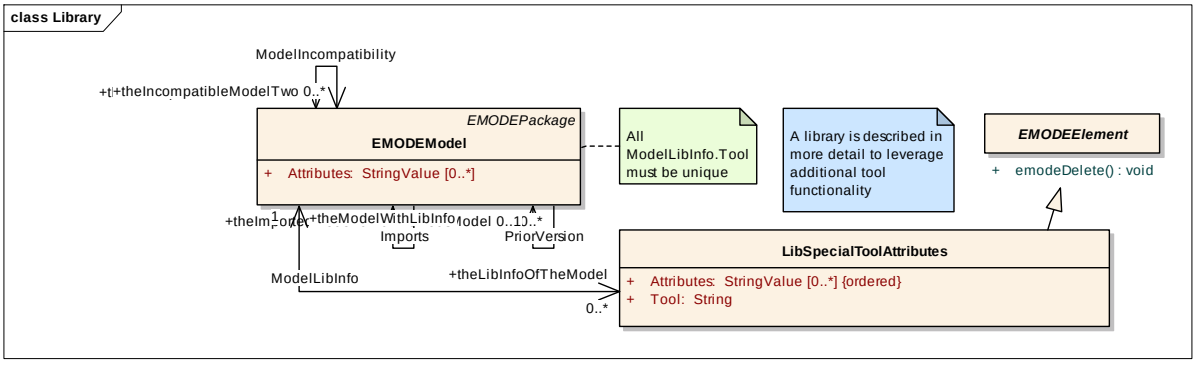



Figure: 44

**ParamTypeElementSemantics** - *(Logical diagram)*
*Created By:* *on* 24.05.2007
*Last Modified:* 25.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {6D5427A1-D2D1-4212-8384-3C41FA9086C8}

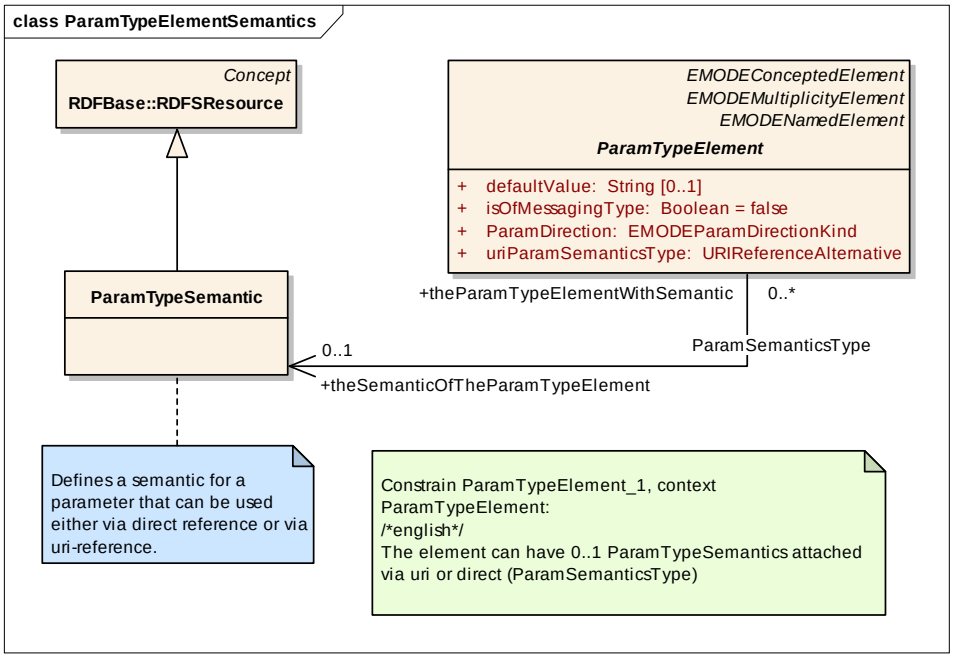
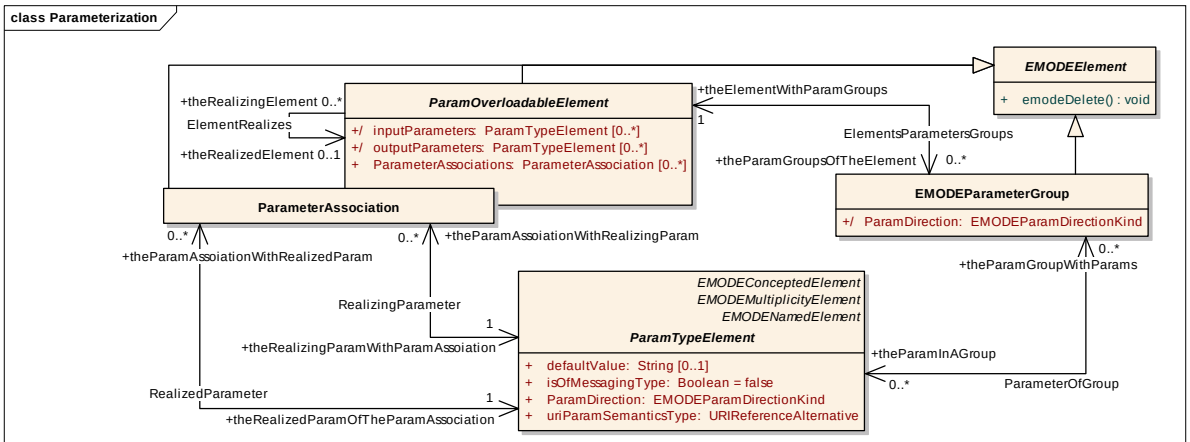



Figure: 45

**Parameterization** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 16.08.2006
*Last Modified:* 24.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {1672F389-4CEF-4bae-8872-7C833F56EB5C}




```
/* ************  ParamDirection Params & ParamGroup
*/
derivation EMODEParameterGroup_1, context EMODEParameterGroup.ParamDirection
/* english */
Set to DIR_IN

constraint EMODEParameterGroup_2, context EMODEParameterGroup:
/* english */
All ParamTypeElements connected via ParameterOfGroup must be DIR_IN or DIR_INOUT kind.

constraint EMODEParameterGroup_3, context EMODEParameterGroup:
/* english */
All Parameters must be connected to the ParamOverloadableElement, which is referred to by ElementsInParamGroup.

constraint EMODEParameterGroup_4, context EMODEParameterGroup:
/* english */
A ParameterGroup must contain at least one ParamTypeElement

constraint ParamOverloadableElement_2, context ParamOverloadableElement
/* english */
If there is at least one EMODEParameterGroup defined for a ParamOverloadableElement, no inputParameter may be without association to a group anymore.

/* ************  ParameterAssociations
*/
Constraint ParamOverloadableElement_3, context ParamOverloadableElement
/* english */
Every ParameterAssociation.RealizingParameter must be in the union of inputParameters and outputParameters. Every ParameterAssociation.RealizedParameter
must be in the union of ElementRealizes,inputParameters and ElementRealizes,outputParameters.

Constraint ParamOverloadableElement_3, context ParamOverloadableElement.ParameterAssociations
/* english */
For every ParameterAssociation, the ParamDirection of Realizing and Realized Parameter must match. That means DIR_IN can be connected with DIR_INOUT and
DIR_IN, DIR_OUT can be connected with DIR_OUT or DIR_INOUT.

Constraint ParamOverloadableElement_4, context ParamOverloadableElement.ParameterAssociations
/* english */
For every ParameterAssociation, the concepts of both parameters must be the same.

Constraint ParamOverloadableElement_5, context ParamOverloadableElement.ParameterAssociations
/* english */
For every ParameterAssociation, the multiplicities of the parameters must match:
If one of the two associated parameters is DIR_OUT:
The RealizingParameter's multiplicity must be a subset of the RealizedParameter's multiplicities (=> if the RealizingParameter's multiplicity is satisfied, the
RealizedParameter's multiplicity is, too).
Else if one of the two associated parameters is DIR_IN:
The RealizedParameter's multiplicities must be a subset of the RealizingParameter's multiplicities (=> if the RealizedParameter's multiplicity is satisfied, the
RealizingParameter's multiplicity is, too).
Elseb both are DIR_INOUT:
The multiplicities must be the same.
Value of isOfMessagingType must be the same.
/* It is suggested to have an exact match in any case and not a subsetting. */

/* ************  In- and Output mapping
*/
constraint ParamOverloadableElement_6, context ParamOverloadableElement:
/* english */
Following only valid, if ElementRealizes is connected.
For all outputParameters contained in this ParamOverloadableElement there must be an entry in ParameterAssociations.
/* ParameterGroups are not eligable for output. */

constraint ParamOverloadableElement_7, context ParamOverloadableElement:
/* english */
Following only valid, if ElementRealizes is connected.
If there are no groups of inputParameters defined, in the following, all defined inputParameters together are handled as one group.
At least one group of ElementRealizes.inputParameters must be matched by a group of inputParameters. Matching of groups means that for every
ParamTypeElement in the group of ElementRealizes.inputParameters, there must be an entry in ParameterAssociations.
/* It is suggested to have an exact match and not a subsetting. */

constraint ParamOverloadableElement_8, context ParamOverloadableElement:
/* english */
Following only valid, if ElementRealizes is connected.
If there are no groups of inputParameters defined, in the following, all defined inputParameters together are handled as one group.
Groups of inputParameters and ElementRealizes.inputParameters must be mapped in a way that if parameters are in one group on the one side, they must also be in
one group on the other side. (Groups are always mapped as a whole without cross-sectioning or unions).
```

Figure: 46

**Patterns** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 13.04.2006
*Last Modified:* 28.02.2007
*Version:* 1.0. *Locked:* False
*GUID:* {0F179E15-1480-4cdf-BC98-9A2AA332EA9C}

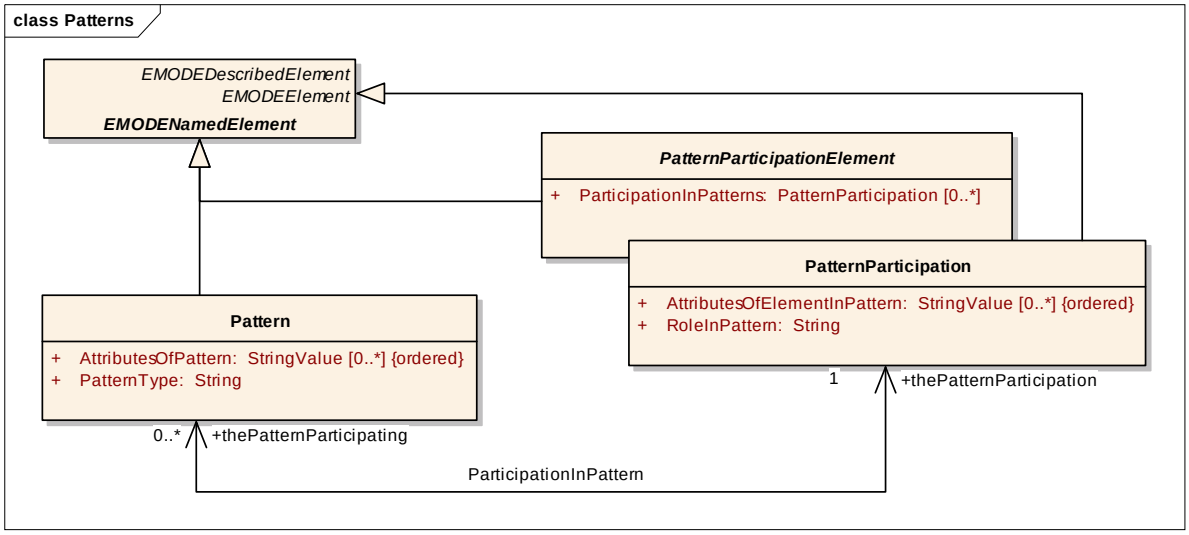



Figure: 47

**Properties and Multiplicities** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 07.08.2006
*Last Modified:* 29.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {2E1FC980-B9A7-4b64-A60E-A90990748551}

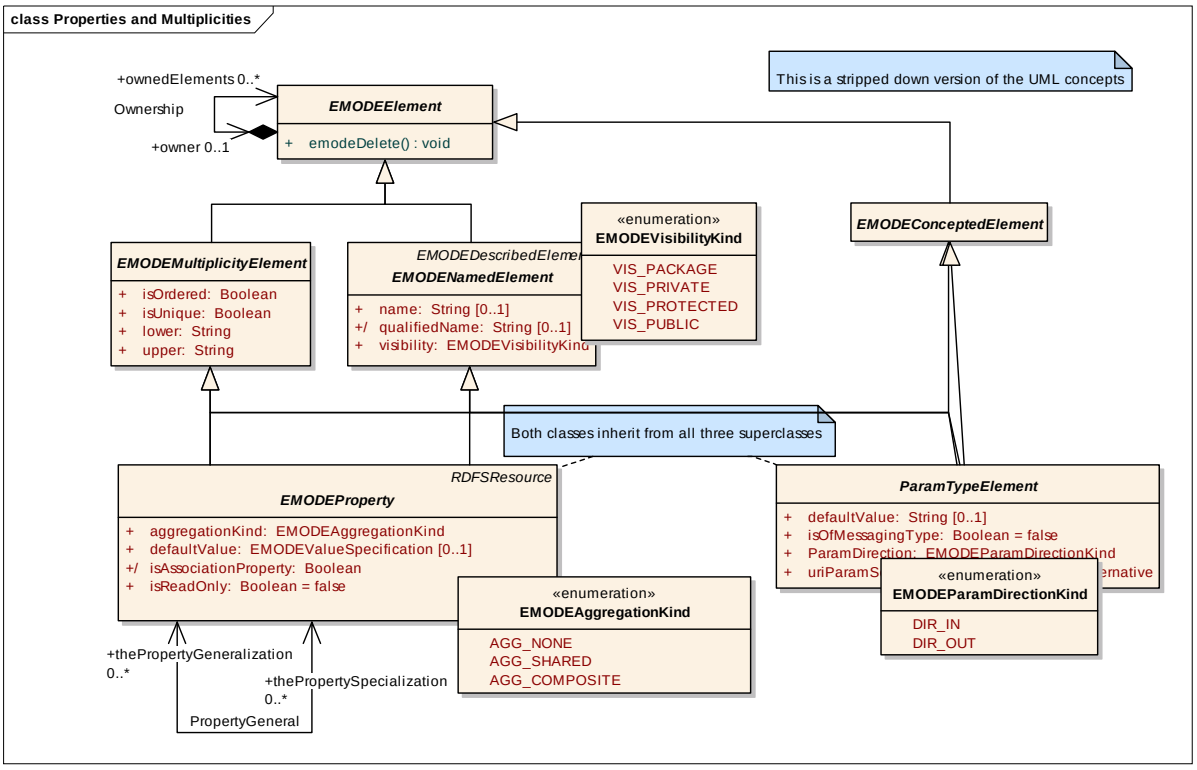



Figure: 48

**Relationships** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 07.08.2006
*Last Modified:* 10.08.2006
*Version:* 1.0. *Locked:* False
*GUID:* {0E554707-7703-4a55-BC50-9D1CC5E6DE57}

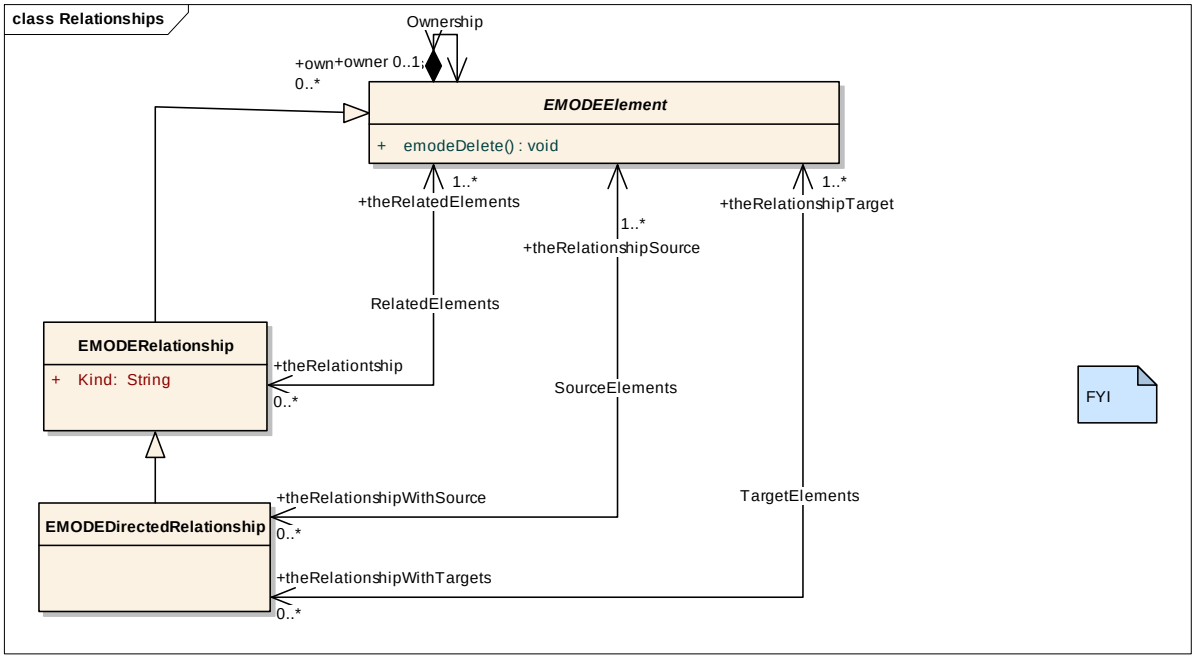


Figure: 49

## *Annotation*

*Type:* **Class** **EMODEElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODECommons *Keywords:*
*Detail:* *Created on* 27.04.2006. *Last modified on* 29.06.2006.
*GUID:* {0474837F-1A89-4df7-AAA0-7ABB24EFB579}

An annotation of some party to an element, it could contain things like layout infos, editor states, documentation, .....

Annotations that are used to parameterize transformations are also written in this element. Two marking schemes are directly at hand:
- The AnnotationOwner is set to the transformation name, with a prefix like "trafo_"
- The AnnotationOwner is set to "Transformation" and the StringValue name is set to a (within the domain of transformations) unique key.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association** ElementAnnotation Source -> Destination | Public theAnnotation Annotation | Public theAnnotatedElement EMODEElement | Connects an annotation with an EMODEElement |
| **Generalization** Source -> Destination | Public Annotation | Public EMODEElement | |

### *Attributes*

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **AnnotationOwner** String Public | The owner of the annotation | *Default:* |

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **Annotations** StringValue<br>Public<br><br>[1..*] | The annotations of the owner | *Default:* |

## *DeveloperAssociation*

*Type:* **Class** **EMODEAssociation**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODECommons *Keywords:*
*Detail:* *Created on* 11.08.2006. *Last modified on* 11.08.2006.
*GUID:* {45B3AC1A-EB9F-4381-A334-84F0C8954B0C}

An association that is defined by the developer. It cann associate two EMODEElements in a developer defined way.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>AssociationEndOne<br>Bi-Directional | Public<br>theAssociationForEndOne<br>DeveloperAssociation | Public<br>theFirstAssociationEnd<br>EMODEProperty | One of the ends of an association |
| **Association**<br>AssociationEndTwo<br>Bi-Directional | Public<br>theSecondAssociationEnd<br>EMODEProperty | Public<br>theAssociationForEndTwo<br>DeveloperAssociation | The second end of an association |
| **Generalization**<br>Source -> Destination | Public<br>DeveloperAssociation | Public<br>EMODEAssociation | |

## *EMODEAggregationKind*

*Type:* **Enumeration**
*Status:* Proposed. Version . Phase .
*Package:* EMODECommons *Keywords:*

*Detail:* *Created on* 02.09.2005. *Last modified on* 04.10.2006.
*GUID:* {7C813689-D6D9-4524-9820-1E36F884FA36}

This enumeration denotes the kind of an aggregation.

### ***Custom Properties***

- isActive = False

### ***Tagged Values***

- persistence = transient.

### ***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **AGG_NONE** <undefined> Public | The association is not an aggregation nor a composition. | *Default:*<br><br>[RationalRose$UML2MOF:isUnique = false ]<br>[RationalRose$UML2MOF:isOrdered = false ]<br>[RationalRose$UML2MOF:cardinality = 1 ] |
| **AGG_SHARED** <undefined> Public | The association is an aggregation, but not a composition. | *Default:*<br><br>[RationalRose$UML2MOF:isUnique = false ]<br>[RationalRose$UML2MOF:isOrdered = false ]<br>[RationalRose$UML2MOF:cardinality = 1 ] |
| **AGG_COMPOSITE** <undefined> Public | The association is a strong aggregation (a composition). | *Default:*<br><br>[RationalRose$UML2MOF:isUnique = false ]<br>[RationalRose$UML2MOF:isOrdered = false ]<br>[RationalRose$UML2MOF:cardinality = 1 ] |

## *EMODEAssociation*

*Type:* **Class** **EMODENamedElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODECommons *Keywords:*
*Detail:* *Created on* 08.08.2006. *Last modified on* 08.08.2006.
*GUID:* {14322539-DDBC-4056-92C5-3B42133B9C61}

An association is a relationship between two elements that has classifier features. I.e. it can be generalized. It also uses multiplicity elements on its ends.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>EMODEAssociation | Public<br>EMODENamedElement | |
| **Generalization**<br>Source -> Destination | Public<br>SubGoalOf | Public<br>EMODEAssociation | |
| **Generalization**<br>Source -> Destination | Public<br>PropertyGeneralization | Public<br>EMODEAssociation | |
| **Generalization**<br>Source -> Destination | Public<br>DeveloperAssociation | Public<br>EMODEAssociation | |
| **Generalization**<br>Source -> Destination | Public<br>GoalAffectedBy | Public<br>EMODEAssociation | |
| **NoteLink**<br>Source -> Destination | Public<br>Note | Public<br>EMODEAssociation | |
| **Generalization**<br>Source -> Destination | Public<br>TaskSupportsGoal | Public<br>EMODEAssociation | |
| **Generalization**<br>Source -> Destination | Public<br>Generalization | Public<br>EMODEAssociation | |
| **Generalization**<br>Source -> Destination | Public<br>ClassifierEquivalence | Public<br>EMODEAssociation | |
| **Generalization**<br>Source -> Destination | Public<br>PropertyEquivalence | Public<br>EMODEAssociation | |

## *EMODEConceptedElement*

*Type:* **Class** **EMODEElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODECommons *Keywords:*
*Detail:* *Created on* 10.08.2006. *Last modified on* 01.01.2007.

*GUID:* {6158AFBD-D222-4f57-AAD2-984316B0F8A8}

An element which is "of concept ...". It has a strong reltaion to the connected concept.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>ConceptNode | Public<br>EMODEConceptedElement | |
| **Generalization**<br>Source -> Destination | Public<br>AUIInteractor | Public<br>EMODEConceptedElement | |
| **Generalization**<br>Source -> Destination | Public<br>ParamTypeElement | Public<br>EMODEConceptedElement | |
| **Generalization**<br>Source -> Destination | Public<br>EMODEConceptedElement | Public<br>EMODEElement | |
| **Association**<br>ConceptValueAccessValue<br>Bi-Directional | Public<br>theValuesConceptValueAccess<br>ConceptValueAccess | Public<br>theAccessedValue<br>EMODEConceptedElement | Connects the element that holds tha value to be accessed to the ConceptValueAccess class. |
| **Generalization**<br>Source -> Destination | Public<br>MesssageEndConnector | Public<br>EMODEConceptedElement | |
| **Association**<br>Conceptization<br>Source -> Destination | Public<br>theConceptedElementEnd<br>EMODEConceptedElement | Public<br>theConceptedElementConceptEnd<br>Concept | Specifies the concept this element is of |
| **Generalization**<br>Source -> Destination | Public<br>EMODEProperty | Public<br>EMODEConceptedElement | |

## *EMODEDescribedElement*

*Type:* **Class EMODEElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODECommons *Keywords:*
*Detail:* *Created on* 18.08.2006. *Last modified on* 01.01.2007.
*GUID:* {4777E4E9-BDD0-477e-9AC8-8F29B9C85E41}

An element with a description

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>ModelDescription | Public<br>EMODEDescribedElement | |
| **Generalization**<br>Source -> Destination | Public<br>EMODEDescribedElement | Public<br>EMODEElement | |
| **Generalization**<br>Source -> Destination | Public<br>EMODENamedElement | Public<br>EMODEDescribedElement | |
| **Generalization**<br>Source -> Destination | Public<br>FCAMethod | Public<br>EMODEDescribedElement | |
| **Generalization**<br>Source -> Destination | Public<br>FCAMethodParameter | Public<br>EMODEDescribedElement | |
| **Generalization**<br>Source -> Destination | Public<br>FCAMethodResult | Public<br>EMODEDescribedElement | |
| **Generalization**<br>Source -> Destination | Public<br>FCACall | Public<br>EMODEDescribedElement | |
| **Generalization**<br>Source -> Destination | Public<br>FCACallParameter | Public<br>EMODEDescribedElement | |
| **Generalization**<br>Source -> Destination | Public<br>FCACallResult | Public<br>EMODEDescribedElement | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| | | | |
| **Generalization**<br>Source -> Destination | Public<br>FCA | Public<br>EMODEDescribedElement | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **Description** String<br>Public | A description of the element | *Default:* |

## *EMODEDirectedRelationship*

*Type:* **Class** **EMODERelationship**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODECommons *Keywords:*
*Detail:* *Created on* 07.08.2006. *Last modified on* 07.08.2006.
*GUID:* {0E65E0BF-C85C-4ba5-BF34-699A7C3B58A5}

A directed relationship

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>SourceElements<br>Bi-Directional | Public<br>theRelationshipWithSource<br>EMODEDirectedRelationship | Public<br>theRelationshipSource<br>EMODEElement | the source elements of the relations |
| **Association**<br>TargetElements<br>Bi-Directional | Public<br>theRelationshipWithTargets<br>EMODEDirectedRelationship | Public<br>theRelationshipTarget<br>EMODEElement | The target elements of the directed relationship |

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>EMODEDirectedRelationship | Public<br>EMODERelationship | |

## *EMODEElement*

*Type:* **Class**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODECommons *Keywords:*
*Detail:* *Created on* 16.06.2006. *Last modified on* 16.06.2006.
*GUID:* {3A206D05-F27F-4d45-8336-13CEABBFD051}

An element used by EMODE.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>SourceElements<br>Bi-Directional | Public<br>theRelationshipWithSource<br>EMODEDirectedRelationship | Public<br>theRelationshipSource<br>EMODEElement | the source elements of the relations |
| **Association**<br>RelatedElements<br>Bi-Directional | Public theRelationtship<br>EMODERelationship | Public<br>theRelatedElements<br>EMODEElement | The elements related |
| **Association**<br>TargetElements<br>Bi-Directional | Public<br>theRelationshipWithTargets<br>EMODEDirectedRelationship | Public<br>theRelationshipTarget<br>EMODEElement | The target elements of the directed relationship |
| **Generalization**<br>Source -> Destination | Public<br>EMODEMultiplicityElement | Public<br>EMODEElement | |
| **Aggregation**<br>ElementsInNamespace<br>Bi-Directional | Public<br>theElementsOfTheNamespace<br>EMODEElement | Public<br>theNamespaceOfTheElements<br>EMODENameSpace | Associates named elements to a namespace. In a later version, this will be derived. So far the following associations were identfified to qualify an element to |

| Connector | Source | Target | Notes |
|---|---|---|---|
| | | | belong to a namespace:<br><br>TaskNodeGroup.containedNodes<br>EMODEClassifier.ClassOwnedInstances<br>EMODEInstanceSpecification.InstanceOwnedInstances<br><br>If an element is in the namespace of another element, it is automatically owned by it. I.e. ElementsInNamespace is a subset of Ownership. |
| **Association**<br>ElementAnnotation<br>Source -> Destination | Public theAnnotation<br>Annotation | Public<br>theAnnotatedElement<br>EMODEElement | Connects an annotation with an EMODEElement |
| **Generalization**<br>Source -> Destination | Public<br>Binding | Public<br>EMODEElement | |
| **Generalization**<br>Source -> Destination | Public<br>EMODENamedElement | Public<br>EMODEElement | |
| **Generalization**<br>Source -> Destination | Public<br>LibSpecialToolAttributes | Public<br>EMODEElement | |
| **Association**<br>DefiningDiagram<br>Bi-Directional | Public<br>theElementWithDefiningDiagram<br>EMODEElement | Public<br>theDefiningDiagramOfTheElement<br>Diagram | The diagram, this element is further defined with. E.g., the diagram showing the definition of a task node |
| **Association** Ownership<br>Bi-Directional | Public ownedElements<br>EMODEElement | Public owner<br>EMODEElement | An element can own another element<br><br>For usage, see also ElementsInNamespace. Otherwise used:<br>none so far.<br><br>If an element is in the namespace of another element, it is automatically owned by it. I.e. ElementsInNamespace is a subset of Ownership. Cf. note on EMODENameSpace. |
| **Generalization**<br>Source -> Destination | Public<br>DiagramElement | Public<br>EMODEElement | |
| **Generalization**<br>Source -> Destination | Public<br>ConceptValueAccess | Public<br>EMODEElement | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>Annotation | Public<br>EMODEElement | |
| **Generalization**<br>Source -> Destination | Public<br>EMODEDescribedElement | Public<br>EMODEElement | |
| **Generalization**<br>Source -> Destination | Public<br>ModalityRequirementProperty | Public<br>EMODEElement | |
| **Generalization**<br>Source -> Destination | Public<br>EMODERelationship | Public<br>EMODEElement | |
| **Generalization**<br>Source -> Destination | Public<br>EMODEConceptedElement | Public<br>EMODEElement | |
| **Association**<br>ElementVisualization<br>Bi-Directional | Public<br>theVisualizationOfTheElement<br>ModelElementRepresentative | Public<br>theVisualizedElement<br>EMODEElement | Connects the visualization of an element to its model counterpart |
| **Association**<br>ClassifierValue<br>Source -> Destination | Public<br>theValueReferenz<br>M3ComplexValue | Public<br>theClassifierValue<br>EMODEElement | |
| **Generalization**<br>Source -> Destination | Public<br>Coordinate | Public<br>EMODEElement | |
| **Generalization**<br>Source -> Destination | Public<br>ParameterAssociation | Public<br>EMODEElement | |
| **Generalization**<br>Source -> Destination | Public<br>ParamOverloadableElement | Public<br>EMODEElement | |
| **Association**<br>ConceptValueAccessElement<br>Bi-Directional | Public<br>theElementAccessing<br>EMODEElement | Public<br>theElementsConceptValueAccess<br>ConceptValueAccess | Connects the element that would like to access a value to the ConceptValueAccess class. |
| **Generalization**<br>Source -> Destination | Public<br>EMODEValueSpecification | Public<br>EMODEElement | |
| **Generalization**<br>Source -> Destination | Public<br>SituationImplication | Public<br>EMODEElement | |
| **Association**<br>ImplicationOnElement<br>Bi-Directional | Public theImplication<br>SituationImplication | Public theElement<br>EMODEElement | The association to the eölement the implication implies something on |
| **Generalization**<br>Source -> Destination | Public<br>URIInstanciation | Public<br>EMODEElement | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| | | | |
| **NoteLink**<br>Source -> Destination | Public<br>Note | Public<br>EMODEElement | |
| **Generalization**<br>Source -> Destination | Public<br>URIReference | Public<br>EMODEElement | |
| **Generalization**<br>Source -> Destination | Public<br>NamespaceDefinition | Public<br>EMODEElement | |
| **Generalization**<br>Source -> Destination | Public<br>LocalName | Public<br>EMODEElement | |
| **Generalization**<br>Source -> Destination | Public<br>RDFNamespace | Public<br>EMODEElement | |
| **NoteLink**<br>Source -> Destination | Public<br>Note | Public<br>EMODEElement | |
| **Generalization**<br>Source -> Destination | Public<br>EMODEParameterGroup | Public<br>EMODEElement | |

***Operations***

| Method | Notes | Parameters |
|---|---|---|
| **emodeDelete()** void<br>Public | Deletes this element from the model | |

## *EMODEModel*

*Type:* **Class** **EMODEPackage**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODECommons *Keywords:*
*Detail:* *Created on* 21.06.2006. *Last modified on* 21.06.2006.
*GUID:* {F4722F14-A63C-4248-981C-327543C9BB3B}

An EMODEModel, i.e. an instance of the meta model.

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association** PriorVersion<br>Source -> Destination | Public theCurrentModel<br>EMODEModel | Public<br>thePreviousModel<br>EMODEModel | |
| **Association**<br>ModelIncompatibility<br>Bi-Directional | Public<br>theIncompatibleModel<br>One<br>EMODEModel | Public<br>theIncompatibleModelT<br>wo<br>EMODEModel | |
| **NoteLink**<br>Source -> Destination | Public<br>Note | Public<br>EMODEModel | |
| **Association**<br>ModelLibInfo<br>Bi-Directional | Public<br>theLibInfoOfTheModel<br>LibSpecialToolAttribut<br>es | Public<br>theModelWithLibInfo<br>EMODEModel | |
| **Association**<br>ModelIsDescribed<br>Bi-Directional | Public<br>theModel2BDescribed<br>EMODEModel | Public<br>theDescriptionOfTheM<br>odel<br>ModelDescription | |
| **Association** Imports<br>Source -> Destination | Public<br>theModelImporting<br>EMODEModel | Public<br>theImportedModel<br>EMODEModel | A model uses another model |
| **Generalization**<br>Source -> Destination | Public<br>EMODEModel | Public<br>EMODEPackage | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **Attributes** StringValue<br>Public<br><br>[0..*] | Developer defined attributes | *Default:* |

## *EMODEMultiplicityElement*

*Type:* **Class** **EMODEElement**
*Status:* Proposed. Version . Phase .
*Package:* EMODECommons *Keywords:*
*Detail:* *Created on* 02.09.2005. *Last modified on* 07.08.2006.
*GUID:* {F9553A76-103F-44a3-A6C9-A764112AAED2}

The specializations of this metaclass could occur not only as single value types but also collections (lists, bags or sets). Currently defined specializations are UMLProperty and UMLParameter. If the property isOrdered is set to true and the upper value is greater than 1, the element is specified to be a list. If the property isUnique is et to true and

the upper value is greater than 1, the element is specified to be unique, meaning that no instance could be added twice to the collection.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = true.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>EMODEMultiplicityElement | Public<br>EMODEElement | |
| **Generalization**<br>Source -> Destination | Public<br>EMODEProperty | Public<br>EMODEMultiplicityElement | |
| **Generalization**<br>Source -> Destination | Public<br>ParamTypeElement | Public<br>EMODEMultiplicityElement | |
| **NoteLink** | Public<br>Note | Public<br>EMODEMultiplicityElement | |

### *Attributes*

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **isOrdered** Boolean<br>Public | The property specifies whether the collection is a list or not, i.e. the elements in the collection are ordered and can be accessed with an index. | *Default:*<br><br>[isStatic = false ] |
| **isUnique** Boolean<br>Public | The property specifies wehther the collection is unique, i.e. an element could be in the collection twice or not. | *Default:*<br><br>[isStatic = false ] |

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **lower** String<br>Public | The property specifies the minimal number of elements in the collection. | *Default:*<br><br>[isStatic = false ] |
| **upper** String<br>Public | The property specifies the upper value of the number of elements in the collection. | *Default:*<br><br>[isStatic = false ] |

## *EMODENameSpace*

*Type:* **Class** **EMODENamedElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODECommons *Keywords:*
*Detail:* *Created on* 21.06.2006. *Last modified on* 16.01.2007.
*GUID:* {6D5481FA-5348-467b-BE42-7CFBDF3D40BB}

A namespace can contain EMODEElements. Since namespaces are named elements and hence EMODEElements, too, they can be nested. This is due to the fact (difference to UML) that here, no elements can be imported into a namespace.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>EMODENameSpace | Public<br>EMODENamedElement | |
| **Aggregation**<br>ElementsInNamespace<br>Bi-Directional | Public<br>theElementsOfTheNamespace<br>EMODEElement | Public<br>theNamespaceOfTheElements<br>EMODENameSpace | Associates named elements to a namespace. In a later version, this will be derived. So far the following associations were identfified to qualify an element to belong to a namespace: |

| Connector | Source | Target | Notes |
|---|---|---|---|
| | | | TaskNodeGroup.containedNodes<br>EMODEClassifier.ClassOwnedInstances<br>EMODEInstanceSpecification.InstanceOwnedInstances<br><br>If an element is in the namespace of another element, it is automatically owned by it. I.e. ElementsInNamespace is a subset of Ownership. |
| **Generalization**<br>Source -> Destination | Public<br>TaskNodeGroup | Public<br>EMODENameSpace | |
| **Generalization**<br>Source -> Destination | Public<br>TransformationInstance | Public<br>EMODENameSpace | |
| **Generalization**<br>Source -> Destination | Public<br>EMODEInstanceSpecification | Public<br>EMODENameSpace | |
| **Generalization**<br>Source -> Destination | Public<br>EMODEPackage | Public<br>EMODENameSpace | |
| **Generalization**<br>Source -> Destination | Public<br>EMODEClassifier | Public<br>EMODENameSpace | |

## *EMODENamedElement*

*Type:* **Class** **EMODEDescribedElement, EMODEElement**
*Status:* Proposed. Version . Phase .
*Package:* EMODECommons *Keywords:*
*Detail:* *Created on* 02.09.2005. *Last modified on* 16.06.2006.
*GUID:* {032E8D38-446A-46ce-AD62-8E6031A20600}

An EMODENamedElement represents elements that may have a name. The name is used for identification of the named element within the namespace in which it is defined. An UMLNamedElement also has a qualified name that allows it to be unambiguously identified within a hierarchy of nested namespaces. EMODENamedElement is an abstract metaclass.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = true.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>EMODEProperty | Public<br>EMODENamedElement | |
| **Generalization**<br>Source -> Destination | Public<br>EMODEAssociation | Public<br>EMODENamedElement | |
| **Generalization**<br>Source -> Destination | Public<br>ModalityRequirementsProfile | Public<br>EMODENamedElement | |
| **Generalization**<br>Source -> Destination | Public<br>EMODENameSpace | Public<br>EMODENamedElement | |
| **Generalization**<br>Source -> Destination | Public<br>Pattern | Public<br>EMODENamedElement | |
| **Generalization**<br>Source -> Destination | Public<br>EMODENamedElement | Public<br>EMODEElement | |
| **Generalization**<br>Source -> Destination | Public<br>PatternParticipationElement | Public<br>EMODENamedElement | |
| **Generalization**<br>Source -> Destination | Public<br>PatternParticipation | Public<br>EMODENamedElement | |
| **Generalization**<br>Source -> Destination | Public<br>TaskSupportsGoal | Public<br>EMODENamedElement | |
| **Generalization**<br>Source -> Destination | Public<br>ParamTypeElement | Public<br>EMODENamedElement | |
| **Generalization**<br>Source -> Destination | Public<br>Diagram | Public<br>EMODENamedElement | |
| **Generalization**<br>Source -> Destination | Public<br>TaskElement | Public<br>EMODENamedElement | |
| **Generalization**<br>Source -> Destination | Public<br>FCA | Public<br>EMODENamedElement | |
| **Generalization**<br>Source -> Destination | Public<br>FCAMethod | Public<br>EMODENamedElemen | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| | | t | |
| **Generalization**<br>Source -> Destination | Public<br>EventProvider | Public<br>EMODENamedElement | |
| **Generalization**<br>Source -> Destination | Public<br>Trace | Public<br>EMODENamedElement | |
| **Generalization**<br>Source -> Destination | Public<br>Goal | Public<br>EMODENamedElement | |
| **Generalization**<br>Source -> Destination | Public<br>EventConsumer | Public<br>EMODENamedElement | |
| **Generalization**<br>Source -> Destination | Public<br>M3Value | Public<br>EMODENamedElement | |
| **Generalization**<br>Source -> Destination | Public<br>EMODENamedElement | Public<br>EMODEDescribedElement | |
| **Generalization**<br>Source -> Destination | Public<br>Concept | Public<br>EMODENamedElement | |
| **Association**<br>ParameterOfRuleStatement<br>Bi-Directional | Public<br>theStatementWithParameters<br>RuleStatement | Public<br>theParametersOfTheStatement<br>EMODENamedElement | |
| **Generalization**<br>Source -> Destination | Public<br>RuleStatement | Public<br>EMODENamedElement | |
| **Generalization**<br>Source -> Destination | Public<br>ContextQueryingElement | Public<br>EMODENamedElement | |
| **Generalization**<br>Source -> Destination | Public<br>FCACall | Public<br>EMODENamedElement | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **name** String<br>Public<br><br>[0..1] | The property contains the name of the element. The elements name must be unique in the namespace. | *Default:*<br><br>[isStatic = false ] |
| **qualifiedName** String<br>Public<br><br>[0..1] | The derived attribute returns the qualified name of the NamedElement as a list of string. | *Default:*<br><br>[isStatic = false ] |
| **visibility**<br>EMODEVisibilityKind<br>Public | The property contains the visibility of the element in its namespace. | *Default:*<br><br>[isStatic = false ] |

## *EMODEPackage*

*Type:* **Class** **EMODENameSpace**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODECommons *Keywords:*
*Detail:* *Created on* 20.10.2006. *Last modified on* 20.10.2006.
*GUID:* {285F8D92-1DA5-49c8-8D87-7373D5BACF42}

A package is a structuring units for named elements. Named elements can be put in namespaces (and therefore in packages). With the structuring, the developer can impose a hierarchical order (which is exposed via qualifiedName of the EMODENamedElement) to group the designed elements.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>EMODEModel | Public<br>EMODEPackage | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| | | | |
| **Generalization**<br>Source -> Destination | Public<br>EMODEPackage | Public<br>EMODENameSpace | |

## *EMODEParamDirectionKind*

*Type:* **Enumeration**
*Status:* Proposed. Version . Phase .
*Package:* EMODECommons *Keywords:*
*Detail:* *Created on* 02.09.2005. *Last modified on* 04.10.2006.
*GUID:* {A4AD4BB2-0037-43a0-9CC4-94182916CB37}

This enumeration type is used to specify the direction of a parameter

### *Custom Properties*

- isActive = False

### *Tagged Values*

- persistence = transient.

### *Attributes*

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **DIR_IN** <undefined><br>Public | The parameter is an IN parameter | *Default:*<br><br>[RationalRose$UML2MOF:isOrdered = false ]<br>[RationalRose$UML2MOF:isUnique = false ]<br>[RationalRose$UML2MOF:cardinality = 1 ] |
| **DIR_OUT** <undefined><br>Public | The parameter is an OUT parameter | *Default:*<br><br>[RationalRose$UML2MOF:isOrdered = false ]<br>[RationalRose$UML2MOF:cardinality = 1 ]<br>[RationalRose$UML2MOF:isUnique = false ] |

## *EMODEParameterGroup*

*Type:* **Class** **EMODEElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODECommons *Keywords:*

*Detail:* *Created on* 15.08.2006. *Last modified on* 30.08.2006.
*GUID:* {A66B5282-90AC-4566-B4C4-1174B5DC504B}

Groups a set of ParamTypeElements. A parameter may only appear in groups belonging to one ParamOverloadableElement. But it may appear in more than one parameter group of this element. Two parameter groups may not be equal in terms of the used parameters.

ParameterGroups are currently supported only for input.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>ElementsParametersGroups<br>Bi-Directional | Public<br>theParamGroupsOfTheElement<br>EMODEParameterGroup | Public<br>theElementWithParamGroups<br>ParamOverloadableElement | The parameter groups for the element. |
| **Association**<br>ParameterOfGroup<br>Bi-Directional | Public<br>theParamGroupWithParams<br>EMODEParameterGroup | Public<br>theParamInAGroup<br>ParamTypeElement | The parameter belongs to the group. |
| **Generalization**<br>Source -> Destination | Public<br>EMODEParameterGroup | Public<br>EMODEElement | |

### *Attributes*

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **ParamDirection**<br>EMODEParamDirectionKind<br>Public | See ConceptNode.ParamDirection | *Default:* |

## *EMODEProperty*

*Type:* **Class** **EMODEConceptedElement, EMODEMultiplicityElement, EMODENamedElement, RDFSResource**
*Status:* Proposed. Version . Phase .
*Package:* EMODECommons *Keywords:*
*Detail:* *Created on* 02.09.2005. *Last modified on* 01.01.2007.
*GUID:* {CD2B329D-6CA7-4441-B6ED-4919BC89750C}

An EMODEProperties is a feature that can be owned by a classifier or by an association. When a property is owned by a class it represents an attribute. In this case it relates an instance of the class to a value or set of values of the type of the attribute.
When a property is owned by an association it represents a non-navigable end of the association. In this case the type of the property is the type of the end of the association.

EMODEProperties can be typed by assigning it a concept (i.e. it can be assigned a complex class). But it can also be assigned a primitive type (which is needed for libraries).

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>EMODEProperty | Public<br>EMODENamedElement | |
| **Generalization**<br>Source -> Destination | Public<br>EMODEProperty | Public<br>EMODEMultiplicityElement | |
| **Association**<br>AssociationEndOne<br>Bi-Directional | Public<br>theAssociationForEndOne<br>DeveloperAssociation | Public<br>theFirstAssociationEnd<br>EMODEProperty | One of the ends of an association |
| **Association**<br>AssociationEndTwo<br>Bi-Directional | Public<br>theSecondAssociationEnd<br>EMODEProperty | Public<br>theAssociationForEndTwo<br>DeveloperAssociation | The second end of an association |
| **Generalization**<br>Source -> Destination | Public<br>AUIComponentProperty | Public<br>EMODEProperty | |
| **Aggregation**<br>PropertyGeneralizationSpecial<br>Bi-Directional | Public<br>theSpecializedProperty<br>the property being specialized<br>EMODEProperty | Public<br>thePropertyGeneralizationSpecial<br>PropertyGeneralization | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| | | | |
| **Association**<br>PropertGeneralizationGeneral<br>Bi-Directional | Public<br>theGeneralProperty<br>PropertyGeneralization | Public<br>thePropertyGeneralizationGeneral<br>EMODEProperty | |
| **Generalization**<br>Source -> Destination | Public<br>AUIComponentRelationProperty | Public<br>EMODEProperty | |
| **Association**<br>SlotDefinition<br>Source -> Destination | Public theDefinedSlot<br>EMODESlot | Public<br>theDefiningProperty<br>EMODEProperty | The feature (UML slang) defining this slot |
| **Generalization**<br>Source -> Destination | Public<br>EMODEProperty | Public<br>EMODEConceptedElement | |
| **Association**<br>ClassifierAttributes<br>Bi-Directional | Public theAttribute<br>EMODEProperty | Public<br>theClassifierWithAttributes<br>EMODEClassifier | The attributes of the classifier |
| **Association**<br>PropertyGeneral<br>Bi-Directional | Public<br>thePropertySpecialization<br>EMODEProperty | Public<br>thePropertyGeneralization<br>EMODEProperty | Derived. association between EMODEProperties depicting their generilzation relationship, which is modelled through the propertygeneralization class |
| **Generalization**<br>Source -> Destination | Public<br>EMODEProperty | Public<br>RDFSResource | |
| **Association**<br>EquivalentEMODEProperty<br>Bi-Directional | Public<br>thePropertyEquivalenceAssociation<br>PropertyEquivalence | Public<br>theEquivalentProperties<br>EMODEProperty | connects equivalent properties to the equivalnce association |
| **NoteLink**<br>Source -> Destination | Public<br>Note | Public<br>EMODEProperty | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **aggregationKind**<br>EMODEAggregationKind<br>Public | The attribute specifies whether the property is an aggregation or composition. If set to AGG_NONE, the property is not aggregated by the owning class or association. If set to AGG_SHARED, the property is aggregated. If set to AGG_COMPOSITE, the property is composed by the owning clasifier. | *Default:*<br><br>[isStatic = false ] |

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **defaultValue**<br>EMODEValueSpecification<br>Public<br><br>[0..1] | A string that is evaluated to give a default value for the UMLProperty when an object of the owning UMLClassifier is instantiated and no actual value for the attribute is given. | *Default:*<br><br>[isStatic = false ] |
| **isAssociationProperty**<br>Boolean<br>Public | This is a derived value, indicating whether the aggregation of the UMLProperty is composite or not. | *Default:*<br><br>[isStatic = false ] |
| **isReadOnly** Boolean<br>Public | The property isReadOnly specifies whether the attribute is read-only. | *Default:* false<br><br>[isStatic = false ] |

## *EMODERelationship*

*Type:* **Class** **EMODEElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODECommons *Keywords:*
*Detail:* *Created on* 07.08.2006. *Last modified on* 07.08.2006.
*GUID:* {8A57F898-F528-4fd4-912F-EBF595E260C3}

Relates EMODE elements

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>RelatedElements<br>Bi-Directional | Public theRelationtship<br>EMODERelationship | Public<br>theRelatedElements<br>EMODEElement | The elements related |

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>EMODEDirectedRelationship | Public<br>EMODERelationship | |
| **Generalization**<br>Source -> Destination | Public<br>EMODERelationship | Public<br>EMODEElement | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **Kind** String<br>Public | | *Default:* |

## *EMODEVisibilityKind*

*Type:* **Enumeration**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODECommons *Keywords:*
*Detail:* *Created on* 04.10.2006. *Last modified on* 04.10.2006.
*GUID:* {1BA48413-AAEF-46eb-8FBF-A5E3CBAAB9A1}

The element's visibility

***Custom Properties***

- isActive = False

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **VIS_PACKAGE**<br>Public | | *Default:* |

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **VIS_PRIVATE**<br>Public | | *Default:* |
| **VIS_PROTECTED**<br>Public | | *Default:* |
| **VIS_PUBLIC**<br>Public | | *Default:* |

## *LibSpecialToolAttributes*

*Type:* **Class** **EMODEElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODECommons *Keywords:*
*Detail:* *Created on* 21.04.2006. *Last modified on* 21.06.2006.
*GUID:* {CD2AECF9-5991-4db0-900C-B399D6431732}

Attributes of the library which are specific to a certein tool and not covered by the general attributes

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>ModelLibInfo<br>Bi-Directional | Public<br>theLibInfoOfTheModel<br>LibSpecialToolAttributes | Public<br>theModelWithLibInfo<br>EMODEModel | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| | | | |
| **Generalization**<br>Source -> Destination | Public<br>LibSpecialToolAttributes | Public<br>EMODEElement | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **Attributes** StringValue<br>Public<br><br>[0..*] | The attributes | *Default:*<br><br>[isStatic = false ] |
| **Tool** String<br>Public | The identifier of the tool | *Default:*<br><br>[isStatic = false ] |

## *ModelDescription*

*Type:* **Class** **EMODEDescribedElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODECommons *Keywords:*
*Detail:* *Created on* 21.04.2006. *Last modified on* 21.06.2006.
*GUID:* {C9315464-FBEF-4d76-B591-CA8BCFDB051B}

Description of the library

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>ModelIsDescribed<br>Bi-Directional | Public<br>theModel2BDescribed<br>EMODEModel | Public<br>theDescriptionOfTheModel<br>ModelDescription | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| | | | |
| **Generalization**<br>Source -> Destination | Public<br>ModelDescription | Public<br>EMODEDescribedElement | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **Version** String<br>Public | Version of the model in the format x.x.x .... | *Default:*<br><br>[isStatic = false ] |

## *ParamOverloadableElement*

*Type:* **Class** **EMODEElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODECommons *Keywords:*
*Detail:* *Created on* 15.08.2006. *Last modified on* 30.08.2006.
*GUID:* {977F7B07-4C6A-4e26-9299-4287916CA5DC}

A parameterizable element whichs whichs parameters may be grouped in groups. Each group constitutes an interface semantic (like method overriding).

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = true.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>TaskDefinition | Public<br>ParamOverloadableElement | |
| **Association**<br>ElementsParametersGroups<br>Bi-Directional | Public<br>theParamGroupsOfTheElement<br>EMODEParameterGroup | Public<br>theElementWithParamGroups<br>ParamOverloadableElement | The parameter groups for the element. |
| **Generalization** | Public | Public | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| Source -> Destination | FCACall | ParamOverloadableElement | |
| **Generalization**<br>Source -> Destination | Public<br>FCAMethod | Public<br>ParamOverloadableElement | |
| **Generalization**<br>Source -> Destination | Public<br>ParamOverloadableElement | Public<br>EMODEElement | |
| **Generalization**<br>Source -> Destination | Public<br>TaskExecutionNode | Public<br>ParamOverloadableElement | |
| **Association**<br>ElementRealizes<br>Source -> Destination | Public<br>theRealizingElement<br>ParamOverloadableElement | Public<br>theRealizedElement<br>ParamOverloadableElement | This element has a matching element that it realizes. It therefor must match the parameter definitions of the realiezed element.<br><br>Derived! |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **inputParameters**<br>ParamTypeElement<br>Public<br><br>[0..*] | The parameter type elements connected to this entity as input. | *Default:* |
| **outputParameters**<br>ParamTypeElement<br>Public<br><br>[0..*] | The parameter type elements connected to this entity as output. | *Default:* |
| **ParameterAssociations**<br>ParameterAssociation<br>Public<br><br>[0..*] | The list of associations from realizing to realized parameters | *Default:* |

## *ParamTypeElement*

*Type:* **Class** **EMODEConceptedElement, EMODEMultiplicityElement, EMODENamedElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODECommons *Keywords:*
*Detail:* *Created on* 15.08.2006. *Last modified on* 30.08.2006.
*GUID:* {0DF0DEF7-390F-4d0c-8F75-0A2F5A0B63C6}

An element which acts like a parameter. It can be used in ParamOverloadableElement to be grouped into parameter groups.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = true.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>FCACallParameter | Public<br>ParamTypeElement | |
| **Association**<br>ParameterOfGroup<br>Bi-Directional | Public<br>theParamGroupWithParams<br>EMODEParameterGroup | Public<br>theParamInAGroup<br>ParamTypeElement | The parameter belongs to the group. |
| **Generalization**<br>Source -> Destination | Public<br>ParamTypeElement | Public<br>EMODEConceptedElement | |
| **Generalization**<br>Source -> Destination | Public<br>ParamTypeElement | Public<br>EMODENamedElement | |
| **Generalization**<br>Source -> Destination | Public<br>ParamTypeElement | Public<br>EMODEMultiplicityElement | |
| **Generalization**<br>Source -> Destination | Public<br>FCACallResult | Public<br>ParamTypeElement | |
| **Generalization**<br>Source -> Destination | Public<br>ConceptNode | Public<br>ParamTypeElement | |
| **Association**<br>RealizedParameter<br>Bi-Directional | Public<br>theParamAssoiationWithRealizedParam<br>ParameterAssociation | Public<br>theRealizedParamOfTheParamAssociation<br>ParamTypeElement | The parameter of the realized element that is being realized by the realizing parameter. |

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink**<br>Source -> Destination | Public<br>Note | Public<br>ParamTypeElement | |
| **Association**<br>RealizingParameter<br>Bi-Directional | Public<br>theParamAssoiationWithRealizingParam<br>ParameterAssociation | Public<br>theRealizingParamWithParamAssoiation<br>ParamTypeElement | The parameter of the realizing element the realized the realized parameter. |
| **Association**<br>ParamSemanticsType<br>Destination -> Source | Public<br>theSemanticOfTheParamTypeElement<br>ParamTypeSemantic | Public<br>theParamTypeElementWithSemantic<br>ParamTypeElement | The semantic of this parameter - referenced directly |
| **Generalization**<br>Source -> Destination | Public<br>FCAMethodParameter | Public<br>ParamTypeElement | |
| **Generalization**<br>Source -> Destination | Public<br>FCAMethodResult | Public<br>ParamTypeElement | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **defaultValue** String<br>Public<br><br>[0..1] | A default value could be set to specify a value to be used when no argument is supplied for the Parameter. | *Default:* |
| **isOfMessagingType**<br>Boolean<br>Public | Whether the pin is used as a messaging end that does not start/end the node when receiving or sending control or object flows. | *Default:* false |
| **ParamDirection**<br>EMODEParamDirectionKind<br>Public | The property is used to specify the direction of the parameter. It could be DIR_IN or DIR_OUT. | *Default:* |

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **uriParamSemanticsType**<br>URIReferenceAlternative<br>Public | The semantic of this parameter - referenced via an uri | *Default:* |

## *ParamTypeSemantic*

*Type:* **Class** **RDFSResource**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODECommons *Keywords:*
*Detail:* *Created on* 24.05.2007. *Last modified on* 24.05.2007.
*GUID:* {9255BEF6-A625-4730-9C27-7AC21F4AA243}

Defines semantics that can be attached to a param type element.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>ParamTypeSemantic | Public<br>RDFSResource | |
| **NoteLink**<br>Source -> Destination | Public<br>Note | Public<br>ParamTypeSemantic | |
| **Association**<br>ParamSemanticsType<br>Destination -> Source | Public<br>theSemanticOfTheParamTypeElement<br>ParamTypeSemantic | Public<br>theParamTypeElementWithSemantic<br>ParamTypeElement | The semantic of this parameter - referenced directly |

## *ParameterAssociation*

*Type:* **Class** **EMODEElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODECommons *Keywords:*
*Detail:* *Created on* 18.08.2006. *Last modified on* 18.08.2006.
*GUID:* {D5FB71D6-BE7A-4548-ACAA-0D4C10E07741}

Associates two parameters

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>ParameterAssociation | Public<br>EMODEElement | |
| **Association**<br>RealizedParameter<br>Bi-Directional | Public<br>theParamAssoiationWithRealizedParam<br>ParameterAssociation | Public<br>theRealizedParamOfTheParamAssociation<br>ParamTypeElement | The parameter of the realized element that is being realized by the realizing parameter. |
| **Association**<br>RealizingParameter<br>Bi-Directional | Public<br>theParamAssoiationWithRealizingParam<br>ParameterAssociation | Public<br>theRealizingParamWithParamAssoiation<br>ParamTypeElement | The parameter of the realizing element the realized the realized parameter. |

## *Pattern*

*Type:* **Class** **EMODENamedElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODECommons *Keywords:*
*Detail:* *Created on* 13.04.2006. *Last modified on* 13.04.2006.
*GUID:* {4E0FF8F6-5381-4fa3-8B45-2693448B26BF}

Describes a pattern, with the pattern wide information. All detailed information about participating elements' attributes is in the respective PatternParticipation elements with these elements.

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>ParticipationInPattern<br>Bi-Directional | Public<br>thePatternParticipation<br>PatternParticipation | Public<br>thePatternParticipating<br>Pattern | |
| **Generalization**<br>Source -> Destination | Public<br>Pattern | Public<br>EMODENamedElement | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **AttributesOfPattern**<br>StringValue<br>Public<br><br>[0..*] | The attributes of this pattern | *Default:*<br><br>[isStatic = false ] |
| **PatternType** String<br>Public | The type of pattern which the element participates in | *Default:*<br><br>[isStatic = false ] |

## *PatternParticipation*

*Type:* **Class** **EMODENamedElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODECommons *Keywords:*
*Detail:* *Created on* 13.04.2006. *Last modified on* 13.04.2006.
*GUID:* {A71DF7B6-C7D0-4368-BDED-52027B52915E}

Describes the participation of an element in a pattern

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association** | Public | Public | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| ParticipationInPattern<br>Bi-Directional | thePatternParticipation<br>PatternParticipation | thePatternParticipating<br>Pattern | |
| **Generalization**<br>Source -> Destination | Public<br>PatternParticipation | Public<br>EMODENamedElemen<br>t | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **AttributesOfElementInP<br>attern** StringValue<br>Public<br><br>[0..*] | The attributes of this element within the pattern it participates in | *Default:*<br><br>[isStatic = false ] |
| **RoleInPattern** String<br>Public | The role of this element wihtin the pattern | *Default:*<br><br>[isStatic = false ] |

## *PatternParticipationElement*

*Type:* **Class** **EMODENamedElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODECommons *Keywords:*
*Detail:* *Created on* 13.04.2006. *Last modified on* 13.04.2006.
*GUID:* {94F9E3EB-7B1A-4ba9-A082-EE8901B835CD}

An element derived from this class may participate in a pattern

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>TaskNode | Public<br>PatternParticipationEle | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| | | ment | |
| **Generalization**<br>Source -> Destination | Public PatternParticipationElement | Public EMODENamedElement | |
| **Generalization**<br>Source -> Destination | Public AUIComponent | Public PatternParticipationElement | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **ParticipationInPatterns**<br>PatternParticipation<br>Public<br><br>[0..*] | The participations the element is having in different patterns | *Default:* |

## *Classes*

*Type:* **Package**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODECommons
*Detail:* *Created on 27.10.2006. Last modified on 27.10.2006*
*GUID:* {F8ECEFA4-6280-4cc8-BB6A-5EA95197B6EA}

**Classification** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 27.10.2006
*Last Modified:* 24.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {F2E2E32C-A7E8-4925-8152-004F26D0AB94}

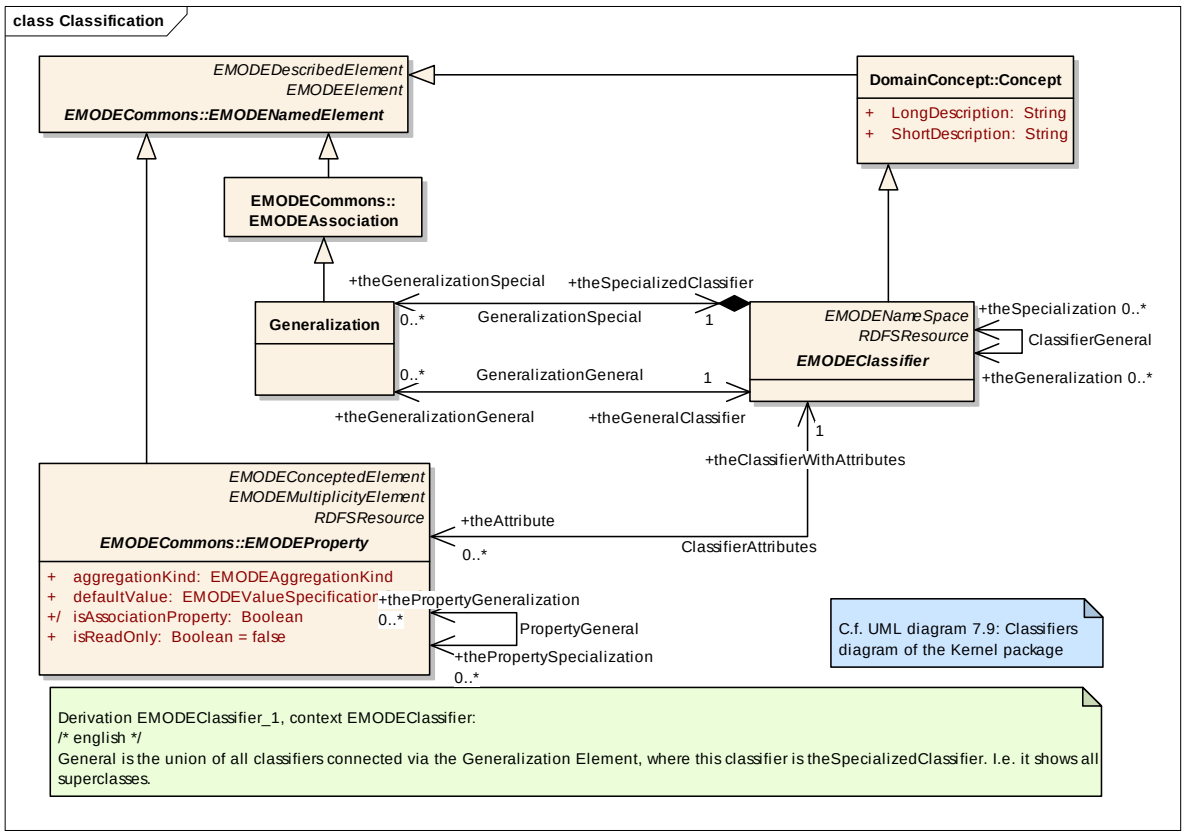



Figure: 50

**ClassifierOntology** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 24.05.2007
*Last Modified:* 30.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {5D18A20D-1609-4c86-8D38-D10E8022CC9B}

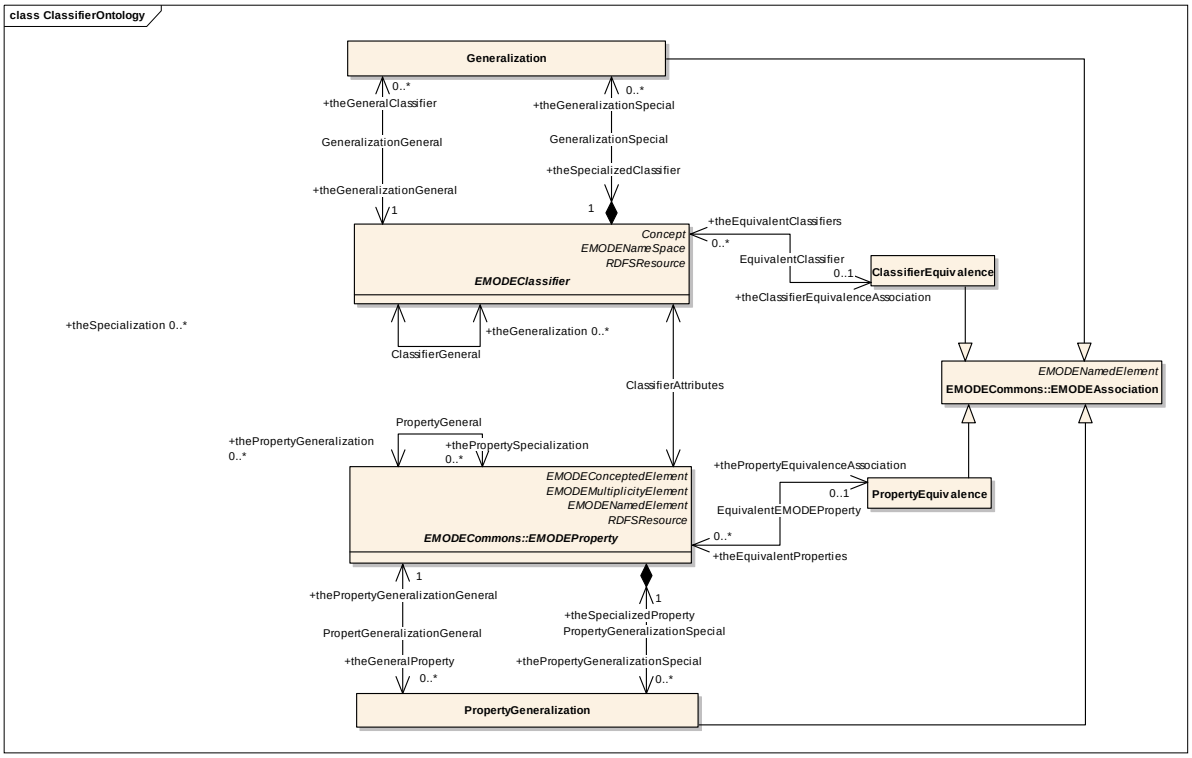



Figure: 51

**Composition** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 27.10.2006
*Last Modified:* 16.01.2007
*Version:* 1.0. *Locked:* False
*GUID:* {E6903CD9-D3B4-4e2c-A2BA-9EC589B6B61E}

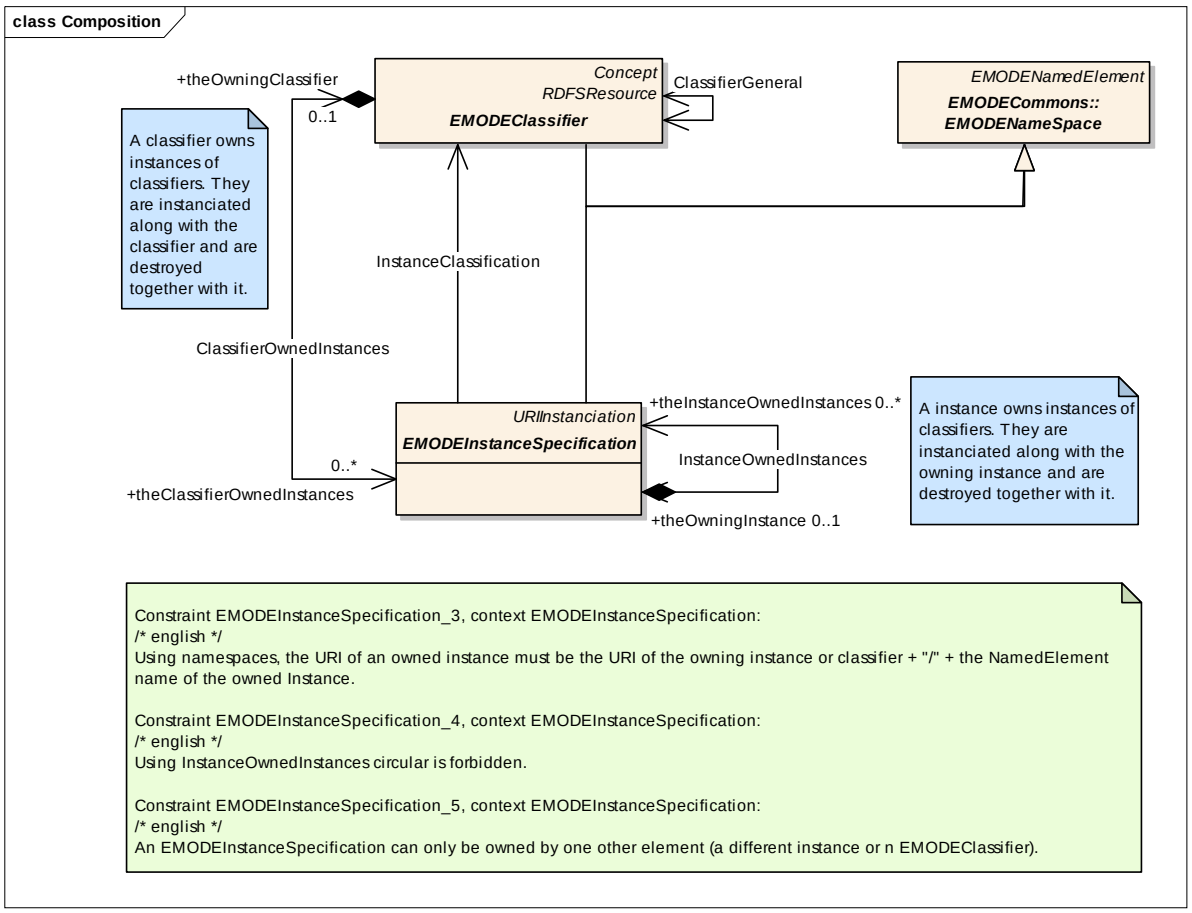



Figure: 52

**Eventing** - *(Logical diagram)*
*Created By:* *on* 24.05.2007
*Last Modified:* 24.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {36694060-B0EC-4c02-A4D0-B4AA569B3734}

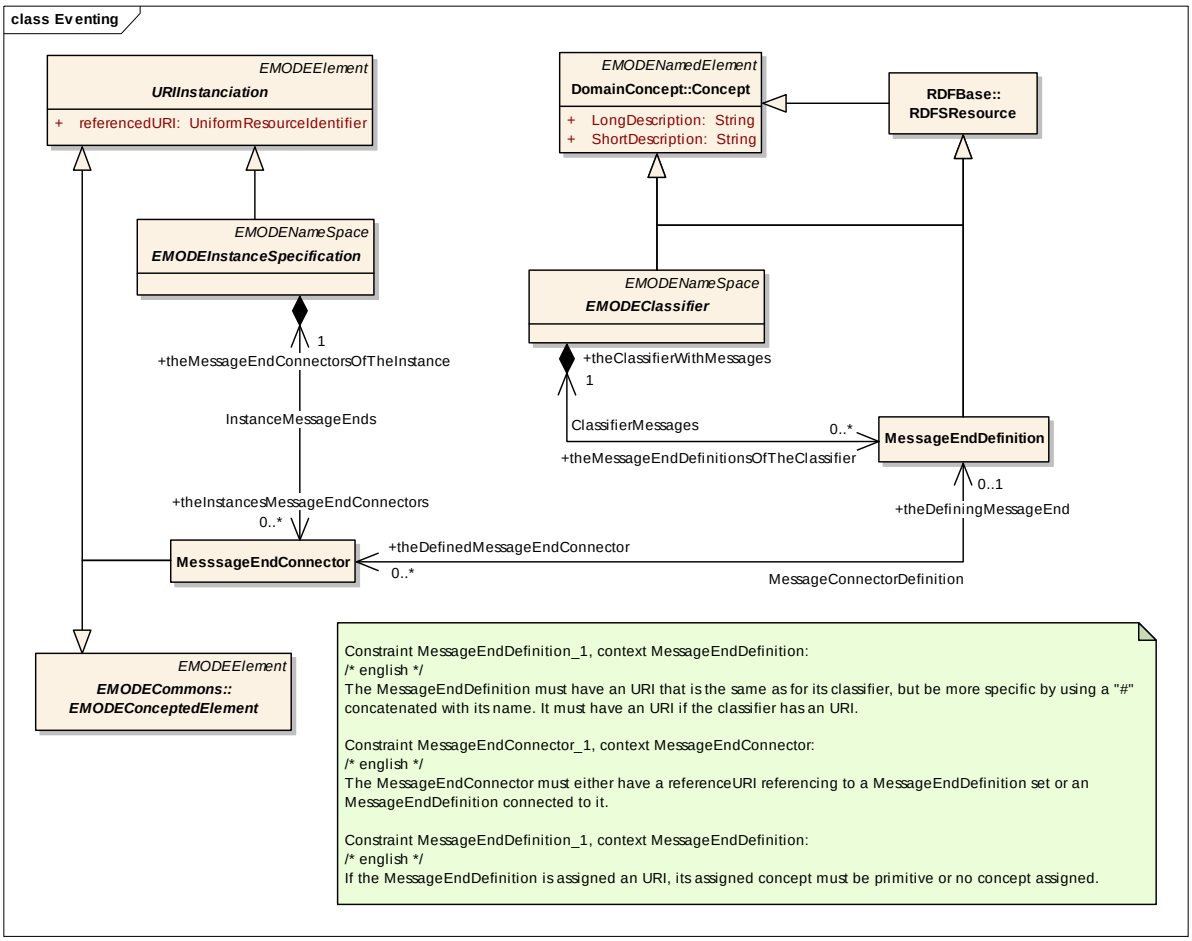



Figure: 53

**Instances** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 27.10.2006
*Last Modified:* 11.06.2007
*Version:* 1.0. *Locked:* False
*GUID:* {C5A0E0F0-85CE-4426-B0CE-EAD35B4B717E}

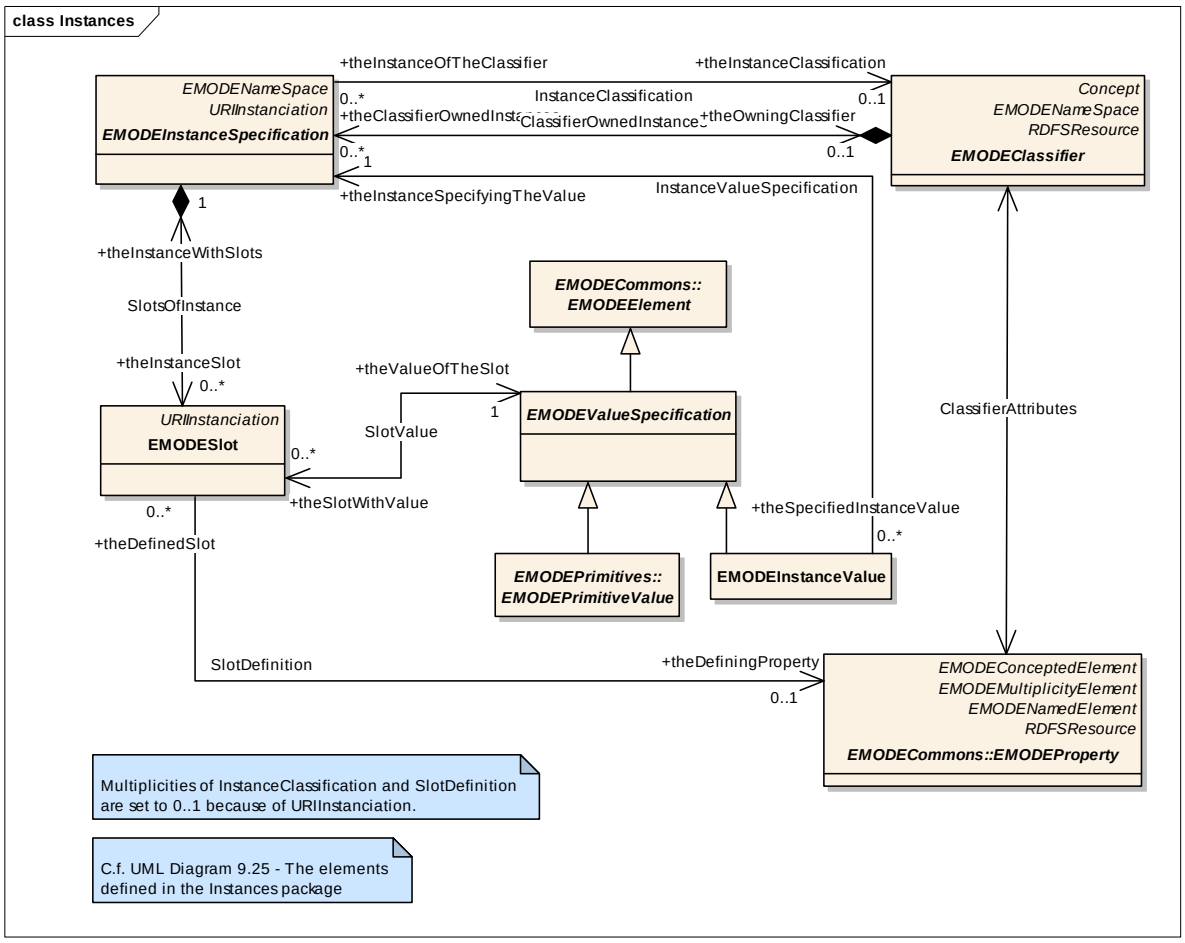



Figure: 54

**URIUsage** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 27.10.2006
*Last Modified:* 24.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {60BEEF51-9C6A-4447-B0C8-20ED2B15052E}

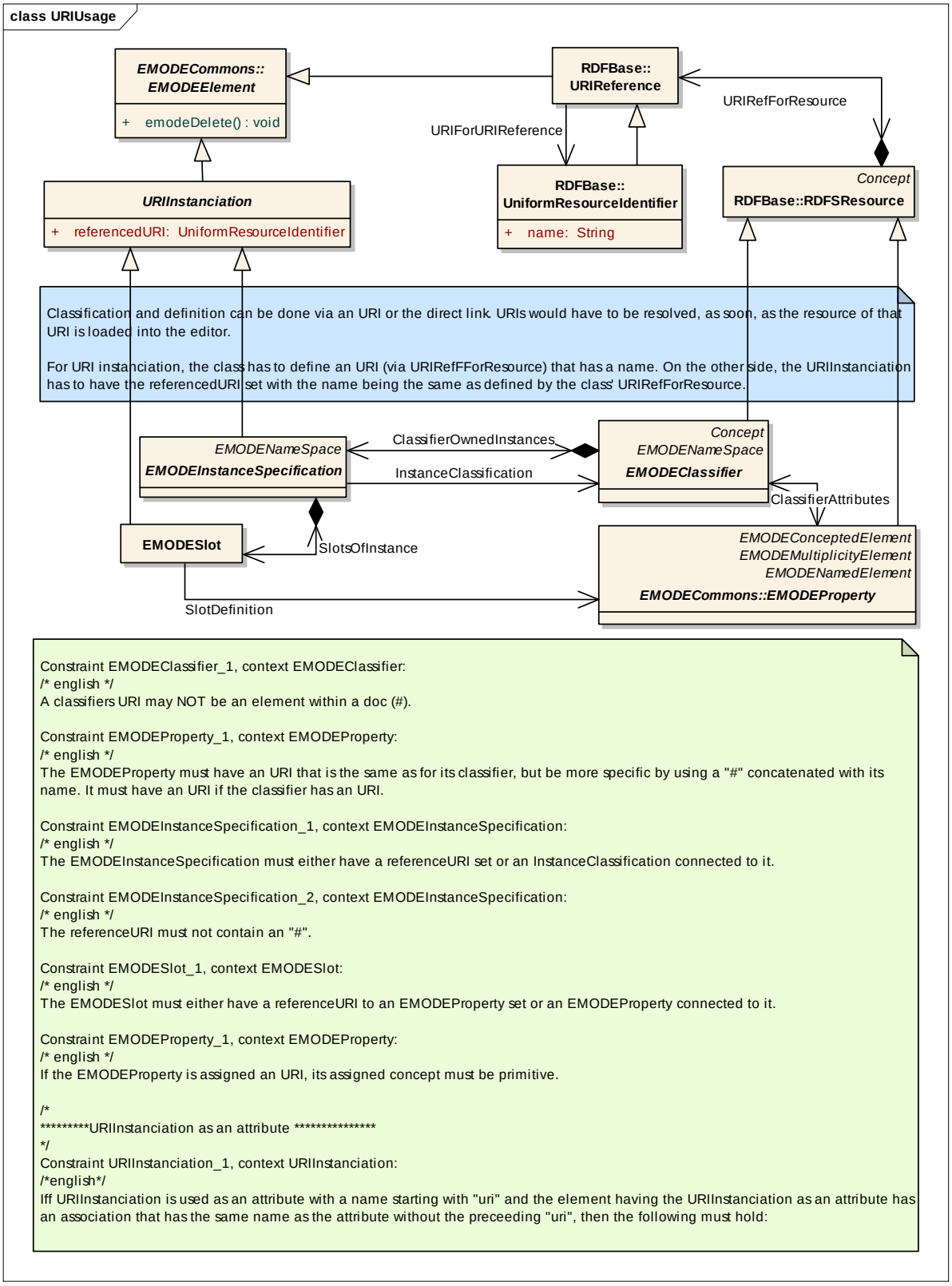



Figure: 55

## ClassifierEquivalence

*Type:* **Class** **EMODEAssociation**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Classes *Keywords:*
*Detail:* *Created on* 01.03.2007. *Last modified on* 01.03.2007.
*GUID:* {67D616B9-2A38-4aa8-8B1F-DA3F958A1268}

Describes that the connected classifiers are equivalent

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>EquivalentClassifier<br>Bi-Directional | Public<br>theClassifierEquivalenceAssociation<br>ClassifierEquivalence | Public<br>theEquivalentClassifiers<br>EMODEClassifier | associates classifiers to an equivalence association |
| **Generalization**<br>Source -> Destination | Public<br>ClassifierEquivalence | Public<br>EMODEAssociation | |

## EMODEClassifier

*Type:* **Class** **Concept, EMODENameSpace, RDFSResource**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Classes *Keywords:*
*Detail:* *Created on* 27.10.2006. *Last modified on* 01.01.2007.
*GUID:* {9E34B8F5-F1A3-4011-9DE7-B9B2AADE5907}

The UML definition: a classifier is a classification of instances, it describes a set of instances that have features in common.

Set concrete in order to avoid code generation problem

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Aggregation**<br>ClassifierOwnedInstances<br>Bi-Directional | Public<br>theClassifierOwnedInstances<br>EMODEInstanceSpecification | Public<br>theOwningClassifier<br>EMODEClassifier | A classifier can own 0..* EMODEInstances. Each instance can only be owned by 0..1 EMODEClassifier (XOR an EMODEInstanceSpecification).<br><br>This association specifies the ownership-relation of the EMODEElement and hence the ElementsInNamespace relation, as well. |
| **Generalization**<br>Source -> Destination | Public<br>AUIComponentClassifier | Public<br>EMODEClassifier | |
| **Generalization**<br>Source -> Destination | Public<br>AUIComponentRelationClassifier | Public<br>EMODEClassifier | |
| **Generalization**<br>Source -> Destination | Public<br>EMODEClassifier | Public<br>Concept | |
| **Association**<br>GeneralizationGeneral<br>Bi-Directional | Public<br>theGeneralClassifier<br>Generalization | Public<br>theGeneralizationGeneral<br>EMODEClassifier | |
| **Association**<br>ClassifierMessages<br>Bi-Directional | Public<br>theClassifierWithMessages<br>EMODEClassifier | Public<br>theMessageEndDefinitionsOfTheClassifier<br>MessageEndDefinition | Associates the classifier to the message end definitions it supports. |
| **Association**<br>GeneralizationSpecial<br>Bi-Directional | Public<br>theGeneralizationSpecial<br>Generalization | Public<br>theSpecializedClassifier<br>EMODEClassifier | |
| **Association**<br>EquivalentClassifier<br>Bi-Directional | Public<br>theClassifierEquivalenceAssociation<br>ClassifierEquivalence | Public<br>theEquivalentClassifiers<br>EMODEClassifier | associates classifiers to an equivalence association |
| **Association**<br>ClassifierGeneral<br>Bi-Directional | Public theSpecialization<br>EMODEClassifier | Public<br>theGeneralization<br>EMODEClassifier | Specifies the generalizations of this classifier. Derived. |
| **Association**<br>ClassifierAttributes<br>Bi-Directional | Public theAttribute<br>EMODEProperty | Public<br>theClassifierWithAttributes<br>EMODEClassifier | The attributes of the classifier |
| **Association** | Public | Public | Associates an instance with the |

| Connector | Source | Target | Notes |
|---|---|---|---|
| InstanceClassification<br>Source -> Destination | theInstanceOfTheClassifier<br>EMODEInstanceSpecification | theInstanceClassification<br>EMODEClassifier | classifying concept *the classifier( |
| **Generalization**<br>Source -> Destination | Public<br>EMODEClassifier | Public<br>RDFSResource | |
| **Generalization**<br>Source -> Destination | Public<br>EMODEClassifier | Public<br>EMODENameSpace | |

## EMODEInstanceSpecification

*Type:* **Class** **EMODENameSpace, URIInstanciation**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Classes *Keywords:*
*Detail:* *Created on* 27.10.2006. *Last modified on* 01.01.2007.
*GUID:* {E1F8B1CF-5BB3-4939-8E1F-1685FCE98BDB}

The specification of an instance of a classifier - i.e. the instance of a complex object.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Aggregation**<br>ClassifierOwnedInstances<br>Bi-Directional | Public<br>theClassifierOwnedInstances<br>EMODEInstanceSpecification | Public<br>theOwningClassifier<br>EMODEClassifier | A classifier can own 0..* EMODEInstances. Each instance can only be owned by 0..1 EMODEClassifier (XOR an EMODEInstanceSpecification).<br><br>This association specifies the ownership-relation of the EMODEElement and hence the ElementsInNamespace relation, as well. |
| **Generalization**<br>Source -> Destination | Public<br>AUIComponentRelation | Public<br>EMODEInstanceSpecification | |
| **Association**<br>InstanceOwnedInstances<br>Bi-Directional | Public<br>theOwningInstance<br>EMODEInstanceSpecifi | Public<br>theInstanceOwnedInstances | An EMODEInstanceSpecification can own instances. Each instance can only be owned by 0..1 other |

| Connector | Source | Target | Notes |
|---|---|---|---|
| | cation | EMODEInstanceSpecification | instance (XOR an EMODEClassifier).<br><br>This association specifies the ownership-relation of the EMODEElement and hence the ElementsInNamespace relation, as well. |
| **Generalization**<br>Source -> Destination | Public<br>EMODEInstanceSpecification | Public<br>EMODENameSpace | |
| **Aggregation**<br>InstanceMessageEnds<br>Bi-Directional | Public<br>theInstancesMessageEndConnectors<br>MesssageEndConnector | Public<br>theMessageEndConnectorsOfTheInstance<br>EMODEInstanceSpecification | The message ends connectors of an instance are connected to the instance that they are used in. |
| **Association**<br>InstanceValueSpecification<br>Source -> Destination | Public<br>theSpecifiedInstanceValue<br>EMODEInstanceValue | Public<br>theInstanceSpecifyingTheValue<br>EMODEInstanceSpecification | The InstanceSpecification that specifies the value of an instance |
| **Generalization**<br>Source -> Destination | Public<br>AUIComponent | Public<br>EMODEInstanceSpecification | |
| **Association**<br>SlotsOfInstance<br>Bi-Directional | Public theInstanceSlot<br>EMODESlot | Public<br>theInstanceWithSlots<br>EMODEInstanceSpecification | Associates slots with an instance specification |
| **Association**<br>InstanceClassification<br>Source -> Destination | Public<br>theInstanceOfTheClassifier<br>EMODEInstanceSpecification | Public<br>theInstanceClassification<br>EMODEClassifier | Associates an instance with the classifying concept *the classifier( |
| **Generalization**<br>Source -> Destination | Public<br>EMODEInstanceSpecification | Public<br>URIInstanciation | |

## EMODEInstanceValue

*Type:* **Class** **EMODEValueSpecification**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Classes *Keywords:*
*Detail:* *Created on* 27.10.2006. *Last modified on* 27.10.2006.
*GUID:* {1D630616-6510-4230-9F50-DEC439A7DA01}

An instance value - i.e. the value is the instance of a complex object

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association** InstanceValueSpecification Source -> Destination | Public theSpecifiedInstanceValue EMODEInstanceValue | Public theInstanceSpecifyingTheValue EMODEInstanceSpecification | The InstanceSpecification that specifies the value of an instance |
| **Generalization** Source -> Destination | Public EMODEInstanceValue | Public EMODEValueSpecification | |

## EMODESlot

*Type:* **Class** **URIInstanciation**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Classes *Keywords:*
*Detail:* *Created on* 27.10.2006. *Last modified on* 27.10.2006.
*GUID:* {2443943A-91AE-4fe5-9500-05C5E1801069}

A slot is a placeholder where values of attributes (in UML structural features) are instanciated at

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization** Source -> Destination | Public EMODESlot | Public URIInstanciation | |
| **Association** SlotValue Bi-Directional | Public theSlotWithValue EMODESlot | Public theValueOfTheSlot EMODEValueSpecifica | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| | | tion | |
| **Association** SlotDefinition Source -> Destination | Public theDefinedSlot EMODESlot | Public theDefiningProperty EMODEProperty | The feature (UML slang) defining this slot |
| **Association** SlotsOfInstance Bi-Directional | Public theInstanceSlot EMODESlot | Public theInstanceWithSlots EMODEInstanceSpecification | Associates slots with an instance specification |

## EMODEValueSpecification

*Type:* **Class** **EMODEElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Classes *Keywords:*
*Detail:* *Created on* 27.10.2006. *Last modified on* 27.10.2006.
*GUID:* {6EDDEE42-865E-43a8-A6CA-E2C56FF4FF8B}

This element specifies a value that could be a literal or an instance of a class or ...

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization** Source -> Destination | Public EMODEPrimitiveValue | Public EMODEValueSpecification | |
| **Association** SlotValue Bi-Directional | Public theSlotWithValue EMODESlot | Public theValueOfTheSlot EMODEValueSpecification | |
| **Generalization** Source -> Destination | Public EMODEValueSpecification | Public EMODEElement | |
| **Generalization** Source -> Destination | Public EMODEInstanceValue | Public EMODEValueSpecification | |

## Generalization

*Type:* **Class** **EMODEAssociation**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Classes *Keywords:*
*Detail:* *Created on* 27.10.2006. *Last modified on* 27.10.2006.
*GUID:* {EABC1168-9DE5-4850-96C8-772FF9250A05}

Generalizes a classifier

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association** GeneralizationGeneral Bi-Directional | Public theGeneralClassifier Generalization | Public theGeneralizationGeneral EMODEClassifier | |
| **Association** GeneralizationSpecial Bi-Directional | Public theGeneralizationSpecial Generalization | Public theSpecializedClassifier EMODEClassifier | |
| **Generalization** Source -> Destination | Public Generalization | Public EMODEAssociation | |

## MessageEndDefinition

*Type:* **Class** **Concept, RDFSResource**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Classes *Keywords:*
*Detail:* *Created on* 24.05.2007. *Last modified on* 24.05.2007.
*GUID:* {538738AB-53EC-4de2-8D7A-E214A2DB3BA8}

A MessageEndDefinition specifies the capability of the EMODEClassifier to receive and/or send messages of the given semantic. No general semantics for messages are defined, rather, the developer must check herself if the connected messages ends match and take care that the formats for the object are correct.

In the instances of the classifier, MessageEndConnectors take care that (for example ConceptValueAccesses) can be connected to message ends.

As with EMODE Instances and EMODE Slots, MessageEndConnectors can be connected to MessageEndDefinitions via direct link or URIInstanciation.

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>MessageConnectorDefinition<br>Bi-Directional | Public<br>theDefinedMessageEndConnector<br>MesssageEndConnector | Public<br>theDefiningMessageEnd<br>MessageEndDefinition | Connects a message connector to the definition of it that is present in the instance's classifier. |
| **Generalization**<br>Source -> Destination | Public<br>MessageEndDefinition | Public<br>RDFSResource | |
| **Generalization**<br>Source -> Destination | Public<br>MessageEndDefinition | Public<br>Concept | |
| **Association**<br>ClassifierMessages<br>Bi-Directional | Public<br>theClassifierWithMessages<br>EMODEClassifier | Public<br>theMessageEndDefinitionsOfTheClassifier<br>MessageEndDefinition | Associates the classifier to the message end definitions it supports. |

## MesssageEndConnector

*Type:* **Class** **EMODEConceptedElement, URIInstanciation**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Classes *Keywords:*
*Detail:* *Created on* 24.05.2007. *Last modified on* 24.05.2007.
*GUID:* {98AECB92-7961-4fa0-ABA1-BC88212280D7}

A MessageEndConnector is used to represent the (in the classidier) defined messageends in the instance. ConceptValueAccessElements can be connected to it.

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Aggregation**<br>InstanceMessageEnds<br>Bi-Directional | Public<br>theInstancesMessageEndConnectors<br>MesssageEndConnector | Public<br>theMessageEndConnectorsOfTheInstance<br>EMODEInstanceSpecification | The message ends connectors of an instance are connected to the instance that they are used in. |
| **Generalization**<br>Source -> Destination | Public<br>MesssageEndConnector | Public<br>URIInstanciation | |
| **Generalization**<br>Source -> Destination | Public<br>MesssageEndConnector | Public<br>EMODEConceptedElement | |
| **Association**<br>MessageConnectorDefinition<br>Bi-Directional | Public<br>theDefinedMessageEndConnector<br>MesssageEndConnector | Public<br>theDefiningMessageEnd<br>MessageEndDefinition | Connects a message connector to the definition of it that is present in the instance's classifier. |

## PropertyEquivalence

*Type:* **Class** **EMODEAssociation**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Classes *Keywords:*
*Detail:* *Created on* 01.03.2007. *Last modified on* 01.03.2007.
*GUID:* {15D137A3-2748-42df-A220-A10EAD431E1A}

describes that multiple properties are equivalent

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>PropertyEquivalence | Public<br>EMODEAssociation | |
| **Association**<br>EquivalentEMODEProperty<br>Bi-Directional | Public<br>thePropertyEquivalenceAssociation<br>PropertyEquivalence | Public<br>theEquivalentProperties<br>EMODEProperty | connects equivalent properties to the equivalnce association |

## PropertyGeneralization

*Type:* **Class** **EMODEAssociation**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Classes *Keywords:*
*Detail:* *Created on* 01.03.2007. *Last modified on* 01.03.2007.
*GUID:* {7EC707C5-2747-42f6-BFE7-37771F59F8C6}

Generalizes a property to another property

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>PropertyGeneralization | Public<br>EMODEAssociation | |
| **Aggregation**<br>PropertyGeneralizationSpecial<br>Bi-Directional | Public<br>theSpecializedProperty<br>the property being specialized<br>EMODEProperty | Public<br>thePropertyGeneralizationSpecial<br>PropertyGeneralization | |
| **Association**<br>PropertGeneralizationGeneral<br>Bi-Directional | Public<br>theGeneralProperty<br>PropertyGeneralization | Public<br>thePropertyGeneralizationGeneral<br>EMODEProperty | |

## URIInstanciation

*Type:* **Class** **EMODEElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Classes *Keywords:*
*Detail:* *Created on* 27.10.2006. *Last modified on* 24.05.2007.
*GUID:* {E3C5B440-45BC-41b1-9CA9-F804AE17F2A6}

Denotes the instance of an element referenced by an URI

### *Custom Properties*

- isActive = False

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>MesssageEndConnector | Public<br>URIInstanciation | |
| **Generalization**<br>Source -> Destination | Public<br>EMODESlot | Public<br>URIInstanciation | |
| **NoteLink**<br>Source -> Destination | Public<br>Note | Public<br>URIInstanciation | |
| **Generalization**<br>Source -> Destination | Public<br>EMODEInstanceSpecification | Public<br>URIInstanciation | |
| **Generalization**<br>Source -> Destination | Public<br>URIInstanciation | Public<br>EMODEElement | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **referencedURI**<br>UniformResourceIdentifier<br>Public | the Uri that is used to reference the class definition | *Default:* |

## *EMODEPrimitives*

*Type:* **Package**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODECommons
*Detail:* *Created on 29.10.2006. Last modified on 29.10.2006*
*GUID:* {E8AFB225-A408-40ef-A1A8-244AF0FF8F9E}

**EMODEPrimitives** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 29.10.2006
*Last Modified:* 26.04.2007
*Version:* 1.0. *Locked:* False
*GUID:* {8EDD5E9E-FFDC-4d13-B75B-15061B36241B}

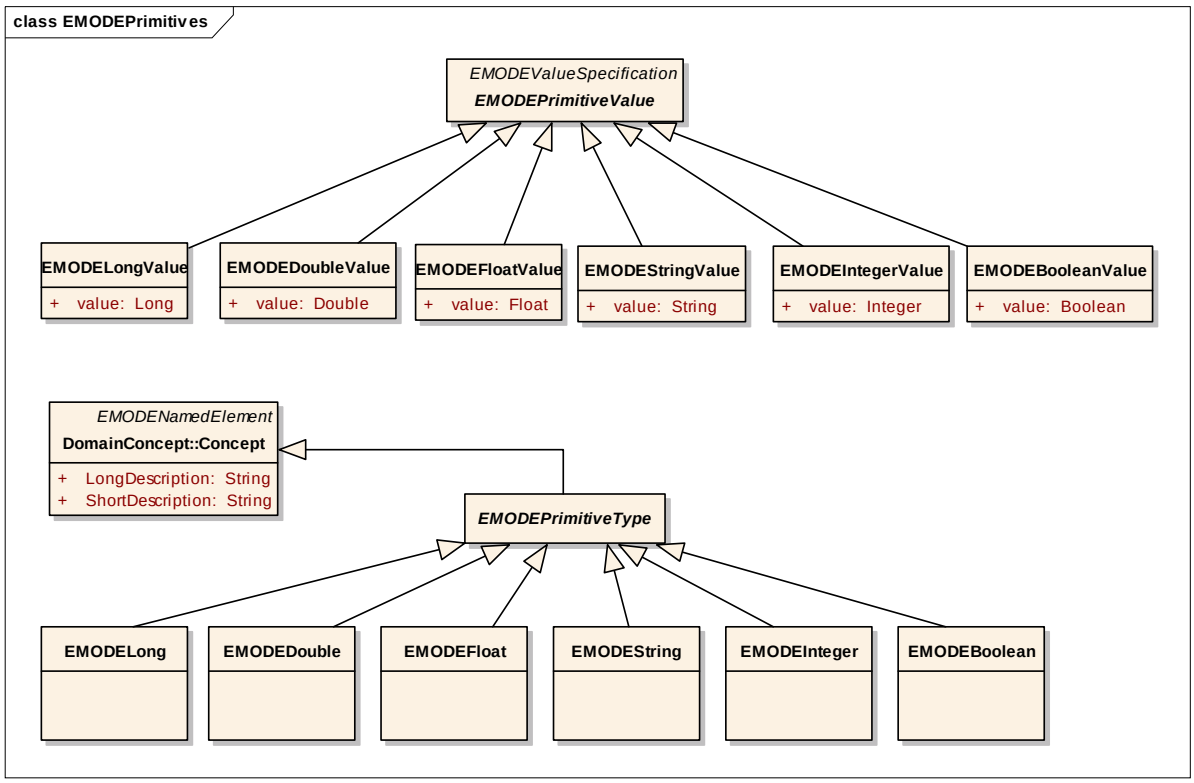



Figure: 56

## EMODEBoolean

*Type:* **Class** **EMODEPrimitiveType**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODEPrimitives *Keywords:*
*Detail:* *Created on* 30.10.2006. *Last modified on* 30.10.2006.
*GUID:* {F6EB0D1E-9097-42a6-B1EE-A957554865DE}

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>EMODEBoolean | Public<br>EMODEPrimitiveType | |

## EMODEBooleanValue

*Type:* **Class** **EMODEPrimitiveValue**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODEPrimitives *Keywords:*
*Detail:* *Created on* 29.10.2006. *Last modified on* 29.10.2006.
*GUID:* {5BFBDCA4-3D33-496d-9E19-7291010F202C}

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>BooleanValue | Public<br>EMODEBooleanValue | |
| **Generalization**<br>Source -> Destination | Public<br>EMODEBooleanValue | Public<br>EMODEPrimitiveValue | |

### *Attributes*

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **value** Boolean<br>Public | | *Default:* |

## EMODEDouble

*Type:* **Class** **EMODEPrimitiveType**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODEPrimitives *Keywords:*
*Detail:* *Created on* 30.10.2006. *Last modified on* 30.10.2006.
*GUID:* {21162DFA-A620-42f7-BC4F-81A99DFE51E6}

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>EMODEDouble | Public<br>EMODEPrimitiveType | |

## EMODEDoubleValue

*Type:* **Class** **EMODEPrimitiveValue**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODEPrimitives *Keywords:*
*Detail:* *Created on* 29.10.2006. *Last modified on* 29.10.2006.
*GUID:* {DEBD7822-582B-4b52-BF60-AC36692844D3}

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>DoubleValue | Public<br>EMODEDoubleValue | |
| **Generalization**<br>Source -> Destination | Public<br>EMODEDoubleValue | Public<br>EMODEPrimitiveValue | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **value** Double<br>Public | | *Default:* |

## EMODEFloat

*Type:* **Class** **EMODEPrimitiveType**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODEPrimitives *Keywords:*
*Detail:* *Created on* 30.10.2006. *Last modified on* 30.10.2006.
*GUID:* {CD067222-8421-4fc6-ACC7-240EC5082AE1}

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>EMODEFloat | Public<br>EMODEPrimitiveType | |

## EMODEFloatValue

*Type:* **Class** **EMODEPrimitiveValue**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODEPrimitives *Keywords:*
*Detail:* *Created on* 29.10.2006. *Last modified on* 29.10.2006.
*GUID:* {5537677F-3177-436f-8D7D-098F4DE00A31}

### *Custom Properties*

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>EMODEFloatValue | Public<br>EMODEPrimitiveValue | |
| **Generalization**<br>Source -> Destination | Public<br>FloatValue | Public<br>EMODEFloatValue | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **value** Float<br>Public | | *Default:* |

## EMODEInteger

*Type:* **Class** **EMODEPrimitiveType**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODEPrimitives *Keywords:*
*Detail:* *Created on* 30.10.2006. *Last modified on* 30.10.2006.
*GUID:* {0FF7CD03-CD03-4710-9FE0-0D69F4488F69}

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>EMODEInteger | Public<br>EMODEPrimitiveType | |

## EMODEIntegerValue

*Type:* **Class** **EMODEPrimitiveValue**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODEPrimitives *Keywords:*
*Detail:* *Created on* 29.10.2006. *Last modified on* 29.10.2006.
*GUID:* {8CC1DE0C-8E44-47b7-9D6F-E12D9824E225}

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>EMODEIntegerValue | Public<br>EMODEPrimitiveValue | |
| **Generalization**<br>Source -> Destination | Public<br>IntegerValue | Public<br>EMODEIntegerValue | |

### *Attributes*

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **value** Integer<br>Public | | *Default:* |

## EMODELong

*Type:* **Class** **EMODEPrimitiveType**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODEPrimitives *Keywords:*
*Detail:* *Created on* 30.10.2006. *Last modified on* 30.10.2006.
*GUID:* {3669C496-5CE1-4e0a-A374-8BCD9B6FE483}

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>EMODELong | Public<br>EMODEPrimitiveType | |

## EMODELongValue

*Type:* **Class** **EMODEPrimitiveValue**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODEPrimitives *Keywords:*
*Detail:* *Created on* 29.10.2006. *Last modified on* 29.10.2006.
*GUID:* {BFE6335C-610F-42db-B97C-841E461345EE}

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>EMODELongValue | Public<br>EMODEPrimitiveValue | |
| **Generalization**<br>Source -> Destination | Public<br>LongValue | Public<br>EMODELongValue | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **value** Long<br>Public | | *Default:* |

## EMODEPrimitiveType

*Type:* **Class** **Concept**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODEPrimitives *Keywords:*
*Detail:* *Created on* 29.10.2006. *Last modified on* 30.10.2006.
*GUID:* {34BE204A-CB03-47dc-9263-05A215B0127B}

A type definition (concept) of an EMODE primitive type.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>EMODEInteger | Public<br>EMODEPrimitiveType | |
| **Generalization**<br>Source -> Destination | Public<br>EMODEPrimitiveType | Public<br>Concept | |
| **Generalization**<br>Source -> Destination | Public<br>EMODEFloat | Public<br>EMODEPrimitiveType | |
| **Generalization**<br>Source -> Destination | Public<br>EMODEBoolean | Public<br>EMODEPrimitiveType | |
| **Generalization**<br>Source -> Destination | Public<br>EMODELong | Public<br>EMODEPrimitiveType | |
| **Generalization**<br>Source -> Destination | Public<br>EMODEString | Public<br>EMODEPrimitiveType | |
| **Generalization**<br>Source -> Destination | Public<br>EMODEDouble | Public<br>EMODEPrimitiveType | |

## EMODEPrimitiveValue

*Type:* **Class** **EMODEValueSpecification**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODEPrimitives *Keywords:*
*Detail:* *Created on* 29.10.2006. *Last modified on* 29.10.2006.
*GUID:* {2039DD98-2B42-4161-B26C-DEDE4EA8CF30}

Classes derived from this one represent EMODE Literals / Primitive Values

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>EMODEStringValue | Public<br>EMODEPrimitiveValue | |
| **Generalization**<br>Source -> Destination | Public<br>EMODELongValue | Public<br>EMODEPrimitiveValue | |
| **Generalization**<br>Source -> Destination | Public<br>EMODEIntegerValue | Public<br>EMODEPrimitiveValue | |
| **Generalization**<br>Source -> Destination | Public<br>EMODEDoubleValue | Public<br>EMODEPrimitiveValue | |
| **Generalization**<br>Source -> Destination | Public<br>EMODEFloatValue | Public<br>EMODEPrimitiveValue | |
| **Generalization**<br>Source -> Destination | Public<br>EMODEBooleanValue | Public<br>EMODEPrimitiveValue | |
| **Generalization**<br>Source -> Destination | Public<br>EMODEPrimitiveValue | Public<br>EMODEValueSpecification | |

## EMODEString

*Type:* **Class** **EMODEPrimitiveType**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODEPrimitives *Keywords:*
*Detail:* *Created on* 30.10.2006. *Last modified on* 30.10.2006.

*GUID:* {602B8F70-5CCF-47ac-AC7F-A3787F5A01EB}

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>EMODEString | Public<br>EMODEPrimitiveType | |

## EMODEStringValue

*Type:* **Class** **EMODEPrimitiveValue**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODEPrimitives *Keywords:*
*Detail:* *Created on* 29.10.2006. *Last modified on* 29.10.2006.
*GUID:* {801BE650-D4B5-427e-95A0-4387C092F205}

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>StringValue | Public<br>EMODEStringValue | |
| **Generalization**<br>Source -> Destination | Public<br>EMODEStringValue | Public<br>EMODEPrimitiveValue | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **value** String<br>Public | | *Default:* |

## *Eventing*

*Type:* **Package**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODECommons
*Detail:* *Created on 23.05.2007. Last modified on 23.05.2007*
*GUID:* {6A95AA30-D73B-44ae-A5E8-39FABD2C9424}

**EventingConsumers** - *(Logical diagram)*
*Created By:* *on* 24.05.2007
*Last Modified:* 24.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {71EE7CD9-21B7-4f62-B15D-EC48F25D206D}

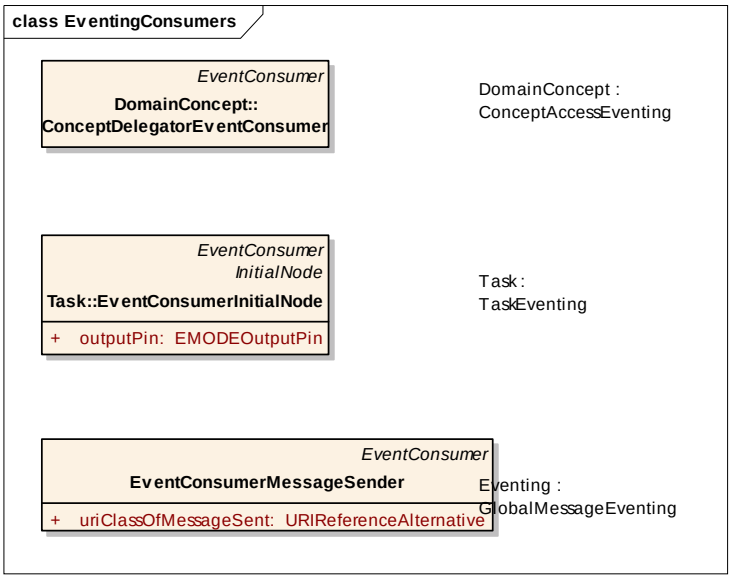



Figure: 57

**EventingElements** - *(Logical diagram)*
*Created By:* *on* 23.05.2007
*Last Modified:* 25.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {616D966F-5BCE-4d84-896F-0B1B0C9F8F5C}

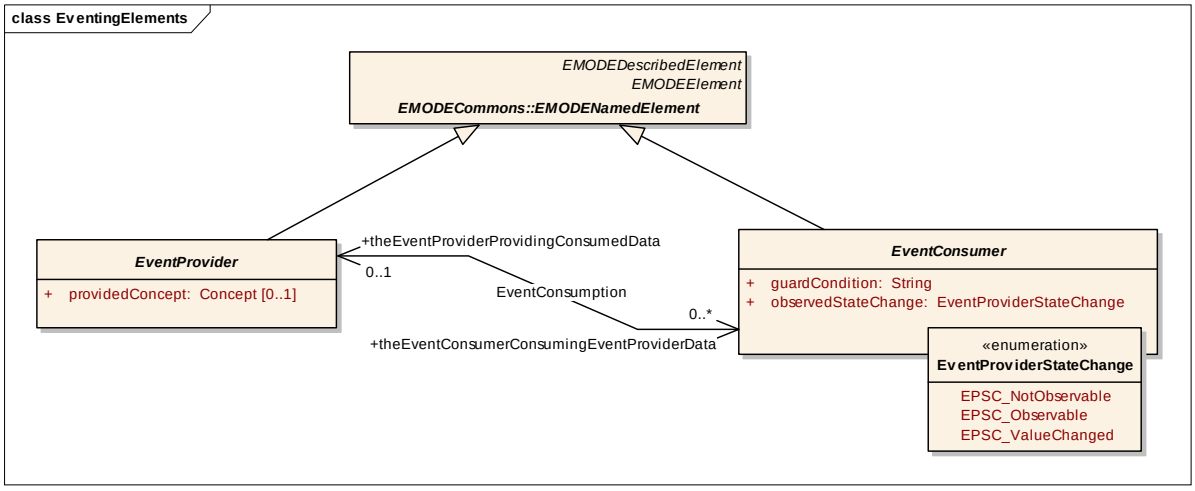



Figure: 58

**EventingProviders** - *(Logical diagram)*
*Created By:* *on* 24.05.2007
*Last Modified:* 24.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {A473D8B8-C008-47b5-A2D0-A606E005C128}

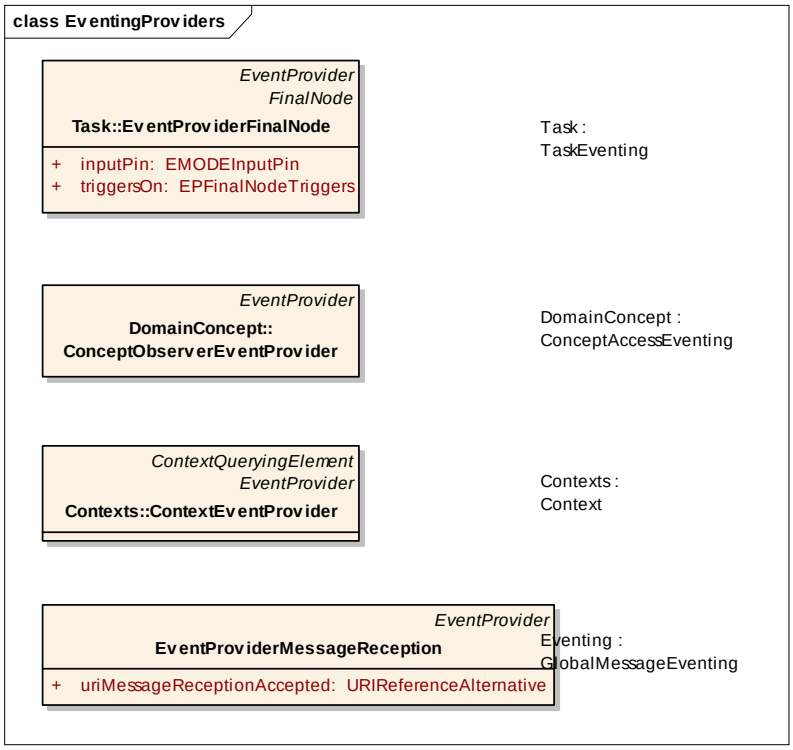



Figure: 59

**GlobalMessageEventing** - *(Logical diagram)*

*Created By:* *on* 24.05.2007
*Last Modified:* 25.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {B576AD33-C229-4684-8462-FC9909FEABF8}

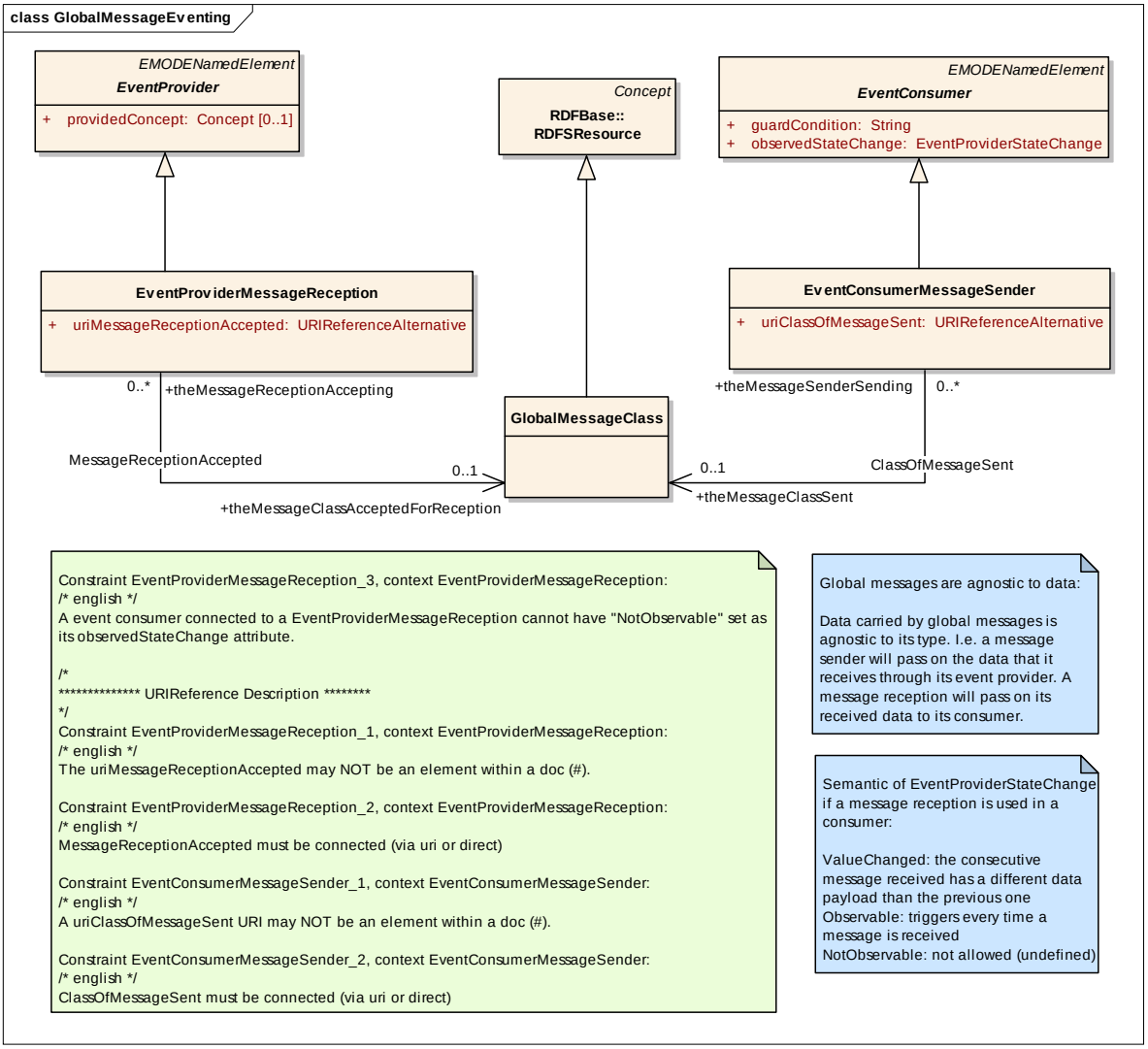



Figure: 60

## EventConsumer

*Type:* **Class** **EMODENamedElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Eventing *Keywords:*
*Detail:* *Created on* 23.05.2007. *Last modified on* 23.05.2007.
*GUID:* {A03D5D0F-9C9A-466c-9630-C204FF7E3242}

This element consumes events by defining how the system should react on them.

***Custom Properties***

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = true.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>EventConsumer | Public<br>EMODENamedElement | |
| **Generalization**<br>Source -> Destination | Public<br>ConceptDelegatorEventConsumer | Public<br>EventConsumer | |
| **Generalization**<br>Source -> Destination | Public<br>EventConsumerMessageSender | Public<br>EventConsumer | |
| **Association**<br>EventConsumption<br>Bi-Directional | Public<br>theEventProviderProvidingConsumedData<br>EventProvider | Public<br>theEventConsumerConsumingEventProviderData<br>EventConsumer | Describes the connection between an event provider which data is being consumed by an event. Several consumers can be connected to a single event provider. |
| **Generalization**<br>Source -> Destination | Public<br>EventConsumerInitialNode | Public<br>EventConsumer | |

### *Attributes*

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **guardCondition** String<br>Public | The condition on the subscription's delivered data, under which the event consumer should trigger its action. | *Default:* |
| **observedStateChange**<br>EventProviderStateChange<br>Public | The state change of the provider connected that this consumption will react on. | *Default:* |

## EventConsumerMessageSender

*Type:* **Class** **EventConsumer**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Eventing *Keywords:*
*Detail:* *Created on* 24.05.2007. *Last modified on* 24.05.2007.
*GUID:* {EE297A7B-B1A3-453d-8683-9EA36E3576F2}

Realizes an event consumer that sends a (gloabl) message as a reaction to the event consumed.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>ClassOfMessageSent<br>Source -> Destination | Public<br>theMessageSenderSending<br>EventConsumerMessageSender | Public<br>theMessageClassSent<br>GlobalMessageClass | the class of message that the event consumer sends upon receiving an event |
| **Generalization**<br>Source -> Destination | Public<br>EventConsumerMessageSender | Public<br>EventConsumer | |

### *Attributes*

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **uriClassOfMessageSent**<br>URIReferenceAlternative<br>Public | The uri reference to the message class this element is sending | *Default:* |

## EventProvider

*Type:* **Class** **EMODENamedElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Eventing *Keywords:*
*Detail:* *Created on* 23.05.2007. *Last modified on* 23.05.2007.

*GUID:* {8D78574A-E562-474d-A2A8-6719B763FF76}

This element is the source of events, or rather defines where exactly the events comes form. It subclasses are sepecfic to the event provider types.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = true.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>EventProvider | Public<br>EMODENamedElement | |
| **Generalization**<br>Source -> Destination | Public<br>ConceptObserverEventProvider | Public<br>EventProvider | |
| **Generalization**<br>Source -> Destination | Public<br>EventProviderMessageReception | Public<br>EventProvider | |
| **Association**<br>EventConsumption<br>Bi-Directional | Public<br>theEventProviderProvidingConsumedData<br>EventProvider | Public<br>theEventConsumerConsumingEventProviderData<br>EventConsumer | Describes the connection between an event provider which data is being consumed by an event. Several consumers can be connected to a single event provider. |
| **Generalization**<br>Source -> Destination | Public<br>EventProviderFinalNode | Public<br>EventProvider | |
| **Generalization**<br>Source -> Destination | Public<br>ContextEventProvider | Public<br>EventProvider | |

### *Attributes*

| Attribute | Notes | Constraints and tags |
|---|---|---|

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **providedConcept** Concept Public<br><br>[0..1] | The concept that this event provider delivers | *Default:* |

### EventProviderMessageReception

*Type:* **Class** **EventProvider**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Eventing *Keywords:*
*Detail:* *Created on* 24.05.2007. *Last modified on* 24.05.2007.
*GUID:* {6B25C0F0-F717-40d1-A962-C3D4DEF26687}

A message reception realizing the provision of an event. The event is triggered by the incoming (gloabl) message.

#### *Custom Properties*

- isActive = False

#### *Tagged Values*

- isAbstract = false.

#### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>EventProviderMessage Reception | Public<br>EventProvider | |
| **Association**<br>MessageReceptionAccepted<br>Source -> Destination | Public<br>theMessageReceptionAccepting<br>EventProviderMessage Reception | Public<br>theMessageClassAcceptedForReception<br>GlobalMessageClass | the message class that is this event provider message reception accepts. |

#### *Attributes*

| Attribute | Notes | Constraints and tags |
|---|---|---|

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **uriMessageReceptionAccepted**<br>URIReferenceAlternative<br>Public | the uri reference to the accepted message | *Default:* |

### EventProviderStateChange

*Type:* **Enumeration**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Eventing *Keywords:*
*Detail:* *Created on* 23.05.2007. *Last modified on* 25.05.2007.
*GUID:* {B949F4E1-C0A7-49c2-9671-0BE5C630FB56}

What type of state change should be observed with regard to the provider

***Custom Properties***

- isActive = False

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **EPSC_NotObservable**<br>Public | The provided data has become unobserable | *Default:* |
| **EPSC_Observable**<br>Public | The provided data has become observabel | *Default:* |
| **EPSC_ValueChanged**<br>Public | The provided data has changed its value. This is NOT triggered if it becomes unobservable, but in turn, when the value becomes observable again. | *Default:* |

### GlobalMessageClass

*Type:* **Class** **RDFSResource**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Eventing *Keywords:*
*Detail:* *Created on* 24.05.2007. *Last modified on* 24.05.2007.
*GUID:* {2B700A9B-E79C-4265-8FC0-BF0E61935AF8}

Defines a type for a globale message that can be send and received using appropriate event providers and consumers.

#### *Custom Properties*

- isActive = False

#### *Tagged Values*

- isAbstract = false.

#### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>ClassOfMessageSent<br>Source -> Destination | Public<br>theMessageSenderSending<br>EventConsumerMessageSender | Public<br>theMessageClassSent<br>GlobalMessageClass | the class of message that the event consumer sends upon receiving an event |
| **Association**<br>MessageReceptionAccepted<br>Source -> Destination | Public<br>theMessageReceptionAccepting<br>EventProviderMessageReception | Public<br>theMessageClassAcceptedForReception<br>GlobalMessageClass | the message class that is this event provider message reception accepts. |
| **Generalization**<br>Source -> Destination | Public<br>GlobalMessageClass | Public<br>RDFSResource | |

## FunctionalCoreAdapter

*Type:* **Package**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODESpecific
*Detail:* *Created on 24.03.2006. Last modified on 02.06.2006*
*GUID:* {FC3A8A8D-96E7-468d-AC89-7E50489207D1}

**FCACall** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 16.08.2006

*Last Modified:* 04.10.2006
*Version:* 1.0. *Locked:* False
*GUID:* {773865F8-A150-42db-AE1C-90D0981F216A}

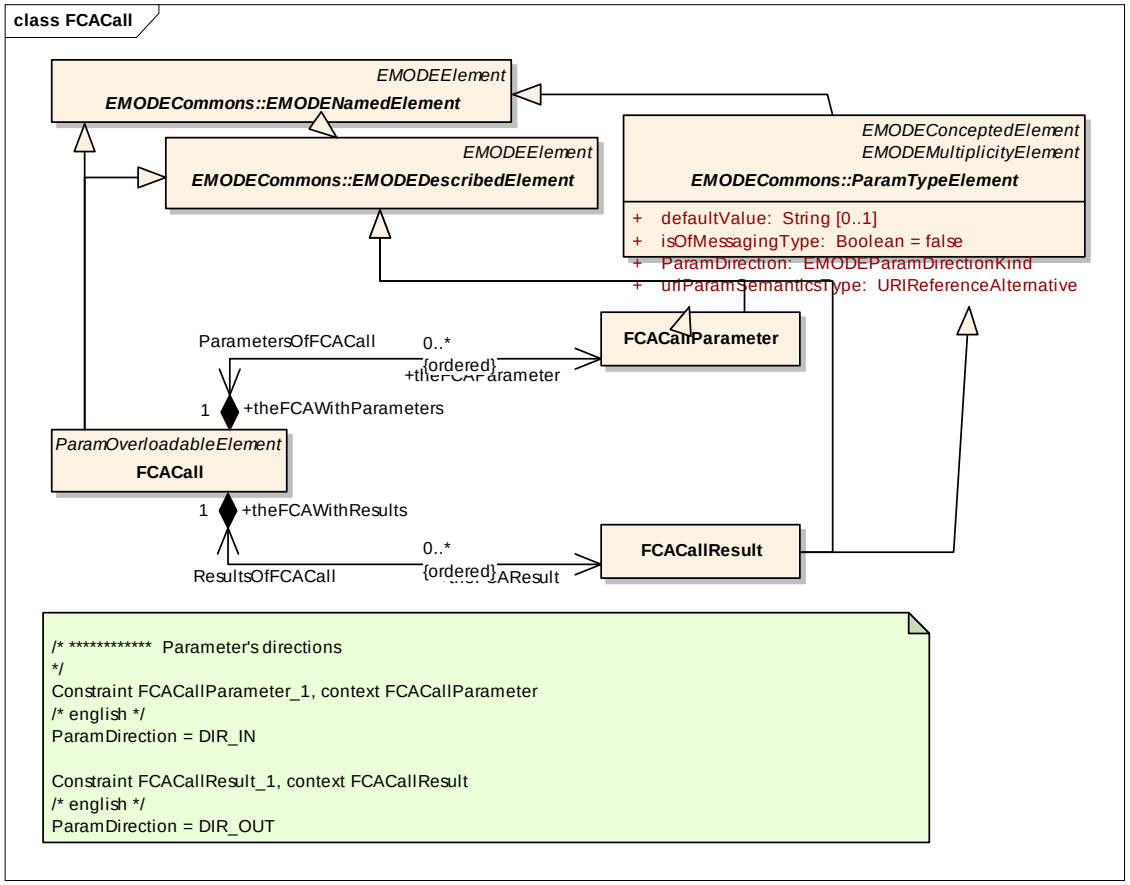



Figure: 61

**FCAImplementation** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 17.08.2006
*Last Modified:* 04.10.2006
*Version:* 1.0. *Locked:* False
*GUID:* {C764C0BC-DEE6-4629-AD44-A1C4C28E32C2}

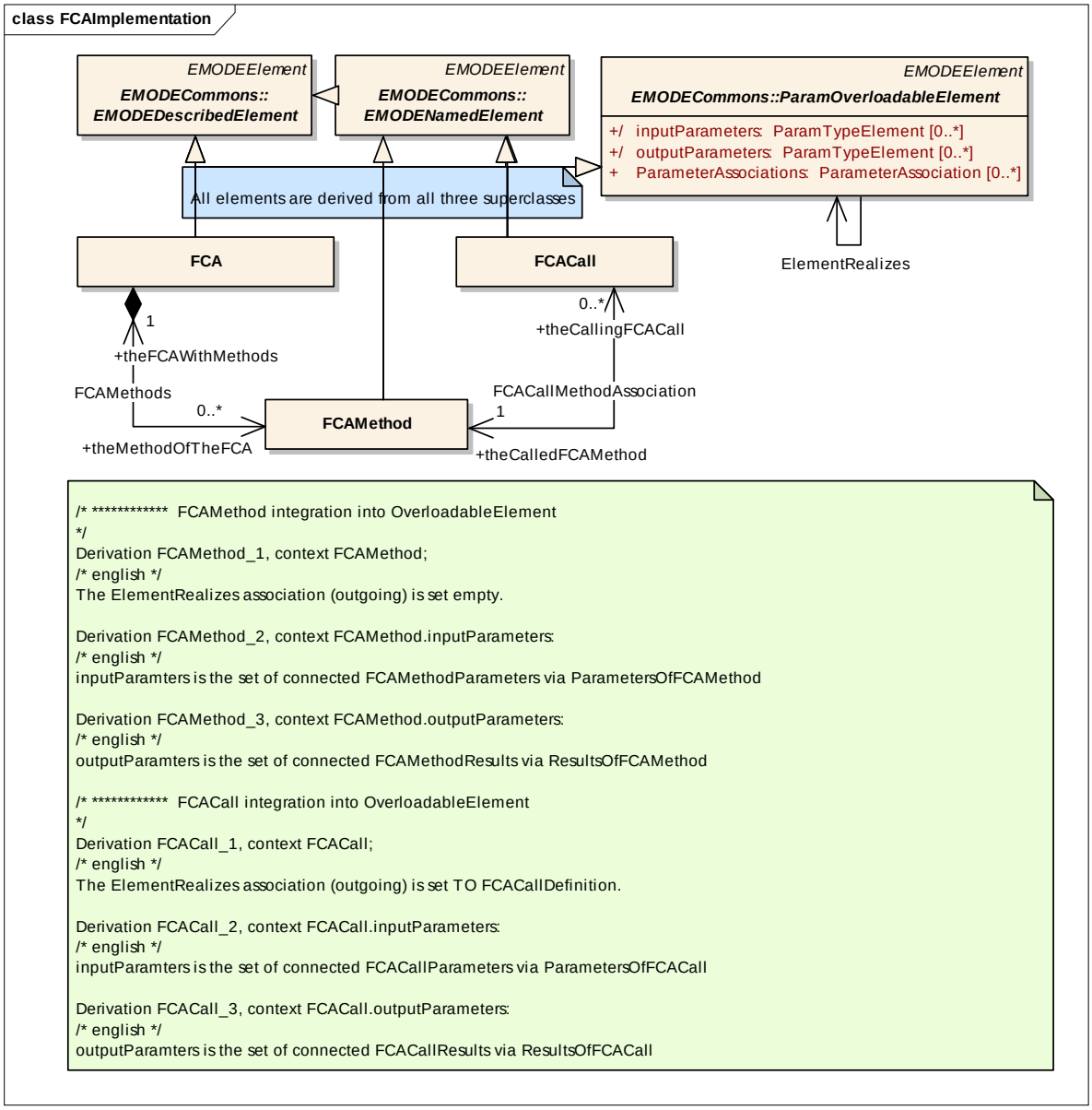



Figure: 62

**FCAWithMethods** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 26.10.2006
*Last Modified:* 26.10.2006
*Version:* 1.0. *Locked:* False
*GUID:* {C4E84FE3-B1C9-4cab-8A7B-A3B07CA49226}

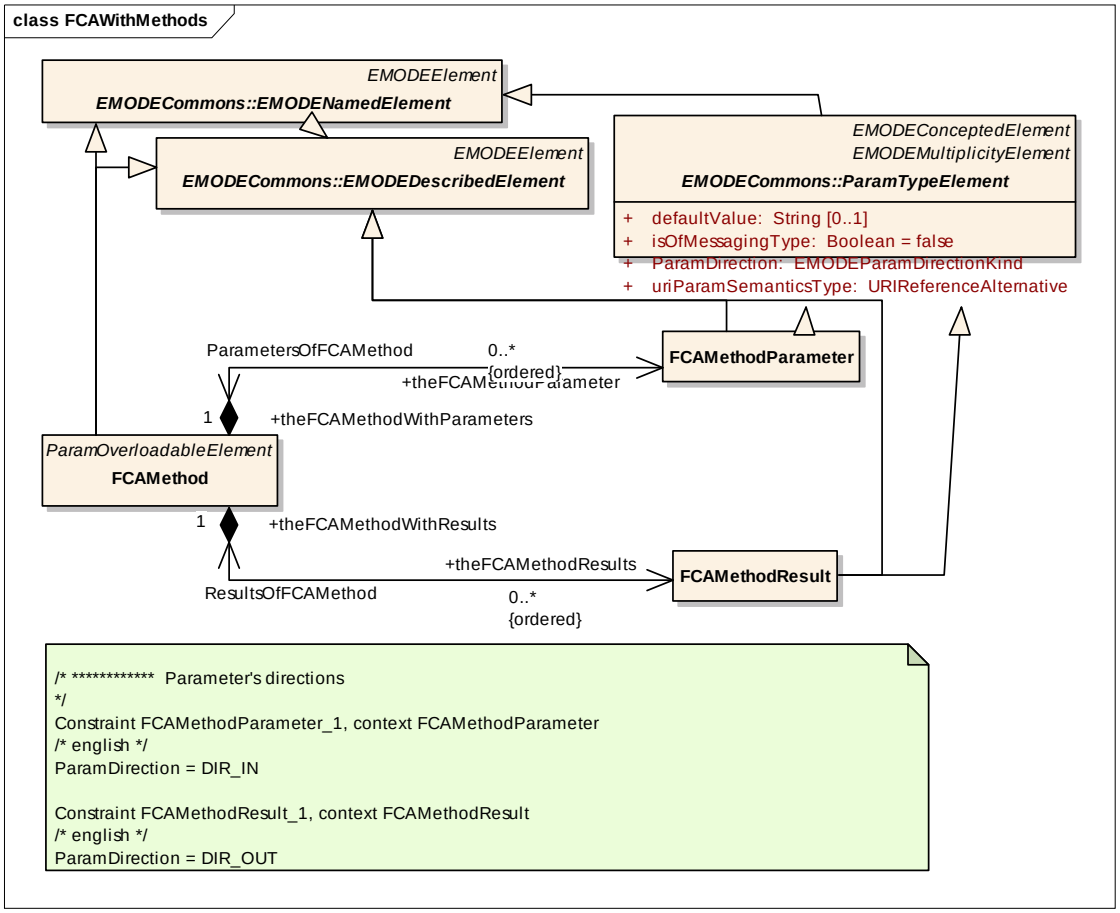



Figure: 63

## *FCA*

*Type:* **Class** **EMODEDescribedElement, EMODENamedElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* FunctionalCoreAdapter *Keywords:*
*Detail:* *Created on* 24.03.2006. *Last modified on* 26.10.2006.
*GUID:* {FE31313A-9355-4487-B0FD-89DE7FB61C69}

A FCA is the adapter to the functional core and exposes different FCAMethods to be used.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>FCA | Public<br>EMODENamedElement | |
| **Association**<br>FCAMethods<br>Bi-Directional | Public<br>theMethodOfTheFCA<br>FCAMethod | Public<br>theFCAWithMethods<br>FCA | Connects a FCA with its FCAMethods |
| **Generalization**<br>Source -> Destination | Public<br>FCA | Public<br>EMODEDescribedElement | |

## *FCACall*

*Type:* **Class** **EMODEDescribedElement, EMODENamedElement, ParamOverloadableElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* FunctionalCoreAdapter *Keywords:*
*Detail:* *Created on* 03.06.2006. *Last modified on* 03.06.2006.
*GUID:* {DD859D48-CD6C-44c3-B288-251E86880B28}

The interface to other elements, where an FCA is defined

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>ParametersOfFCACall<br>Bi-Directional | Public<br>theFCAParameter<br>FCACallParameter | Public<br>theFCAWithParameters<br>FCACall | The parameters associated to an FCA call. They must/can be filled by the calling entity. |
| **Association**<br>ResultsOfFCACall<br>Bi-Directional | Public<br>theFCAWithResults<br>FCACall | Public theFCAResult<br>FCACallResult | The results delivered by an FCA Call. They can be used by the calling entities. |
| **Generalization**<br>Source -> Destination | Public<br>FCACall | Public<br>ParamOverloadableElement | |
| **Association**<br>FCACallMethodAssociation<br>Bi-Directional | Public<br>theCalledFCAMethod<br>FCAMethod | Public<br>theCallingFCACall<br>FCACall | FCACall calles the associated FCAMethod |
| **Association** | Public | Public | The connection between a system |

| Connector | Source | Target | Notes |
|---|---|---|---|
| TaskImplementation<br>Bi-Directional | theImplementedTaskEnd<br>TaskExecutionNode | theImplementingFCACall<br>FCACall | task and a FCA call |
| **Generalization**<br>Source -> Destination | Public<br>FCACall | Public<br>EMODENamedElement | |
| **Generalization**<br>Source -> Destination | Public<br>FCACall | Public<br>EMODEDescribedElement | |

## *FCACallParameter*

*Type:* **Class** **EMODEDescribedElement, ParamTypeElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* FunctionalCoreAdapter *Keywords:*
*Detail:* *Created on* 24.03.2006. *Last modified on* 26.10.2006.
*GUID:* {3A017190-7555-46be-ADDF-C25AD453BCE0}

The input parameter of an FCACall

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>ParametersOfFCACall<br>Bi-Directional | Public<br>theFCAParameter<br>FCACallParameter | Public<br>theFCAWithParameters<br>FCACall | The parameters associated to an FCA call. They must/can be filled by the calling entity. |
| **Generalization**<br>Source -> Destination | Public<br>FCACallParameter | Public<br>ParamTypeElement | |
| **Generalization**<br>Source -> Destination | Public<br>FCACallParameter | Public<br>EMODEDescribedElement | |

## *FCACallResult*

*Type:* **Class** **EMODEDescribedElement, ParamTypeElement**
*Status:* Proposed. Version 1.0. Phase 1.0.

*Package:* FunctionalCoreAdapter *Keywords:*
*Detail:* *Created on* 23.06.2006. *Last modified on* 26.10.2006.
*GUID:* {01236EE1-FC55-4c69-AE56-A400F5DE3C63}

The result of the FCACall

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>ResultsOfFCACall<br>Bi-Directional | Public<br>theFCAWithResults<br>FCACall | Public theFCAResult<br>FCACallResult | The results delivered by an FCA Call. They can be used by the calling entities. |
| **Generalization**<br>Source -> Destination | Public<br>FCACallResult | Public<br>ParamTypeElement | |
| **Generalization**<br>Source -> Destination | Public<br>FCACallResult | Public<br>EMODEDescribedElement | |

## *FCAMethod*

*Type:* **Class** **EMODEDescribedElement, EMODENamedElement, ParamOverloadableElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* FunctionalCoreAdapter *Keywords:*
*Detail:* *Created on* 18.08.2006. *Last modified on* 26.10.2006.
*GUID:* {8FB40CFF-0315-48fa-A9A8-3FD37F2C597B}

An element of a FCA, providing a method that can be executed.

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>FCACallMethodAssociation<br>Bi-Directional | Public<br>theCalledFCAMethod<br>FCAMethod | Public<br>theCallingFCACall<br>FCACall | FCACall calles the associated FCAMethod |
| **Association**<br>FCAMethods<br>Bi-Directional | Public<br>theMethodOfTheFCA<br>FCAMethod | Public<br>theFCAWithMethods<br>FCA | Connects a FCA with its FCAMethods |
| **Generalization**<br>Source -> Destination | Public<br>FCAMethod | Public<br>ParamOverloadableElement | |
| **Generalization**<br>Source -> Destination | Public<br>FCAMethod | Public<br>EMODENamedElement | |
| **Generalization**<br>Source -> Destination | Public<br>FCAMethod | Public<br>EMODEDescribedElement | |
| **Association**<br>ParametersOfFCAMethod<br>Bi-Directional | Public<br>theFCAMethodWithParameters<br>FCAMethod | Public<br>theFCAMethodParameter<br>FCAMethodParameter | The parameters of the FCAMethod |
| **Association**<br>ResultsOfFCAMethod<br>Bi-Directional | Public<br>theFCAMethodWithResults<br>FCAMethod | Public<br>theFCAMethodResults<br>FCAMethodResult | The results of the FCAMethod |

## *FCAMethodParameter*

*Type:* **Class** **EMODEDescribedElement, ParamTypeElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* FunctionalCoreAdapter *Keywords:*
*Detail:* *Created on* 18.08.2006. *Last modified on* 26.10.2006.
*GUID:* {27980112-F5C8-4890-93D4-83EF3A47173A}

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>ParametersOfFCAMethod<br>Bi-Directional | Public<br>theFCAMethodWithParameters<br>FCAMethod | Public<br>theFCAMethodParameter<br>FCAMethodParameter | The parameters of the FCAMethod |
| **Generalization**<br>Source -> Destination | Public<br>FCAMethodParameter | Public<br>ParamTypeElement | |
| **Generalization**<br>Source -> Destination | Public<br>FCAMethodParameter | Public<br>EMODEDescribedElement | |

## *FCAMethodResult*

*Type:* **Class** **EMODEDescribedElement, ParamTypeElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* FunctionalCoreAdapter *Keywords:*
*Detail:* *Created on* 18.08.2006. *Last modified on* 26.10.2006.
*GUID:* {DC5FB363-1B96-4a24-B188-9773C5B47737}

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>ResultsOfFCAMethod<br>Bi-Directional | Public<br>theFCAMethodWithResults<br>FCAMethod | Public<br>theFCAMethodResults<br>FCAMethodResult | The results of the FCAMethod |
| **Generalization**<br>Source -> Destination | Public<br>FCAMethodResult | Public<br>ParamTypeElement | |
| **Generalization**<br>Source -> Destination | Public<br>FCAMethodResult | Public<br>EMODEDescribedElement | |

# Goals

*Type:* **Package**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODESpecific
*Detail:* *Created on 07.03.2006. Last modified on 02.06.2006*
*GUID:* {175CFBD8-77AB-49ae-9E85-EAA848294C02}

**GoalRelations** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 08.08.2006
*Last Modified:* 30.08.2006
*Version:* 1.0. *Locked:* False
*GUID:* {97EA7F1E-1F0F-4776-AA03-940B2A3105E3}

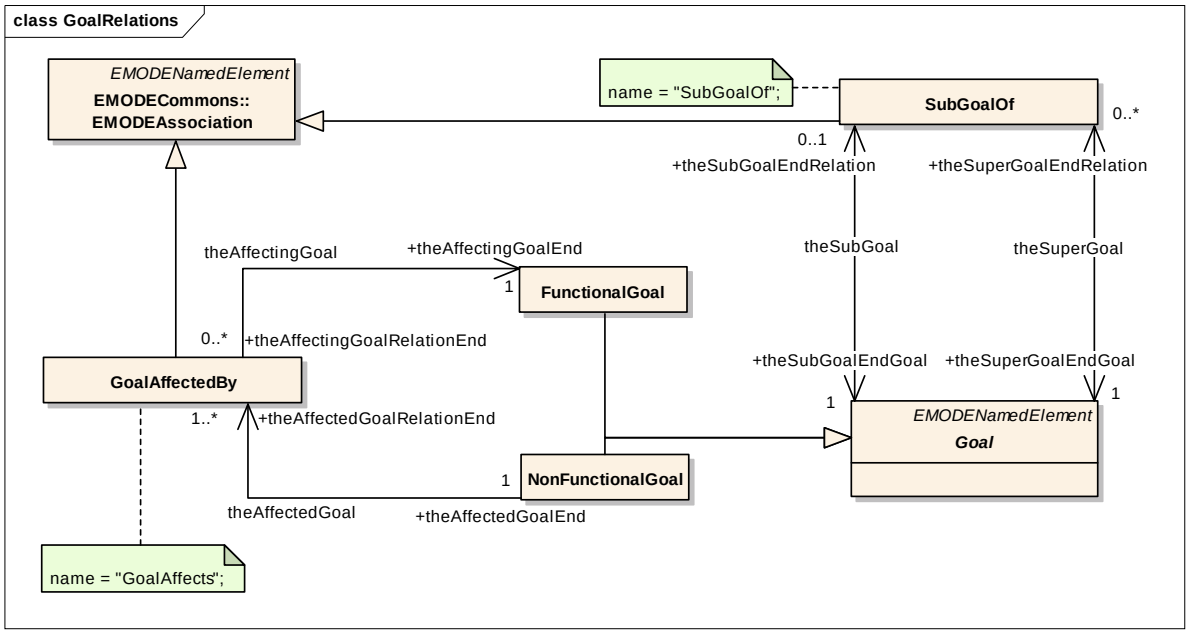



Figure: 64

**Goals** - *(Logical diagram)*
*Created By:* J. Hößler *on* 07.03.2006
*Last Modified:* 31.12.2006
*Version:* 1.0. *Locked:* False
*GUID:* {B8327CD1-63F9-42e9-9A75-9175615F1CA2}

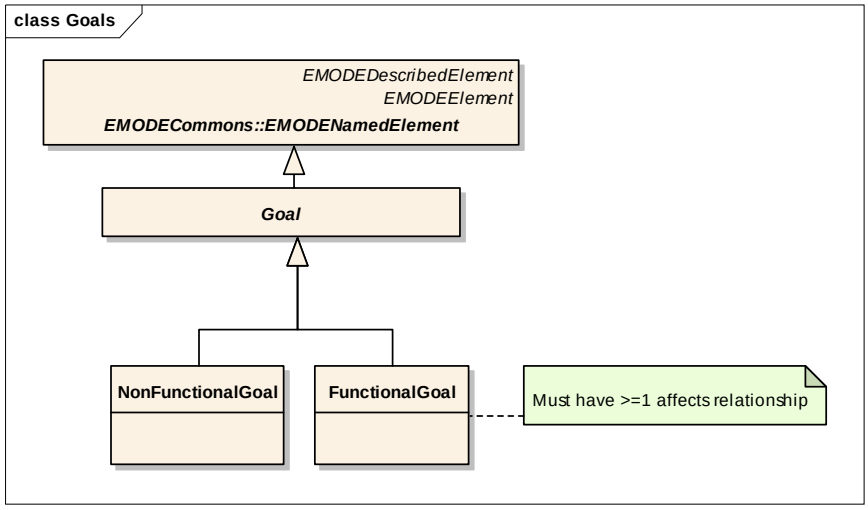



Figure: 65

## *FunctionalGoal*

*Type:* **Class** **Goal**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Goals *Keywords:*
*Detail:* *Created on* 07.08.2006. *Last modified on* 07.08.2006.
*GUID:* {D0928F6C-A3A1-4469-A4D1-2AD9F6B29702}

A functional goal. It can be be realized by tasks.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>theAffectingGoal<br>Source -> Destination | Public<br>theAffectingGoalRelationEnd<br>GoalAffectedBy | Public<br>theAffectingGoalEnd<br>FunctionalGoal | The functional goal affecting the non-functional goal. |
| **NoteLink**<br>Source -> Destination | Public<br>Note | Public<br>FunctionalGoal | |
| **Generalization**<br>Source -> Destination | Public<br>FunctionalGoal | Public<br>Goal | |

## *Goal*

*Type:* **Class** **EMODENamedElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Goals *Keywords:*
*Detail:* *Created on* 07.03.2006. *Last modified on* 07.08.2006.
*GUID:* {5F719533-CEFA-4ce6-8D01-4FF6D2F271CE}

A business goal is a non-technical goal which needs to be achieved

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association** theSupportedGoal Bi-Directional | Public theSupportedGoalRelationEnd TaskSupportsGoal | Public theSupportedGoalEnd Goal | The goal supported by the executable task. |
| **Association** theSuperGoal Bi-Directional | Public theSuperGoalEndGoal Goal | Public theSuperGoalEndRelation SubGoalOf | the goal being subgoaled |
| **Association** theSubGoal Bi-Directional | Public theSubGoalEndGoal Goal | Public theSubGoalEndRelation SubGoalOf | The sub goal which has a supergoal |
| **Generalization** Source -> Destination | Public Goal | Public EMODENamedElement | |
| **Generalization** Source -> Destination | Public NonFunctionalGoal | Public Goal | |
| **Generalization** Source -> Destination | Public FunctionalGoal | Public Goal | |

## *GoalAffectedBy*

*Type:* **Class** **EMODEAssociation**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Goals *Keywords:*
*Detail:* *Created on* 07.08.2006. *Last modified on* 11.08.2006.
*GUID:* {688BB438-FDA6-4afb-8C6A-07CADF24197A}

A non-functional goal is affected by one ore more functional goals. The relation has the semantic of "support". I.e. a non-functional goal needs at least one functional goal that influences it in order to be able to live.

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink**<br>Source -> Destination | Public<br>Note | Public<br>GoalAffectedBy | |
| **Association**<br>theAffectingGoal<br>Source -> Destination | Public<br>theAffectingGoalRelationEnd<br>GoalAffectedBy | Public<br>theAffectingGoalEnd<br>FunctionalGoal | The functional goal affecting the non-functional goal. |
| **Association**<br>theAffectedGoal<br>Destination -> Source | Public<br>theAffectedGoalRelationEnd<br>GoalAffectedBy | Public<br>theAffectedGoalEnd<br>NonFunctionalGoal | The non-functional goal affected by a functional goal. |
| **Generalization**<br>Source -> Destination | Public<br>GoalAffectedBy | Public<br>EMODEAssociation | |

## *NonFunctionalGoal*

*Type:* **Class** **Goal**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Goals *Keywords:*
*Detail:* *Created on* 07.08.2006. *Last modified on* 07.08.2006.
*GUID:* {DF84F843-64B7-4dad-A2DC-6D96377DA319}

A non functional goal cannot be realized by a task.

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>theAffectedGoal<br>Destination -> Source | Public<br>theAffectedGoalRelationEnd<br>GoalAffectedBy | Public<br>theAffectedGoalEnd<br>NonFunctionalGoal | The non-functional goal affected by a functional goal. |
| **Generalization**<br>Source -> Destination | Public<br>NonFunctionalGoal | Public<br>Goal | |

## *SubGoalOf*

*Type:* **Class** **EMODEAssociation**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Goals *Keywords:*
*Detail:* *Created on* 07.08.2006. *Last modified on* 11.08.2006.
*GUID:* {25F4237F-F05C-45e6-B793-F5316D06B9FB}

Composes different goals to a supergoal. A goal can only have one supergoal, but a supergoal might have several subgoals. The relation has the semantic of a composition. That is, the subgoals' livelines depend on the supergoal.

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>SubGoalOf | Public<br>EMODEAssociation | |
| **NoteLink**<br>Source -> Destination | Public<br>Note | Public<br>SubGoalOf | |
| **Association**<br>theSuperGoal<br>Bi-Directional | Public<br>theSuperGoalEndGoal<br>Goal | Public<br>theSuperGoalEndRelation<br>SubGoalOf | the goal being subgoaled |
| **Association** theSubGoal<br>Bi-Directional | Public<br>theSubGoalEndGoal<br>Goal | Public<br>theSubGoalEndRelation<br>SubGoalOf | The sub goal which has a supergoal |

# Modality

*Type:* **Package**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODESpecific
*Detail:* *Created on 07.03.2006. Last modified on 08.03.2006*
*GUID:* {0791BA7D-CDA3-4175-9DF3-B06FCCE76DB9}

**Modality** - *(Logical diagram)*
*Created By:* J. Hößler *on* 07.03.2006
*Last Modified:* 31.12.2006
*Version:* 1.0. *Locked:* False
*GUID:* {7E7C178B-C658-440a-883F-1620BD697E21}

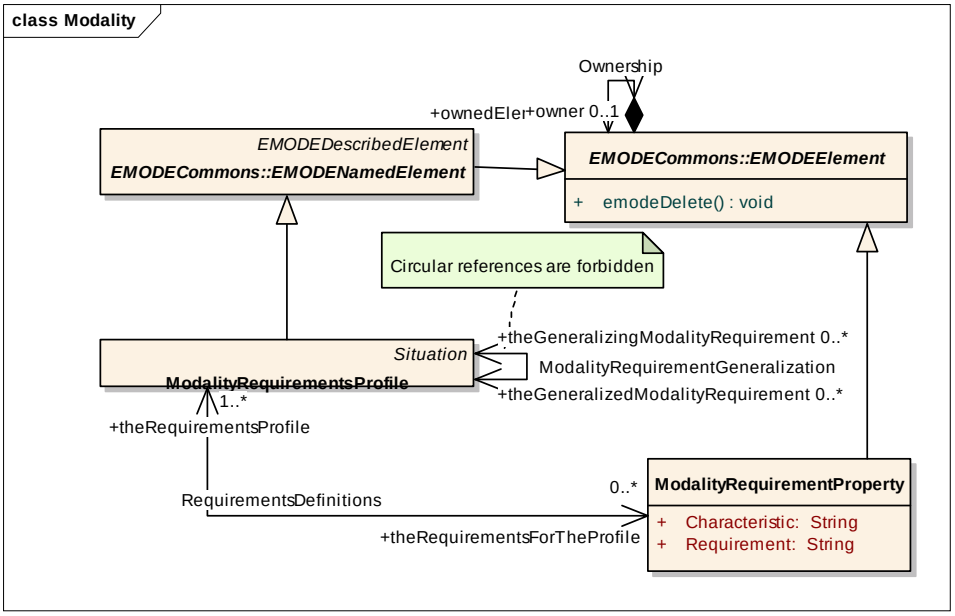



Figure: 66

## *ModalityRequirementProperty*

*Type:* **Class** **EMODEElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Modality *Keywords:*
*Detail:* *Created on* 31.03.2006. *Last modified on* 31.12.2006.
*GUID:* {A6D369EC-0551-43fa-B1D3-FCD2757168EC}

A property which consists of a attribute and a requirement that needs to be applied to it

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>RequirementsDefinitions<br>Bi-Directional | Public<br>theRequirementsProfile<br>ModalityRequirements<br>Profile | Public<br>theRequirementsForThe<br>Profile<br>ModalityRequirementPr<br>operty | The requirements defined for this ModalityRequirementsProfile |
| **Generalization**<br>Source -> Destination | Public<br>ModalityRequirementPr<br>operty | Public<br>EMODEElement | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **Characteristic** String<br>Public | The characteristic which the requirement is imposed upon | *Default:* |
| **Requirement** String<br>Public | The requirement | *Default:* |

## *ModalityRequirementsProfile*

*Type:* **Class** **EMODENamedElement, Situation**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Modality *Keywords:*
*Detail:* *Created on* 07.03.2006. *Last modified on* 31.12.2006.
*GUID:* {E19A2BE1-8368-4841-8152-277490A1F018}

Defines requirements on modality-properties in order to identify a (sub)set of modalities that are adressed by e.g. an AUI

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>ModalityRequirementGeneralization<br>Bi-Directional | Public<br>theGeneralizedModalityRequirement<br>ModalityRequirementsProfile | Public<br>theGeneralizingModalityRequirement<br>ModalityRequirementsProfile | Defines that the requirement is generalized by another requirement. I.e. the requirements defined in the generalizing element are also valid for the generalized element. |
| **Generalization**<br>Source -> Destination | Public<br>ModalityRequirementsProfile | Public<br>EMODENamedElement | |
| **Association**<br>RequirementsDefinitions<br>Bi-Directional | Public<br>theRequirementsProfile<br>ModalityRequirementsProfile | Public<br>theRequirementsForTheProfile<br>ModalityRequirementProperty | The requirements defined for this ModalityRequirementsProfile |
| **Generalization**<br>Source -> Destination | Public<br>ModalityRequirementsProfile | Public<br>Situation | |

# Task

*Type:* **Package**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODESpecific
*Detail:* *Created on 07.03.2006. Last modified on 24.03.2006*
*GUID:* {A27CD461-F29C-4959-96DA-87D2FC5F0DA6}

**BasicTaskNodes** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 10.08.2006
*Last Modified:* 24.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {C7DE2FE4-99B9-4f0c-81B1-363FEA3FCB2E}

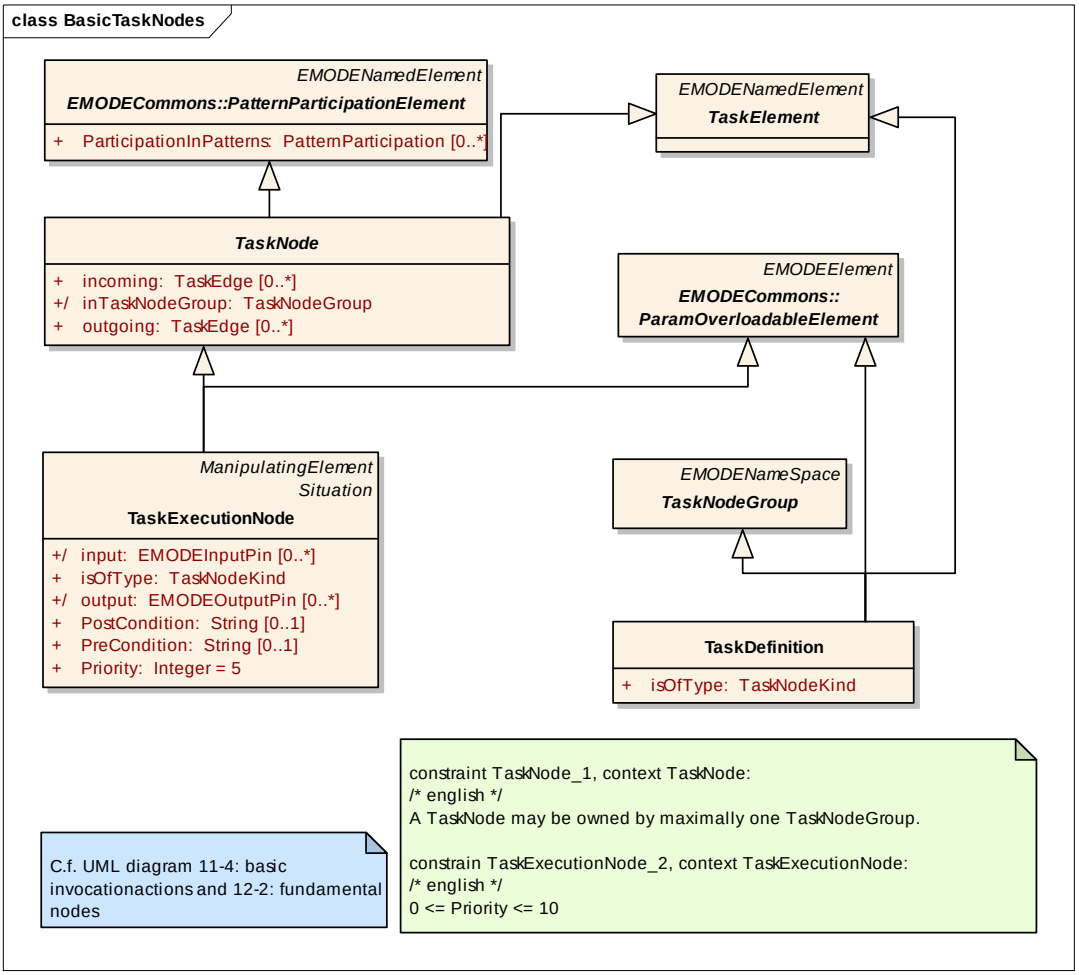



Figure: 67

**TaskControl** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 08.08.2006
*Last Modified:* 24.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {6F516240-3712-4fe6-807C-A54E5B02D229}

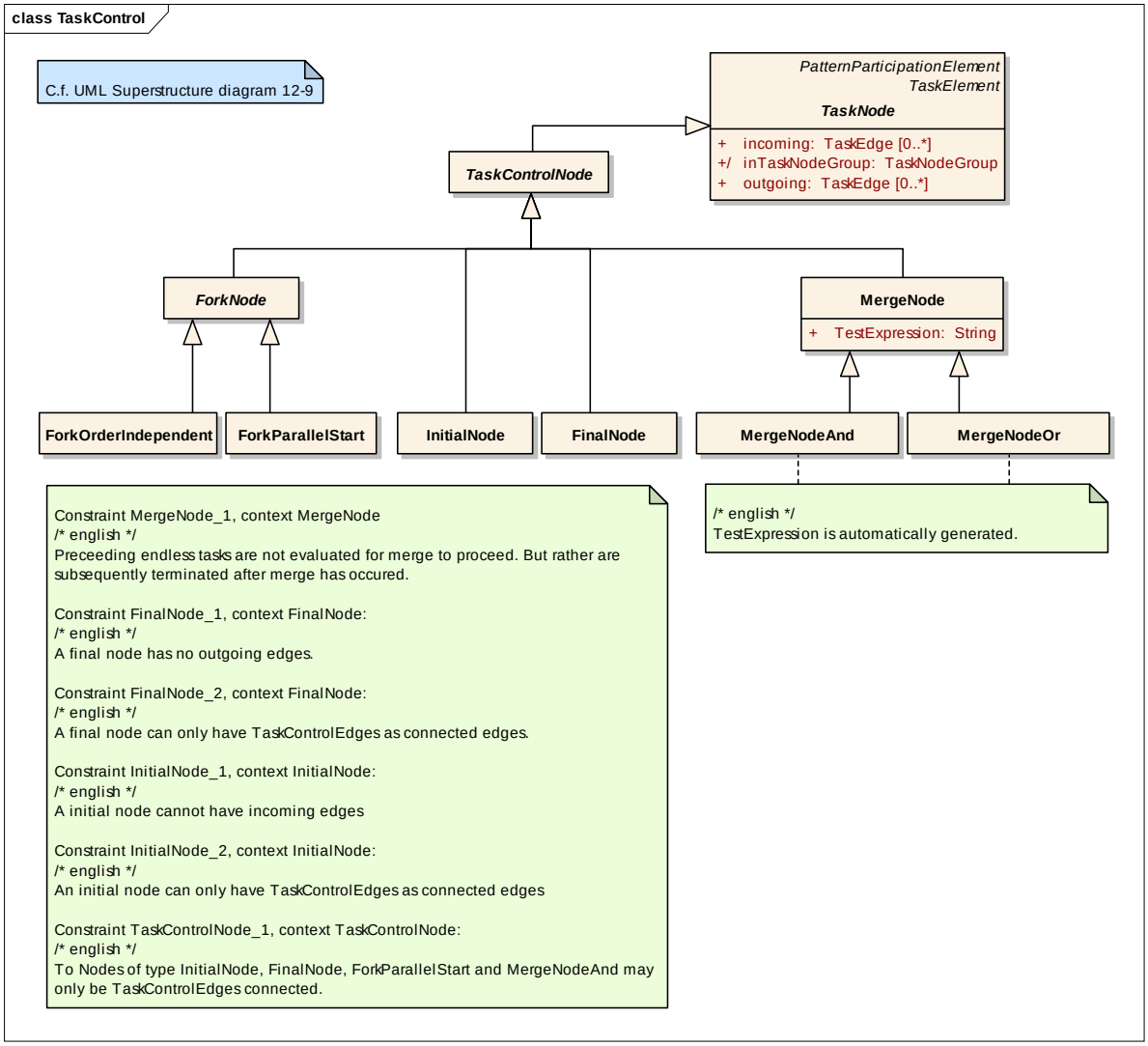



Figure: 68

**TaskDefinitions** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 13.06.2006
*Last Modified:* 23.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {2786C750-0C82-428d-A63E-5783545F8015}

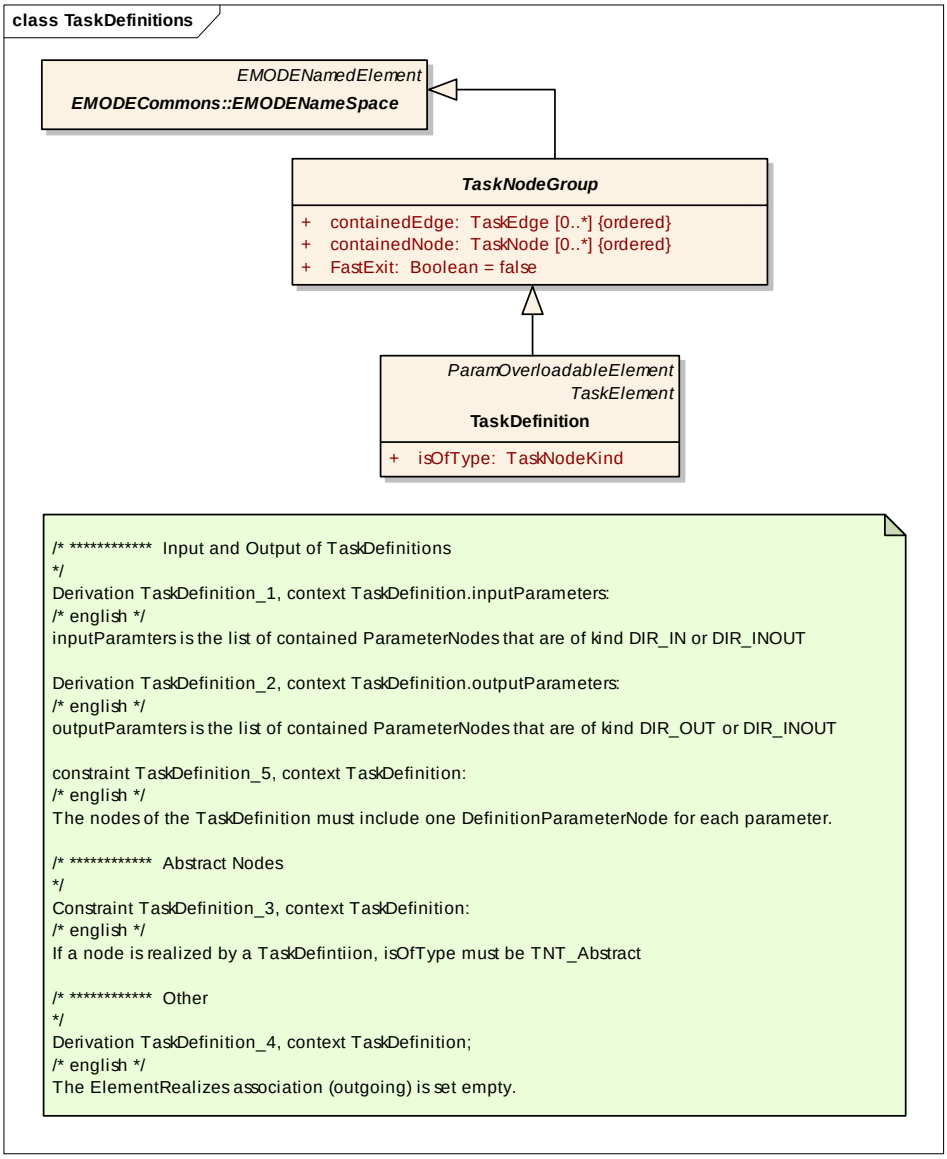



Figure: 69

**TaskEdges** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 29.05.2006
*Last Modified:* 23.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {D7416033-47B3-4391-BED6-C9CA390FD87C}

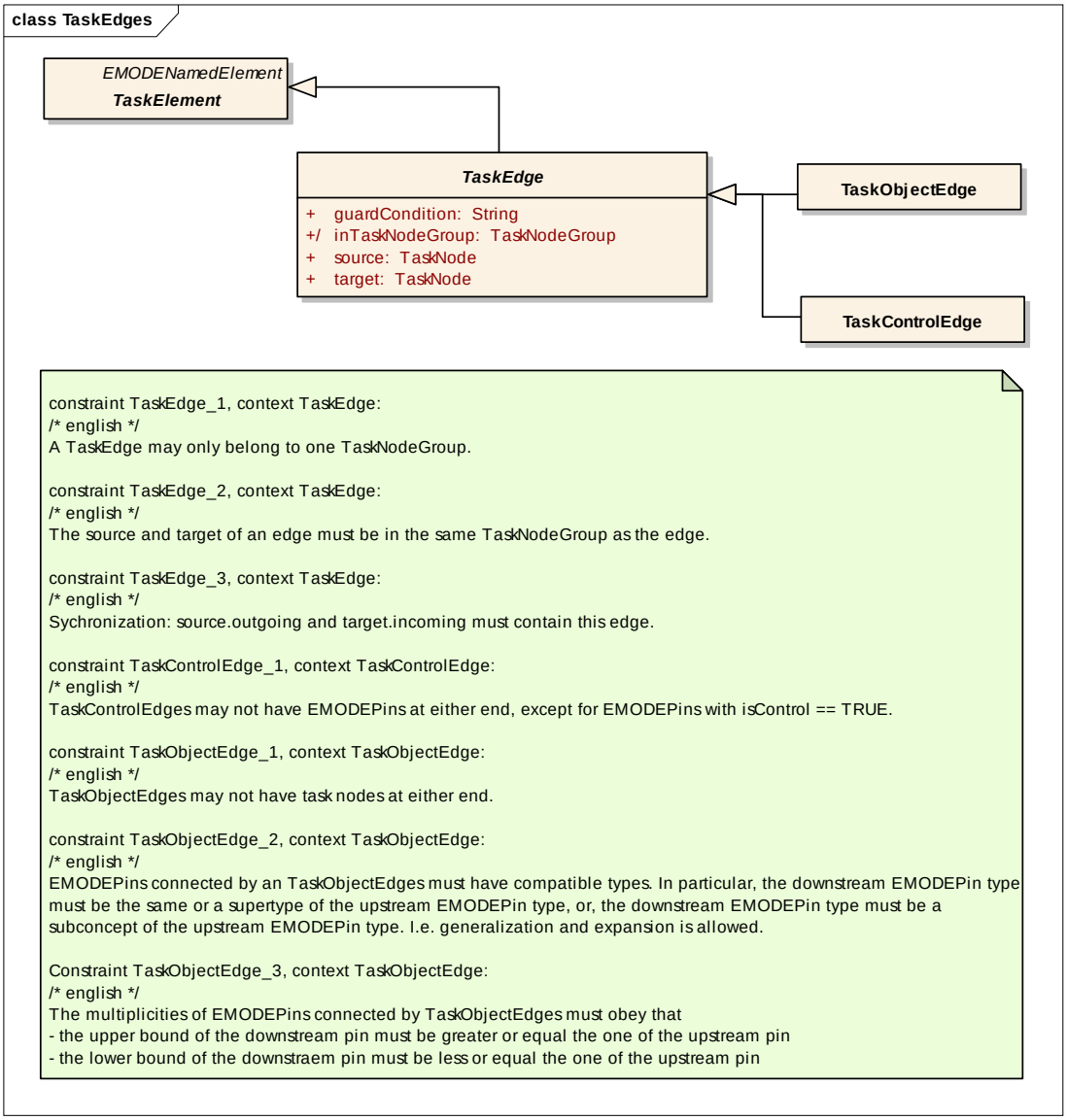



Figure: 70

**TaskEventing** - *(Logical diagram)*
*Created By:* *on* 24.05.2007
*Last Modified:* 24.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {79960271-8AF0-463b-AE77-5E2EAE073C5C}

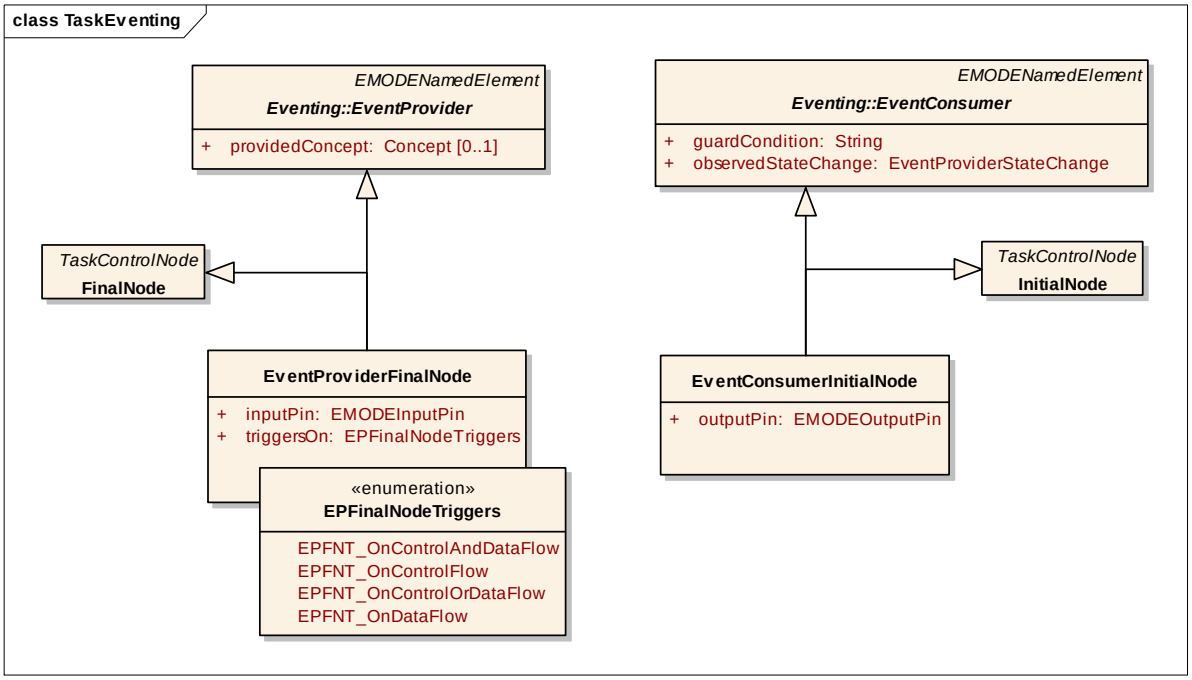



Figure: 71

**TaskExecutionOfBehavior** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 11.08.2006
*Last Modified:* 23.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {EF987441-761B-45e9-82F6-FC1872EE17DD}

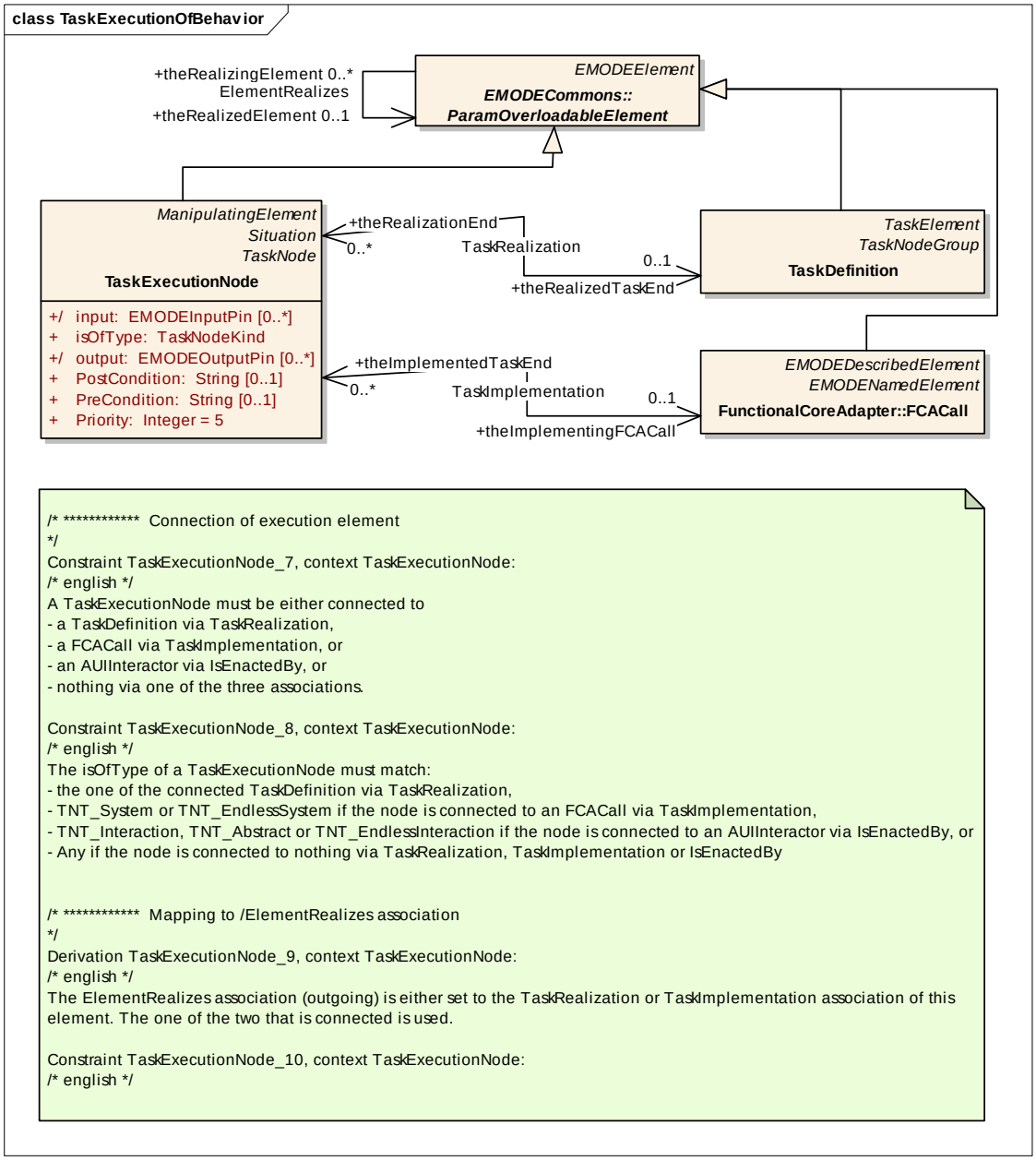



Figure: 72

**TaskNodeTypes** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 14.06.2006
*Last Modified:* 08.03.2007
*Version:* 1.0. *Locked:* False
*GUID:* {DB329F1D-BB9E-46e0-9530-2D4139BBE240}

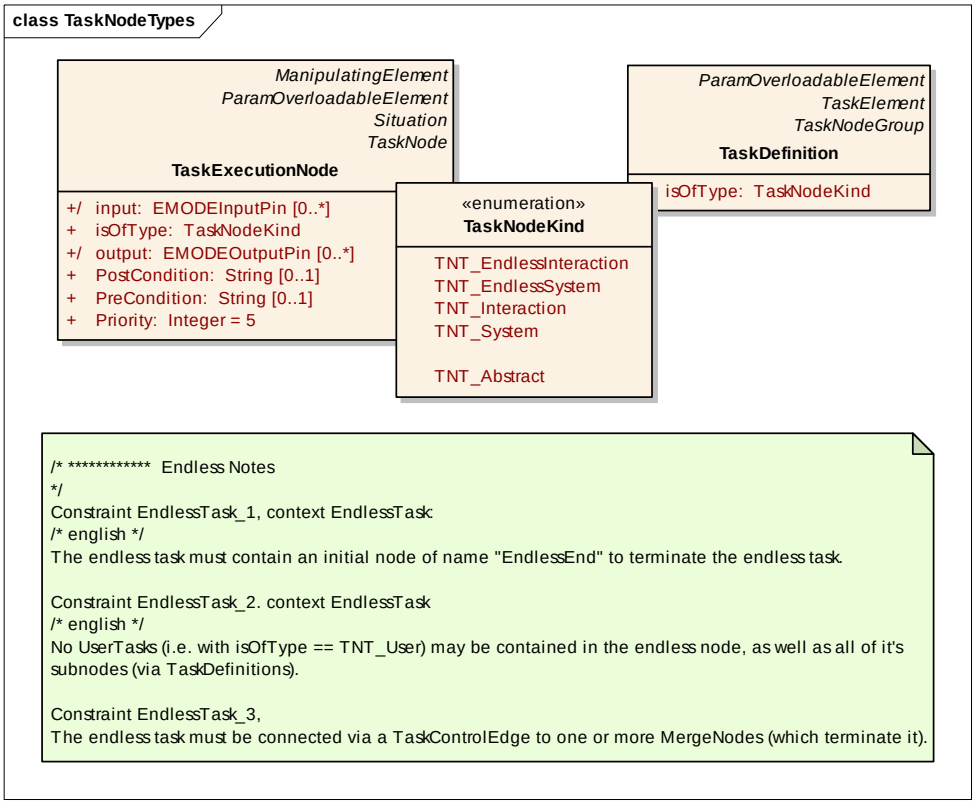



Figure: 73

**TaskNodes** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 11.08.2006
*Last Modified:* 25.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {73CD2DB0-7D00-486f-813B-4052B20CE033}

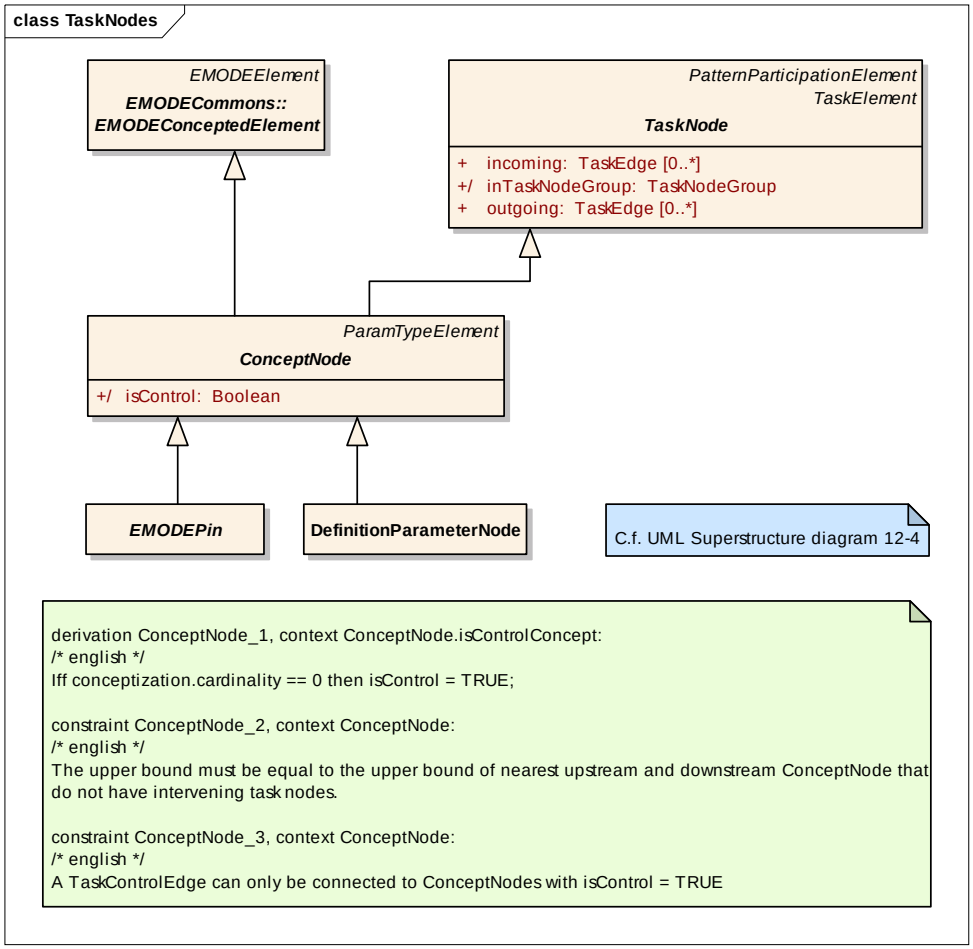



Figure: 74

**TaskPinUsage** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 14.08.2006
*Last Modified:* 17.01.2007
*Version:* 1.0. *Locked:* False
*GUID:* {C4F1395D-2036-43a3-9D5F-FBBF800EF16B}

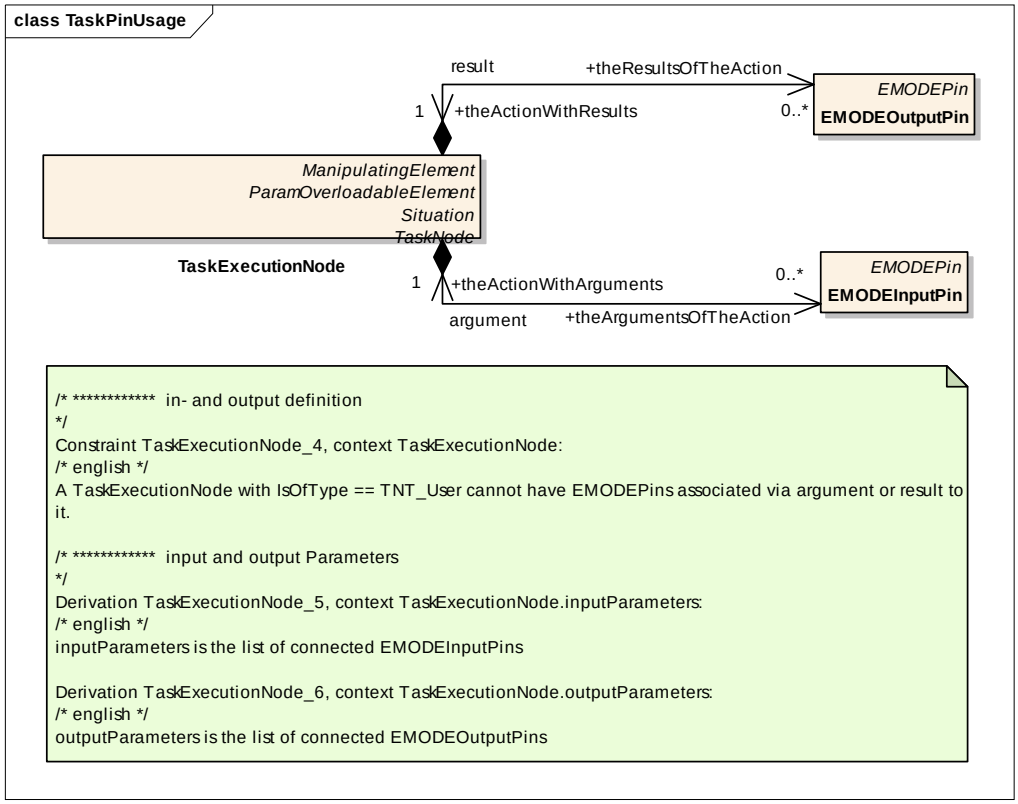



Figure: 75

**TaskPins** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 14.08.2006
*Last Modified:* 25.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {FC7FC155-788A-411b-A6BF-1FBBA67E56FB}

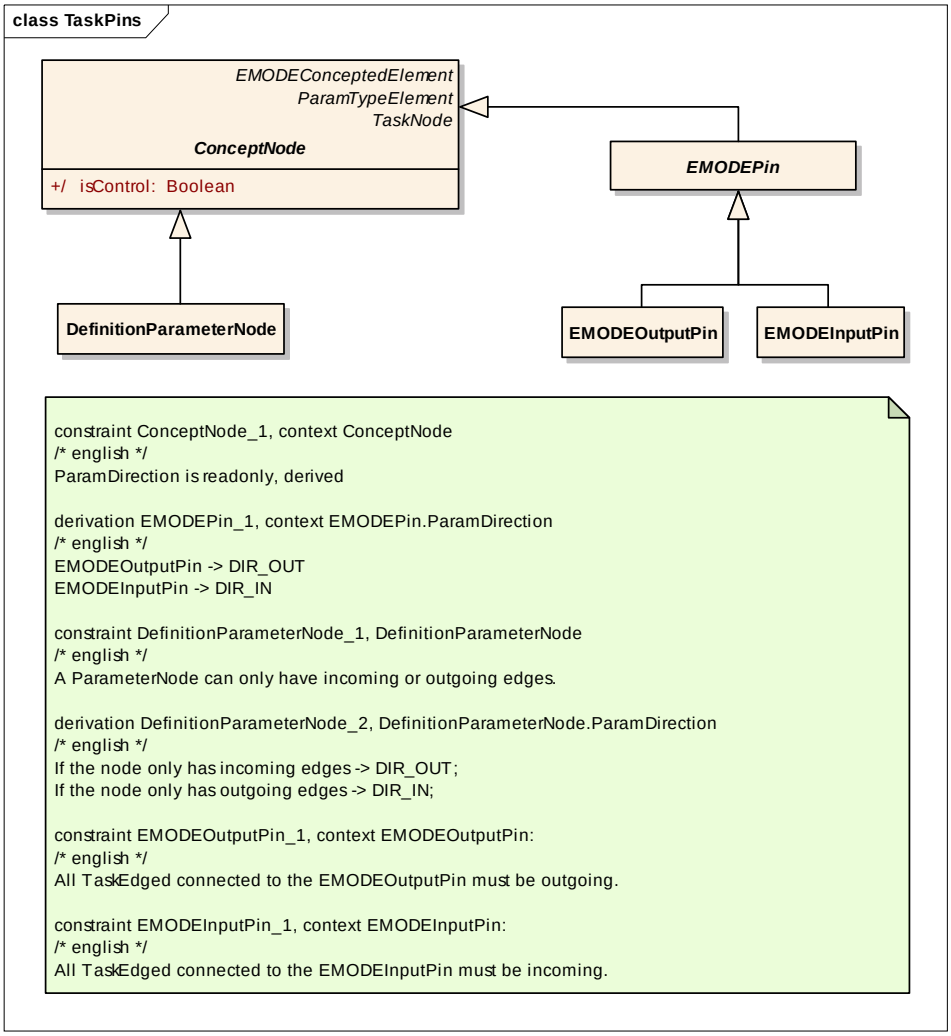



Figure: 76

**TaskToDialogueSpace** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 30.06.2006
*Last Modified:* 25.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {99C64DB1-ADAE-4e7b-9BD7-9DE1AD55DE7E}

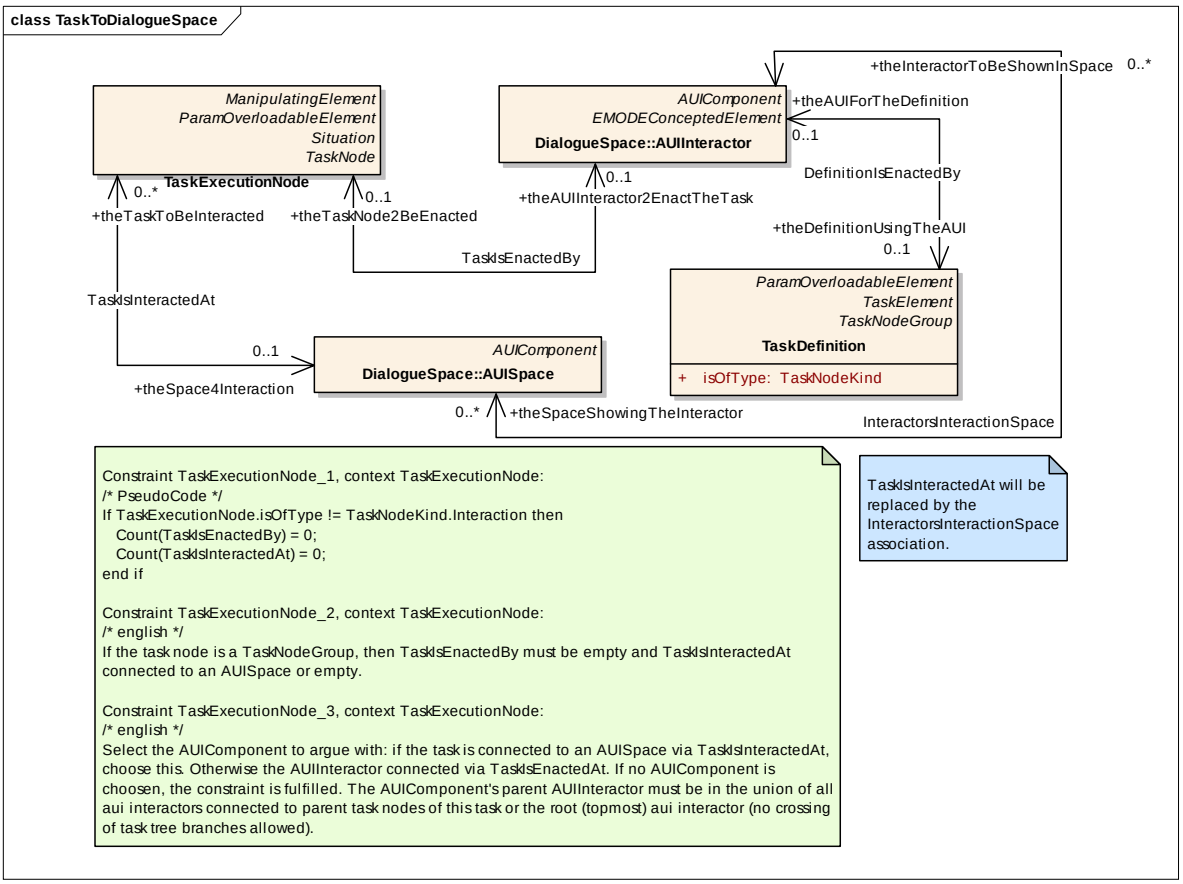



Figure: 77

**TasksRelationToGoal** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 07.03.2006
*Last Modified:* 23.05.2007
*Version:* 1.0. *Locked:* False
*GUID:* {42A498E0-8727-461d-A24D-BA74F7057404}

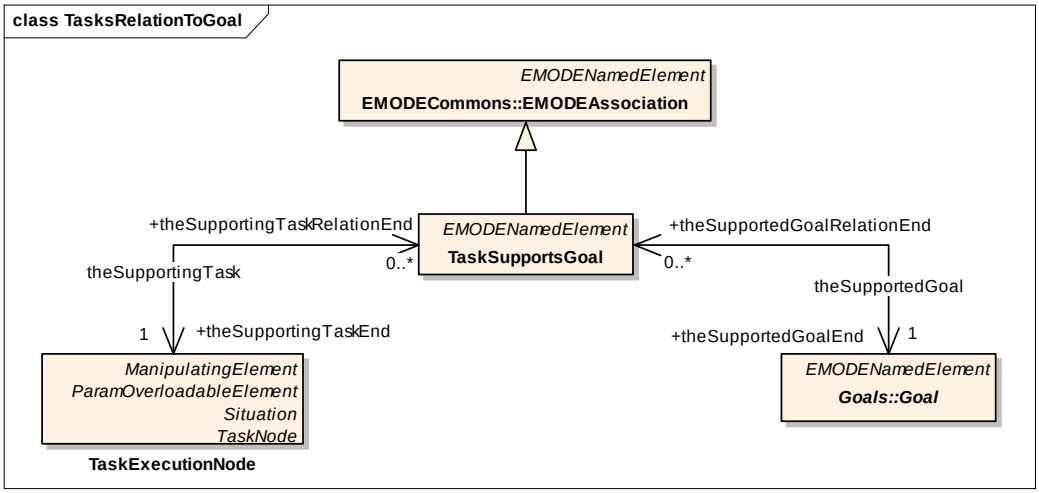



Figure: 78

## *ConceptNode*

*Type:* **Class** **EMODEConceptedElement, ParamTypeElement, TaskNode**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Task *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 14.08.2006.
*GUID:* {622B2ABB-C53A-41f4-A97C-0B9BA5FC063F}

A node that implies usage of a certain concept or control

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>ConceptNode | Public<br>TaskNode | |
| **Generalization**<br>Source -> Destination | Public<br>ConceptNode | Public<br>EMODEConceptedElement | |
| **Generalization**<br>Source -> Destination | Public<br>DefinitionParameterNode | Public<br>ConceptNode | |
| **Generalization**<br>Source -> Destination | Public<br>EMODEPin | Public<br>ConceptNode | |
| **Generalization**<br>Source -> Destination | Public<br>ConceptNode | Public<br>ParamTypeElement | |

### *Attributes*

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **isControl** Boolean<br>Public | This pin is of type "control". I.e. no concept is connected to it. | *Default:* |

## *DefinitionParameterNode*

*Type:* **Class** **ConceptNode**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Task *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 14.08.2006.
*GUID:* {0FECBC65-4F5A-4ea7-80BD-DA788F13BE67}

A node describing a needed parameter for the TaskDefinition this node appears in. Its UML Counterpart is the ActivityParameterNode.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>DefinitionParameterNode | Public<br>ConceptNode | |

## *EMODEInputPin*

*Type:* **Class** **EMODEPin**
*Status:* Proposed. Version . Phase .
*Package:* Task *Keywords:*
*Detail:* *Created on* 02.09.2005. *Last modified on* 26.10.2006.
*GUID:* {A80688E2-BFEF-409c-BF77-479063038E0B}

An EMODEInputPin is a pin that holds input values to be consumed by an TaskExecutionNode.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>EMODEInputPin | Public<br>EMODEPin | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association** argument<br>Bi-Directional | Public<br>theActionWithArguments<br>TaskExecutionNode | Public<br>theArgumentsOfTheAction<br>EMODEInputPin | The arguments for the action |

## *EMODEOutputPin*

*Type:* **Class** **EMODEPin**
*Status:* Proposed. Version . Phase .
*Package:* Task *Keywords:*
*Detail:* *Created on* 02.09.2005. *Last modified on* 26.10.2006.
*GUID:* {96C6F9A8-3A73-48c9-8790-15E3BC260E1E}

An EMODEOutputPin is a pin that holds output values produced by a TaskExecutionNode. They are nodes and deliver values to other TaskExecutionNode through edges.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>EMODEOutputPin | Public<br>EMODEPin | |
| **Association** result<br>Bi-Directional | Public<br>theActionWithResults<br>TaskExecutionNode | Public<br>theResultsOfTheAction<br>EMODEOutputPin | Yields the output pins of an action |

## *EMODEPin*

*Type:* **Class** **ConceptNode**
*Status:* Proposed. Version . Phase .
*Package:* Task *Keywords:*
*Detail:* *Created on* 02.09.2005. *Last modified on* 13.08.2006.
*GUID:* {B56017F8-A02E-4b7b-A3EB-11D410D8A2E9}

An EMODEPin is an object node for inputs and outputs to actions. It fuses the UML concepts ObjectNode and Pin.

### *Custom Properties*

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = true.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>EMODEOutputPin | Public<br>EMODEPin | |
| **Generalization**<br>Source -> Destination | Public<br>EMODEInputPin | Public<br>EMODEPin | |
| **Generalization**<br>Source -> Destination | Public<br>EMODEPin | Public<br>ConceptNode | |

## *EPFinalNodeTriggers*

*Type:* **Enumeration**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Task *Keywords:*
*Detail:* *Created on* 24.05.2007. *Last modified on* 24.05.2007.
*GUID:* {BD42E56A-2498-4de1-B5FD-1C06E32B262D}

The condition, under which the EventProviderFinalNode triggers the event.

***Custom Properties***

- isActive = False

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **EPFNT_OnControlAndDataFlow**<br>Public | | *Default:* |

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **EPFNT_OnControlFlow**<br>Public | | *Default:* |
| **EPFNT_OnControlOrDataFlow**<br>Public | | *Default:* |
| **EPFNT_OnDataFlow**<br>Public | | *Default:* |

## *EventConsumerInitialNode*

*Type:* **Class** **EventConsumer, InitialNode**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Task *Keywords:*
*Detail:* *Created on* 24.05.2007. *Last modified on* 24.05.2007.
*GUID:* {DCBADD99-B1E7-4e53-89DC-C9CC7C97D2A6}

A node that starts a control flow as a reaction to the event provision, it is attached to.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>EventConsumerInitialNode | Public<br>InitialNode | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>EventConsumerInitialNode | Public<br>EventConsumer | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **outputPin**<br>EMODEOutputPin<br>Public | The Ouptut Pin used for the EventProviderInitialNode to attach an object flow to. | *Default:* |

## *EventProviderFinalNode*

*Type:* **Class** **EventProvider, FinalNode**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Task *Keywords:*
*Detail:* *Created on* 24.05.2007. *Last modified on* 24.05.2007.
*GUID:* {2FE94E59-7CDB-4c5e-AF99-A4670F7D6783}

An event provider that is implemented using a final node. It can be activated by the control flow that triggers it, or the data flow that triggers it.

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>EventProviderFinalNode | Public<br>FinalNode | |
| **Generalization**<br>Source -> Destination | Public<br>EventProviderFinalNode | Public<br>EventProvider | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **inputPin** EMODEInputPin Public | The input pin used for the EventProviderFinalNode to attach an object flow to. | *Default:* |
| **triggersOn** EPFinalNodeTriggers Public | The condition on which the event provider triggers, regarding its connected object and/or control flows | *Default:* |

## *FinalNode*

*Type:* **Class** **TaskControlNode**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Task *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 14.08.2006.
*GUID:* {260D4B64-C1F9-4d64-8C6E-B366406ABA3A}

A node the flow terminates in

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization** Source -> Destination | Public FinalNode | Public TaskControlNode | |
| **Generalization** Source -> Destination | Public EventProviderFinalNode | Public FinalNode | |

## *ForkNode*

*Type:* **Class** **TaskControlNode**

*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Task *Keywords:*
*Detail:* *Created on* 08.08.2006. *Last modified on* 10.08.2006.
*GUID:* {DFE5BE3D-159E-4525-83F4-B2D7F552F14C}

A node that forks the control flow. Outgoing edges receive a token if their guard condition is true or they have no guard condition.

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>ForkOrderIndependent | Public<br>ForkNode | |
| **Generalization**<br>Source -> Destination | Public<br>ForkParallelStart | Public<br>ForkNode | |
| **Generalization**<br>Source -> Destination | Public<br>ForkNode | Public<br>TaskControlNode | |

## *ForkOrderIndependent*

*Type:* **Class** **ForkNode**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Task *Keywords:*
*Detail:* *Created on* 08.08.2006. *Last modified on* 14.08.2006.
*GUID:* {3D9550C1-734E-4071-9D11-D0AD14F6C8E8}

This node forks the control flow into two. It denotes order independence of the offcoming branches.

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>ForkOrderIndependent | Public<br>ForkNode | |

## *ForkParallelStart*

*Type:* **Class** **ForkNode**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Task *Keywords:*
*Detail:* *Created on* 08.08.2006. *Last modified on* 14.08.2006.
*GUID:* {41A75457-D5C6-4a07-A3C8-5A41EDB78B89}

This fork node splits a control flow, requiring that the direct subsequent tasks are started in parallel.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>ForkParallelStart | Public<br>ForkNode | |

## *InitialNode*

*Type:* **Class** **TaskControlNode**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Task *Keywords:*
*Detail:* *Created on* 14.08.2006. *Last modified on* 16.08.2006.
*GUID:* {99FA684D-ABB6-49bf-9946-B6016D5FEF9C}

A node where control flow starts, when the task, this node is located in, is activated.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>InitialNode | Public<br>TaskControlNode | |
| **Generalization**<br>Source -> Destination | Public<br>EventConsumerInitialNode | Public<br>InitialNode | |

## *MergeNode*

*Type:* **Class** **TaskControlNode**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Task *Keywords:*
*Detail:* *Created on* 08.08.2006. *Last modified on* 17.01.2007.
*GUID:* {94F5653B-14FD-46c1-8A09-6895BC94F9C6}

A node that merges control flows. A complex boolean expression is used to evaluate when a control flow is passed on.

Preceeding endless tasks are not evaluated for merge to proceed. But rather are subsequently terminated after merge has occured.

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>MergeNode | Public<br>TaskControlNode | |
| **Generalization**<br>Source -> Destination | Public<br>MergeNodeAnd | Public<br>MergeNode | |
| **Generalization**<br>Source -> Destination | Public<br>MergeNodeOr | Public<br>MergeNode | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **TestExpression** String<br>Public | The expression to be evaluated | *Default:* |

## *MergeNodeAnd*

*Type:* **Class** **MergeNode**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Task *Keywords:*
*Detail:* *Created on* 08.08.2006. *Last modified on* 08.08.2006.
*GUID:* {548AB71C-5442-4d63-B27E-86099439A433}

All incoming branches have to have a token to proceed.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink**<br>Source -> Destination | Public<br>Note | Public<br>MergeNodeAnd | |
| **Generalization**<br>Source -> Destination | Public<br>MergeNodeAnd | Public<br>MergeNode | |

## *MergeNodeOr*

*Type:* **Class** **MergeNode**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Task *Keywords:*
*Detail:* *Created on* 08.08.2006. *Last modified on* 08.08.2006.
*GUID:* {88AD9ADC-A6AC-4408-9626-84AC6AF1F649}

One of the incoming branches must have a token to continue

### *Custom Properties*

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink**<br>Source -> Destination | Public<br>Note | Public<br>MergeNodeOr | |
| **Generalization**<br>Source -> Destination | Public<br>MergeNodeOr | Public<br>MergeNode | |

## *TaskControlEdge*

*Type:* **Class** **TaskEdge**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Task *Keywords:*
*Detail:* *Created on* 13.06.2006. *Last modified on* 14.08.2006.
*GUID:* {1EDE5871-B97A-4589-A239-93978074AE88}

This task edge transfers the control flow or put in other terms, it models an arbitrary (not covered otherwise) dependency between 2 tasks

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>TaskControlEdge | Public<br>TaskEdge | |

## *TaskControlNode*

*Type:* **Class** **TaskNode**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Task *Keywords:*
*Detail:* *Created on* 08.08.2006. *Last modified on* 14.08.2006.

*GUID:* {BA32C0D2-BADF-472b-A8C8-3F9FEAF07DE1}

A node that control control flow behavior

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>FinalNode | Public<br>TaskControlNode | |
| **Generalization**<br>Source -> Destination | Public<br>InitialNode | Public<br>TaskControlNode | |
| **Generalization**<br>Source -> Destination | Public<br>ForkNode | Public<br>TaskControlNode | |
| **Generalization**<br>Source -> Destination | Public<br>MergeNode | Public<br>TaskControlNode | |
| **Generalization**<br>Source -> Destination | Public<br>TaskControlNode | Public<br>TaskNode | |

## *TaskDefinition*

*Type:* **Class** **ParamOverloadableElement, TaskElement, TaskNodeGroup**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Task *Keywords:*
*Detail:* *Created on* 10.08.2006. *Last modified on* 26.10.2006.
*GUID:* {D14A6589-32BD-47d5-AD14-F50BE5E96451}

The definition of a task.

The definition may contain TaskNodes (UMLActivityNodes), unstructured as well as structured. This definition only defines the shell of the contained executions - it groups them. Therefore, only one shell is needed and it cannot contain nodes of its own type.

Through instanciation of this definition, the shell "comes alive" and can be connected to other nodes.

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>TaskRealization<br>Bi-Directional | Public<br>theRealizationEnd<br>TaskExecutionNode | Public<br>theRealizedTaskEnd<br>TaskDefinition | The task definition that is being realized by this node. |
| **Association**<br>DefinitionIsEnactedBy<br>Bi-Directional | Public<br>theDefinitionUsingTheAUI<br>TaskDefinition | Public<br>theAUIForTheDefinition<br>AUIInteractor | The TaskDefinition has a AUIInteractor associated with it that is used to interact with the user.<br><br>Teh definition is the fallback option that can be used when there is no other AUI attached to the TaskExecutionNode, which is defined by the TaskDefinition. |
| **Generalization**<br>Source -> Destination | Public<br>TaskDefinition | Public<br>ParamOverloadableElement | |
| **Generalization**<br>Source -> Destination | Public<br>TaskDefinition | Public<br>TaskNodeGroup | |
| **Generalization**<br>Source -> Destination | Public<br>TaskDefinition | Public<br>TaskElement | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **isOfType** TaskNodeKind<br>Public | The type of this TaskNodeElement | *Default:* |

## *TaskEdge*

*Type:* **Class** **TaskElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Task *Keywords:*
*Detail:* *Created on* 07.03.2006. *Last modified on* 20.10.2006.
*GUID:* {77E01A0E-4FAD-48f9-9B6A-941C63CD4B97}

A TaskEdge is a special connector connecting tasks in EMode. Its UML counterpart is the ActivityEdge. Its guard

condition may have ModalityRequirements attached.

Put in other terms: a task edge models a dependency between two tasks. This dependency is calssified further in the subclasses of this class.

The source and target elements must be synchronized with TaskNode.incoming respectively TaskNode.outgoing - see constraints.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>TaskEdge | Public<br>TaskElement | |
| **Generalization**<br>Source -> Destination | Public<br>TaskControlEdge | Public<br>TaskEdge | |
| **Generalization**<br>Source -> Destination | Public<br>TaskObjectEdge | Public<br>TaskEdge | |

### *Attributes*

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **guardCondition** String<br>Public | A string attribute evaluated at runtime to determine if the edge can be traversed. | *Default:* |
| **inTaskNodeGroup**<br>TaskNodeGroup<br>Public | The TaskNodeGroup this node belongs to. | *Default:* |

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **source** TaskNode<br>Public | Node, which the edge starts at. | *Default:* |
| **target** TaskNode<br>Public | Node the edge ends at | *Default:* |

## *TaskElement*

*Type:* **Class** **EMODENamedElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Task *Keywords:*
*Detail:* *Created on* 11.08.2006. *Last modified on* 13.08.2006.
*GUID:* {C3B653D5-0537-44eb-BC9C-0A116C31E6A7}

A specification or executable definition of a task node.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>TaskNode | Public<br>TaskElement | |
| **Generalization**<br>Source -> Destination | Public<br>TaskElement | Public<br>EMODENamedElement | |
| **Generalization**<br>Source -> Destination | Public<br>TaskEdge | Public<br>TaskElement | |
| **Generalization**<br>Source -> Destination | Public<br>TaskDefinition | Public<br>TaskElement | |

## *TaskExecutionNode*

*Type:* **Class** **ManipulatingElement, ParamOverloadableElement, Situation, TaskNode**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Task *Keywords:*
*Detail:* *Created on* 07.03.2006. *Last modified on* 17.01.2007.
*GUID:* {8EF9EC39-78E0-461a-A850-404680C3523A}

This node specifies the execution of a certain task. In constrast to its siblings (with respect to the generalization to TaskNode), it models nodes that are actual task and have nothing to do with the control structure (like merge nodes and alike).

This task can be "defined" by a TaskDefinition or an FCACall. If not defined, it can be used as an interaction node and be connected to an AUIInteractor, or as a user node and have no further specification attached. Its UML counterpart is a CallBehviorAction. Since there is no explicit counterpart in EMODE to the UML Action, the concept Action and the subclasses between Action and CallBehaviorAction are fused in, too.

In contrast to action nodes, only control flows (TaskControlEdge) can be connected to this node directly.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association**<br>TaskRealization<br>Bi-Directional | Public<br>theRealizationEnd<br>TaskExecutionNode | Public<br>theRealizedTaskEnd<br>TaskDefinition | The task definition that is being realized by this node. |
| **Association**<br>TaskIsEnactedBy<br>Bi-Directional | Public<br>theTaskNode2BeEnacted<br>TaskExecutionNode | Public<br>theAUIInteractor2EnactTheTask<br>AUIInteractor | Describes the connection between task nodes and AUI components, which the interaction layout. This is a tight relationship, since the one (tasks) describe timely behaviour, whereas the other describe the layout. |
| **Association**<br>TaskIsInteractedAt<br>Bi-Directional | Public<br>theTaskToBeInteracted<br>TaskExecutionNode | Public<br>theSpace4Interaction<br>AUISpace | Details, where the interaction should take place |
| **Generalization**<br>Source -> Destination | Public<br>TaskExecutionNode | Public<br>ManipulatingElement | |
| **Association**<br>theSupportingTask<br>Bi-Directional | Public<br>theSupportingTaskEnd<br>TaskExecutionNode | Public<br>theSupportingTaskRelationEnd | The executable task node that (partially) realizes a goal. |

| Connector | Source | Target | Notes |
|---|---|---|---|
| | | TaskSupportsGoal | |
| **Generalization**<br>Source -> Destination | Public<br>TaskExecutionNode | Public<br>TaskNode | |
| **Association** argument<br>Bi-Directional | Public<br>theActionWithArguments<br>TaskExecutionNode | Public<br>theArgumentsOfTheAction<br>EMODEInputPin | The arguments for the action |
| **Association** result<br>Bi-Directional | Public<br>theActionWithResults<br>TaskExecutionNode | Public<br>theResultsOfTheAction<br>EMODEOutputPin | Yields the output pins of an action |
| **Association**<br>TaskImplementation<br>Bi-Directional | Public<br>theImplementedTaskEnd<br>TaskExecutionNode | Public<br>theImplementingFCACall<br>FCACall | The connection between a system task and a FCA call |
| **Generalization**<br>Source -> Destination | Public<br>TaskExecutionNode | Public<br>ParamOverloadableElement | |
| **Generalization**<br>Source -> Destination | Public<br>TaskExecutionNode | Public<br>Situation | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **input** EMODEInputPin<br>Public<br><br>[0..*] | The list of input pins connected to this node. It is a subset of ParamOverloadableElement.inputParameters. | *Default:* |
| **isOfType** TaskNodeKind<br>Public | The type of this TaskNodeElement | *Default:* |
| **output** EMODEOutputPin<br>Public<br><br>[0..*] | The list of output pins connected to this node. It is a subset of ParamOverloadableElement.outputParameters. | *Default:* |

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **PostCondition** String<br>Public<br><br>[0..1] | A post condition for this element | *Default:* |
| **PreCondition** String<br>Public<br><br>[0..1] | Precondition for executing this element | *Default:* |
| **Priority** Integer<br>Public | Presents the priority of the corresponding task. It is a symbolic measure for the level of importance from 0 (almost not important) to 10 (very important). | *Default:* 5 |

## *TaskNode*

*Type:* **Class** **PatternParticipationElement, TaskElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Task *Keywords:*
*Detail:* *Created on* 13.08.2006. *Last modified on* 26.10.2006.
*GUID:* {7DDFEF26-D90B-46cb-A1BD-5159B6B329BB}

Abstract class for task nodes that are "instance like", it covers executable nodes, object and control nodes. Its UML counterpart is the ActivityNode.

A TaskElementInstance is an element which is used as an "Instance" in the TaskModel.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization** | Public | Public | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| Source -> Destination | ConceptNode | TaskNode | |
| **Generalization**<br>Source -> Destination | Public<br>TaskNode | Public<br>PatternParticipationElement | |
| **Generalization**<br>Source -> Destination | Public<br>TaskExecutionNode | Public<br>TaskNode | |
| **Generalization**<br>Source -> Destination | Public<br>TaskNode | Public<br>TaskElement | |
| **Generalization**<br>Source -> Destination | Public<br>TaskControlNode | Public<br>TaskNode | |

***Attributes***

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **incoming** TaskEdge<br>Public<br><br>[0..*] | Edges that have the node as target. | *Default:* |
| **inTaskNodeGroup**<br>TaskNodeGroup<br>Public | The TaskNodeGroup this node belongs to. | *Default:* |
| **outgoing** TaskEdge<br>Public<br><br>[0..*] | Edges that have the node as source. | *Default:* |

## *TaskNodeGroup*

*Type:* **Class** **EMODENameSpace**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Task *Keywords:*
*Detail:* *Created on* 11.08.2006. *Last modified on* 26.10.2006.
*GUID:* {0F1850E4-C925-421d-8996-C974C5DAD68C}

An element that contains executable task nodes (hence the name). The executable task nodes contained herein may

only be inside this element and not be contained in any other TaskNodeGroups.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>TaskNodeGroup | Public<br>EMODENameSpace | |
| **Generalization**<br>Source -> Destination | Public<br>TaskDefinition | Public<br>TaskNodeGroup | |

### *Attributes*

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **containedEdge** TaskEdge<br>Public<br><br>[0..*] | | *Default:* |
| **containedNode** TaskNode<br>Public<br><br>[0..*] | The executable task nodes contained herein. | *Default:* |
| **FastExit** Boolean<br>Public | All currently running subtasks are terminated immediately after a token has reached a final node (true). If false, the current subtask (including ALL its children if it is a structured node) operation has to be finished and their tokens followed to the next stops (e.g. to have more than one output of a task). | *Default:* false |

## *TaskNodeKind*

*Type:* **Enumeration**

*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Task *Keywords:*
*Detail:* *Created on* 11.08.2006. *Last modified on* 31.08.2006.
*GUID:* {68B24FE5-05F0-40d2-BABD-09004FF58D2F}

The types, a task node may be of.

### *Custom Properties*

- isActive = False

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **NoteLink**<br>Source -> Destination | Public | Public<br>TaskNodeKind | |

### *Attributes*

| Attribute | Notes | Constraints and tags |
|---|---|---|
| **TNT_EndlessInteraction**<br>Public | | *Default:* |
| **TNT_EndlessSystem**<br>Public | | *Default:* |
| **TNT_Interaction**<br>Public | A task with interaction between the system and the user | *Default:* |
| **TNT_System**<br>Public | A task, which is performed by the system | *Default:* |

| Attribute | Notes | Constraints and tags |
|---|---|---|
| Public | A task executed by the user | *Default:* |
| **TNT_Abstract**<br>Public | A task node that is refined by a definition and contains different kinds of nodes. | *Default:* |

## *TaskObjectEdge*

*Type:* **Class** **TaskEdge**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Task *Keywords:*
*Detail:* *Created on* 13.06.2006. *Last modified on* 08.08.2006.
*GUID:* {633C8366-3291-4aa4-9CA4-171556EF9F48}

This TaskEdge transfers object flows or - put in other terms - it models a data dependency between two tasks.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>TaskObjectEdge | Public<br>TaskEdge | |

## *TaskSupportsGoal*

*Type:* **Class** **EMODEAssociation, EMODENamedElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Task *Keywords:*
*Detail:* *Created on* 15.03.2006. *Last modified on* 11.08.2006.
*GUID:* {0F710508-0FF0-496f-8AF4-BDDA10FBC25F}

A task supports the realization of a goal.

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>TaskSupportsGoal | Public<br>EMODENamedElement | |
| **Association**<br>theSupportingTask<br>Bi-Directional | Public<br>theSupportingTaskEnd<br>TaskExecutionNode | Public<br>theSupportingTaskRelationEnd<br>TaskSupportsGoal | The executable task node that (partially) realizes a goal. |
| **Association**<br>theSupportedGoal<br>Bi-Directional | Public<br>theSupportedGoalRelationEnd<br>TaskSupportsGoal | Public<br>theSupportedGoalEnd<br>Goal | The goal supported by the executable task. |
| **Generalization**<br>Source -> Destination | Public<br>TaskSupportsGoal | Public<br>EMODEAssociation | |

# Transformation

*Type:* **Package**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* EMODESpecific
*Detail:* *Created on 26.09.2006. Last modified on 26.09.2006*
*GUID:* {C09095B9-6662-4196-94FC-D0A782B6E83D}

**BoundValues** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 26.09.2006
*Last Modified:* 23.02.2007
*Version:* 1.0. *Locked:* False
*GUID:* {5812CCB3-507A-4703-9D78-105EE87E4A9C}

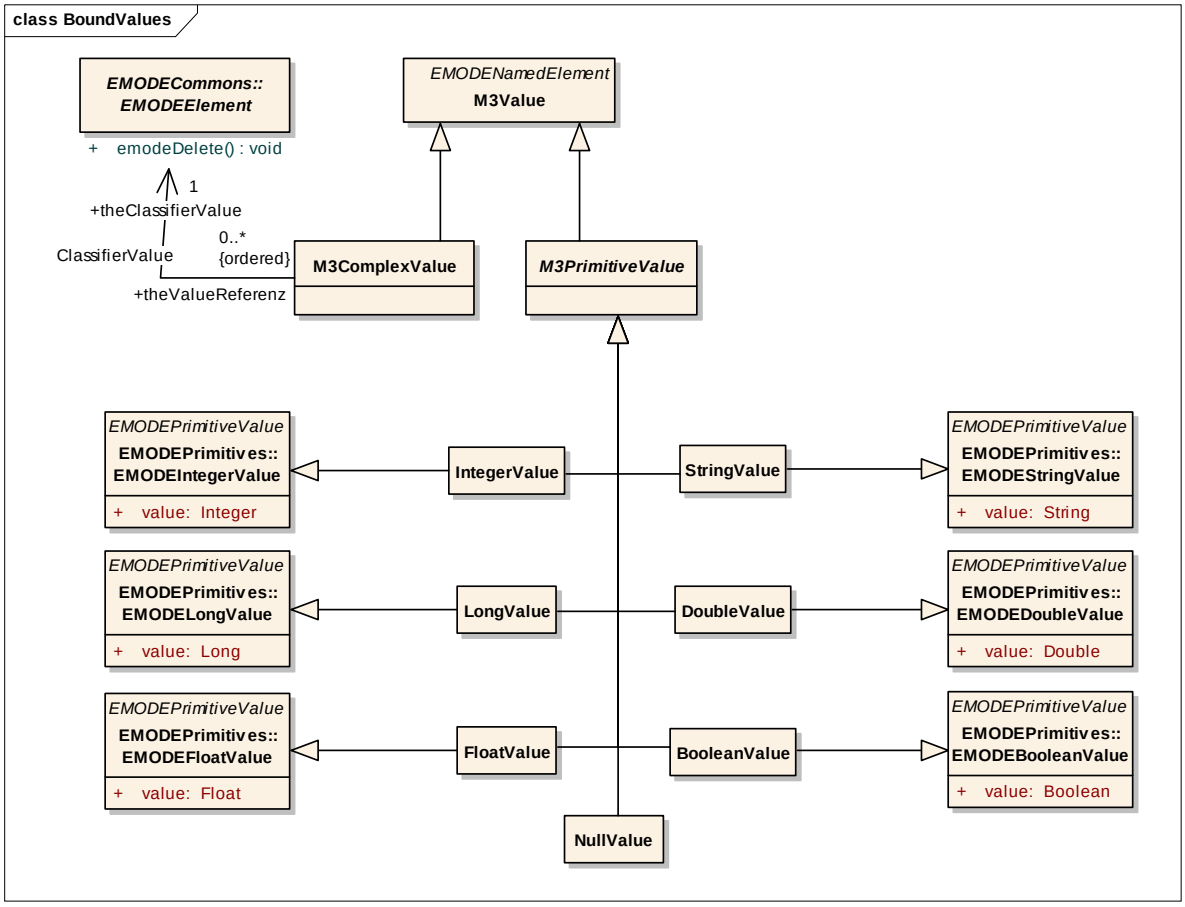



Figure: 79

**Transformation** - *(Logical diagram)*
*Created By:* Alexander Behring *on* 21.09.2006
*Last Modified:* 28.02.2007
*Version:* 1.0. *Locked:* False
*GUID:* {E15E55BE-8BF1-4179-B5FF-8785447EC133}

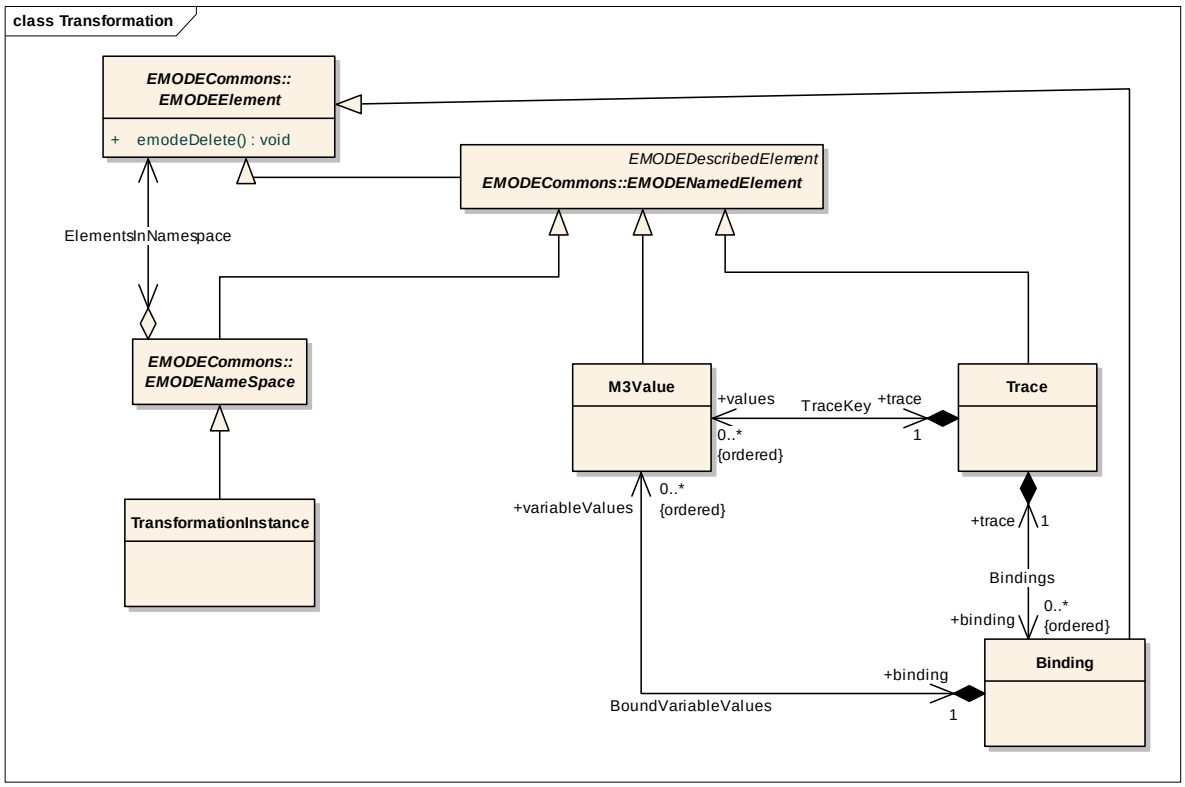



Figure: 80

## *Binding*

*Type:* **Class** **EMODEElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Transformation *Keywords:*
*Detail:* *Created on* 21.09.2006. *Last modified on* 21.09.2006.
*GUID:* {B630EEF2-B181-4562-9C8E-0A0DA871620C}

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>Binding | Public<br>EMODEElement | |
| **Association** | Public binding | Public variableValues | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| BoundVariableValues<br>Bi-Directional | Binding | M3Value | |
| **Association** Bindings<br>Bi-Directional | Public trace<br>Trace | Public binding<br>Binding | |

## *BooleanValue*

*Type:* **Class** **EMODEBooleanValue, M3PrimitiveValue**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Transformation *Keywords:*
*Detail:* *Created on* 21.09.2006. *Last modified on* 21.09.2006.
*GUID:* {577F84B5-F5F0-4ba3-9E55-0B4F90917E14}

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>BooleanValue | Public<br>EMODEBooleanValue | |
| **Generalization**<br>Source -> Destination | Public<br>BooleanValue | Public<br>M3PrimitiveValue | |

## *DoubleValue*

*Type:* **Class** **EMODEDoubleValue, M3PrimitiveValue**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Transformation *Keywords:*
*Detail:* *Created on* 21.09.2006. *Last modified on* 21.09.2006.
*GUID:* {DC31C238-332B-4fa9-88BB-EA101C244261}

### *Custom Properties*

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>DoubleValue | Public<br>EMODEDoubleValue | |
| **Generalization**<br>Source -> Destination | Public<br>DoubleValue | Public<br>M3PrimitiveValue | |

## *FloatValue*

*Type:* **Class** **EMODEFloatValue, M3PrimitiveValue**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Transformation *Keywords:*
*Detail:* *Created on* 21.09.2006. *Last modified on* 21.09.2006.
*GUID:* {DF709CE1-8247-460b-923F-BE6CD19F42B2}

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>FloatValue | Public<br>M3PrimitiveValue | |
| **Generalization**<br>Source -> Destination | Public<br>FloatValue | Public<br>EMODEFloatValue | |

## *IntegerValue*

*Type:* **Class** **EMODEIntegerValue, M3PrimitiveValue**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Transformation *Keywords:*
*Detail:* *Created on* 21.09.2006. *Last modified on* 21.09.2006.
*GUID:* {27F94697-C59C-45d1-8E0D-DBBFAE038E69}

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>IntegerValue | Public<br>EMODEIntegerValue | |
| **Generalization**<br>Source -> Destination | Public<br>IntegerValue | Public<br>M3PrimitiveValue | |

## *LongValue*

*Type:* **Class EMODELongValue, M3PrimitiveValue**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Transformation *Keywords:*
*Detail:* *Created on* 21.09.2006. *Last modified on* 21.09.2006.
*GUID:* {451FA3B0-07AA-415d-8269-BCECF6EA18E7}

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>LongValue | Public<br>EMODELongValue | |
| **Generalization**<br>Source -> Destination | Public<br>LongValue | Public<br>M3PrimitiveValue | |

## *M3ComplexValue*

*Type:* **Class** **M3Value**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Transformation *Keywords:*
*Detail:* *Created on* 21.09.2006. *Last modified on* 26.10.2006.
*GUID:* {8D405465-7B97-4f3b-AE30-6B3508B6E025}

References the value of a complex data structure. Since the complexity can be arbitrarily, an instance of the structure is referenced and used to save the value.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>M3ComplexValue | Public<br>M3Value | |
| **Association**<br>ClassifierValue<br>Source -> Destination | Public<br>theValueReferenz<br>M3ComplexValue | Public<br>theClassifierValue<br>EMODEElement | |

## *M3PrimitiveValue*

*Type:* **Class** **M3Value**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Transformation *Keywords:*
*Detail:* *Created on* 21.09.2006. *Last modified on* 26.10.2006.
*GUID:* {7BCC57D6-2F5B-40a7-9CAD-49966C40E937}

A primitive value

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = true.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>StringValue | Public<br>M3PrimitiveValue | |
| **Generalization**<br>Source -> Destination | Public<br>DoubleValue | Public<br>M3PrimitiveValue | |
| **Generalization**<br>Source -> Destination | Public<br>M3PrimitiveValue | Public<br>M3Value | |
| **Generalization**<br>Source -> Destination | Public<br>FloatValue | Public<br>M3PrimitiveValue | |
| **Generalization**<br>Source -> Destination | Public<br>BooleanValue | Public<br>M3PrimitiveValue | |
| **Generalization**<br>Source -> Destination | Public<br>LongValue | Public<br>M3PrimitiveValue | |
| **Generalization**<br>Source -> Destination | Public<br>IntegerValue | Public<br>M3PrimitiveValue | |
| **Generalization**<br>Source -> Destination | Public<br>NullValue | Public<br>M3PrimitiveValue | |

## *M3Value*

*Type:* **Class** **EMODENamedElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Transformation *Keywords:*
*Detail:* *Created on* 21.09.2006. *Last modified on* 26.10.2006.
*GUID:* {77B4A0D2-2474-4f82-ADA5-9C96BD7B8DFF}

Values of types specified in MOF at M3 layer. Transformations are based in MOF, hence the values they need to put here are of the types defined in MOF and supported by the trafo-engine and the repository.

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>M3ComplexValue | Public<br>M3Value | |
| **Association** TraceKey | Public trace | Public values | |

| Connector | Source | Target | Notes |
|---|---|---|---|
| Bi-Directional | Trace | M3Value | |
| **Association**<br>BoundVariableValues<br>Bi-Directional | Public binding<br>Binding | Public variableValues<br>M3Value | |
| **Generalization**<br>Source -> Destination | Public<br>M3PrimitiveValue | Public<br>M3Value | |
| **Generalization**<br>Source -> Destination | Public<br>M3Value | Public<br>EMODENamedElement | |

## *NullValue*

*Type:* **Class** **M3PrimitiveValue**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Transformation *Keywords:*
*Detail:* *Created on* 27.10.2006. *Last modified on* 27.10.2006.
*GUID:* {672155B4-E14F-493d-BA6E-0E076A3B2102}

The value of the element is null

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>NullValue | Public<br>M3PrimitiveValue | |

## *StringValue*

*Type:* **Class** **EMODEStringValue, M3PrimitiveValue**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Transformation *Keywords:*
*Detail:* *Created on* 21.09.2006. *Last modified on* 21.09.2006.
*GUID:* {135F8795-077E-477a-9E72-930522DAA8B4}

### *Custom Properties*

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>StringValue | Public<br>M3PrimitiveValue | |
| **Generalization**<br>Source -> Destination | Public<br>StringValue | Public<br>EMODEStringValue | |

## *Trace*

*Type:* **Class** **EMODENamedElement**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Transformation *Keywords:*
*Detail:* *Created on* 21.09.2006. *Last modified on* 21.09.2006.
*GUID:* {B6768791-2ABF-4f91-B15C-20D0EB8A6B49}

***Custom Properties***

- isActive = False

***Tagged Values***

- isAbstract = false.

***Connections***

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Association** TraceKey<br>Bi-Directional | Public trace<br>Trace | Public values<br>M3Value | |
| **Generalization**<br>Source -> Destination | Public<br>Trace | Public<br>EMODENamedElement | |
| **Association** Bindings<br>Bi-Directional | Public trace<br>Trace | Public binding<br>Binding | |

## *TransformationInstance*

*Type:* **Class** **EMODENameSpace**
*Status:* Proposed. Version 1.0. Phase 1.0.
*Package:* Transformation *Keywords:*
*Detail:* *Created on* 21.09.2006. *Last modified on* 21.09.2006.
*GUID:* {B1225E50-4C8C-43d7-9A8A-760305D8E416}

### *Custom Properties*

- isActive = False

### *Tagged Values*

- isAbstract = false.

### *Connections*

| Connector | Source | Target | Notes |
|---|---|---|---|
| **Generalization**<br>Source -> Destination | Public<br>TransformationInstance | Public<br>EMODENameSpace | |