ThreatRiskModel

Structural Report

Author: Author

Revision: 0.1

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| --- | --- |
|  |  |
|  | Date: February 27, 2015 |

**Revision History**

|  |  |  |  |
| --- | --- | --- | --- |
| **Revision** | **Date** | **Reason For Changes** | **Author** |
| 0.2 | <date 2> | <release> | <Author name> |
| 0.1 | <date 1> | <draft> | <Author name> |
|  |  |  |  |

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Microsoft Word users please click here and press F9 to create Table of Contents.

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**Table of Figures**

Microsoft Word users please click here and press F9 to create Table of Contents.

OpenOffice.org users please remove this text and select Insert Table of Content from menu.

# Introduction

## Purpose

<This document provides an overview of structural view>

## Scope

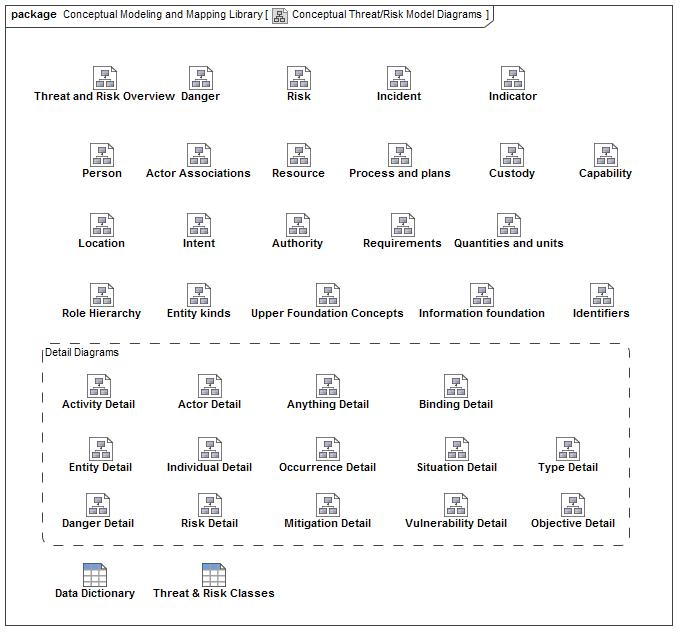
<Provide a short description of the system being specified and its purpose, including relevant benefits, objectives, and goals>

## Overview

<Describe what the document contains and explain how document is organized>

# Conceptual Modeling and Mapping Library

## Diagram: Conceptual Threat/Risk Model Diagrams



1. Conceptual Threat/Risk Model Diagrams

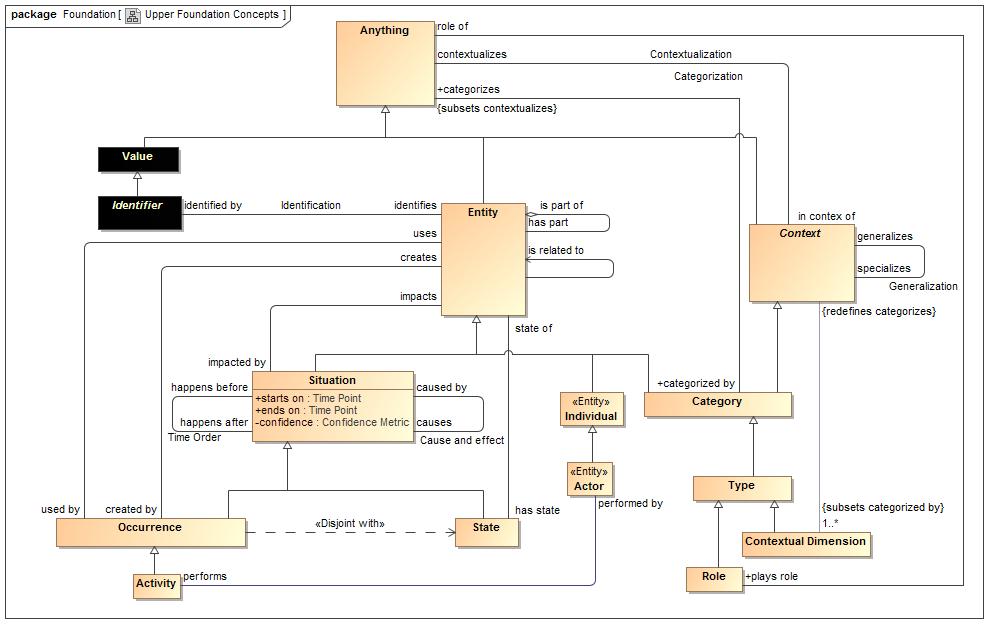
# Conceptual Modeling and Mapping Library::Core Concept Library::Foundation

The foundation library provides fundamental concepts that apply to any domain or area of concern. These fundamental concepts are specialized and related for more specific concerns, such as risk management.

Such fundamental concepts provide for links between domains, systems, organizations, cultures and stakeholders.

Unless stated otherwise, these concepts are intended to be mixed together to fully describe something in the "real world" - something may be classified by any number of types (e.g. a transfer of custody that is an actual situation that happened in the past).

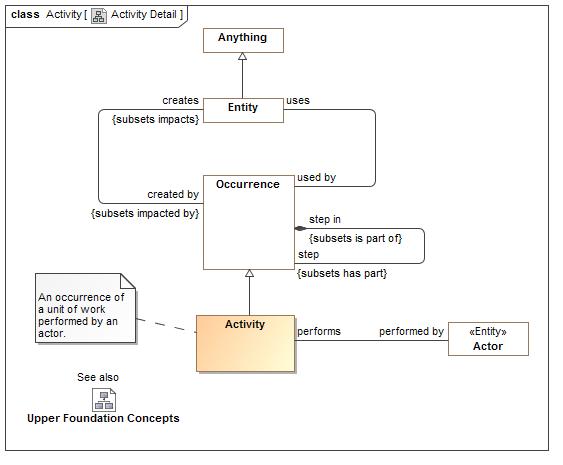
## Diagram: Upper Foundation Concepts



1. Upper Foundation Concepts

## Class Activity

An occurrence of a unit of work performed by an actor.



1. Activity Detail

### Direct Supertypes

[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Foundation

**extends** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

### Associations

-1826097578.jpg performed by:[Actor](#_195976dea0d8187e1656ac43c072c070)

The performer of an activity.

### Inherited Features

***From*** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f):

‘uses’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘creates’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘step in’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘step’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘when’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

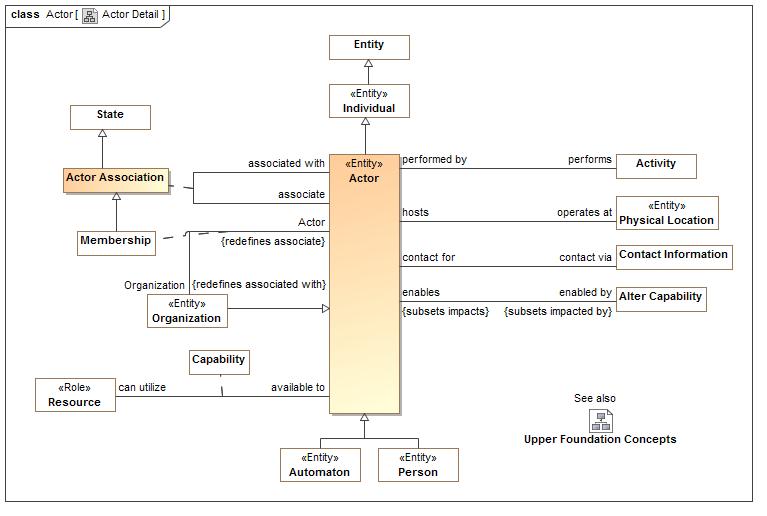
‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Class Actor

An entity capable of performing acts/actions.



1. Actor Detail

### Direct Supertypes

[Individual](#_fb65a7c7797a6f834f4eb97640a0234f)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Foundation

**extends** [Individual](#_fb65a7c7797a6f834f4eb97640a0234f)

### Associations

-1826097578.jpg performs:[Activity](#_bf62ccd25fcc4695eba838a426996db5)

The activity an actor performs.

1382130166.jpg operates at:[Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad)

Locations where actors perform acts

1468165938.jpg contact via:[Contact Information](#_659fd398b9354d627eab9d3a069a3988)

A way to contact an actor.

1521677897.jpg enabled by:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd) *Subsets*: impacted by:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

An occurrence that enables an actor's capability.

-1321993893.jpg has observation:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2) *Subsets*: performs:[Activity](#_bf62ccd25fcc4695eba838a426996db5)

Observations of something

### Inherited Features

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

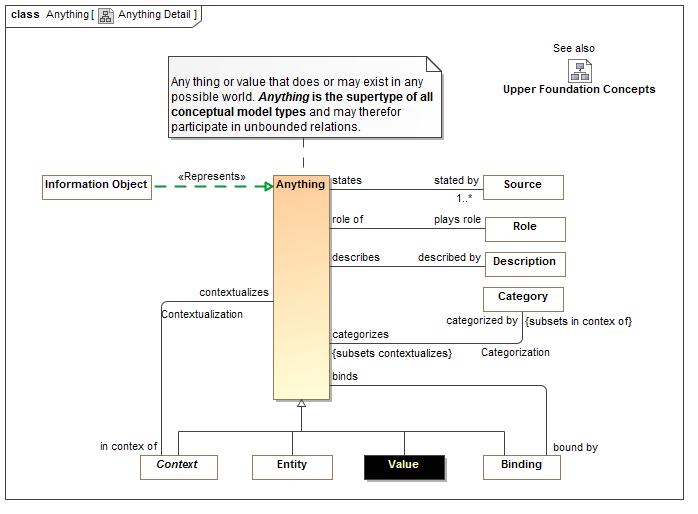
‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Anything

Any thing or value that does or may exist in any possible world. ***Anything* is the supertype of all conceptual model types** and may therefor participate in unbounded relations.



1. Anything Detail

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Foundation

### Associations

-1928028217.jpg categorized by:[Category](#_1e46c059e4f9b5846cdb98d6adff437a) *Subsets*: in contex of:[Context](#_81284aa430d71f6e8d9c1804d9149488)

The category(s) that categorize something. Categories include types.

1208242139.jpg plays role:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

The role played by a bound individual in a situation.

-697779601.jpg bound by:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

A binding something participates in.

1151110039.jpg in contex of:[Context](#_81284aa430d71f6e8d9c1804d9149488)

Context that contextualize anything.

885772868.jpg described by:[Description](#_21b1e229139c6220bd38cb2e45595f68)

A description for some concept.

1401719257.jpg stated by:[Source](#_c014482263e2addd6be470b251dd86b3) [1..\*]

Sources of a statement

## Association Categorization

Categorization states that something is categorized by the category. . Categorization also represents the "instance" of a type.

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Foundation

### Association Ends

-1928028217.jpg categorizes : [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

The set of "instances" categorized by a category or type. The extent of the category.

-1928028217.jpg categorized by : [Category](#_1e46c059e4f9b5846cdb98d6adff437a)

The category(s) that categorize something. Categories include types.

## Class Category

An arbitrary grouping of anything. A category is an asserted context - one defined by some authority or actor.

### Direct Supertypes

[Context](#_81284aa430d71f6e8d9c1804d9149488), [Entity](#_13f9005c9106d00d7131680982c2727a)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Foundation

**extends** [Entity](#_13f9005c9106d00d7131680982c2727a), [Context](#_81284aa430d71f6e8d9c1804d9149488)

### Associations

-1928028217.jpg categorizes:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e) *Subsets*: contextualizes:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

The set of "instances" categorized by a category or type. The extent of the category.

### Inherited Features

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Association Cause and effect

The causality relation

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Foundation

### Association Ends

-2132878437.jpg caused by : [Situation](#_63104765cd42c5f76cf72fdc4ed90397) *Subsets*: contextualizes:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

One of situations that causes another situation

-2132878437.jpg causes : [Situation](#_63104765cd42c5f76cf72fdc4ed90397) *Subsets*: contextualizes:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

A situation caused by another

## Class Context

A grouping of concepts contextualized in some way and with some common attributes facts and/or relations. Rules defined for a context are true for anything contextualized by that context. Note that anything may play the role of a context.

### Direct Supertypes

[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Foundation

**extends** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

### Associations

-1988560015.jpg generalizes:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e) *Subsets*: contextualizes:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

The more general role of a generalization.

-1988560015.jpg specializes:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e) *Subsets*: contextualizes:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

The more specific role of a generalization.

1151110039.jpg contextualizes:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

Anything a context contextualizes.

-1436309573.jpg :[Contextual Dimension](#_4f53b353fc9f95b0619a6d12841b5313) [1..\*] *Subsets*: categorized by:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

### Inherited Features

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Contextual Dimension

A way to group related categories, context or types. A category of categories - related to concept "power type" or "power set". E.g. "Locale" could be a contextual dimension for a set of locations that define certain rules or geopolitical rules.

### Direct Supertypes

[Type](#_61a8a5071631445cf89e87ddacf2ecc2)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Foundation

**extends** [Type](#_61a8a5071631445cf89e87ddacf2ecc2)

### Associations

-1436309573.jpg :[Context](#_81284aa430d71f6e8d9c1804d9149488) *Redefines*: categorizes:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

### Inherited Features

***From*** [Category](#_1e46c059e4f9b5846cdb98d6adff437a):

‘categorizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Association Contextualization

Contextualization says that the thing contextualized is subject to the facts about the context it is in context of.

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Foundation

### Association Ends

1151110039.jpg contextualizes : [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e) *Redefines*: categorizes:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

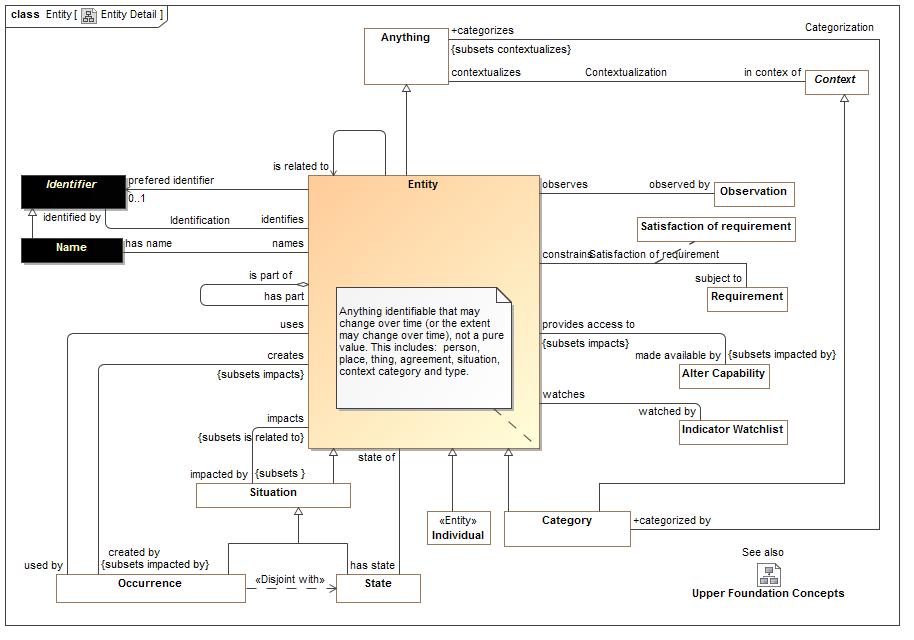
Anything a context contextualizes.

1151110039.jpg in contex of : [Context](#_81284aa430d71f6e8d9c1804d9149488) *Redefines*: categorizes:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

Context that contextualize anything.

## Class Entity

Anything identifiable that may change over time (or the extent may change over time), not a pure value. This includes: person, place, thing, agreement, situation, context category and type.



1. Entity Detail

### Direct Supertypes

[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Foundation

**extends** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

### Associations

1403811134.jpg used by:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

Occurrences used by an occurrence.

-467416936.jpg is part of:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

Composite entity of which this entity is a part.

-467416936.jpg has part:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

A part of something. This a general concept of part and does not assume exclusivity of partness or total part inclusion.

823471263.jpg has state:[State](#_927c2855748f476d96735ff79da4ebff)

States (or snapshots) of an entity over its lifetime.

-2027135241.jpg created by:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f) *Subsets*: impacted by:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

Occurrence that created the entity.

-933117107.jpg is related to:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f) *Subsets*: impacted by:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

A generic relation to capture arbitrary relations that do not have more specific meaning.

1064614199.jpg impacted by:[Situation](#_63104765cd42c5f76cf72fdc4ed90397) *Subsets*: :[Entity](#_13f9005c9106d00d7131680982c2727a)

Situations that impact an entity.

1704181353.jpg identified by:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

Identifiers for a concept - note that a concept may have multiple identifiers and they may be context specific.

369499764.jpg has name:[Name](#_afe5a48976a2df078be9473827611fb8)

Name of anything

-972702961.jpg prefered identifier:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8) [0..1]

Identifier that should be reported for an entity.

-324390161.jpg watched by:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

Watch lists an entity is in.

-1813298664.jpg observed by:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

Observations of an entity.

2121882416.jpg made available by:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd) *Subsets*: impacted by:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

An act that makes an entity available to an actor as a resource.

### Inherited Features

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Association Generalization

The set of instances contextualized by the specialized context is a subset of the set of instances contextualized by the generalized context.

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Foundation

### Association Ends

-1988560015.jpg generalizes : [Context](#_81284aa430d71f6e8d9c1804d9149488) *Subsets*: impacted by:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

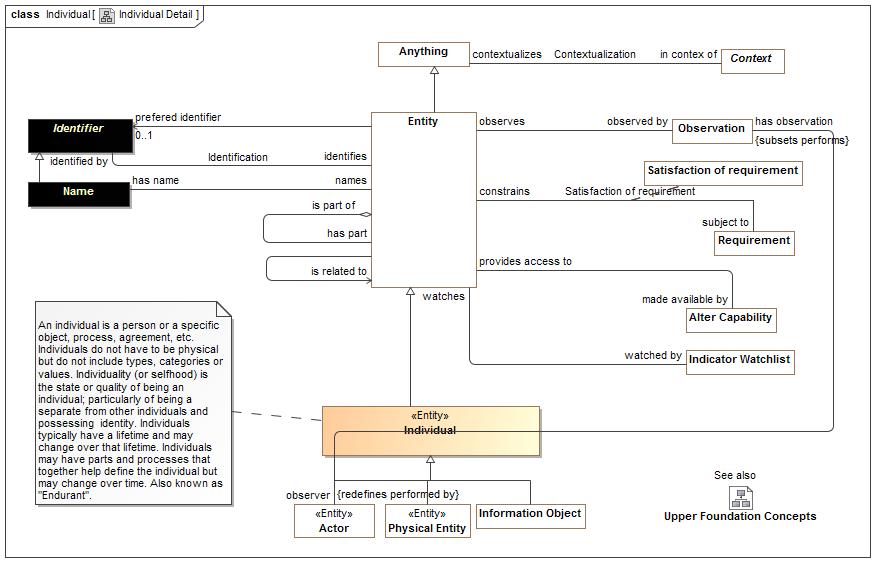
The more general role of a generalization.

-1988560015.jpg specializes : [Context](#_81284aa430d71f6e8d9c1804d9149488) *Subsets*: impacted by:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

The more specific role of a generalization.

## Class Individual

An individual is a person or a specific object, process, agreement, etc. Individuals do not have to be physical but do not include types, categories or values. Individuality (or selfhood) is the state or quality of being an individual; particularly of being a separate from other individuals and possessing identity. Individuals typically have a lifetime and may change over that lifetime. Individuals may have parts and processes that together help define the individual but may change over time. Also known as "Endurant".



1. Individual Detail

### Direct Supertypes

[Entity](#_13f9005c9106d00d7131680982c2727a)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Foundation

**extends** [Entity](#_13f9005c9106d00d7131680982c2727a)

### Inherited Features

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

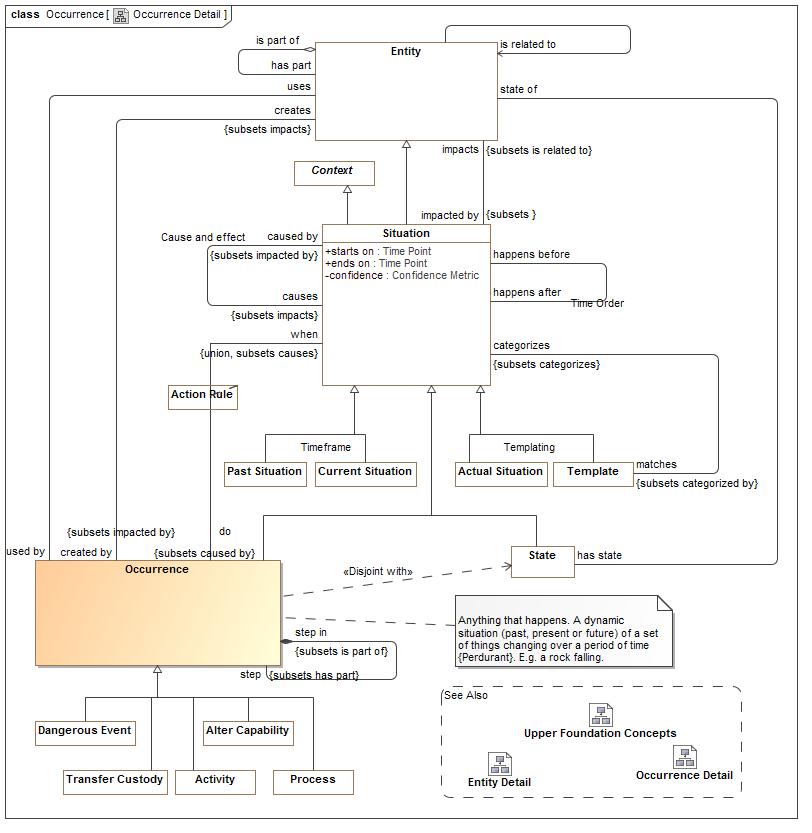
‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Occurrence

Anything that happens. A dynamic situation (past, present or future) of a set of things changing over a period of time {Perdurant}. E.g. a rock falling.



1. Occurrence Detail

### Direct Supertypes

[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Foundation

**extends** [Situation](#_63104765cd42c5f76cf72fdc4ed90397)

### Associations

1403811134.jpg uses:[Entity](#_13f9005c9106d00d7131680982c2727a)

Occurrences that use an entity.

-2027135241.jpg creates:[Entity](#_13f9005c9106d00d7131680982c2727a) *Subsets*: impacts:[Entity](#_13f9005c9106d00d7131680982c2727a)

Anything created by an occurrence.

-826165577.jpg step in:[Entity](#_13f9005c9106d00d7131680982c2727a) *Subsets*: impacts:[Entity](#_13f9005c9106d00d7131680982c2727a)

A more granular occurrence of which this is a part.

-826165577.jpg step:[Entity](#_13f9005c9106d00d7131680982c2727a) *Subsets*: impacts:[Entity](#_13f9005c9106d00d7131680982c2727a)

A part of an occurence, one step in its execution.

1114599170.jpg when:[Situation](#_63104765cd42c5f76cf72fdc4ed90397) *Subsets*: causes:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

When a situation occurs

### Inherited Features

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Class Role

A realized or potential behavior of an entity with respect to some situation, e.g. Joe is teaching class A123. Entities may have multiple roles that change over time.

### Direct Supertypes

[Type](#_61a8a5071631445cf89e87ddacf2ecc2)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Foundation

**extends** [Type](#_61a8a5071631445cf89e87ddacf2ecc2)

### Associations

1208242139.jpg role of:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

Entity that is playing a role. Note: This is the same as the role in a binding but represented at a different "meta level".

1813855882.jpg :[Binding](#_59d00381296cc32f8d191ec24ae537cd)

### Inherited Features

***From*** [Category](#_1e46c059e4f9b5846cdb98d6adff437a):

‘categorizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

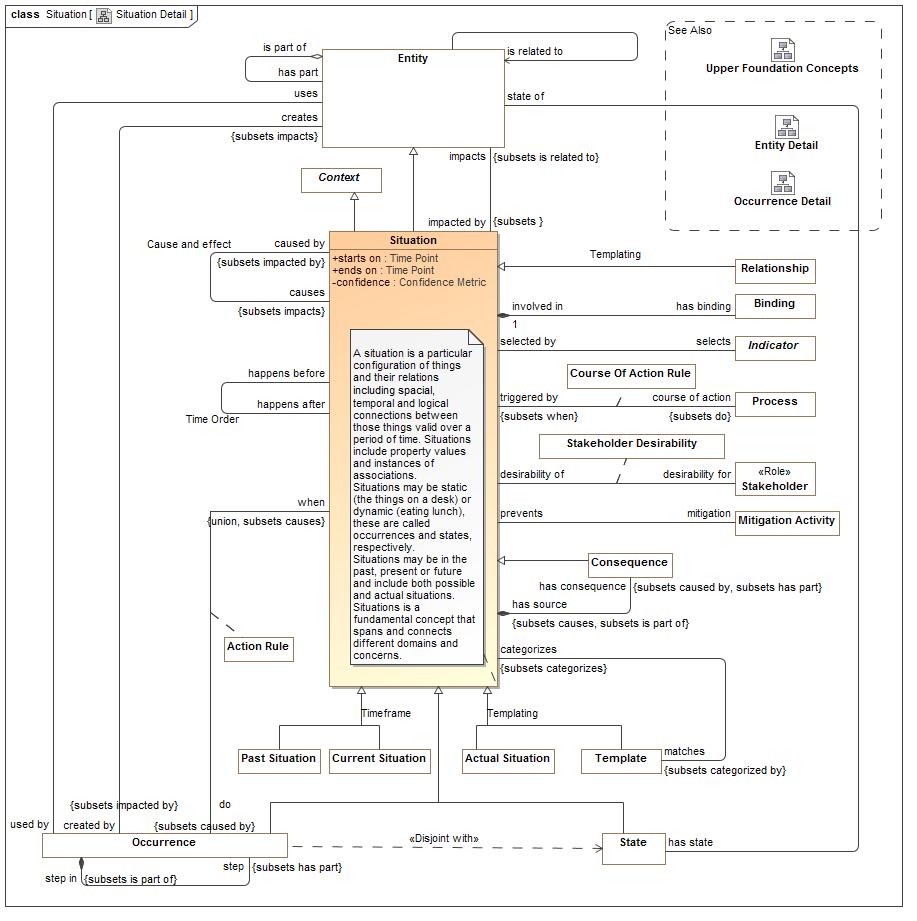
‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Class Situation

A situation is a particular configuration of things and their relations including spacial, temporal and logical connections between those things valid over a period of time. Situations include property values and instances of associations.Situations may be static (the things on a desk) or dynamic (eating lunch), these are called occurrences and states, respectively.Situations may be in the past, present or future and include both possible and actual situations.Situations is a fundamental concept that spans and connects different domains and concerns.



1. Situation Detail

### Direct Supertypes

[Context](#_81284aa430d71f6e8d9c1804d9149488), [Entity](#_13f9005c9106d00d7131680982c2727a)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Foundation

**extends** [Entity](#_13f9005c9106d00d7131680982c2727a), [Context](#_81284aa430d71f6e8d9c1804d9149488)

### Attributes

187681857.jpg starts on : [Time Point](#_404887ca511c022e037ede12e1a8f37a)

Time the situation started

241013451.jpg ends on : [Time Point](#_404887ca511c022e037ede12e1a8f37a)

Time the situation ended or will end.

-975232220.jpg confidence : [Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

Confidence that the situation did or will happen as specified.

### Associations

2848227.jpg has binding:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

The individual playing a role in a situation.

-1829751593.jpg has consequence:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0) *Subsets*: has part:[Entity](#_13f9005c9106d00d7131680982c2727a) caused by:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

A consequence of a situation that impacts the objectives of a stakeholder.

1064614199.jpg impacts:[Entity](#_13f9005c9106d00d7131680982c2727a) *Subsets*: is related to:[Entity](#_13f9005c9106d00d7131680982c2727a)

Entities a situation may affect.

-1457603567.jpg matches:[Template](#_6db5f6447173086a1a7d18af4f144b69) *Subsets*: categorized by:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

Situations that match a template situation.

-80444652.jpg happens before:[Template](#_6db5f6447173086a1a7d18af4f144b69) *Subsets*: categorized by:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

Situations that end before the subject situation starts.

-80444652.jpg happens after:[Template](#_6db5f6447173086a1a7d18af4f144b69) *Subsets*: categorized by:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

Situations that start after the subject situation ends.

414591249.jpg selects:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

Indicator which is in the context of (valid within) the situation.

1114599170.jpg do:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f) *Subsets*: caused by:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

What to do when a rule is fired.

333654349.jpg course of action:[Process](#_83d65b9404a78ed941a332943863e039) *Subsets*: do:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

The process initiated when triggered by a course of action rule.

-2132878437.jpg caused by:[Process](#_83d65b9404a78ed941a332943863e039) *Subsets*: do:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

One of situations that causes another situation

-2132878437.jpg causes:[Process](#_83d65b9404a78ed941a332943863e039) *Subsets*: do:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

A situation caused by another

-1388018520.jpg mitigation:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

Mittigations of a risk

### Inherited Features

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Class State

A static situation - A particular configuration of entities that is static for a time period, including spatial and logical connections between those things {Snapshot of a Perdurant}

### Direct Supertypes

[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Foundation

**extends** [Situation](#_63104765cd42c5f76cf72fdc4ed90397)

### Associations

823471263.jpg state of:[Entity](#_13f9005c9106d00d7131680982c2727a)

The endurant entity for which the state is a snapshot of.

### Inherited Features

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Association Time Order

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Foundation

### Association Ends

-80444652.jpg happens after : [Situation](#_63104765cd42c5f76cf72fdc4ed90397)

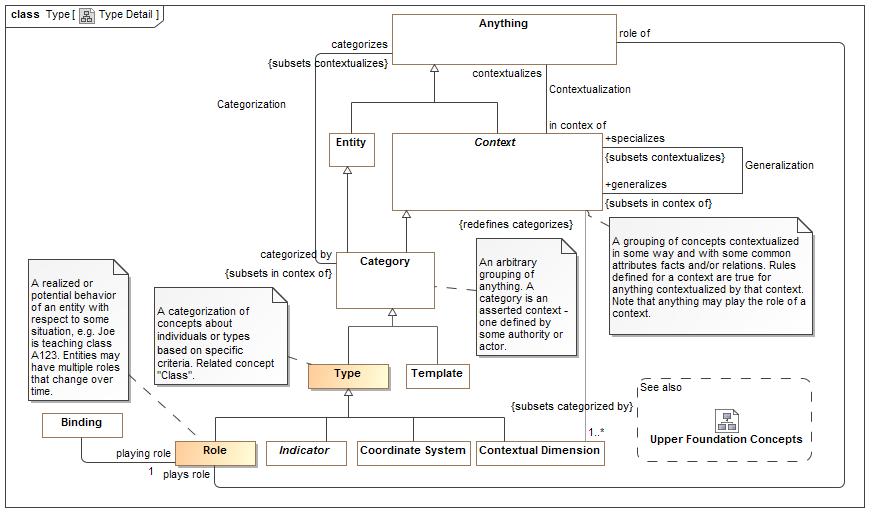
Situations that start after the subject situation ends.

-80444652.jpg happens before : [Situation](#_63104765cd42c5f76cf72fdc4ed90397)

Situations that end before the subject situation starts.

## Class Type

A categorization of concepts about individuals or types based on specific criteria. Related concept "Class".



1. Type Detail

### Direct Supertypes

[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Foundation

**extends** [Category](#_1e46c059e4f9b5846cdb98d6adff437a)

### Inherited Features

***From*** [Category](#_1e46c059e4f9b5846cdb98d6adff437a):

‘categorizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

# Conceptual Modeling and Mapping Library::Core Concept Library::Identifiers

Identification connects *identifiers* with the entity they identify. Identifiers are all assumed to be values, that is they are immutable. If course an entity may be assigned different identifiers over time.

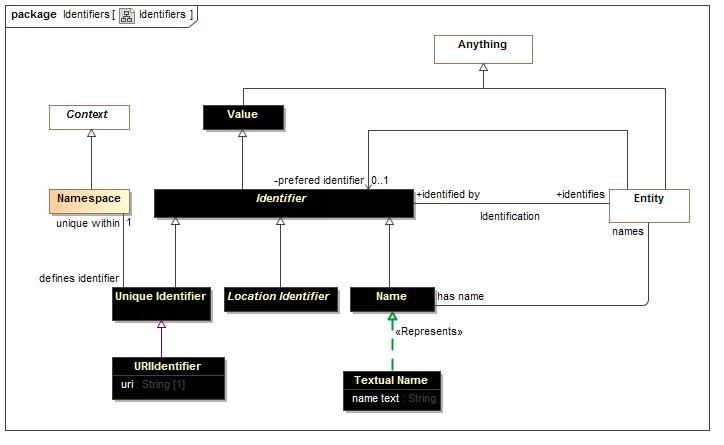
The base Identifier class identifies a set of entities and is not assumed to be unique or to identify only one entity. For example, a name is an identifier but many people could have the same name and a person could have multiple names. Identifiers or the relation to an entity may be contextual.

The class of *Unique Identifiers* is more typical of I.T. systems and managed identifiers, such as drivers license numbers. A unique identifier is assumed unique within exactly one *Namespace*.

Subtypes of Identifier may be specific to identifying particular kinds of entities. For example, a Location Identifier (such as an address or GPS coordinate) is specific to identifying locations.

Note that as with all concepts, identifiers are independent of representation. Since names are so often textual, we also define a representation of names - "Textual Name".

## Diagram: Identifiers



1. Identifiers

## Association Identification

Identification connects an identifier with an entity it identifies. At the top level identification is not necessarily unique, but certain identifiers are unique within a namespace.

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Identifiers

### Association Ends

1704181353.jpg identifies : [Entity](#_13f9005c9106d00d7131680982c2727a)

Entity identified by an identifier.

1704181353.jpg identified by : [Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

Identifiers for a concept - note that a concept may have multiple identifiers and they may be context specific.

## Class Identifier

Anything that is used to identify a concept

### Direct Supertypes

[Value](#_a7a4f23921c2d4c035993a2e874887ff)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Identifiers

**extends** [Value](#_a7a4f23921c2d4c035993a2e874887ff)

### Associations

1704181353.jpg identifies:[Entity](#_13f9005c9106d00d7131680982c2727a)

Entity identified by an identifier.

### Inherited Features

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Name

A word or set of words by which a person, animal, place, or thing is known, addressed, or referred to. Names are not nessisaraly unique.

### Direct Supertypes

[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Identifiers

**extends** [Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

### Associations

369499764.jpg names:[Entity](#_13f9005c9106d00d7131680982c2727a)

The named entity.

### Inherited Features

***From*** [Identifier](#_a9304dce0833e68d6c1871feed7ba4c8):

‘identifies’:[Entity](#_13f9005c9106d00d7131680982c2727a)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Namespace

A context that provides a way to make identifiers unique and identify exactly one entity. For example, the Virginia drivers license division provides unique drivers license numbers.

### Direct Supertypes

[Context](#_81284aa430d71f6e8d9c1804d9149488)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Identifiers

**extends** [Context](#_81284aa430d71f6e8d9c1804d9149488)

### Associations

-1304768006.jpg defines identifier:[Unique Identifier](#_cf209f75b9adbf293f76285648c58c77)

### Inherited Features

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Textual Name

A name represented as text.

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Identifiers

### Attributes

1827955880.jpg name text : [String](#_e8a6ce315d976318da3ab784a645ea44)

A textual representation of a name.

## Class Unique Identifier

An identifier unique within some context

### Direct Supertypes

[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Identifiers

**extends** [Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

### Associations

-1304768006.jpg unique within:[Namespace](#_d829ab1ca0a530a2f71c2333d73b36c5) [1]

Namespace in which an identifier is unique

### Inherited Features

***From*** [Identifier](#_a9304dce0833e68d6c1871feed7ba4c8):

‘identifies’:[Entity](#_13f9005c9106d00d7131680982c2727a)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class URIIdentifier

A URI Identifier for a concept unique within the W3C URI system.

### Direct Supertypes

[Unique Identifier](#_cf209f75b9adbf293f76285648c58c77)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Identifiers

**extends** [Unique Identifier](#_cf209f75b9adbf293f76285648c58c77)

### Attributes

-612402647.jpg uri : [String](#_e8a6ce315d976318da3ab784a645ea44) [1]

A Universal resource identifier text.

### Inherited Features

***From*** [Unique Identifier](#_cf209f75b9adbf293f76285648c58c77):

‘unique within’:[Namespace](#_d829ab1ca0a530a2f71c2333d73b36c5)

***From*** [Identifier](#_a9304dce0833e68d6c1871feed7ba4c8):

‘identifies’:[Entity](#_13f9005c9106d00d7131680982c2727a)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

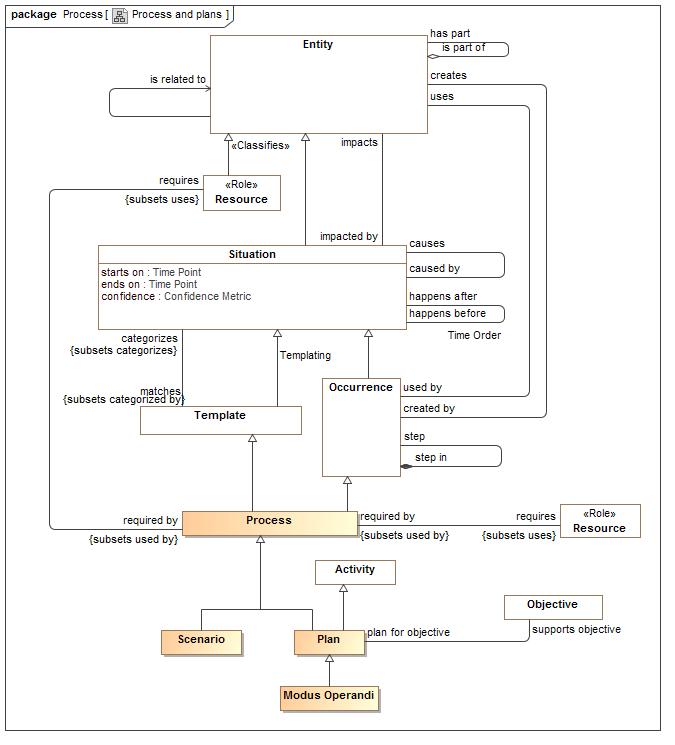
# Conceptual Modeling and Mapping Library::Core Concept Library::Process

Processes are templates for (descriptions of) a series of occurrences (activities, events, etc.). Processes may be natural, organizational or carried out by an actor. Processes carried out by an actor are plans.

Processes may require resources - noting that resource can be a role of any entity.

Scenarios are typically less formal processes and describe how a series of occurrences may play out.

## Diagram: Process and plans



1. Process and plans

## Class Modus Operandi

A particular way or method fro an actor to do something, especially one that is characteristic or well-established.In threat terms, a particular tactic, technique or procedure for achieving a result.Open question: Can Modus Operandi or "TTP" be distinguished from plan?

### Direct Supertypes

[Plan](#_e388f590d0bd984e68d22f9ed9adbbba)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Process

**extends** [Plan](#_e388f590d0bd984e68d22f9ed9adbbba)

### Inherited Features

***From*** [Plan](#_e388f590d0bd984e68d22f9ed9adbbba):

‘supports objective’:[Objective](#_1a3b26382bc038a9cd845e258d24db0f)

***From*** [Process](#_83d65b9404a78ed941a332943863e039):

‘requires’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

‘triggered by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f):

‘uses’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘creates’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘step in’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘step’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘when’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Template](#_6db5f6447173086a1a7d18af4f144b69):

‘categorizes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Category](#_1e46c059e4f9b5846cdb98d6adff437a):

‘categorizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Activity](#_bf62ccd25fcc4695eba838a426996db5):

‘performed by’:[Actor](#_195976dea0d8187e1656ac43c072c070)

## Class Plan

A plan is a process definition that supports a stakeholders objective. As a process definition a plan is a template for a series of activities.

### Direct Supertypes

[Activity](#_bf62ccd25fcc4695eba838a426996db5), [Process](#_83d65b9404a78ed941a332943863e039)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Process

**extends** [Process](#_83d65b9404a78ed941a332943863e039), [Activity](#_bf62ccd25fcc4695eba838a426996db5)

### Associations

508196693.jpg supports objective:[Objective](#_1a3b26382bc038a9cd845e258d24db0f)

Objectives supported by a plan.

### Inherited Features

***From*** [Process](#_83d65b9404a78ed941a332943863e039):

‘requires’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

‘triggered by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f):

‘uses’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘creates’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘step in’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘step’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘when’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Template](#_6db5f6447173086a1a7d18af4f144b69):

‘categorizes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Category](#_1e46c059e4f9b5846cdb98d6adff437a):

‘categorizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Activity](#_bf62ccd25fcc4695eba838a426996db5):

‘performed by’:[Actor](#_195976dea0d8187e1656ac43c072c070)

## Class Process

A template and definition for a family occurrences (i.e. actions, events) that results in a situation. A plan may be natural or caused by the activities of actors, in which case it is a plan.Relations of occurrences and situations are utilized by process definitions.

### Direct Supertypes

[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f), [Template](#_6db5f6447173086a1a7d18af4f144b69)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Process

**extends** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f), [Template](#_6db5f6447173086a1a7d18af4f144b69)

### Associations

-139049095.jpg requires:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d) *Subsets*: uses:[Entity](#_13f9005c9106d00d7131680982c2727a)

A resource required for a process to take place.

333654349.jpg triggered by:[Situation](#_63104765cd42c5f76cf72fdc4ed90397) *Subsets*: when:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

The situation that triggers a course of action

### Inherited Features

***From*** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f):

‘uses’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘creates’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘step in’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘step’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘when’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Template](#_6db5f6447173086a1a7d18af4f144b69):

‘categorizes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Category](#_1e46c059e4f9b5846cdb98d6adff437a):

‘categorizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Class Scenario

A template for a set of occurrences (may be but are not always activities) and resource that formally or informally define how things may happen.

### Direct Supertypes

[Process](#_83d65b9404a78ed941a332943863e039)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Process

**extends** [Process](#_83d65b9404a78ed941a332943863e039)

### Attributes

-188064948.jpg likelihood : [Probability Metric](#_c4bee9dc62c41effa96910b60385b774)

Possibility that the containing element represents reality.

### Associations

312529784.jpg results in:[Danger](#_4bdee0568b2f36e553f586b458dace32) *Redefines*: matches:[Template](#_6db5f6447173086a1a7d18af4f144b69)

Danger that is a result of a scenario playing out.

### Inherited Features

***From*** [Process](#_83d65b9404a78ed941a332943863e039):

‘requires’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

‘triggered by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f):

‘uses’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘creates’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘step in’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘step’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘when’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Template](#_6db5f6447173086a1a7d18af4f144b69):

‘categorizes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Category](#_1e46c059e4f9b5846cdb98d6adff437a):

‘categorizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

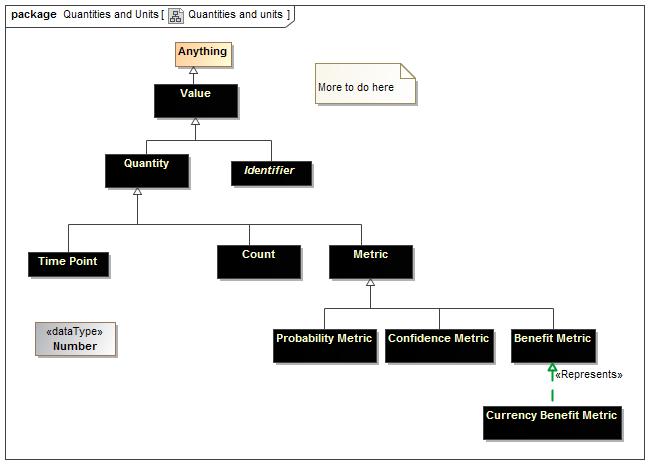
# Conceptual Modeling and Mapping Library::Core Concept Library::Quantities and Units

Qualities of things are represented with respect to what that thing means, not how it is represented. This introduces multiple "quantity kinds" which derive from *Value* and *Quantity*. Quantiles are stereotyped as "Quantity Kind".

A full system of units based on international standards will be defined as quantity kinds, but only those needed for threat-risk are defined here.

The representation of a value or quantity will typically use the "primitive types" that are fond in I.T. system such as "Integer", "Real" and "String".

## Diagram: Quantities and units



1. Quantities and units

## Class Benefit Metric

Any way to quantify benefit or harm.

### Direct Supertypes

[Metric](#_23c4326044009f885190c5ab985800db)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Quantities and Units

**extends** [Metric](#_23c4326044009f885190c5ab985800db)

### Inherited Features

***From*** [Quantity](#_8942b77360f32c71454a54816b872e65):

‘value’:[Number](#_48814cc3e8d2da8196ffca728bd5297b)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Confidence Metric

Any metric of confidence.

### Direct Supertypes

[Metric](#_23c4326044009f885190c5ab985800db)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Quantities and Units

**extends** [Metric](#_23c4326044009f885190c5ab985800db)

### Inherited Features

***From*** [Quantity](#_8942b77360f32c71454a54816b872e65):

‘value’:[Number](#_48814cc3e8d2da8196ffca728bd5297b)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Count

The number of something, e.g. 5 fish.

### Direct Supertypes

[Quantity](#_8942b77360f32c71454a54816b872e65)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Quantities and Units

**extends** [Quantity](#_8942b77360f32c71454a54816b872e65)

### Inherited Features

***From*** [Quantity](#_8942b77360f32c71454a54816b872e65):

‘value’:[Number](#_48814cc3e8d2da8196ffca728bd5297b)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Currency Benefit Metric

A metric for benefit or harm expressed in terms of a currency, such as dollars or yen.

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Quantities and Units

## Class Metric

A standard for measuring or evaluating something, especially one that uses figures or statistics: [Dictionary.com]Typical representations of a metric may be a fraction from zero to 1 or a rating such as "high, medium, low".

### Direct Supertypes

[Quantity](#_8942b77360f32c71454a54816b872e65)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Quantities and Units

**extends** [Quantity](#_8942b77360f32c71454a54816b872e65)

### Inherited Features

***From*** [Quantity](#_8942b77360f32c71454a54816b872e65):

‘value’:[Number](#_48814cc3e8d2da8196ffca728bd5297b)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Probability Metric

A metric that represents the possibility that something uncertain will happen.

### Direct Supertypes

[Metric](#_23c4326044009f885190c5ab985800db)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Quantities and Units

**extends** [Metric](#_23c4326044009f885190c5ab985800db)

### Inherited Features

***From*** [Quantity](#_8942b77360f32c71454a54816b872e65):

‘value’:[Number](#_48814cc3e8d2da8196ffca728bd5297b)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Quantity

A real scalar quantity, defined and adopted by convention, with which any other quantity of the same quantity kind can be compared to express the ratio of the two quantities as a number. e.g. Degrees Centigrade, Miles. [JCGM 200:2008-Measurement Unit]

### Direct Supertypes

[Value](#_a7a4f23921c2d4c035993a2e874887ff)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Quantities and Units

**extends** [Value](#_a7a4f23921c2d4c035993a2e874887ff)

### Attributes

1029417053.jpg value : [Number](#_48814cc3e8d2da8196ffca728bd5297b)

The numeric value of a quantity that is the multiple of the Unit.

### Inherited Features

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Time Point

A particular point in time, recognizing that any such point is a duration at a finer level of granularity.

### Direct Supertypes

[Quantity](#_8942b77360f32c71454a54816b872e65)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Quantities and Units

**extends** [Quantity](#_8942b77360f32c71454a54816b872e65)

### Inherited Features

***From*** [Quantity](#_8942b77360f32c71454a54816b872e65):

‘value’:[Number](#_48814cc3e8d2da8196ffca728bd5297b)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Value

A value is an atomic piece of information without a specific lifetime or identity independent of the value. Values include numbers, strings and other atomic "primitive" data.

### Direct Supertypes

[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Quantities and Units

**extends** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

### Inherited Features

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

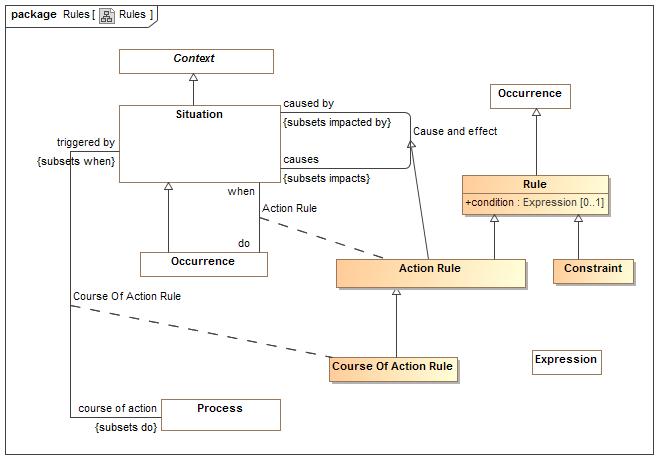
‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

# Conceptual Modeling and Mapping Library::Core Concept Library::Rules

Rules define conditional behavior that have some condition and some result. The result may be an action (An action rule) or simple to say what must be true (a constraint).

## Diagram: Rules



1. Rules

## Association Class Action Rule

A rule triggers a "do" effect when the "when" situation is matched under conditions(s) of the context - a proactive cause and effect.

### Direct Supertypes

[Cause and effect](#_c1db5cf0fabc6ad7126d55a1179d35c5), [Rule](#_654d7a3ef93d21256d8762eb130bfe8d)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Rules

**extends** [Cause and effect](#_c1db5cf0fabc6ad7126d55a1179d35c5), [Rule](#_654d7a3ef93d21256d8762eb130bfe8d)

#### Association Ends

1114599170.jpg when : [Situation](#_63104765cd42c5f76cf72fdc4ed90397) *Redefines*: matches:[Template](#_6db5f6447173086a1a7d18af4f144b69)

When a situation occurs

1114599170.jpg do : [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f) *Redefines*: matches:[Template](#_6db5f6447173086a1a7d18af4f144b69)

What to do when a rule is fired.

### Inherited Features

***From*** [Rule](#_654d7a3ef93d21256d8762eb130bfe8d):

‘condition’:[Expression](#_414dd7d59107bf4287d1511685ca32ab)

***From*** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f):

‘uses’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘creates’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘step in’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘step’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘when’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Class Constraint

Anything which places limits on a situation.

### Direct Supertypes

[Rule](#_654d7a3ef93d21256d8762eb130bfe8d)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Rules

**extends** [Rule](#_654d7a3ef93d21256d8762eb130bfe8d)

### Inherited Features

***From*** [Rule](#_654d7a3ef93d21256d8762eb130bfe8d):

‘condition’:[Expression](#_414dd7d59107bf4287d1511685ca32ab)

***From*** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f):

‘uses’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘creates’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘step in’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘step’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘when’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Association Class Course Of Action Rule

A rule to initiate a process as a course of action triggered by a situation.A course of action rule is an action that initiates a process. to be performed by some actor or actors.

### Direct Supertypes

[Action Rule](#_881429e9d0977f9fb3f1fca8f979b002)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Rules

**extends** [Action Rule](#_881429e9d0977f9fb3f1fca8f979b002)

#### Association Ends

333654349.jpg course of action : [Process](#_83d65b9404a78ed941a332943863e039) *Redefines*: matches:[Template](#_6db5f6447173086a1a7d18af4f144b69)

The process initiated when triggered by a course of action rule.

333654349.jpg triggered by : [Situation](#_63104765cd42c5f76cf72fdc4ed90397) *Redefines*: matches:[Template](#_6db5f6447173086a1a7d18af4f144b69)

The situation that triggers a course of action

### Inherited Features

***From*** [Rule](#_654d7a3ef93d21256d8762eb130bfe8d):

‘condition’:[Expression](#_414dd7d59107bf4287d1511685ca32ab)

***From*** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f):

‘uses’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘creates’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘step in’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘step’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘when’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Class Expression

Expressions return a value based on a calculation - todo, more specific.

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Rules

## Class Rule

A statement that defines or constrains some aspect of behavior of an entity (type of entity) or state of a situation (or type of situation).

### Direct Supertypes

[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Rules

**extends** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

### Attributes

1542035866.jpg condition : [Expression](#_414dd7d59107bf4287d1511685ca32ab) [0..1]

An expression that must be true for a rule to "fire"

### Inherited Features

***From*** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f):

‘uses’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘creates’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘step in’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘step’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘when’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

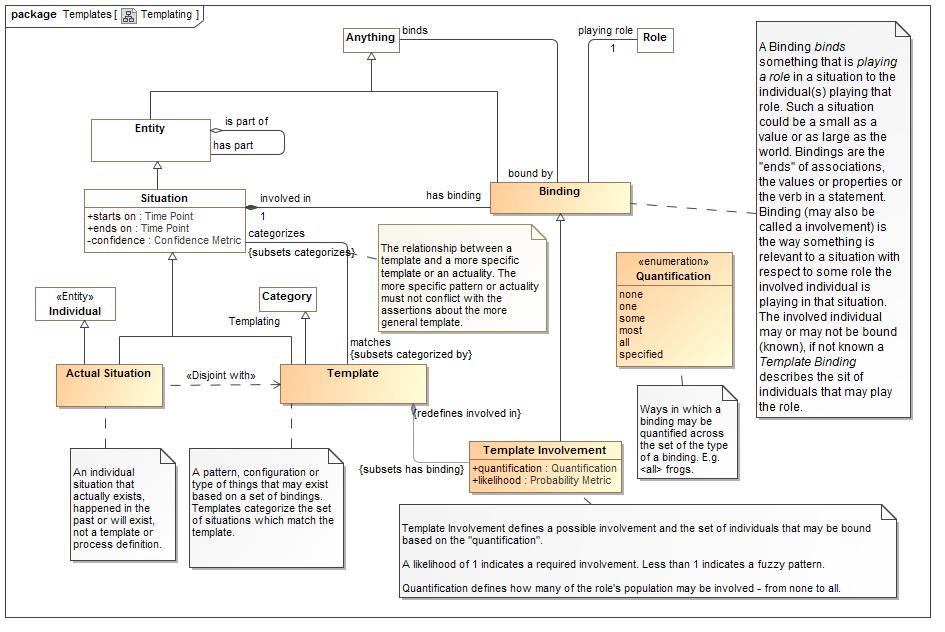
‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

# Conceptual Modeling and Mapping Library::Core Concept Library::Templates

Templates define patterns and how patterns match actual situations or other patterns. A pattern is a set of bindings that define values or sets of values that together define the template pattern. Actual situations represent individual actual situations that happened, are happening or will happen.

A binding may include Template Involvements which are capable of stating general facts by referencing a Quantification of the possible individuals playing a role.

## Diagram: Templating



1. Templating

## Class Actual Situation

An individual situation that actually exists, happened in the past or will exist, not a template or process definition.

### Direct Supertypes

[Individual](#_fb65a7c7797a6f834f4eb97640a0234f), [Situation](#_63104765cd42c5f76cf72fdc4ed90397)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Templates

**extends** [Situation](#_63104765cd42c5f76cf72fdc4ed90397), [Individual](#_fb65a7c7797a6f834f4eb97640a0234f)

### Associations

1842775683.jpg has sighting:[Sighting](#_e771cce4eb7bb47efae93a7539a40e8e)

Sightings that have sighted an actual situation.

-107506044.jpg has observation:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

Observations of an actual situation

### Inherited Features

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

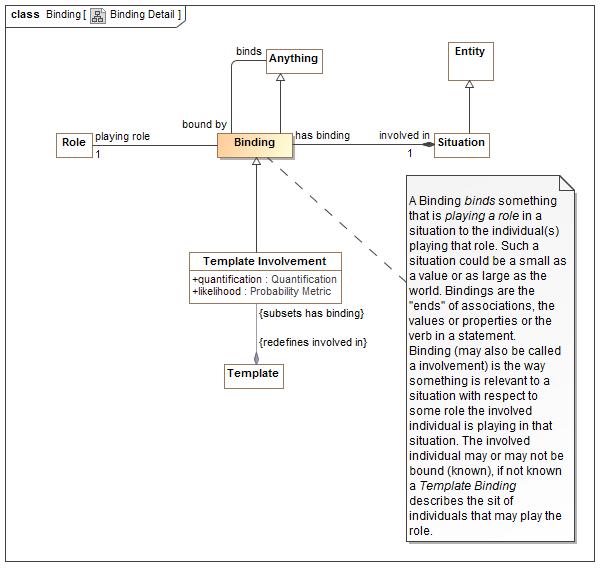
‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Class Binding

A Binding *binds* something that is *playing a role* in a situation to the individual(s) playing that role. Such a situation could be a small as a value or as large as the world. Bindings are the "ends" of associations, the values or properties or the verb in a statement.

Binding (may also be called a involvement) is the way something is relevant to a situation with respect to some role the involved individual is playing in that situation. The involved individual may or may not be bound (known), if not known a *Template Binding* describes the sit of individuals that may play the role.



1. Binding Detail

### Direct Supertypes

[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Templates

**extends** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

### Associations

-697779601.jpg binds:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

The entities that are playing roles in a situation.

1813855882.jpg playing role:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d) [1]

The individual playing a role in a situation.

2848227.jpg involved in:[Situation](#_63104765cd42c5f76cf72fdc4ed90397) [1]

The situation a bound entity is playing a role in.

### Inherited Features

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Template

A pattern, configuration or type of things that may exist based on a set of bindings. Templates categorize the set of situations which match the template.

### Direct Supertypes

[Category](#_1e46c059e4f9b5846cdb98d6adff437a), [Situation](#_63104765cd42c5f76cf72fdc4ed90397)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Templates

**extends** [Situation](#_63104765cd42c5f76cf72fdc4ed90397), [Category](#_1e46c059e4f9b5846cdb98d6adff437a)

### Associations

-1457603567.jpg categorizes:[Situation](#_63104765cd42c5f76cf72fdc4ed90397) *Subsets*: categorizes:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

The set of instances matching the template.

-1133628536.jpg :[Template Involvement](#_718a4f97eb5e3844ded4ae676e87cbae) *Subsets*: has binding:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

### Inherited Features

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Category](#_1e46c059e4f9b5846cdb98d6adff437a):

‘categorizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Class Template Involvement

Template Involvement defines a possible involvement and the set of individuals that may be bound based on the "quantification".A likelihood of 1 indicates a required involvement. Less than 1 indicates a fuzzy pattern.Quantification defines how many of the role's population may be involved - from none to all.

### Direct Supertypes

[Binding](#_59d00381296cc32f8d191ec24ae537cd)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Templates

**extends** [Binding](#_59d00381296cc32f8d191ec24ae537cd)

### Attributes

-2087144313.jpg quantification : [Quantification](#_2b77609f35a58d2fe4b9e769a0ef0641)

The range of individuals covered by a rule or generic statement

936156309.jpg likelihood : [Probability Metric](#_c4bee9dc62c41effa96910b60385b774)

Possibility that the containing element represents reality.

### Associations

-1133628536.jpg :[Template](#_6db5f6447173086a1a7d18af4f144b69) *Redefines*: involved in:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

### Inherited Features

***From*** [Binding](#_59d00381296cc32f8d191ec24ae537cd):

‘binds’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

‘playing role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘involved in’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

### Enumeration Quantification

Ways in which a binding may be quantified across the set of the type of a binding. E.g. <all> frogs.

package Conceptual Modeling and Mapping Library::Core Concept Library::Templates

public enum Quantification

{none, one, some, most, all, specified}

#### Literals

-853611586.jpg none

No entities may play this role in this situation

-256680183.jpg one

One entity

233440380.jpg some

Some entities that may play the role

2051576742.jpg most

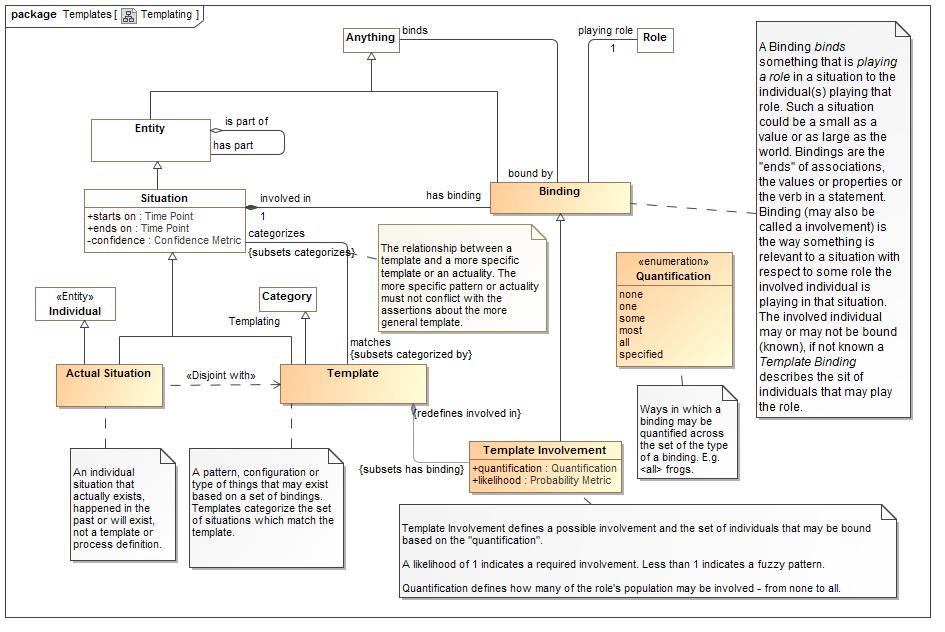
Most entities that may play the role

-568523439.jpg all

All entities that may play the role

-29973966.jpg specified

Specific (specified) involved entities

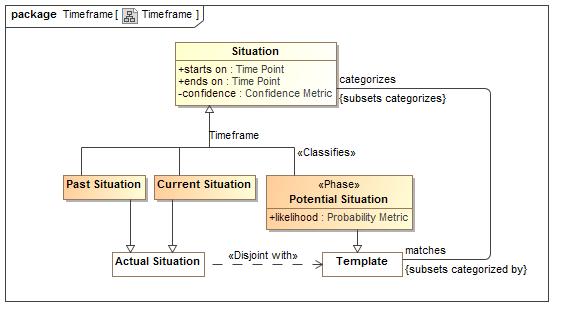


1. Templating

# Conceptual Modeling and Mapping Library::Core Concept Library::Timeframe

*Timeframe* segregates situations into those that are in the past, are current and those that are potential. Past and Current situations are *actual situations*. Potential situations are a kind of template for what may happen and have a likelihood.

## Diagram: Timeframe



1. Timeframe

## Class Current Situation

A situation that is actully occuring at the moment.

### Direct Supertypes

[Actual Situation](#_08a2eb20d8bf045e6dbd9fe9c6a5931a), [Situation](#_63104765cd42c5f76cf72fdc4ed90397)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Timeframe

**extends** [Situation](#_63104765cd42c5f76cf72fdc4ed90397), [Actual Situation](#_08a2eb20d8bf045e6dbd9fe9c6a5931a)

### Inherited Features

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Actual Situation](#_08a2eb20d8bf045e6dbd9fe9c6a5931a):

‘has sighting’:[Sighting](#_e771cce4eb7bb47efae93a7539a40e8e)

‘has observation’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

## Class Past Situation

A situation that has actually occurred in the past (recognizing that all such statements are subject to confidence).

### Direct Supertypes

[Actual Situation](#_08a2eb20d8bf045e6dbd9fe9c6a5931a), [Situation](#_63104765cd42c5f76cf72fdc4ed90397)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Timeframe

**extends** [Situation](#_63104765cd42c5f76cf72fdc4ed90397), [Actual Situation](#_08a2eb20d8bf045e6dbd9fe9c6a5931a)

### Inherited Features

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Actual Situation](#_08a2eb20d8bf045e6dbd9fe9c6a5931a):

‘has sighting’:[Sighting](#_e771cce4eb7bb47efae93a7539a40e8e)

‘has observation’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

## Class Potential Situation

A situation that has not yet started

### Direct Supertypes

[Situation](#_63104765cd42c5f76cf72fdc4ed90397), [Template](#_6db5f6447173086a1a7d18af4f144b69)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Timeframe

**extends** [Situation](#_63104765cd42c5f76cf72fdc4ed90397), [Template](#_6db5f6447173086a1a7d18af4f144b69)

### Attributes

-916885931.jpg likelihood : [Probability Metric](#_c4bee9dc62c41effa96910b60385b774)

Possibility that the containing element represents reality.

### Associations

2057692105.jpg indicated by:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

Indicators of a situation

172922388.jpg predicted by:[Prediction](#_af120e4b8e21c3cb078f624ef4016abe)

### Inherited Features

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Template](#_6db5f6447173086a1a7d18af4f144b69):

‘categorizes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

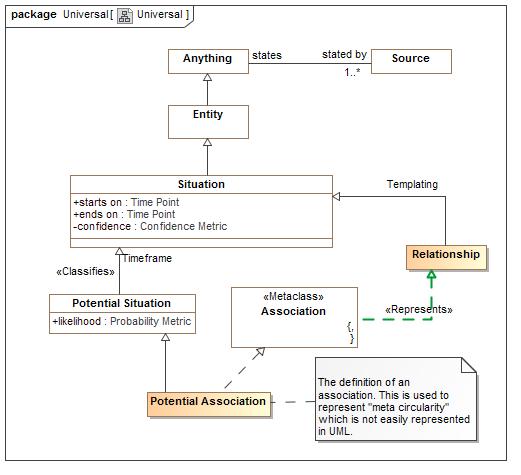
***From*** [Category](#_1e46c059e4f9b5846cdb98d6adff437a):

‘categorizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

# Conceptual Modeling and Mapping Library::Core Concept Library::Universal

All associations in the risk/threat model may have "likelihood" and "confidence" measures. Everything can have source metadata which delineates the source artifact and date/time it was referenced. There is no easy way to represent this in UML - we show that all UML associations represent the Situation concept.

## Diagram: Universal



1. Universal

## Class Potential Association

The definition of an association. This is used to represent "meta circularity" which is not easily represented in UML.

### Direct Supertypes

[Potential Situation](#_b5881b0e5e4eeb119cdf881b4c32b91f)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Universal

**extends** [Potential Situation](#_b5881b0e5e4eeb119cdf881b4c32b91f)

### Inherited Features

***From*** [Potential Situation](#_b5881b0e5e4eeb119cdf881b4c32b91f):

‘likelihood’:[Probability Metric](#_c4bee9dc62c41effa96910b60385b774)

‘indicated by’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘predicted by’:[Prediction](#_af120e4b8e21c3cb078f624ef4016abe)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

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‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Template](#_6db5f6447173086a1a7d18af4f144b69):

‘categorizes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Category](#_1e46c059e4f9b5846cdb98d6adff437a):

‘categorizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Class Relationship

A logical connection between other entities, an instance of the associations in the conceptual model.

### Direct Supertypes

[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

**package** Conceptual Modeling and Mapping Library::Core Concept Library::Universal

**extends** [Situation](#_63104765cd42c5f76cf72fdc4ed90397)

### Inherited Features

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

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‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

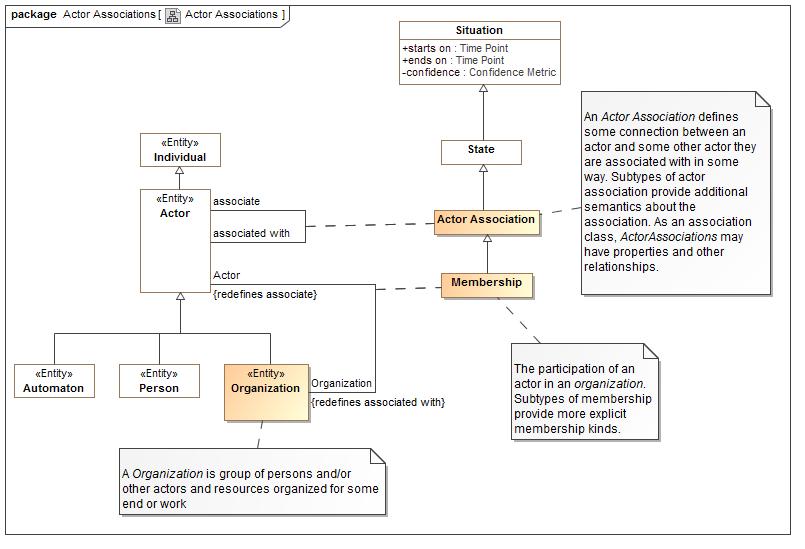
‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

# Conceptual Modeling and Mapping Library::Generic Concepts::Actor Associations

Actor associations define the concept of an organization as well as a general concept of associations between actors, including organization membership.

## Diagram: Actor Associations



1. Actor Associations

Actor associations define the concept of an organization and provide a general framework for associations between actors with the use of an Actor Association.

## Association Class Actor Association

An *Actor Association* defines some connection between an actor and some other actor they are associated with in some way. Subtypes of actor association provide additional semantics about the association. As an association class, *ActorAssociations* may have properties and other relationships.

### Direct Supertypes

[State](#_927c2855748f476d96735ff79da4ebff)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Actor Associations

**extends** [State](#_927c2855748f476d96735ff79da4ebff)

#### Association Ends

1763653155.jpg associate : [Actor](#_195976dea0d8187e1656ac43c072c070)

The actor associated with another.

1763653155.jpg associated with : [Actor](#_195976dea0d8187e1656ac43c072c070)

Another actor the actor is associated with

### Inherited Features

***From*** [State](#_927c2855748f476d96735ff79da4ebff):

‘state of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

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‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Association Class Membership

The participation of an actor in an *organization*. Subtypes of membership provide more explicit membership kinds.

### Direct Supertypes

[Actor Association](#_3a44d5eb3ae2bdab8905a34cd48f0921)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Actor Associations

**extends** [Actor Association](#_3a44d5eb3ae2bdab8905a34cd48f0921)

#### Association Ends

-851364695.jpg Actor : [Actor](#_195976dea0d8187e1656ac43c072c070)

A Documented Component

-851364695.jpg Organization : [Organization](#_4658f8611106e1a9715192761b712fb8)

A Documented Component

### Inherited Features

***From*** [Actor Association](#_3a44d5eb3ae2bdab8905a34cd48f0921):

‘associate’:[Actor](#_195976dea0d8187e1656ac43c072c070)

‘associated with’:[Actor](#_195976dea0d8187e1656ac43c072c070)

***From*** [State](#_927c2855748f476d96735ff79da4ebff):

‘state of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

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‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

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‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

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‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

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***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Class Organization

A *Organization* is group of persons and/or other actors and resources organized for some end or work

### Direct Supertypes

[Actor](#_195976dea0d8187e1656ac43c072c070)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Actor Associations

**extends** [Actor](#_195976dea0d8187e1656ac43c072c070)

### Inherited Features

***From*** [Actor](#_195976dea0d8187e1656ac43c072c070):

‘performs’:[Activity](#_bf62ccd25fcc4695eba838a426996db5)

‘operates at’:[Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad)

‘contact via’:[Contact Information](#_659fd398b9354d627eab9d3a069a3988)

‘enabled by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

‘has observation’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

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***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

# Conceptual Modeling and Mapping Library::Generic Concepts::Authority

Authority defines a role of an actor that has authoritative influence over a resource. Since resources can be roles of any entity, that resource may be another actor, a thing, a process, etc.

## Diagram: Authority



1. Authority

## Class Authority

An actor with authority over resources.

### Direct Supertypes

[Actor](#_195976dea0d8187e1656ac43c072c070)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Authority

**extends** [Actor](#_195976dea0d8187e1656ac43c072c070)

### Associations

467609802.jpg has authority over:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d) *Subsets*: impacts:[Entity](#_13f9005c9106d00d7131680982c2727a)

Resoruces an authority has authority over.

### Inherited Features

***From*** [Actor](#_195976dea0d8187e1656ac43c072c070):

‘performs’:[Activity](#_bf62ccd25fcc4695eba838a426996db5)

‘operates at’:[Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad)

‘contact via’:[Contact Information](#_659fd398b9354d627eab9d3a069a3988)

‘enabled by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

‘has observation’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

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‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

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‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Association Subject to Authority

The relationship between an authority and what it has authority over.

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Authority

### Association Ends

467609802.jpg has authority over : [Resource](#_d442d75c9ac335e7a2aadbc96919fc2d) *Subsets*: impacts:[Entity](#_13f9005c9106d00d7131680982c2727a)

Resoruces an authority has authority over.

467609802.jpg subject to : [Authority](#_4a5f789e0663312e51a7733bd354bc59) *Subsets*: impacts:[Entity](#_13f9005c9106d00d7131680982c2727a)

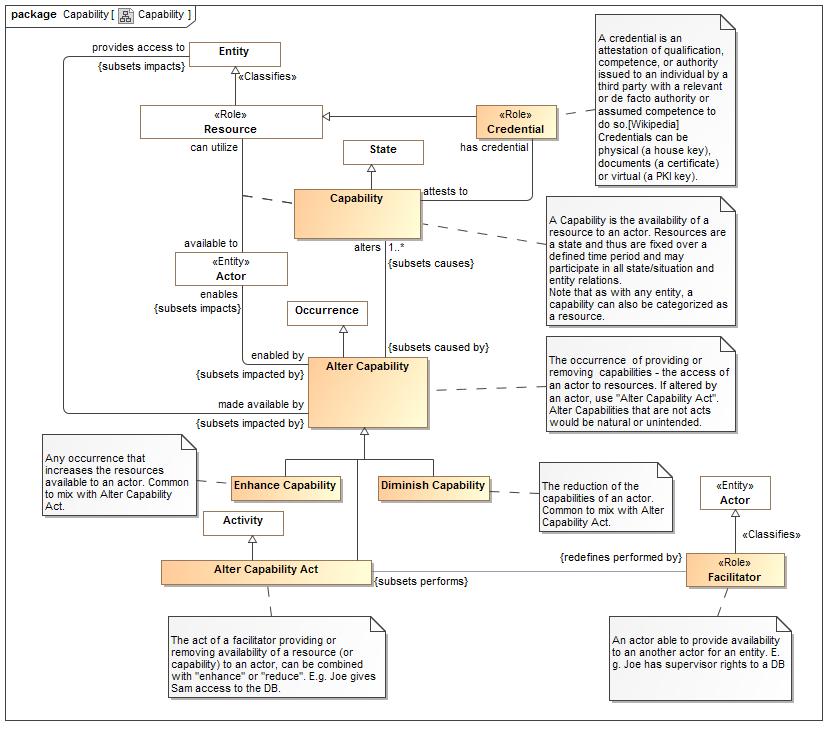
The authority that has some control over a resource.

# Conceptual Modeling and Mapping Library::Generic Concepts::Capability

The capability module defines the basic concept of a *capability* as the availability of a resource to an actor. The resource may be specific, such as $5000.00, or general, such as the ability to teach math. Each capability is a state indicating that it has a lifetime and can participate in all the state/situation and entity relations. *Credentials* may be physical or virtual and attest to the capability.

Capabilities are created, enhanced, diminished or eliminated with an *Alter Capability* occurrence. When an actor alters a capability (of themselves or others) they are playing the role of a *Facilitator* who performs an *Alter Capability Act*.

## Diagram: Capability



1. Capability

## Class Alter Capability

The occurrence of providing or removing capabilities - the access of an actor to resources. If altered by an actor, use "Alter Capability Act". Alter Capabilities that are not acts would be natural or unintended.

### Direct Supertypes

[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Capability

**extends** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

### Associations

-1837839652.jpg alters:[Capability](#_0a7e812804f2213995cbeffe776b63fe) [1..\*] *Subsets*: causes:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

A capability which is enhanced/created or reduced/removed.

2121882416.jpg provides access to:[Entity](#_13f9005c9106d00d7131680982c2727a) *Subsets*: impacts:[Entity](#_13f9005c9106d00d7131680982c2727a)

The entity that will be used as the capability of an actor.

1521677897.jpg enables:[Actor](#_195976dea0d8187e1656ac43c072c070) *Subsets*: impacts:[Entity](#_13f9005c9106d00d7131680982c2727a)

A resource made available to an actor by an occurrence of the Alter Capability.

### Inherited Features

***From*** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f):

‘uses’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘creates’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘step in’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘step’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘when’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Class Alter Capability Act

The act of a facilitator providing or removing availability of a resource (or capability) to an actor, can be combined with "enhance" or "reduce". E.g. Joe gives Sam access to the DB.

### Direct Supertypes

[Activity](#_bf62ccd25fcc4695eba838a426996db5), [Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Capability

**extends** [Alter Capability](#_e0710944ed85fab755fb953e7174c8dd), [Activity](#_bf62ccd25fcc4695eba838a426996db5)

### Associations

-1431170874.jpg :[Facilitator](#_31cdbfb5037111d4063d958f9bba2472) *Redefines*: performed by:[Actor](#_195976dea0d8187e1656ac43c072c070)

### Inherited Features

***From*** [Alter Capability](#_e0710944ed85fab755fb953e7174c8dd):

‘alters’:[Capability](#_0a7e812804f2213995cbeffe776b63fe)

‘provides access to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘enables’:[Actor](#_195976dea0d8187e1656ac43c072c070)

***From*** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f):

‘uses’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘creates’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘step in’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘step’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘when’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Activity](#_bf62ccd25fcc4695eba838a426996db5):

‘performed by’:[Actor](#_195976dea0d8187e1656ac43c072c070)

## Association Class Capability

A Capability is the availability of a resource to an actor. Resources are a state and thus are fixed over a defined time period and may participate in all state/situation and entity relations.Note that as with any entity, a capability can also be categorized as a resource.

### Direct Supertypes

[State](#_927c2855748f476d96735ff79da4ebff)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Capability

**extends** [State](#_927c2855748f476d96735ff79da4ebff)

#### Association Ends

-65986590.jpg available to : [Actor](#_195976dea0d8187e1656ac43c072c070) *Redefines*: performed by:[Actor](#_195976dea0d8187e1656ac43c072c070)

A resource made available to an actor as a part of a capability.

-65986590.jpg can utilize : [Resource](#_d442d75c9ac335e7a2aadbc96919fc2d) *Redefines*: performed by:[Actor](#_195976dea0d8187e1656ac43c072c070)

The resource an actor can utilize as part of a capability.

### Associations

-1837839652.jpg :[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd) *Subsets*: caused by:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

-212173931.jpg has credential:[Credential](#_4b22282c86b7077a6928ad3d236ff3bb)

Provides proof of a capability.

### Inherited Features

***From*** [State](#_927c2855748f476d96735ff79da4ebff):

‘state of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Class Credential

A credential is an attestation of qualification, competence, or authority issued to an individual by a third party with a relevant or de facto authority or assumed competence to do so.[Wikipedia] Credentials can be physical (a house key), documents (a certificate) or virtual (a PKI key).

### Direct Supertypes

[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Capability

**extends** [Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

### Associations

-212173931.jpg attests to:[Capability](#_0a7e812804f2213995cbeffe776b63fe)

Cridentialed capability

### Inherited Features

***From*** [Resource](#_d442d75c9ac335e7a2aadbc96919fc2d):

‘has weakness’:[Weakness](#_503237c91822aea6eb1e81f160d33ce1)

‘responsibility of’:[Stakeholder](#_e6b0cbf74d66e662c0e3b43efa323757)

‘supports’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

‘impacted by’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘required by’:[Process](#_83d65b9404a78ed941a332943863e039)

‘has vunerability’:[Vulnerability](#_d936caf19626476c163d1b8384647aa0)

‘depends on’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

‘subject to’:[Authority](#_4a5f789e0663312e51a7733bd354bc59)

‘harmed by’:[Danger](#_4bdee0568b2f36e553f586b458dace32)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Diminish Capability

The reduction of the capabilities of an actor. Common to mix with Alter Capability Act.

### Direct Supertypes

[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Capability

**extends** [Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

### Inherited Features

***From*** [Alter Capability](#_e0710944ed85fab755fb953e7174c8dd):

‘alters’:[Capability](#_0a7e812804f2213995cbeffe776b63fe)

‘provides access to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘enables’:[Actor](#_195976dea0d8187e1656ac43c072c070)

***From*** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f):

‘uses’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘creates’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘step in’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘step’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘when’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Class Enhance Capability

Any occurrence that increases the resources available to an actor. Common to mix with Alter Capability Act.

### Direct Supertypes

[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Capability

**extends** [Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

### Inherited Features

***From*** [Alter Capability](#_e0710944ed85fab755fb953e7174c8dd):

‘alters’:[Capability](#_0a7e812804f2213995cbeffe776b63fe)

‘provides access to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘enables’:[Actor](#_195976dea0d8187e1656ac43c072c070)

***From*** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f):

‘uses’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘creates’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘step in’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘step’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘when’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Class Facilitator

An actor able to provide availability to an another actor for an entity. E.g. Joe has supervisor rights to a DB

### Direct Supertypes

[Actor](#_195976dea0d8187e1656ac43c072c070)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Capability

**extends** [Actor](#_195976dea0d8187e1656ac43c072c070)

### Associations

-1431170874.jpg :[Alter Capability Act](#_b27fdfc6ff7e291783c4ac127784812d) *Subsets*: performs:[Activity](#_bf62ccd25fcc4695eba838a426996db5)

### Inherited Features

***From*** [Actor](#_195976dea0d8187e1656ac43c072c070):

‘performs’:[Activity](#_bf62ccd25fcc4695eba838a426996db5)

‘operates at’:[Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad)

‘contact via’:[Contact Information](#_659fd398b9354d627eab9d3a069a3988)

‘enabled by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

‘has observation’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

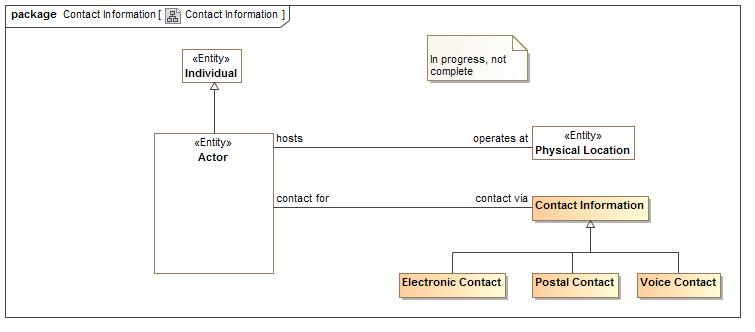
‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

# Conceptual Modeling and Mapping Library::Generic Concepts::Contact Information

The definition of various ways to contact any entity. Subtypes of contact information supply specific formats.

## Diagram: Contact Information



1. Contact Information

## Class Contact Information

Anything that may be used to contact an actor.

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Contact Information

### Associations

1468165938.jpg contact for:[Actor](#_195976dea0d8187e1656ac43c072c070)

An actor for which the contact information may be used to context.

## Class Electronic Contact

A means of contact that provides for the electronic transmission of information.

### Direct Supertypes

[Contact Information](#_659fd398b9354d627eab9d3a069a3988)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Contact Information

**extends** [Contact Information](#_659fd398b9354d627eab9d3a069a3988)

### Inherited Features

***From*** [Contact Information](#_659fd398b9354d627eab9d3a069a3988):

‘contact for’:[Actor](#_195976dea0d8187e1656ac43c072c070)

## Class Postal Contact

An abstraction for anything that identifies a place to deliver mail. Noting that mail addresses are used for other purposes.

### Direct Supertypes

[Contact Information](#_659fd398b9354d627eab9d3a069a3988)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Contact Information

**extends** [Contact Information](#_659fd398b9354d627eab9d3a069a3988)

### Inherited Features

***From*** [Contact Information](#_659fd398b9354d627eab9d3a069a3988):

‘contact for’:[Actor](#_195976dea0d8187e1656ac43c072c070)

## Class Voice Contact

Contact information that enables real-time voice communication. Most likely telephone or VOIP.

### Direct Supertypes

[Contact Information](#_659fd398b9354d627eab9d3a069a3988)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Contact Information

**extends** [Contact Information](#_659fd398b9354d627eab9d3a069a3988)

### Inherited Features

***From*** [Contact Information](#_659fd398b9354d627eab9d3a069a3988):

‘contact for’:[Actor](#_195976dea0d8187e1656ac43c072c070)

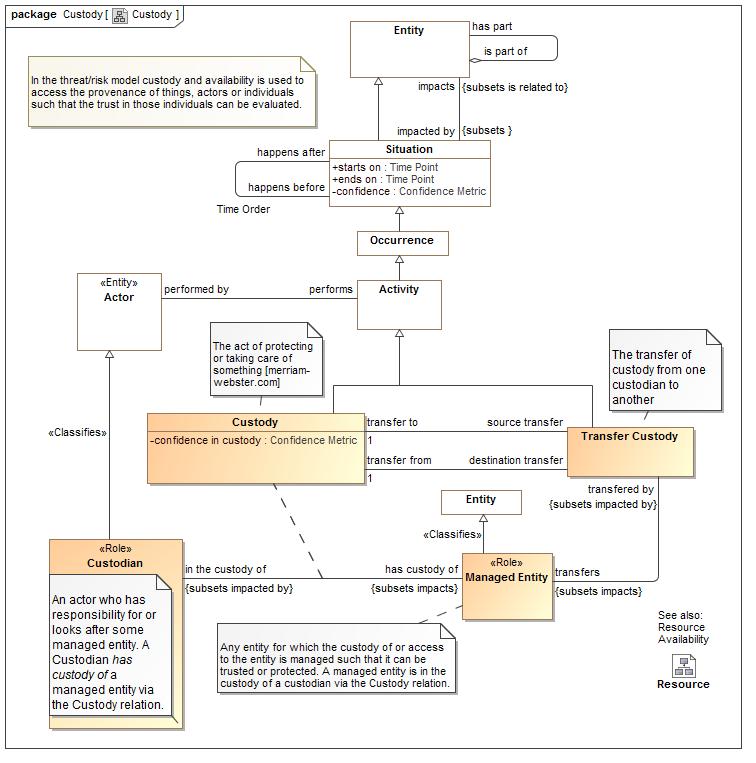
# Conceptual Modeling and Mapping Library::Generic Concepts::Custody

*Custody* provides a general framework for tracking the control and life cycle of items and information such that the history, trust and provenance may be ascertained. Custody provides for secure supply chains in that the life-cycle or items, information and their parts may be traced.

*Custody* is the relation between a *Custodian* and a *Managed Entity* (Something for which the provenance is interesting).

Trust in a managed entity may also be influenced by the actors that have a capability to impact the resource.

## Diagram: Custody



1. Custody

## Class Custodian

An actor who has responsibility for or looks after some managed entity. A Custodian *has custody of* a managed entity via the Custody relation.

### Direct Supertypes

[Actor](#_195976dea0d8187e1656ac43c072c070)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Custody

**extends** [Actor](#_195976dea0d8187e1656ac43c072c070)

### Inherited Features

***From*** [Actor](#_195976dea0d8187e1656ac43c072c070):

‘performs’:[Activity](#_bf62ccd25fcc4695eba838a426996db5)

‘operates at’:[Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad)

‘contact via’:[Contact Information](#_659fd398b9354d627eab9d3a069a3988)

‘enabled by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

‘has observation’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Association Class Custody

The act of protecting or taking care of something [merriam-webster.com]

### Direct Supertypes

[Activity](#_bf62ccd25fcc4695eba838a426996db5)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Custody

**extends** [Activity](#_bf62ccd25fcc4695eba838a426996db5)

#### Association Ends

2109022149.jpg has custody of : [Managed Entity](#_fa25954c316823a26f32a9c5cd5b327f)

.The entity a custodian has custody of

2109022149.jpg in the custody of : [Custodian](#_7d2c3b19be89b19c5260905a67814ed5)

The custodian of an entity

### Attributes

-456290179.jpg confidence in custody : [Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

Confidence that the custody is trustworthy.

### Associations

-1490875369.jpg source transfer:[Transfer Custody](#_a08bb0621cb711df00453399bf98bcb4)

The transfer providing the custody

-617579961.jpg destination transfer:[Transfer Custody](#_a08bb0621cb711df00453399bf98bcb4)

The transfer, transferring custody away.

### Inherited Features

***From*** [Activity](#_bf62ccd25fcc4695eba838a426996db5):

‘performed by’:[Actor](#_195976dea0d8187e1656ac43c072c070)

***From*** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f):

‘uses’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘creates’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘step in’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘step’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘when’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Class Managed Entity

Any entity for which the custody of or access to the entity is managed such that it can be trusted or protected. A managed entity is in the custody of a custodian via the Custody relation.

### Direct Supertypes

[Entity](#_13f9005c9106d00d7131680982c2727a)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Custody

**extends** [Entity](#_13f9005c9106d00d7131680982c2727a)

### Associations

-812430666.jpg transfered by:[Transfer Custody](#_a08bb0621cb711df00453399bf98bcb4) *Subsets*: impacted by:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

A transfer of custody for the entity

### Inherited Features

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Transfer Custody

The transfer of custody from one custodian to another

### Direct Supertypes

[Activity](#_bf62ccd25fcc4695eba838a426996db5), [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Custody

**extends** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f), [Activity](#_bf62ccd25fcc4695eba838a426996db5)

### Associations

-617579961.jpg transfer from:[Custody](#_271347192118d3cd9fc21f5e3a95251c) [1]

the custody a transfer, transfers from.

-1490875369.jpg transfer to:[Custody](#_271347192118d3cd9fc21f5e3a95251c) [1]

the custody a transfer, transfers to.

-812430666.jpg transfers:[Managed Entity](#_fa25954c316823a26f32a9c5cd5b327f) *Subsets*: impacts:[Entity](#_13f9005c9106d00d7131680982c2727a)

The transfered entity

### Inherited Features

***From*** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f):

‘uses’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘creates’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘step in’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘step’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘when’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

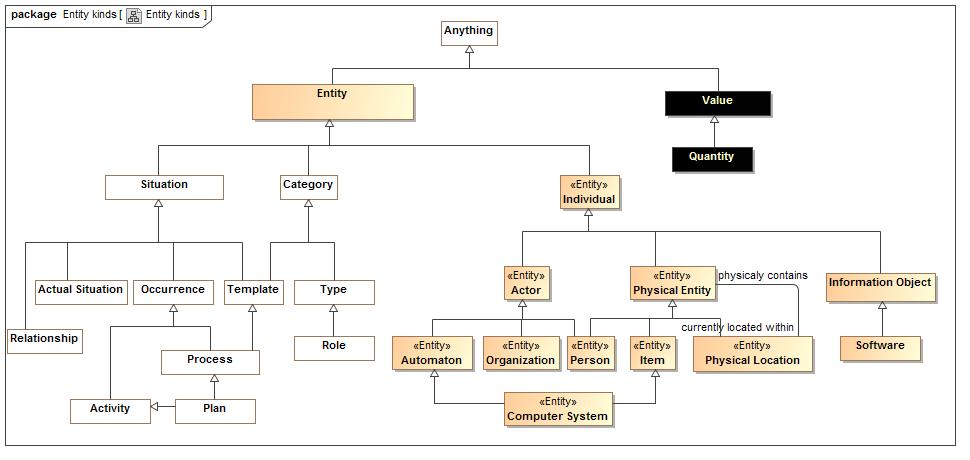
‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Activity](#_bf62ccd25fcc4695eba838a426996db5):

‘performed by’:[Actor](#_195976dea0d8187e1656ac43c072c070)

# Conceptual Modeling and Mapping Library::Generic Concepts::Entity kinds

## Diagram: Entity kinds



1. Entity kinds

Any thing or value that does or may exist

## Class Automaton

A machine or group of machines (most often a computer system, robot or computerized swarm combined with software) that can perform actions in accordance with a process without another actor directing each step of the process.Distinguished from simple tools which facilitate an actor performing a process but have no innate capacity to follow such a process.Also distinguished from "legal entities" and "stakeholders", roles of some actors which indicates the capacity to enter into legally binding agreements or have objectives (at this time no Automatons are legal entities or stakeholders but the model does not preclude the possibility).

### Direct Supertypes

[Actor](#_195976dea0d8187e1656ac43c072c070)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Entity kinds

**extends** [Actor](#_195976dea0d8187e1656ac43c072c070)

### Inherited Features

***From*** [Actor](#_195976dea0d8187e1656ac43c072c070):

‘performs’:[Activity](#_bf62ccd25fcc4695eba838a426996db5)

‘operates at’:[Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad)

‘contact via’:[Contact Information](#_659fd398b9354d627eab9d3a069a3988)

‘enabled by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

‘has observation’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Computer System

An identifiable and physical computer system that acts as an automaton agent performing processes.A programmable electronic device designed to accept data, perform prescribed mathematical and logical operations at high speed, and display the results of these operations. Mainframes, desktop and laptop computers, tablets, and smartphones are some of the different types of computers. [dictionary.com]

### Direct Supertypes

[Automaton](#_4a4c30b713e98ae1df7a1e85acf9718c), [Item](#_28f984bb260c3ff2e5612283df0d62da)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Entity kinds

**extends** [Item](#_28f984bb260c3ff2e5612283df0d62da), [Automaton](#_4a4c30b713e98ae1df7a1e85acf9718c)

### Inherited Features

***From*** [Physical Entity](#_9e590df8c30230cf3596fa46219d8207):

‘currently located within’:[Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Actor](#_195976dea0d8187e1656ac43c072c070):

‘performs’:[Activity](#_bf62ccd25fcc4695eba838a426996db5)

‘operates at’:[Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad)

‘contact via’:[Contact Information](#_659fd398b9354d627eab9d3a069a3988)

‘enabled by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

‘has observation’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

## Class Item

An inanimate material object as distinct from a living sentient being.

### Direct Supertypes

[Physical Entity](#_9e590df8c30230cf3596fa46219d8207)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Entity kinds

**extends** [Physical Entity](#_9e590df8c30230cf3596fa46219d8207)

### Inherited Features

***From*** [Physical Entity](#_9e590df8c30230cf3596fa46219d8207):

‘currently located within’:[Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Physical Entity

A thing that has mass and takes up space including people, places and things.

### Direct Supertypes

[Individual](#_fb65a7c7797a6f834f4eb97640a0234f)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Entity kinds

**extends** [Individual](#_fb65a7c7797a6f834f4eb97640a0234f)

### Associations

1834571903.jpg currently located within:[Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad)

Where something is located.

### Inherited Features

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

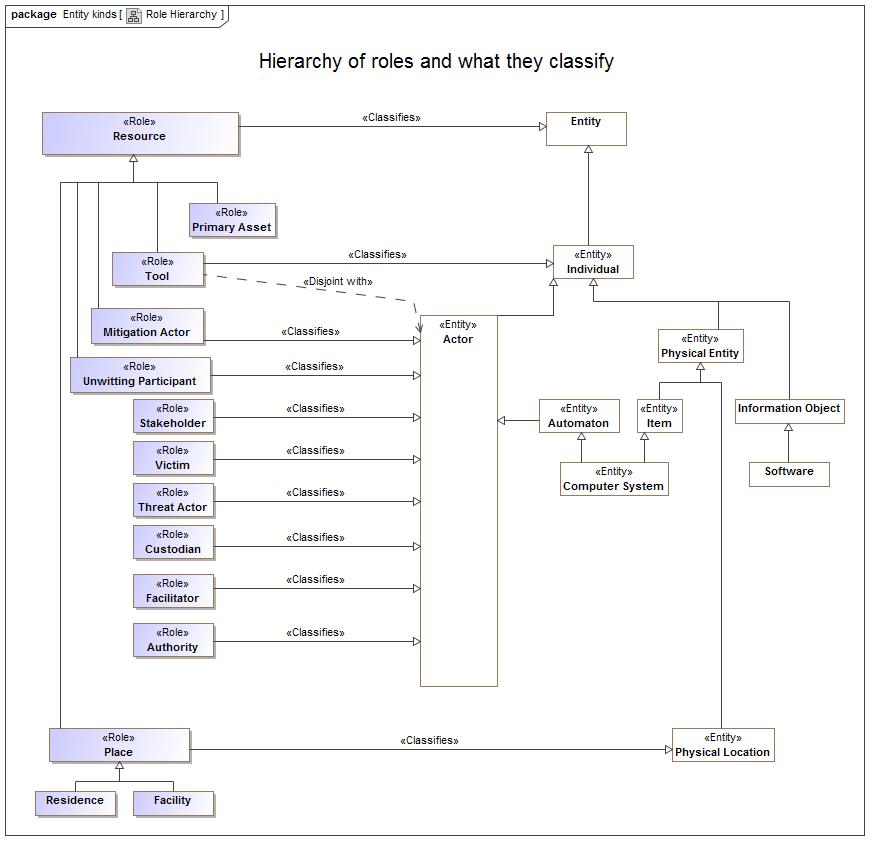
‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Diagram: Role Hierarchy



1. Role Hierarchy

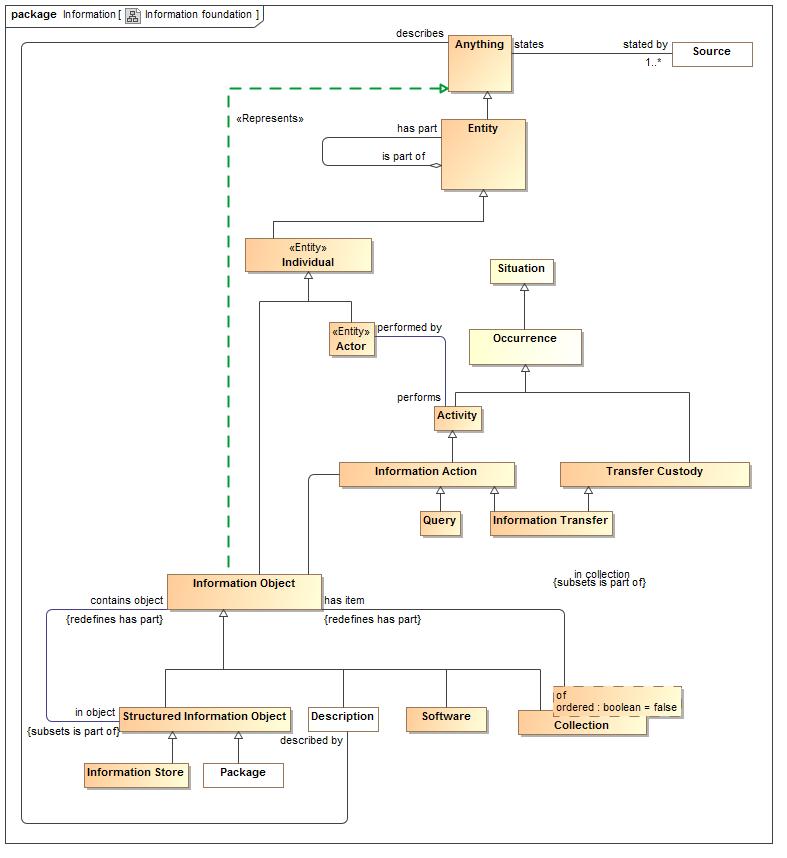
### Known other classes

[Class Automaton](#_4a4c30b713e98ae1df7a1e85acf9718c), [Class Computer System](#_14d56db80bbdc99ae3ae52a93d690543), [Class Item](#_28f984bb260c3ff2e5612283df0d62da), [Class Physical Entity](#_9e590df8c30230cf3596fa46219d8207)

# Conceptual Modeling and Mapping Library::Generic Concepts::Information

Concepts relating to information (including data) about entities.

## Diagram: Information foundation



1. Information foundation

## Class Collection

Any group or collection of information.

### Direct Supertypes

[Information Object](#_8aeba8eff36a737872d124faf2a260e2)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Information

**extends** [Information Object](#_8aeba8eff36a737872d124faf2a260e2)

### Associations

1641579075.jpg has item:[Information Object](#_8aeba8eff36a737872d124faf2a260e2) *Redefines*: has part:[Entity](#_13f9005c9106d00d7131680982c2727a)

One element of a collection, a member of the collection.

### Inherited Features

***From*** [Information Object](#_8aeba8eff36a737872d124faf2a260e2):

‘in object’:[Structured Information Object](#_d75620f0815b869941747c5832b4a172)

‘in collection’:[Collection](#_91d63813fb5dca6e097b0069a2b05f23)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Description

A description of something.

### Direct Supertypes

[Information Object](#_8aeba8eff36a737872d124faf2a260e2)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Information

**extends** [Information Object](#_8aeba8eff36a737872d124faf2a260e2)

### Associations

885772868.jpg describes:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

The concept described by a description.

### Inherited Features

***From*** [Information Object](#_8aeba8eff36a737872d124faf2a260e2):

‘in object’:[Structured Information Object](#_d75620f0815b869941747c5832b4a172)

‘in collection’:[Collection](#_91d63813fb5dca6e097b0069a2b05f23)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Information Action

An action that impacts information objects

### Direct Supertypes

[Activity](#_bf62ccd25fcc4695eba838a426996db5)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Information

**extends** [Activity](#_bf62ccd25fcc4695eba838a426996db5)

### Associations

941507242.jpg :[Information Object](#_8aeba8eff36a737872d124faf2a260e2)

### Inherited Features

***From*** [Activity](#_bf62ccd25fcc4695eba838a426996db5):

‘performed by’:[Actor](#_195976dea0d8187e1656ac43c072c070)

***From*** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f):

‘uses’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘creates’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘step in’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘step’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘when’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Class Information Object

A representation of information/ data/ facts/ assertions/ statements about anything.

### Direct Supertypes

[Individual](#_fb65a7c7797a6f834f4eb97640a0234f)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Information

**extends** [Individual](#_fb65a7c7797a6f834f4eb97640a0234f)

### Associations

665322990.jpg in object:[Structured Information Object](#_d75620f0815b869941747c5832b4a172) *Subsets*: is part of:[Entity](#_13f9005c9106d00d7131680982c2727a)

Where an information is used within another information object.

1641579075.jpg in collection:[Collection](#_91d63813fb5dca6e097b0069a2b05f23) *Subsets*: is part of:[Entity](#_13f9005c9106d00d7131680982c2727a)

Collections which contain an information object.

941507242.jpg :[Information Action](#_ac3f6698c44ff4ba2097a6741738a3e1)

### Inherited Features

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Information Store

A place to put information.

### Direct Supertypes

[Structured Information Object](#_d75620f0815b869941747c5832b4a172)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Information

**extends** [Structured Information Object](#_d75620f0815b869941747c5832b4a172)

### Inherited Features

***From*** [Structured Information Object](#_d75620f0815b869941747c5832b4a172):

‘contains object’:[Information Object](#_8aeba8eff36a737872d124faf2a260e2)

***From*** [Information Object](#_8aeba8eff36a737872d124faf2a260e2):

‘in object’:[Structured Information Object](#_d75620f0815b869941747c5832b4a172)

‘in collection’:[Collection](#_91d63813fb5dca6e097b0069a2b05f23)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Information Transfer

The transfer of information from one store to another.

### Direct Supertypes

[Information Action](#_ac3f6698c44ff4ba2097a6741738a3e1), [Transfer Custody](#_a08bb0621cb711df00453399bf98bcb4)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Information

**extends** [Transfer Custody](#_a08bb0621cb711df00453399bf98bcb4), [Information Action](#_ac3f6698c44ff4ba2097a6741738a3e1)

### Inherited Features

***From*** [Transfer Custody](#_a08bb0621cb711df00453399bf98bcb4):

‘transfer from’:[Custody](#_271347192118d3cd9fc21f5e3a95251c)

‘transfer to’:[Custody](#_271347192118d3cd9fc21f5e3a95251c)

‘transfers’:[Managed Entity](#_fa25954c316823a26f32a9c5cd5b327f)

***From*** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f):

‘uses’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘creates’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘step in’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘step’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘when’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Activity](#_bf62ccd25fcc4695eba838a426996db5):

‘performed by’:[Actor](#_195976dea0d8187e1656ac43c072c070)

## Class Package

A group of information objects.

### Direct Supertypes

[Structured Information Object](#_d75620f0815b869941747c5832b4a172)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Information

**extends** [Structured Information Object](#_d75620f0815b869941747c5832b4a172)

### Inherited Features

***From*** [Structured Information Object](#_d75620f0815b869941747c5832b4a172):

‘contains object’:[Information Object](#_8aeba8eff36a737872d124faf2a260e2)

***From*** [Information Object](#_8aeba8eff36a737872d124faf2a260e2):

‘in object’:[Structured Information Object](#_d75620f0815b869941747c5832b4a172)

‘in collection’:[Collection](#_91d63813fb5dca6e097b0069a2b05f23)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Query

An activity that returns a subset of a collection.

### Direct Supertypes

[Information Action](#_ac3f6698c44ff4ba2097a6741738a3e1)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Information

**extends** [Information Action](#_ac3f6698c44ff4ba2097a6741738a3e1)

### Inherited Features

***From*** [Activity](#_bf62ccd25fcc4695eba838a426996db5):

‘performed by’:[Actor](#_195976dea0d8187e1656ac43c072c070)

***From*** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f):

‘uses’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘creates’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘step in’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘step’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘when’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Class Software

The programs and other operating information used by a computer.

### Direct Supertypes

[Information Object](#_8aeba8eff36a737872d124faf2a260e2)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Information

**extends** [Information Object](#_8aeba8eff36a737872d124faf2a260e2)

### Inherited Features

***From*** [Information Object](#_8aeba8eff36a737872d124faf2a260e2):

‘in object’:[Structured Information Object](#_d75620f0815b869941747c5832b4a172)

‘in collection’:[Collection](#_91d63813fb5dca6e097b0069a2b05f23)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Source

Metadata defining the source of all statements about anything.

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Information

### Associations

1401719257.jpg states:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

Statements made by an information source. States is metadata, a statement about the assertion, not about the concept it represents.

## Class Structured Information Object

An information bject that has sub-elements. E.g. a "record".

### Direct Supertypes

[Information Object](#_8aeba8eff36a737872d124faf2a260e2)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Information

**extends** [Information Object](#_8aeba8eff36a737872d124faf2a260e2)

### Associations

665322990.jpg contains object:[Information Object](#_8aeba8eff36a737872d124faf2a260e2) *Redefines*: has part:[Entity](#_13f9005c9106d00d7131680982c2727a)

AN information object contained in another.

### Inherited Features

***From*** [Information Object](#_8aeba8eff36a737872d124faf2a260e2):

‘in object’:[Structured Information Object](#_d75620f0815b869941747c5832b4a172)

‘in collection’:[Collection](#_91d63813fb5dca6e097b0069a2b05f23)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

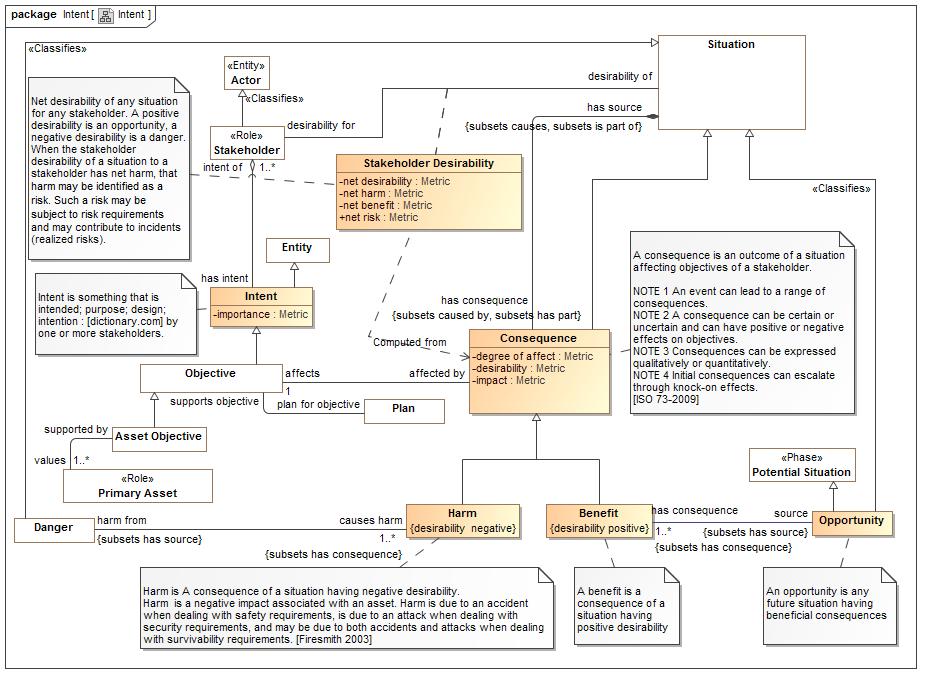
‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

# Conceptual Modeling and Mapping Library::Generic Concepts::Intent

*Intent* captures how the *objectives* of *stakeholders* relate to the real-world *consequences* of *situations* that have or may happen. A *consequence* results in a *benefit* or *harm* to these *objectives* - generally related to a specific entity of value to the stakeholder.

As any situation may have multiple consequences, both benefits and harms, the net desirability of any situation to a stakeholder is calculated in the *Stakeholder Desirability Relation* by combining all of the related consequences.

## Diagram: Intent



1. Intent

## Class Asset Objective

An objective to protect, sustain or acquire an asset.

### Direct Supertypes

[Objective](#_1a3b26382bc038a9cd845e258d24db0f)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Intent

**extends** [Objective](#_1a3b26382bc038a9cd845e258d24db0f)

### Associations

783600193.jpg values:[Primary Asset](#_47ee5282957e27e87ceca3ae35620f9a) [1..\*]

An asset for which there is an objective to create, sustain or prootect the asset.

### Inherited Features

***From*** [Objective](#_1a3b26382bc038a9cd845e258d24db0f):

‘affected by’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘plan for objective’:[Plan](#_e388f590d0bd984e68d22f9ed9adbbba)

***From*** [Intent](#_5d818d24bb3ea2953ed8691f26985a13):

‘intent of’:[Stakeholder](#_e6b0cbf74d66e662c0e3b43efa323757)

‘importance’:[Metric](#_23c4326044009f885190c5ab985800db)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Benefit

A benefit is a consequence of a situation having positive desirability

### Direct Supertypes

[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Intent

**extends** [Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

### Associations

-1225964652.jpg source:[Opportunity](#_1fcabc68dedca11e5e036fdb39d45487) *Subsets*: has source:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

The situation that may result in an opportunity.

### Inherited Features

***From*** [Consequence](#_9bf67544840a1cd6396f28cc292e3ca0):

‘degree of affect’:[Metric](#_23c4326044009f885190c5ab985800db)

‘desirability’:[Metric](#_23c4326044009f885190c5ab985800db)

‘impact’:[Metric](#_23c4326044009f885190c5ab985800db)

‘affects’:[Objective](#_1a3b26382bc038a9cd845e258d24db0f)

‘has source’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘impacts’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

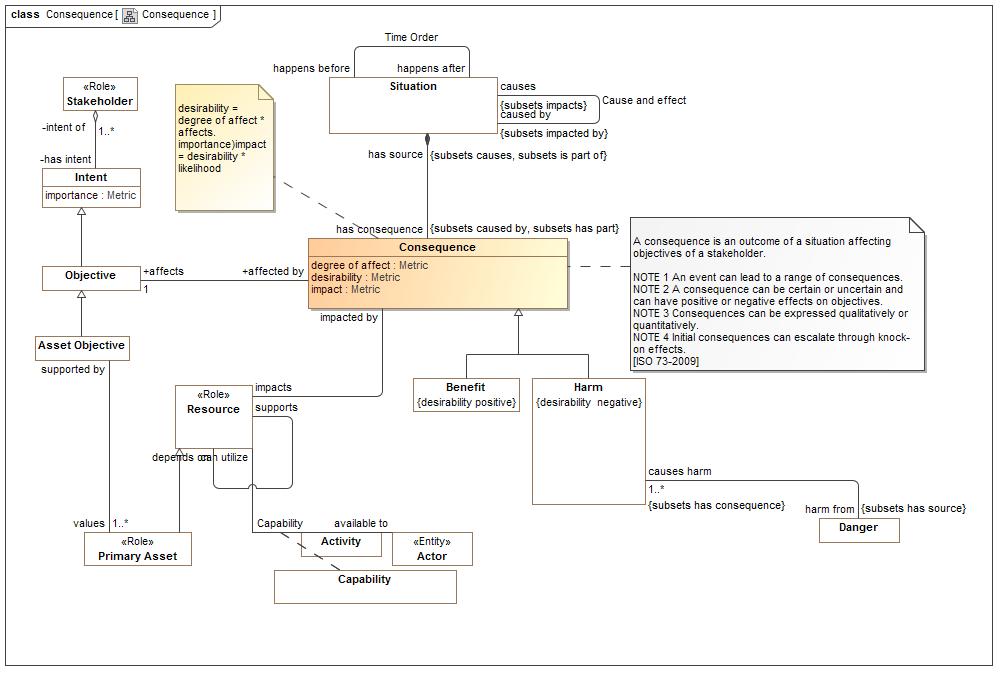
‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Class Consequence

A consequence is an outcome of a situation affecting objectives of a stakeholder.NOTE 1 An event can lead to a range of consequences.NOTE 2 A consequence can be certain or uncertain and can have positive or negative effects on objectives.NOTE 3 Consequences can be expressed qualitatively or quantitatively.NOTE 4 Initial consequences can escalate through knock-on effects.[ISO 73-2009]



1. Consequence

### Direct Supertypes

[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Intent

**extends** [Situation](#_63104765cd42c5f76cf72fdc4ed90397)

### Attributes

-1634190026.jpg degree of affect : [Metric](#_23c4326044009f885190c5ab985800db)

A metric for how much the consequence affects the objective - how much harm or benefit.

1008303598.jpg desirability : [Metric](#_23c4326044009f885190c5ab985800db)

The desirability of the consequence as importance times degree of affect. May be positive or negative.

-1256606991.jpg impact : [Metric](#_23c4326044009f885190c5ab985800db)

Impact = desirability \* likelihood

### Associations

1386725838.jpg affects:[Objective](#_1a3b26382bc038a9cd845e258d24db0f) [1]

to act on; produce an effect or change in:

-1829751593.jpg has source:[Situation](#_63104765cd42c5f76cf72fdc4ed90397) *Subsets*: is part of:[Entity](#_13f9005c9106d00d7131680982c2727a) causes:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

Cause of a consequence.

2059040988.jpg impacts:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

Resource a consequence may affect.

### Inherited Features

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Class Harm

Harm is A consequence of a situation having negative desirability. Harm is a negative impact associated with an asset. Harm is due to an accident when dealing with safety requirements, is due to an attack when dealing with security requirements, and may be due to both accidents and attacks when dealing with survivability requirements. [Firesmith 2003]

### Direct Supertypes

[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Intent

**extends** [Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

### Associations

1682811304.jpg harm from:[Danger](#_4bdee0568b2f36e553f586b458dace32) *Subsets*: has source:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

Danger which is the source of harm.

### Inherited Features

***From*** [Consequence](#_9bf67544840a1cd6396f28cc292e3ca0):

‘degree of affect’:[Metric](#_23c4326044009f885190c5ab985800db)

‘desirability’:[Metric](#_23c4326044009f885190c5ab985800db)

‘impact’:[Metric](#_23c4326044009f885190c5ab985800db)

‘affects’:[Objective](#_1a3b26382bc038a9cd845e258d24db0f)

‘has source’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘impacts’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Class Intent

Intent is something that is intended; purpose; design; intention : [dictionary.com] by one or more stakeholders.

### Direct Supertypes

[Entity](#_13f9005c9106d00d7131680982c2727a)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Intent

**extends** [Entity](#_13f9005c9106d00d7131680982c2727a)

### Attributes

1572025937.jpg importance : [Metric](#_23c4326044009f885190c5ab985800db)

Importance of an intent to a stakeholder.

### Associations

-707726383.jpg intent of:[Stakeholder](#_e6b0cbf74d66e662c0e3b43efa323757) [1..\*]

The stakeholder having an intent.

### Inherited Features

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

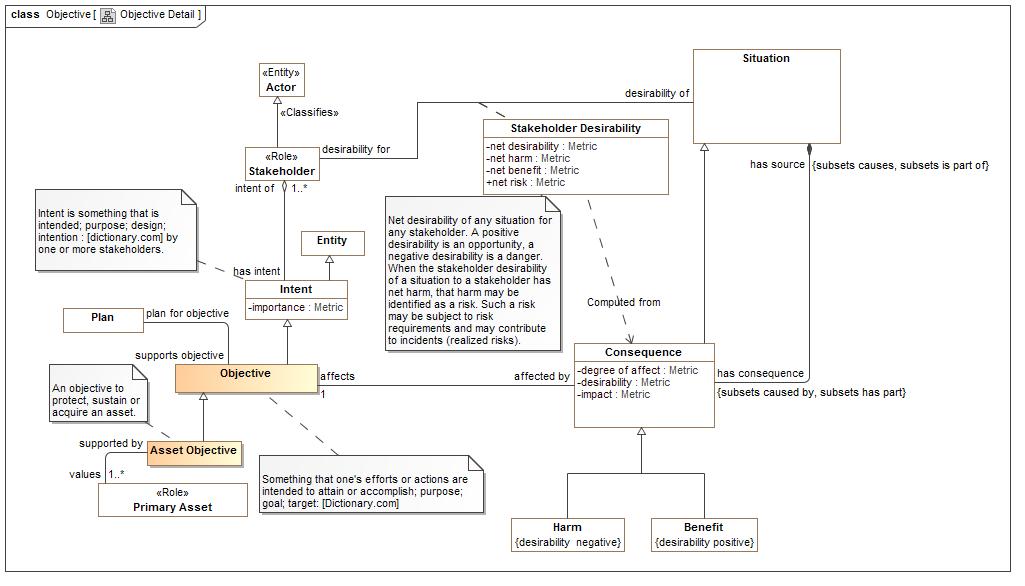
‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Objective

Something that one's efforts or actions are intended to attain or accomplish; purpose; goal; target: [Dictionary.com]



1. Objective Detail

### Direct Supertypes

[Intent](#_5d818d24bb3ea2953ed8691f26985a13)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Intent

**extends** [Intent](#_5d818d24bb3ea2953ed8691f26985a13)

### Associations

1386725838.jpg affected by:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

to act on; produce an effect or change in:

508196693.jpg plan for objective:[Plan](#_e388f590d0bd984e68d22f9ed9adbbba)

A plan to obtain an objective.

### Inherited Features

***From*** [Intent](#_5d818d24bb3ea2953ed8691f26985a13):

‘intent of’:[Stakeholder](#_e6b0cbf74d66e662c0e3b43efa323757)

‘importance’:[Metric](#_23c4326044009f885190c5ab985800db)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

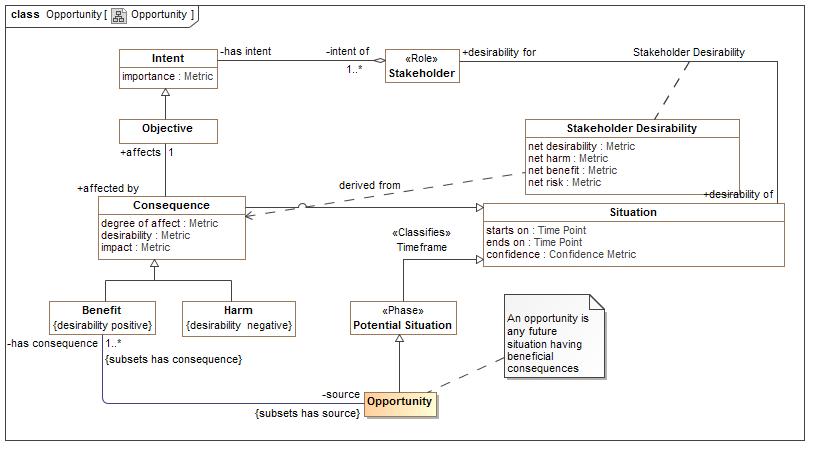
‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Opportunity

An opportunity is any future situation having beneficial consequences



1. Opportunity

### Direct Supertypes

[Potential Situation](#_b5881b0e5e4eeb119cdf881b4c32b91f), [Situation](#_63104765cd42c5f76cf72fdc4ed90397)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Intent

**extends** [Situation](#_63104765cd42c5f76cf72fdc4ed90397), [Potential Situation](#_b5881b0e5e4eeb119cdf881b4c32b91f)

### Associations

-1225964652.jpg has consequence:[Benefit](#_fd8627889bb18484d816f4230a0ac0fe) [1..\*] *Subsets*: has consequence:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

A consequence of a situation that impacts the objectives of a stakeholder.

### Inherited Features

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Potential Situation](#_b5881b0e5e4eeb119cdf881b4c32b91f):

‘likelihood’:[Probability Metric](#_c4bee9dc62c41effa96910b60385b774)

‘indicated by’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘predicted by’:[Prediction](#_af120e4b8e21c3cb078f624ef4016abe)

***From*** [Template](#_6db5f6447173086a1a7d18af4f144b69):

‘categorizes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Category](#_1e46c059e4f9b5846cdb98d6adff437a):

‘categorizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Class Stakeholder

A person or organization having vested interest in something.

### Direct Supertypes

[Actor](#_195976dea0d8187e1656ac43c072c070)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Intent

**extends** [Actor](#_195976dea0d8187e1656ac43c072c070)

### Associations

-707726383.jpg has intent:[Intent](#_5d818d24bb3ea2953ed8691f26985a13)

Intent of a stakeholder.

2031394894.jpg responsible for:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

Resource that a stakeholder manages.

-1067369733.jpg ownes risk:[Risk](#_04a1907e89ec9aacd39369717010d596)

The stakeholder that manages a risk.

-612095893.jpg assumes risk from:[Transfer Risk](#_dcfb009f3ea89ca1b2bc5f2909bc3829)

### Inherited Features

***From*** [Actor](#_195976dea0d8187e1656ac43c072c070):

‘performs’:[Activity](#_bf62ccd25fcc4695eba838a426996db5)

‘operates at’:[Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad)

‘contact via’:[Contact Information](#_659fd398b9354d627eab9d3a069a3988)

‘enabled by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

‘has observation’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Association Class Stakeholder Desirability

Net desirability of any situation for any stakeholder. A positive desirability is an opportunity, a negative desirability is a danger.When the stakeholder desirability of a situation to a stakeholder has net harm, that harm may be identified as a risk. Such a risk may be subject to risk requirements and may contribute to incidents (realized risks).

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Intent

#### Association Ends

-1601126344.jpg desirability of : [Situation](#_63104765cd42c5f76cf72fdc4ed90397)

What is desired.

-1601126344.jpg desirability for : [Stakeholder](#_e6b0cbf74d66e662c0e3b43efa323757)

The stakeholder with a desire.

### Attributes

1042747320.jpg net desirability : [Metric](#_23c4326044009f885190c5ab985800db)

The aggregation of the impact of all consequences of a situation for a stakeholder. (net benefit - net risk)

1291634017.jpg net harm : [Metric](#_23c4326044009f885190c5ab985800db)

The aggregation of the impact of all detriments (negative consequences) of a situation for a stakeholder.

1030406532.jpg net benefit : [Metric](#_23c4326044009f885190c5ab985800db)

The aggregation of the impact of all Benefits (positive consequences) of a situation for a stakeholder.

-338199488.jpg net risk : [Metric](#_23c4326044009f885190c5ab985800db)

### Associations

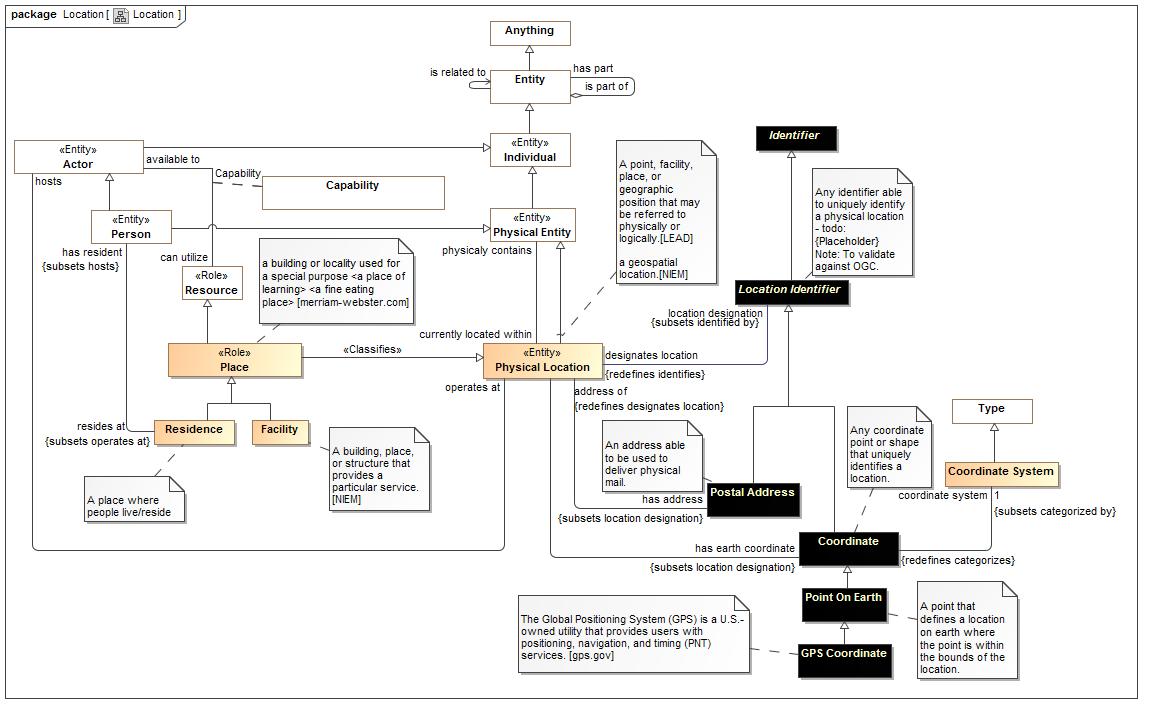
389476031.jpg risk of consequences:[Risk](#_04a1907e89ec9aacd39369717010d596)

Risk that are related to the desirability of a situation to a stakeholder.

# Conceptual Modeling and Mapping Library::Generic Concepts::Location

Concepts about locations and places.

## Diagram: Location



1. Location

## Class Coordinate

Any coordinate point or shape that uniquely identifies a location.

### Direct Supertypes

[Location Identifier](#_e205268a66c2900e6473742e27189871)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Location

**extends** [Location Identifier](#_e205268a66c2900e6473742e27189871)

### Associations

-1320996423.jpg :[Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad)

-1635907773.jpg coordinate system:[Coordinate System](#_b6eadbcd3852f561feab0218c7c54f12) [1] *Subsets*: categorized by:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

The coordinate system used for a coordinate.

### Inherited Features

***From*** [Location Identifier](#_e205268a66c2900e6473742e27189871):

‘designates location’:[Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad)

***From*** [Identifier](#_a9304dce0833e68d6c1871feed7ba4c8):

‘identifies’:[Entity](#_13f9005c9106d00d7131680982c2727a)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Coordinate System

A reference system for a coordinate. E.g. WGS-84

### Direct Supertypes

[Type](#_61a8a5071631445cf89e87ddacf2ecc2)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Location

**extends** [Type](#_61a8a5071631445cf89e87ddacf2ecc2)

### Associations

-1635907773.jpg :[Coordinate](#_a582aea7169af4ccb928d92b8f749522) *Redefines*: categorizes:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

### Inherited Features

***From*** [Category](#_1e46c059e4f9b5846cdb98d6adff437a):

‘categorizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Class Facility

A building, place, or structure that provides a particular service. [NIEM]

### Direct Supertypes

[Place](#_fde5e413a501c493daf61032d6f61acc)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Location

**extends** [Place](#_fde5e413a501c493daf61032d6f61acc)

### Inherited Features

***From*** [Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad):

‘physicaly contains’:[Physical Entity](#_9e590df8c30230cf3596fa46219d8207)

‘hosts’:[Actor](#_195976dea0d8187e1656ac43c072c070)

‘location designation’:[Location Identifier](#_e205268a66c2900e6473742e27189871)

‘has address’:[Postal Address](#_c96b56fc7878bb63696c9f1c9abc2578)

‘has earth coordinate’:[Coordinate](#_a582aea7169af4ccb928d92b8f749522)

***From*** [Physical Entity](#_9e590df8c30230cf3596fa46219d8207):

‘currently located within’:[Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Resource](#_d442d75c9ac335e7a2aadbc96919fc2d):

‘has weakness’:[Weakness](#_503237c91822aea6eb1e81f160d33ce1)

‘responsibility of’:[Stakeholder](#_e6b0cbf74d66e662c0e3b43efa323757)

‘supports’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

‘impacted by’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘required by’:[Process](#_83d65b9404a78ed941a332943863e039)

‘has vunerability’:[Vulnerability](#_d936caf19626476c163d1b8384647aa0)

‘depends on’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

‘subject to’:[Authority](#_4a5f789e0663312e51a7733bd354bc59)

‘harmed by’:[Danger](#_4bdee0568b2f36e553f586b458dace32)

## Class GPS Coordinate

The Global Positioning System (GPS) is a U.S.-owned utility that provides users with positioning, navigation, and timing (PNT) services. [gps.gov]

### Direct Supertypes

[Point On Earth](#_1a58d558b592e67971f2f58814e04f74)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Location

**extends** [Point On Earth](#_1a58d558b592e67971f2f58814e04f74)

### Inherited Features

***From*** [Coordinate](#_a582aea7169af4ccb928d92b8f749522):

‘coordinate system’:[Coordinate System](#_b6eadbcd3852f561feab0218c7c54f12)

***From*** [Location Identifier](#_e205268a66c2900e6473742e27189871):

‘designates location’:[Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad)

***From*** [Identifier](#_a9304dce0833e68d6c1871feed7ba4c8):

‘identifies’:[Entity](#_13f9005c9106d00d7131680982c2727a)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Location Identifier

Any identifier able to uniquely identify a physical location - todo: {Placeholder} Note: To validate against OGC.

### Direct Supertypes

[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Location

**extends** [Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

### Associations

-328167001.jpg designates location:[Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad) *Redefines*: identifies:[Entity](#_13f9005c9106d00d7131680982c2727a)

The location identified

### Inherited Features

***From*** [Identifier](#_a9304dce0833e68d6c1871feed7ba4c8):

‘identifies’:[Entity](#_13f9005c9106d00d7131680982c2727a)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Physical Location

A point, facility, place, or geographic position that may be referred to physically or logically.[LEAD]a geospatial location.[NIEM]

### Direct Supertypes

[Physical Entity](#_9e590df8c30230cf3596fa46219d8207)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Location

**extends** [Physical Entity](#_9e590df8c30230cf3596fa46219d8207)

### Associations

1834571903.jpg physicaly contains:[Physical Entity](#_9e590df8c30230cf3596fa46219d8207)

What something is inside of

1382130166.jpg hosts:[Actor](#_195976dea0d8187e1656ac43c072c070)

Actors who perform acts at a location

-328167001.jpg location designation:[Location Identifier](#_e205268a66c2900e6473742e27189871) *Subsets*: identified by:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

A way to identify a physical location.

-130330051.jpg has address:[Postal Address](#_c96b56fc7878bb63696c9f1c9abc2578) *Subsets*: location designation:[Location Identifier](#_e205268a66c2900e6473742e27189871)

A postal address of a physical location.

-1320996423.jpg has earth coordinate:[Coordinate](#_a582aea7169af4ccb928d92b8f749522) *Subsets*: location designation:[Location Identifier](#_e205268a66c2900e6473742e27189871)

A coordinate that identifies a a location.

### Inherited Features

***From*** [Physical Entity](#_9e590df8c30230cf3596fa46219d8207):

‘currently located within’:[Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Place

a building or locality used for a special purpose <a place of learning> <a fine eating place> [merriam-webster.com]

### Direct Supertypes

[Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad), [Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Location

**extends** [Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad), [Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

### Inherited Features

***From*** [Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad):

‘physicaly contains’:[Physical Entity](#_9e590df8c30230cf3596fa46219d8207)

‘hosts’:[Actor](#_195976dea0d8187e1656ac43c072c070)

‘location designation’:[Location Identifier](#_e205268a66c2900e6473742e27189871)

‘has address’:[Postal Address](#_c96b56fc7878bb63696c9f1c9abc2578)

‘has earth coordinate’:[Coordinate](#_a582aea7169af4ccb928d92b8f749522)

***From*** [Physical Entity](#_9e590df8c30230cf3596fa46219d8207):

‘currently located within’:[Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Resource](#_d442d75c9ac335e7a2aadbc96919fc2d):

‘has weakness’:[Weakness](#_503237c91822aea6eb1e81f160d33ce1)

‘responsibility of’:[Stakeholder](#_e6b0cbf74d66e662c0e3b43efa323757)

‘supports’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

‘impacted by’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘required by’:[Process](#_83d65b9404a78ed941a332943863e039)

‘has vunerability’:[Vulnerability](#_d936caf19626476c163d1b8384647aa0)

‘depends on’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

‘subject to’:[Authority](#_4a5f789e0663312e51a7733bd354bc59)

‘harmed by’:[Danger](#_4bdee0568b2f36e553f586b458dace32)

## Class Point On Earth

A point that defines a location on earth where the point is within the bounds of the location.

### Direct Supertypes

[Coordinate](#_a582aea7169af4ccb928d92b8f749522)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Location

**extends** [Coordinate](#_a582aea7169af4ccb928d92b8f749522)

### Inherited Features

***From*** [Coordinate](#_a582aea7169af4ccb928d92b8f749522):

‘coordinate system’:[Coordinate System](#_b6eadbcd3852f561feab0218c7c54f12)

***From*** [Location Identifier](#_e205268a66c2900e6473742e27189871):

‘designates location’:[Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad)

***From*** [Identifier](#_a9304dce0833e68d6c1871feed7ba4c8):

‘identifies’:[Entity](#_13f9005c9106d00d7131680982c2727a)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Postal Address

An address able to be used to deliver physical mail.

### Direct Supertypes

[Location Identifier](#_e205268a66c2900e6473742e27189871)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Location

**extends** [Location Identifier](#_e205268a66c2900e6473742e27189871)

### Associations

-130330051.jpg address of:[Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad) *Redefines*: designates location:[Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad)

Location identified by an address.

### Inherited Features

***From*** [Location Identifier](#_e205268a66c2900e6473742e27189871):

‘designates location’:[Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad)

***From*** [Identifier](#_a9304dce0833e68d6c1871feed7ba4c8):

‘identifies’:[Entity](#_13f9005c9106d00d7131680982c2727a)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Residence

A place where people live/reside

### Direct Supertypes

[Place](#_fde5e413a501c493daf61032d6f61acc)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Location

**extends** [Place](#_fde5e413a501c493daf61032d6f61acc)

### Associations

-1981030601.jpg has resident:[Person](#_157ac1adcbaae23e042fcf3180241290) *Subsets*: hosts:[Actor](#_195976dea0d8187e1656ac43c072c070)

People living at a residence.

### Inherited Features

***From*** [Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad):

‘physicaly contains’:[Physical Entity](#_9e590df8c30230cf3596fa46219d8207)

‘hosts’:[Actor](#_195976dea0d8187e1656ac43c072c070)

‘location designation’:[Location Identifier](#_e205268a66c2900e6473742e27189871)

‘has address’:[Postal Address](#_c96b56fc7878bb63696c9f1c9abc2578)

‘has earth coordinate’:[Coordinate](#_a582aea7169af4ccb928d92b8f749522)

***From*** [Physical Entity](#_9e590df8c30230cf3596fa46219d8207):

‘currently located within’:[Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Resource](#_d442d75c9ac335e7a2aadbc96919fc2d):

‘has weakness’:[Weakness](#_503237c91822aea6eb1e81f160d33ce1)

‘responsibility of’:[Stakeholder](#_e6b0cbf74d66e662c0e3b43efa323757)

‘supports’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

‘impacted by’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘required by’:[Process](#_83d65b9404a78ed941a332943863e039)

‘has vunerability’:[Vulnerability](#_d936caf19626476c163d1b8384647aa0)

‘depends on’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

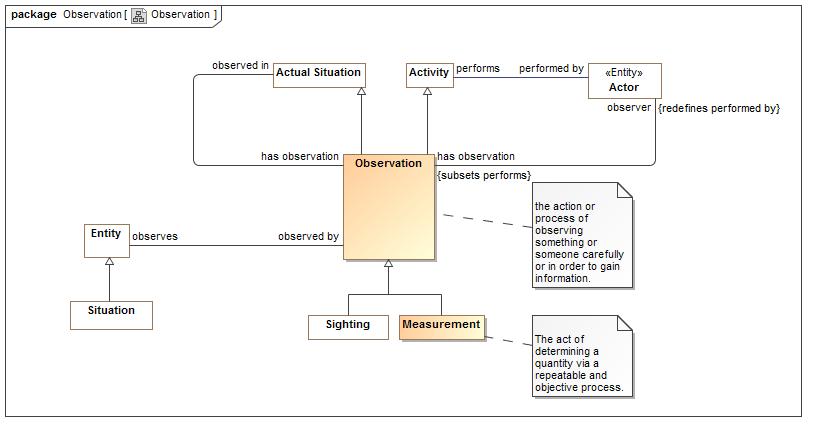
‘subject to’:[Authority](#_4a5f789e0663312e51a7733bd354bc59)

‘harmed by’:[Danger](#_4bdee0568b2f36e553f586b458dace32)

# Conceptual Modeling and Mapping Library::Generic Concepts::Observation

Observations are acts where an observer notes some entity (including situations and individuals) that are observed in a situation.

## Diagram: Observation



1. Observation

## Class Measurement

The act of determining a quantity via a repeatable and objective process.

### Direct Supertypes

[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Observation

**extends** [Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

### Inherited Features

***From*** [Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2):

‘observes’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘observer’:[Actor](#_195976dea0d8187e1656ac43c072c070)

‘observed in’:[Actual Situation](#_08a2eb20d8bf045e6dbd9fe9c6a5931a)

***From*** [Activity](#_bf62ccd25fcc4695eba838a426996db5):

‘performed by’:[Actor](#_195976dea0d8187e1656ac43c072c070)

***From*** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f):

‘uses’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘creates’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘step in’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘step’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘when’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Actual Situation](#_08a2eb20d8bf045e6dbd9fe9c6a5931a):

‘has sighting’:[Sighting](#_e771cce4eb7bb47efae93a7539a40e8e)

‘has observation’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

## Class Observation

the action or process of observing something or someone carefully or in order to gain information.

### Direct Supertypes

[Activity](#_bf62ccd25fcc4695eba838a426996db5), [Actual Situation](#_08a2eb20d8bf045e6dbd9fe9c6a5931a)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Observation

**extends** [Activity](#_bf62ccd25fcc4695eba838a426996db5), [Actual Situation](#_08a2eb20d8bf045e6dbd9fe9c6a5931a)

### Associations

-1813298664.jpg observes:[Entity](#_13f9005c9106d00d7131680982c2727a)

The observed entity (individual or situation)

-1321993893.jpg observer:[Actor](#_195976dea0d8187e1656ac43c072c070) *Redefines*: performed by:[Actor](#_195976dea0d8187e1656ac43c072c070)

The observer

-107506044.jpg observed in:[Actual Situation](#_08a2eb20d8bf045e6dbd9fe9c6a5931a)

The context in which the observation occurred.

### Inherited Features

***From*** [Activity](#_bf62ccd25fcc4695eba838a426996db5):

‘performed by’:[Actor](#_195976dea0d8187e1656ac43c072c070)

***From*** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f):

‘uses’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘creates’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘step in’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘step’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘when’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Actual Situation](#_08a2eb20d8bf045e6dbd9fe9c6a5931a):

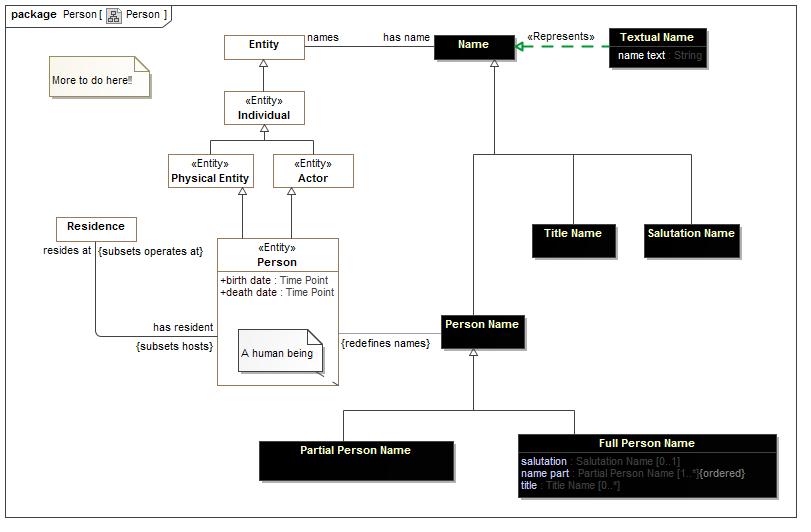
‘has sighting’:[Sighting](#_e771cce4eb7bb47efae93a7539a40e8e)

‘has observation’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

# Conceptual Modeling and Mapping Library::Generic Concepts::Person

The person module defines foundation concepts of people such as their location and name. More specific person attributes may augment this specification.

## Diagram: Person



1. Person

## Class Full Person Name

A full name of a person, even if it is represented in a single string.

### Direct Supertypes

[Person Name](#_6014d9134f4ec260652550f570dd0cd8)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Person

**extends** [Person Name](#_6014d9134f4ec260652550f570dd0cd8)

### Attributes

-596523826.jpg salutation : [Salutation Name](#_e88ff33128e714dd9b5d6164077fbf8d) [0..1]

The prefix of a full name. E.g. Mr.

382916720.jpg name part : [Partial Person Name](#_dd7db8343f872912184e31022c30375d) [1..\*]

Parts of a name, e.g. surname, given name.

-612425392.jpg title : [Title Name](#_748fc700a013f48fc4d85da4700f1a8e) [0..\*]

Titles, such as Dr.

### Inherited Features

***From*** [Name](#_afe5a48976a2df078be9473827611fb8):

‘names’:[Entity](#_13f9005c9106d00d7131680982c2727a)

***From*** [Identifier](#_a9304dce0833e68d6c1871feed7ba4c8):

‘identifies’:[Entity](#_13f9005c9106d00d7131680982c2727a)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Partial Person Name

A single word or phrase used to identify a person, perhaps as part of a full name.

### Direct Supertypes

[Person Name](#_6014d9134f4ec260652550f570dd0cd8)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Person

**extends** [Person Name](#_6014d9134f4ec260652550f570dd0cd8)

### Inherited Features

***From*** [Name](#_afe5a48976a2df078be9473827611fb8):

‘names’:[Entity](#_13f9005c9106d00d7131680982c2727a)

***From*** [Identifier](#_a9304dce0833e68d6c1871feed7ba4c8):

‘identifies’:[Entity](#_13f9005c9106d00d7131680982c2727a)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Person

A human being

### Direct Supertypes

[Actor](#_195976dea0d8187e1656ac43c072c070), [Physical Entity](#_9e590df8c30230cf3596fa46219d8207)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Person

**extends** [Physical Entity](#_9e590df8c30230cf3596fa46219d8207), [Actor](#_195976dea0d8187e1656ac43c072c070)

### Attributes

442708437.jpg birth date : [Time Point](#_404887ca511c022e037ede12e1a8f37a)

1520767396.jpg death date : [Time Point](#_404887ca511c022e037ede12e1a8f37a)

Date the person died, if they did that is.

### Associations

-1981030601.jpg resides at:[Residence](#_ef4bd8f16b6883be4fe1bd4cc1ffa792) *Subsets*: operates at:[Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad)

A residence of a person.

1304730935.jpg :[Person Name](#_6014d9134f4ec260652550f570dd0cd8)

### Inherited Features

***From*** [Physical Entity](#_9e590df8c30230cf3596fa46219d8207):

‘currently located within’:[Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Actor](#_195976dea0d8187e1656ac43c072c070):

‘performs’:[Activity](#_bf62ccd25fcc4695eba838a426996db5)

‘operates at’:[Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad)

‘contact via’:[Contact Information](#_659fd398b9354d627eab9d3a069a3988)

‘enabled by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

‘has observation’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

## Class Person Name

Any name identifying a person.

### Direct Supertypes

[Name](#_afe5a48976a2df078be9473827611fb8)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Person

**extends** [Name](#_afe5a48976a2df078be9473827611fb8)

### Associations

1304730935.jpg :[Person](#_157ac1adcbaae23e042fcf3180241290) *Redefines*: names:[Entity](#_13f9005c9106d00d7131680982c2727a)

### Inherited Features

***From*** [Name](#_afe5a48976a2df078be9473827611fb8):

‘names’:[Entity](#_13f9005c9106d00d7131680982c2727a)

***From*** [Identifier](#_a9304dce0833e68d6c1871feed7ba4c8):

‘identifies’:[Entity](#_13f9005c9106d00d7131680982c2727a)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Salutation Name

The name of a salutation for a person, Such as. Mr., Mrs.

### Direct Supertypes

[Name](#_afe5a48976a2df078be9473827611fb8)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Person

**extends** [Name](#_afe5a48976a2df078be9473827611fb8)

### Inherited Features

***From*** [Name](#_afe5a48976a2df078be9473827611fb8):

‘names’:[Entity](#_13f9005c9106d00d7131680982c2727a)

***From*** [Identifier](#_a9304dce0833e68d6c1871feed7ba4c8):

‘identifies’:[Entity](#_13f9005c9106d00d7131680982c2727a)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Title Name

The name of a title, such as Dr.

### Direct Supertypes

[Name](#_afe5a48976a2df078be9473827611fb8)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Person

**extends** [Name](#_afe5a48976a2df078be9473827611fb8)

### Inherited Features

***From*** [Name](#_afe5a48976a2df078be9473827611fb8):

‘names’:[Entity](#_13f9005c9106d00d7131680982c2727a)

***From*** [Identifier](#_a9304dce0833e68d6c1871feed7ba4c8):

‘identifies’:[Entity](#_13f9005c9106d00d7131680982c2727a)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

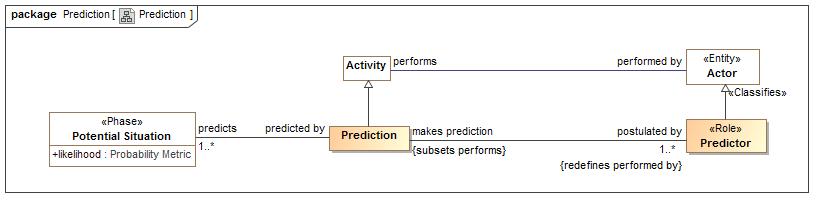
‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

# Conceptual Modeling and Mapping Library::Generic Concepts::Prediction

Prediction are acts where an actor predicts that some possible situation will occur.

## Diagram: Prediction



1. Prediction

## Class Prediction

A prediction that potential situations will happen.

### Direct Supertypes

[Activity](#_bf62ccd25fcc4695eba838a426996db5)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Prediction

**extends** [Activity](#_bf62ccd25fcc4695eba838a426996db5)

### Associations

172922388.jpg predicts:[Potential Situation](#_b5881b0e5e4eeb119cdf881b4c32b91f) [1..\*]

The predicted situation

-1305160642.jpg postulated by:[Predictor](#_03524387b43862d026cafc7a44b771e9) [1..\*] *Redefines*: performed by:[Actor](#_195976dea0d8187e1656ac43c072c070)

Predictor making a prediction

### Inherited Features

***From*** [Activity](#_bf62ccd25fcc4695eba838a426996db5):

‘performed by’:[Actor](#_195976dea0d8187e1656ac43c072c070)

***From*** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f):

‘uses’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘creates’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘step in’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘step’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘when’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Class Predictor

THe role of making predictions

### Direct Supertypes

[Actor](#_195976dea0d8187e1656ac43c072c070)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Prediction

**extends** [Actor](#_195976dea0d8187e1656ac43c072c070)

### Associations

-1305160642.jpg makes prediction:[Prediction](#_af120e4b8e21c3cb078f624ef4016abe) *Subsets*: performs:[Activity](#_bf62ccd25fcc4695eba838a426996db5)

A prediction made by a predictor

### Inherited Features

***From*** [Actor](#_195976dea0d8187e1656ac43c072c070):

‘performs’:[Activity](#_bf62ccd25fcc4695eba838a426996db5)

‘operates at’:[Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad)

‘contact via’:[Contact Information](#_659fd398b9354d627eab9d3a069a3988)

‘enabled by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

‘has observation’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

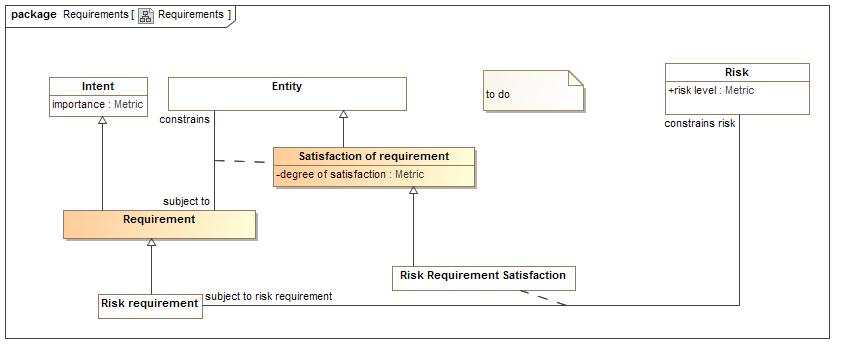
‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

# Conceptual Modeling and Mapping Library::Generic Concepts::Requirements

Concepts about requirements.

## Diagram: Requirements



1. Requirements

## Class Requirement

a thing that is compulsory; a necessary condition.a statement that identifies a necessary attribute, capability, characteristic, or quality of a system for it to have value and utility to a customer, organization, internal user, or other stakeholder

### Direct Supertypes

[Intent](#_5d818d24bb3ea2953ed8691f26985a13)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Requirements

**extends** [Intent](#_5d818d24bb3ea2953ed8691f26985a13)

### Inherited Features

***From*** [Intent](#_5d818d24bb3ea2953ed8691f26985a13):

‘intent of’:[Stakeholder](#_e6b0cbf74d66e662c0e3b43efa323757)

‘importance’:[Metric](#_23c4326044009f885190c5ab985800db)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Association Class Satisfaction of requirement

A requirement something is subject to

### Direct Supertypes

[Entity](#_13f9005c9106d00d7131680982c2727a)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Requirements

**extends** [Entity](#_13f9005c9106d00d7131680982c2727a)

#### Association Ends

895338587.jpg constrains : [Entity](#_13f9005c9106d00d7131680982c2727a) *Subsets*: performs:[Activity](#_bf62ccd25fcc4695eba838a426996db5)

anything constrained by a requirement

895338587.jpg subject to : [Requirement](#_60ffdb442b83b0187668266dd268f2b9) *Subsets*: performs:[Activity](#_bf62ccd25fcc4695eba838a426996db5)

A requirement that is being satisfied.

### Attributes

-1044816214.jpg degree of satisfaction : [Metric](#_23c4326044009f885190c5ab985800db)

A metric for how much a reqwuirement is satisfied.

### Inherited Features

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

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‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

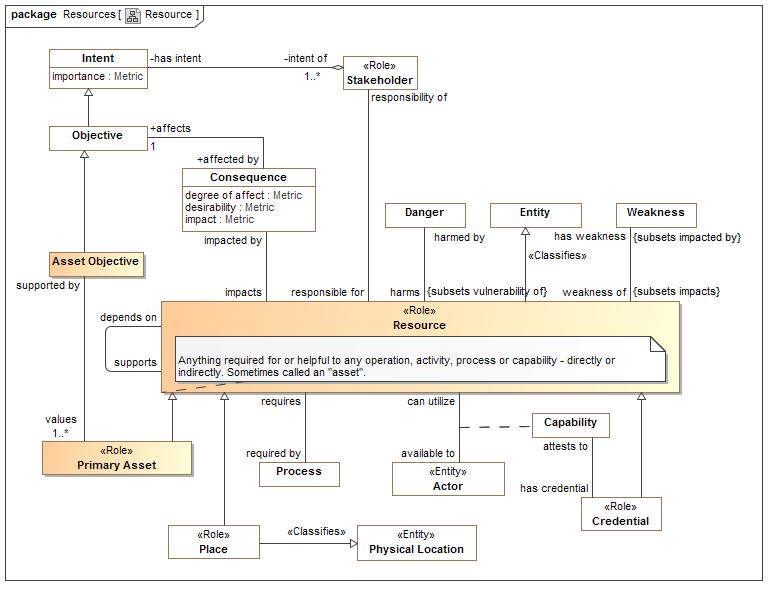
# Conceptual Modeling and Mapping Library::Generic Concepts::Resources

A resource is a role of any entity such that it can play a role in a process, impact the objectives of stakeholders and be the basis of a capability of an actor.

As a role Resource is intended to "mix in" with an entity type such as "Person" or "Process" such that the use of that entity may be understood.

Resources that are a Primary Asset are those that are the direct subject of a stakeholders objectives.

## Diagram: Resource



1. Resource

## Class Primary Asset

A system, organization, thing, or person that is the direct concern of a stakeholder

### Direct Supertypes

[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Resources

**extends** [Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

### Associations

783600193.jpg supported by:[Asset Objective](#_f729c2dc1296d8770b0ab49e2df01fe7)

An objective that supports the creation, sustainment or safety of a resource or asset.

-17417802.jpg has risk:[Risk](#_04a1907e89ec9aacd39369717010d596) *Subsets*: harmed by:[Danger](#_4bdee0568b2f36e553f586b458dace32)

Risks to a resource of interest.

### Inherited Features

***From*** [Resource](#_d442d75c9ac335e7a2aadbc96919fc2d):

‘has weakness’:[Weakness](#_503237c91822aea6eb1e81f160d33ce1)

‘responsibility of’:[Stakeholder](#_e6b0cbf74d66e662c0e3b43efa323757)

‘supports’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

‘impacted by’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘required by’:[Process](#_83d65b9404a78ed941a332943863e039)

‘has vunerability’:[Vulnerability](#_d936caf19626476c163d1b8384647aa0)

‘depends on’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

‘subject to’:[Authority](#_4a5f789e0663312e51a7733bd354bc59)

‘harmed by’:[Danger](#_4bdee0568b2f36e553f586b458dace32)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Resource

Anything required for or helpful to any operation, activity, process or capability - directly or indirectly. Sometimes called an "asset".

### Direct Supertypes

[Entity](#_13f9005c9106d00d7131680982c2727a)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Resources

**extends** [Entity](#_13f9005c9106d00d7131680982c2727a)

### Associations

-526131549.jpg has weakness:[Weakness](#_503237c91822aea6eb1e81f160d33ce1) *Subsets*: impacted by:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

Potential hazards or vulnerabilities of a resource

2031394894.jpg responsibility of:[Stakeholder](#_e6b0cbf74d66e662c0e3b43efa323757)

Stakeholder that manages a resource.

721131134.jpg supports:[Stakeholder](#_e6b0cbf74d66e662c0e3b43efa323757)

Other resources this resource supports in any way

2059040988.jpg impacted by:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

Situations that impact a resource.

-139049095.jpg required by:[Process](#_83d65b9404a78ed941a332943863e039) *Subsets*: used by:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

A process that is required by a resource.

-2047782013.jpg has vunerability:[Vulnerability](#_d936caf19626476c163d1b8384647aa0) *Subsets*: has weakness:[Weakness](#_503237c91822aea6eb1e81f160d33ce1)

Vulnerabilities of a resource, ways it may be compromised.

721131134.jpg depends on:[Vulnerability](#_d936caf19626476c163d1b8384647aa0) *Subsets*: has weakness:[Weakness](#_503237c91822aea6eb1e81f160d33ce1)

Any resource that is required to support another asset

467609802.jpg subject to:[Authority](#_4a5f789e0663312e51a7733bd354bc59) *Subsets*: impacted by:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

The authority that has some control over a resource.

-831922671.jpg harmed by:[Probability Metric](#_c4bee9dc62c41effa96910b60385b774)

Danger that damages anything.

### Inherited Features

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Tool

The role something used to facilitate a process or activity by an actor performing the process or activity. Tools are not actors, the actor corollary would be unwitting participant.

### Direct Supertypes

[Individual](#_fb65a7c7797a6f834f4eb97640a0234f), [Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Resources

**extends** [Individual](#_fb65a7c7797a6f834f4eb97640a0234f), [Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

### Inherited Features

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Resource](#_d442d75c9ac335e7a2aadbc96919fc2d):

‘has weakness’:[Weakness](#_503237c91822aea6eb1e81f160d33ce1)

‘responsibility of’:[Stakeholder](#_e6b0cbf74d66e662c0e3b43efa323757)

‘supports’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

‘impacted by’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘required by’:[Process](#_83d65b9404a78ed941a332943863e039)

‘has vunerability’:[Vulnerability](#_d936caf19626476c163d1b8384647aa0)

‘depends on’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

‘subject to’:[Authority](#_4a5f789e0663312e51a7733bd354bc59)

‘harmed by’:[Danger](#_4bdee0568b2f36e553f586b458dace32)

## Class Unwitting Participant

An actor facilitating an activity or process without their prior knowledge or consent.

### Direct Supertypes

[Actor](#_195976dea0d8187e1656ac43c072c070), [Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

**package** Conceptual Modeling and Mapping Library::Generic Concepts::Resources

**extends** [Actor](#_195976dea0d8187e1656ac43c072c070), [Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

### Inherited Features

***From*** [Actor](#_195976dea0d8187e1656ac43c072c070):

‘performs’:[Activity](#_bf62ccd25fcc4695eba838a426996db5)

‘operates at’:[Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad)

‘contact via’:[Contact Information](#_659fd398b9354d627eab9d3a069a3988)

‘enabled by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

‘has observation’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Resource](#_d442d75c9ac335e7a2aadbc96919fc2d):

‘has weakness’:[Weakness](#_503237c91822aea6eb1e81f160d33ce1)

‘responsibility of’:[Stakeholder](#_e6b0cbf74d66e662c0e3b43efa323757)

‘supports’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

‘impacted by’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘required by’:[Process](#_83d65b9404a78ed941a332943863e039)

‘has vunerability’:[Vulnerability](#_d936caf19626476c163d1b8384647aa0)

‘depends on’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

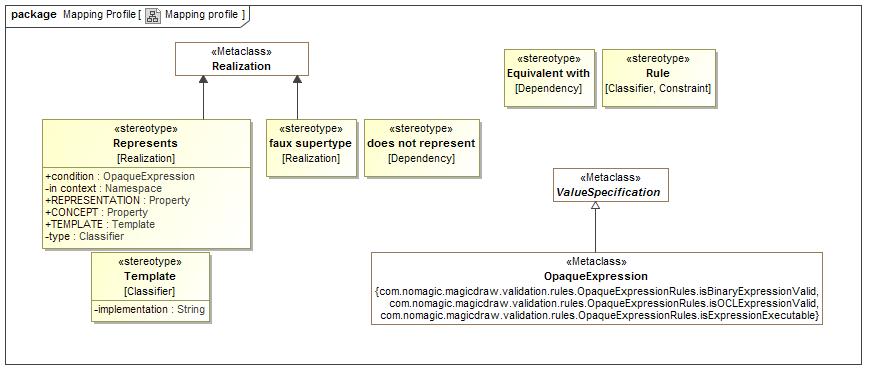
‘subject to’:[Authority](#_4a5f789e0663312e51a7733bd354bc59)

‘harmed by’:[Danger](#_4bdee0568b2f36e553f586b458dace32)

# Conceptual Modeling and Mapping Library::Mapping Profile

The mapping profile defines the way to model the mapping between data sources via a conceptual model. This profile is being submitted as part of the SIMF process.

## Diagram: Mapping profile



1. Mapping profile

# Conceptual Modeling and Mapping Library::Risk and Threat Concepts

The risk and threat modules use and specialize more generic concepts to build the risk and threat information sharing and analytics framework.

All risks and threats involve a danger that is a real or possible *situation* with *consequences* that do harm and impact the *objectives* of *stakeholders*. The same situation may, of course, not be considered a risk or threat to other stakeholders - some may consider such a situation an objective.

This foundational information is then expanded with metrics and interrelationships such that threats and risks can be fully understood and dealt with.

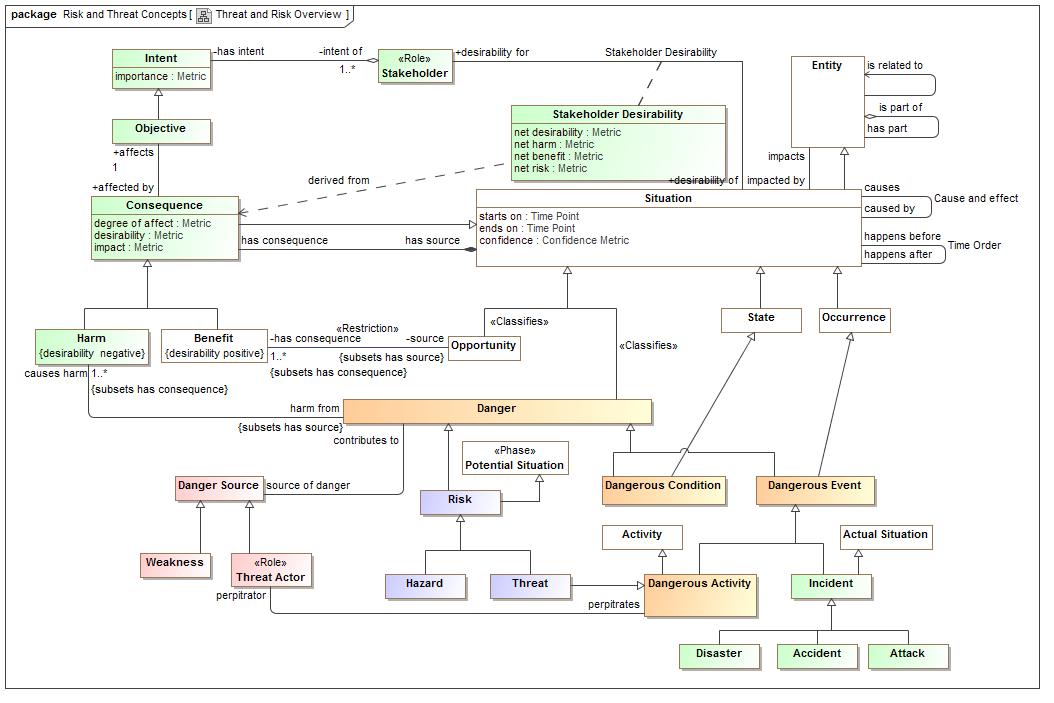
Fundamental risk/threat specific concepts include:

* Danger
* Risk
* Incident
* Indicator
* Vulnerability

Recognizing that these concepts use and build on more generic concepts that are not risk/threat specific such as "person", "organization" and "Intent".

All dangers derived from the general concept of a "situation" which is fundamental to this specification.

## Diagram: Threat and Risk Overview



1. Threat and Risk Overview

# Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Danger

Danger is a fundamentally concept that unifies the threat-risk framework. Danger classifies a situation as one that causes harm to stakeholders. Danger is further specialized across three dimensions:

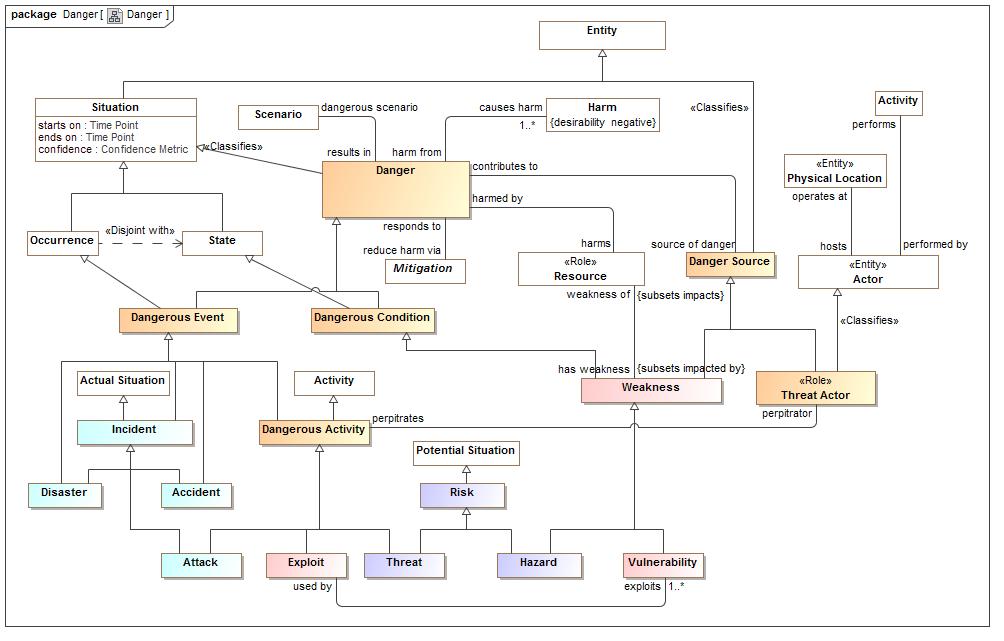
* Events Vs. Conditions - Events "happen" whereas conditions are a steady state for some period.
* Actual Vs. Potential
* Intentional Vs. Natural or systematic. Intentional dangers involve a "threat actor" whereas unintentional only involve weaknesses in resources.

The above are used to define more specific risk & threat concepts, such as:

* Incidents which are actual dangerous situations
* Disasters and Accidents which are unintentional actual situation (no threat actor)
* Attacks which are actual situations perpetrated by a threat actor
* Risks which are potential dangerous situations, thus having some level of uncertainty
* Threats which are intentional risks from a threat actor
* Hazards which are natural or systematic risks

Resources also play an important role in the risk/threat framework in that resources are harmed by dangers but risks are also key for attackers to exploit vulnerabilities and for defenders to realize mitigations.

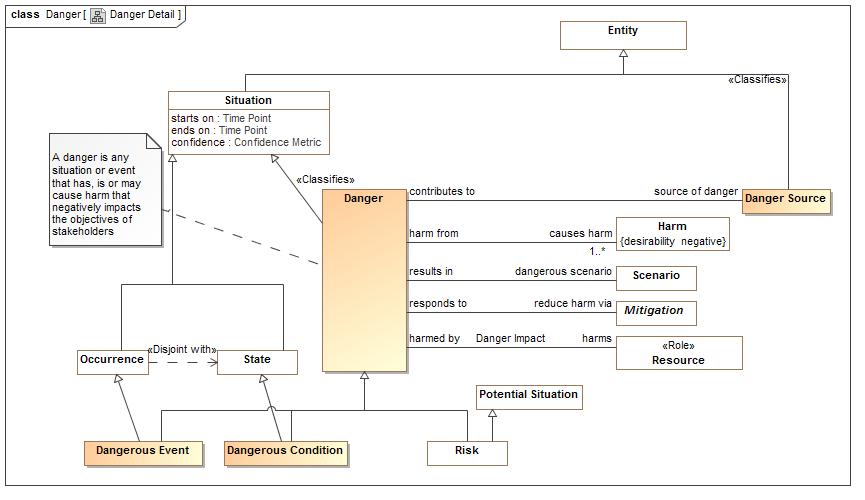
## Diagram: Danger



1. Danger

## Class Danger

A danger is any situation or event that has, is or may cause harm that negatively impacts the objectives of stakeholders



1. Danger Detail

### Direct Supertypes

[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

**package** Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Danger

**extends** [Situation](#_63104765cd42c5f76cf72fdc4ed90397)

### Attributes

1126982306.jpg severity : [Metric](#_23c4326044009f885190c5ab985800db)

A metric for the total harl caused by a danger.

### Associations

-1319770645.jpg reduce harm via:[Mitigation](#_70807c15a257bc97a908d5f6b48d6c3d)

An actual or potential response to a danger to minimize the impact of the danger.

312529784.jpg dangerous scenario:[Scenario](#_f85923f748ecc6b222c0eb85c28ef892) *Subsets*: categorizes:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

A scenario that typifies a danger.

291308139.jpg source of danger:[Probability Metric](#_c4bee9dc62c41effa96910b60385b774)

Anything that can contribute to a danger

1682811304.jpg causes harm:[Harm](#_dc3f174a7d2e028c99d9ddf49c48c64f) [1..\*] *Subsets*: has consequence:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

The harm to a resource caused by a danger.

-831922671.jpg harms:[Probability Metric](#_c4bee9dc62c41effa96910b60385b774)

Anything damaged by a danger.

### Inherited Features

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

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‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

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‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

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‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

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‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

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‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

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‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Association Danger Impact

An impact of a danger on a resource.

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### Association Ends

-831922671.jpg harms : [Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

Anything damaged by a danger.

-831922671.jpg harmed by : [Danger](#_4bdee0568b2f36e553f586b458dace32)

Danger that damages anything.

-831922671.jpg likelihood : [Probability Metric](#_c4bee9dc62c41effa96910b60385b774)

Possibility that the containing element represents reality.

## Class Danger Source

The source of any danger - natural, systematic or intentional

### Direct Supertypes

[Entity](#_13f9005c9106d00d7131680982c2727a)

**package** Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Danger

**extends** [Entity](#_13f9005c9106d00d7131680982c2727a)

### Associations

291308139.jpg contributes to:[Probability Metric](#_c4bee9dc62c41effa96910b60385b774)

Danger some source of danger contributes to. e.g. an open well contributes to the danger of a child falling in

### Inherited Features

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

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‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

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***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

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‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Dangerous Activity

A danger that is the intent of a threat actor performing an activity which causes harm.

### Direct Supertypes

[Activity](#_bf62ccd25fcc4695eba838a426996db5), [Dangerous Event](#_a4ad61aeb90706711f324ecddb74c6ec)

**package** Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Danger

**extends** [Dangerous Event](#_a4ad61aeb90706711f324ecddb74c6ec), [Activity](#_bf62ccd25fcc4695eba838a426996db5)

### Associations

-333746247.jpg perpitrator:[Threat Actor](#_a2021927a094afb50933eb829143a391) *Subsets*: performed by:[Actor](#_195976dea0d8187e1656ac43c072c070) source of danger:[Danger Source](#_e92228f26631bd725a174bd1e0d187f6)

The threat actor performing an activity to cause or contribute to a denergous situation in a real or pssible world.

### Inherited Features

***From*** [Danger](#_4bdee0568b2f36e553f586b458dace32):

‘severity’:[Metric](#_23c4326044009f885190c5ab985800db)

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‘dangerous scenario’:[Scenario](#_f85923f748ecc6b222c0eb85c28ef892)

‘source of danger’:[Danger Source](#_e92228f26631bd725a174bd1e0d187f6)

‘causes harm’:[Harm](#_dc3f174a7d2e028c99d9ddf49c48c64f)

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‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

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‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

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‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

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‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

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‘step in’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘step’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘when’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Activity](#_bf62ccd25fcc4695eba838a426996db5):

‘performed by’:[Actor](#_195976dea0d8187e1656ac43c072c070)

## Class Dangerous Condition

A dangerous condition is a static situation (not something happening) that directly or indirectly does or may have detrimental consequences impacting the objectives of stakeholders.

### Direct Supertypes

[Danger](#_4bdee0568b2f36e553f586b458dace32), [State](#_927c2855748f476d96735ff79da4ebff)

**package** Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Danger

**extends** [Danger](#_4bdee0568b2f36e553f586b458dace32), [State](#_927c2855748f476d96735ff79da4ebff)

### Inherited Features

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‘dangerous scenario’:[Scenario](#_f85923f748ecc6b222c0eb85c28ef892)

‘source of danger’:[Danger Source](#_e92228f26631bd725a174bd1e0d187f6)

‘causes harm’:[Harm](#_dc3f174a7d2e028c99d9ddf49c48c64f)

‘harms’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

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‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

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‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

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***From*** [State](#_927c2855748f476d96735ff79da4ebff):

‘state of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

## Class Dangerous Event

A dangerous event is a occurrence (something happening) that directly or indirectly does or may have detrimental consequences.

### Direct Supertypes

[Danger](#_4bdee0568b2f36e553f586b458dace32), [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

**package** Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Danger

**extends** [Danger](#_4bdee0568b2f36e553f586b458dace32), [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

### Inherited Features

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‘severity’:[Metric](#_23c4326044009f885190c5ab985800db)

‘reduce harm via’:[Mitigation](#_70807c15a257bc97a908d5f6b48d6c3d)

‘dangerous scenario’:[Scenario](#_f85923f748ecc6b222c0eb85c28ef892)

‘source of danger’:[Danger Source](#_e92228f26631bd725a174bd1e0d187f6)

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‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

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‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f):

‘uses’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘creates’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘step in’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘step’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘when’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

## Class Threat Actor

An actor responsible for an intentional threat or attack.

### Direct Supertypes

[Actor](#_195976dea0d8187e1656ac43c072c070), [Danger Source](#_e92228f26631bd725a174bd1e0d187f6)

**package** Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Danger

**extends** [Danger Source](#_e92228f26631bd725a174bd1e0d187f6), [Actor](#_195976dea0d8187e1656ac43c072c070)

### Associations

-333746247.jpg perpitrates:[Dangerous Activity](#_66d5bceb1d0432b3ead820d2dfa08e8e) *Subsets*: contributes to:[Danger](#_4bdee0568b2f36e553f586b458dace32) performs:[Activity](#_bf62ccd25fcc4695eba838a426996db5)

The activity performed by a threat actor to cause or contribute to a denergous situation in a real or pssible world.

### Inherited Features

***From*** [Danger Source](#_e92228f26631bd725a174bd1e0d187f6):

‘contributes to’:[Danger](#_4bdee0568b2f36e553f586b458dace32)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Actor](#_195976dea0d8187e1656ac43c072c070):

‘performs’:[Activity](#_bf62ccd25fcc4695eba838a426996db5)

‘operates at’:[Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad)

‘contact via’:[Contact Information](#_659fd398b9354d627eab9d3a069a3988)

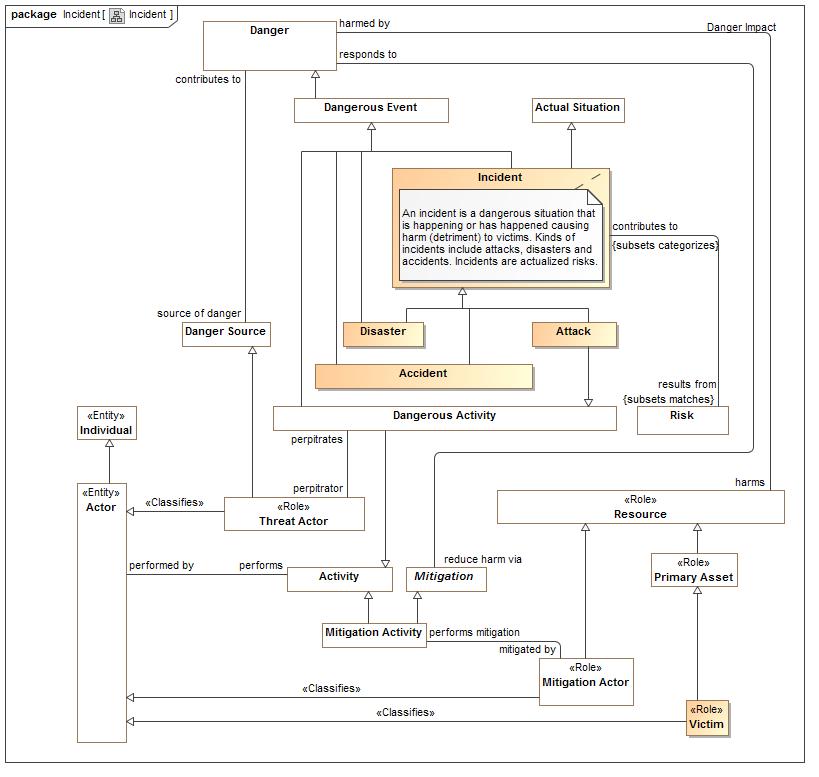
‘enabled by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

‘has observation’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

# Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Incident

Concepts relating to incidents - negative events that actually happen.

## Diagram: Incident



1. Incident

## Class Accident

Accident (also known as mishap) is an unplanned and unintended (but not necessarily unexpected) event or series of related events resulting in harm to an asset [ESA 97, IEEE 94, Leveson 95, NASA 97, UK 96].

### Direct Supertypes

[Dangerous Event](#_a4ad61aeb90706711f324ecddb74c6ec), [Incident](#_72703355926e6f9d23631bfd436b3d75)

**package** Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Incident

**extends** [Dangerous Event](#_a4ad61aeb90706711f324ecddb74c6ec), [Incident](#_72703355926e6f9d23631bfd436b3d75)

### Inherited Features

***From*** [Danger](#_4bdee0568b2f36e553f586b458dace32):

‘severity’:[Metric](#_23c4326044009f885190c5ab985800db)

‘reduce harm via’:[Mitigation](#_70807c15a257bc97a908d5f6b48d6c3d)

‘dangerous scenario’:[Scenario](#_f85923f748ecc6b222c0eb85c28ef892)

‘source of danger’:[Danger Source](#_e92228f26631bd725a174bd1e0d187f6)

‘causes harm’:[Harm](#_dc3f174a7d2e028c99d9ddf49c48c64f)

‘harms’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f):

‘uses’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘creates’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘step in’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘step’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘when’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Incident](#_72703355926e6f9d23631bfd436b3d75):

‘results from’:[Risk](#_04a1907e89ec9aacd39369717010d596)

***From*** [Actual Situation](#_08a2eb20d8bf045e6dbd9fe9c6a5931a):

‘has sighting’:[Sighting](#_e771cce4eb7bb47efae93a7539a40e8e)

‘has observation’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

## Class Attack

An attack is the sequence of activities that a threat actor may follow when setting upon a target and thus causing harm.an aggressive and violent action against a person or place [LEAD]

### Direct Supertypes

[Dangerous Activity](#_66d5bceb1d0432b3ead820d2dfa08e8e), [Incident](#_72703355926e6f9d23631bfd436b3d75)

**package** Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Incident

**extends** [Dangerous Activity](#_66d5bceb1d0432b3ead820d2dfa08e8e), [Incident](#_72703355926e6f9d23631bfd436b3d75)

### Inherited Features

***From*** [Dangerous Activity](#_66d5bceb1d0432b3ead820d2dfa08e8e):

‘perpitrator’:[Threat Actor](#_a2021927a094afb50933eb829143a391)

***From*** [Danger](#_4bdee0568b2f36e553f586b458dace32):

‘severity’:[Metric](#_23c4326044009f885190c5ab985800db)

‘reduce harm via’:[Mitigation](#_70807c15a257bc97a908d5f6b48d6c3d)

‘dangerous scenario’:[Scenario](#_f85923f748ecc6b222c0eb85c28ef892)

‘source of danger’:[Danger Source](#_e92228f26631bd725a174bd1e0d187f6)

‘causes harm’:[Harm](#_dc3f174a7d2e028c99d9ddf49c48c64f)

‘harms’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f):

‘uses’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘creates’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘step in’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘step’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘when’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Activity](#_bf62ccd25fcc4695eba838a426996db5):

‘performed by’:[Actor](#_195976dea0d8187e1656ac43c072c070)

***From*** [Incident](#_72703355926e6f9d23631bfd436b3d75):

‘results from’:[Risk](#_04a1907e89ec9aacd39369717010d596)

***From*** [Actual Situation](#_08a2eb20d8bf045e6dbd9fe9c6a5931a):

‘has sighting’:[Sighting](#_e771cce4eb7bb47efae93a7539a40e8e)

‘has observation’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

## Class Disaster

A sudden event that causes great damage or loss of life. [LEAD]

### Direct Supertypes

[Dangerous Event](#_a4ad61aeb90706711f324ecddb74c6ec), [Incident](#_72703355926e6f9d23631bfd436b3d75)

**package** Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Incident

**extends** [Dangerous Event](#_a4ad61aeb90706711f324ecddb74c6ec), [Incident](#_72703355926e6f9d23631bfd436b3d75)

### Inherited Features

***From*** [Danger](#_4bdee0568b2f36e553f586b458dace32):

‘severity’:[Metric](#_23c4326044009f885190c5ab985800db)

‘reduce harm via’:[Mitigation](#_70807c15a257bc97a908d5f6b48d6c3d)

‘dangerous scenario’:[Scenario](#_f85923f748ecc6b222c0eb85c28ef892)

‘source of danger’:[Danger Source](#_e92228f26631bd725a174bd1e0d187f6)

‘causes harm’:[Harm](#_dc3f174a7d2e028c99d9ddf49c48c64f)

‘harms’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f):

‘uses’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘creates’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘step in’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘step’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘when’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Incident](#_72703355926e6f9d23631bfd436b3d75):

‘results from’:[Risk](#_04a1907e89ec9aacd39369717010d596)

***From*** [Actual Situation](#_08a2eb20d8bf045e6dbd9fe9c6a5931a):

‘has sighting’:[Sighting](#_e771cce4eb7bb47efae93a7539a40e8e)

‘has observation’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

## Class Incident

An incident is a dangerous situation that is happening or has happened causing harm (detriment) to victims. Kinds of incidents include attacks, disasters and accidents. Incidents are actualized risks.

### Direct Supertypes

[Actual Situation](#_08a2eb20d8bf045e6dbd9fe9c6a5931a), [Dangerous Event](#_a4ad61aeb90706711f324ecddb74c6ec)

**package** Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Incident

**extends** [Dangerous Event](#_a4ad61aeb90706711f324ecddb74c6ec), [Actual Situation](#_08a2eb20d8bf045e6dbd9fe9c6a5931a)

### Associations

2004790005.jpg results from:[Risk](#_04a1907e89ec9aacd39369717010d596) *Subsets*: matches:[Template](#_6db5f6447173086a1a7d18af4f144b69)

Incidents that result from a risk

### Inherited Features

***From*** [Danger](#_4bdee0568b2f36e553f586b458dace32):

‘severity’:[Metric](#_23c4326044009f885190c5ab985800db)

‘reduce harm via’:[Mitigation](#_70807c15a257bc97a908d5f6b48d6c3d)

‘dangerous scenario’:[Scenario](#_f85923f748ecc6b222c0eb85c28ef892)

‘source of danger’:[Danger Source](#_e92228f26631bd725a174bd1e0d187f6)

‘causes harm’:[Harm](#_dc3f174a7d2e028c99d9ddf49c48c64f)

‘harms’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f):

‘uses’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘creates’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘step in’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘step’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘when’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Actual Situation](#_08a2eb20d8bf045e6dbd9fe9c6a5931a):

‘has sighting’:[Sighting](#_e771cce4eb7bb47efae93a7539a40e8e)

‘has observation’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

## Class Victim

The role of any actor harmed by an incident.

### Direct Supertypes

[Actor](#_195976dea0d8187e1656ac43c072c070), [Primary Asset](#_47ee5282957e27e87ceca3ae35620f9a)

**package** Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Incident

**extends** [Actor](#_195976dea0d8187e1656ac43c072c070), [Primary Asset](#_47ee5282957e27e87ceca3ae35620f9a)

### Inherited Features

***From*** [Actor](#_195976dea0d8187e1656ac43c072c070):

‘performs’:[Activity](#_bf62ccd25fcc4695eba838a426996db5)

‘operates at’:[Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad)

‘contact via’:[Contact Information](#_659fd398b9354d627eab9d3a069a3988)

‘enabled by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

‘has observation’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Primary Asset](#_47ee5282957e27e87ceca3ae35620f9a):

‘supported by’:[Asset Objective](#_f729c2dc1296d8770b0ab49e2df01fe7)

‘has risk’:[Risk](#_04a1907e89ec9aacd39369717010d596)

***From*** [Resource](#_d442d75c9ac335e7a2aadbc96919fc2d):

‘has weakness’:[Weakness](#_503237c91822aea6eb1e81f160d33ce1)

‘responsibility of’:[Stakeholder](#_e6b0cbf74d66e662c0e3b43efa323757)

‘supports’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

‘impacted by’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘required by’:[Process](#_83d65b9404a78ed941a332943863e039)

‘has vunerability’:[Vulnerability](#_d936caf19626476c163d1b8384647aa0)

‘depends on’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

‘subject to’:[Authority](#_4a5f789e0663312e51a7733bd354bc59)

‘harmed by’:[Danger](#_4bdee0568b2f36e553f586b458dace32)

# Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Indicator

*Indicators* are patterns of *situations* or lists of entities to watch out for that **indicate** a **situation** that may happen. An indicator may be selected by a situation, which contextualizes when it applies. When a situation matching an indicator is *observed* there is a *sighting* of that indicator which is then *evidence* for an *actual situation*, such as an *incident*. e.g. watch for these terrorists in airports...

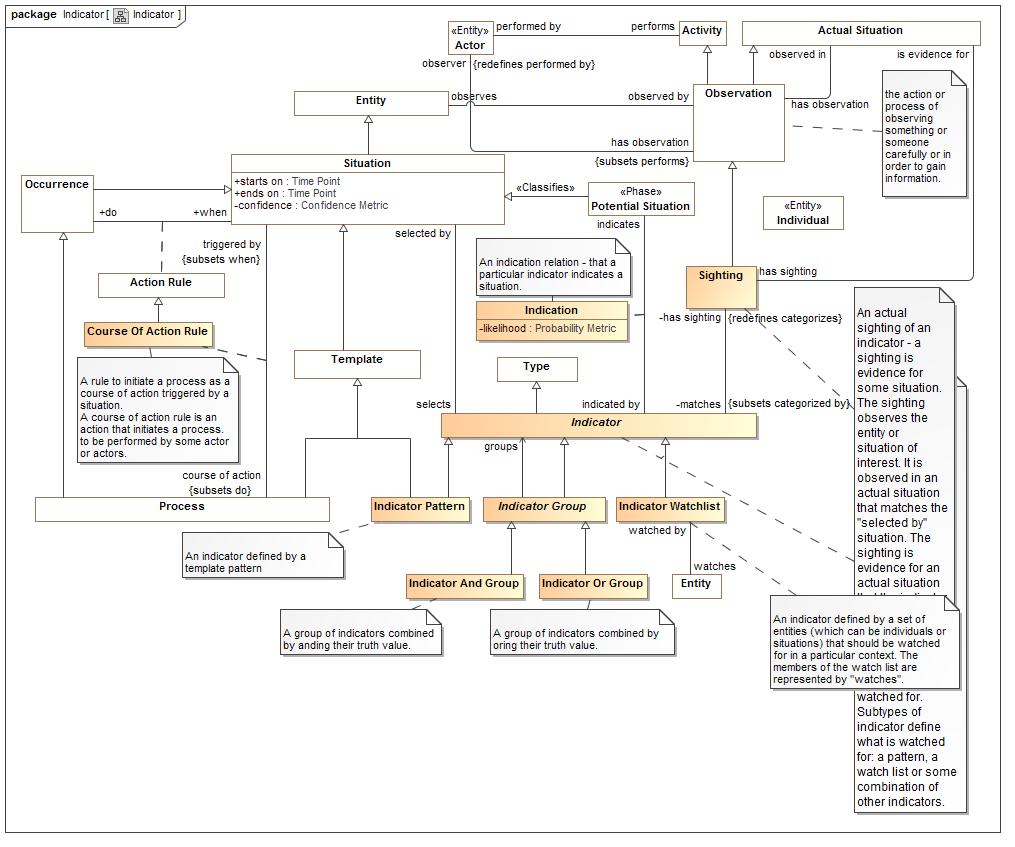
A *sighting* is an *observation* of some *entity* or *situation* *observed* another *actual situation*. E.g. the terrorist ABadguy was seen at BWI on this 12/11/2014 by a police officer Sam Shoe.

Indicators are not certain and may have a likelihood attached to the potential situations for which they are evidence.

Once an sighting flags an indicator, a *course of action* rule may be fired based on the indicated situation.

Specializations of indicator include indicator patterns (an arbitrary pattern of anything) and watch lists. Indicators may also be grouped.

## Diagram: Indicator



1. Indicator

## Association Class Indication

An indication relation - that a particular indicator indicates a situation.

**package** Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Indicator

#### Association Ends

2057692105.jpg indicates : [Potential Situation](#_b5881b0e5e4eeb119cdf881b4c32b91f) *Subsets*: matches:[Template](#_6db5f6447173086a1a7d18af4f144b69)

The situation or situation or situation pattern indicated by an indicator.

2057692105.jpg indicated by : [Indicator](#_0ea506f57adef61cfa374e799c7f4b3e) *Subsets*: matches:[Template](#_6db5f6447173086a1a7d18af4f144b69)

Indicators of a situation

### Attributes

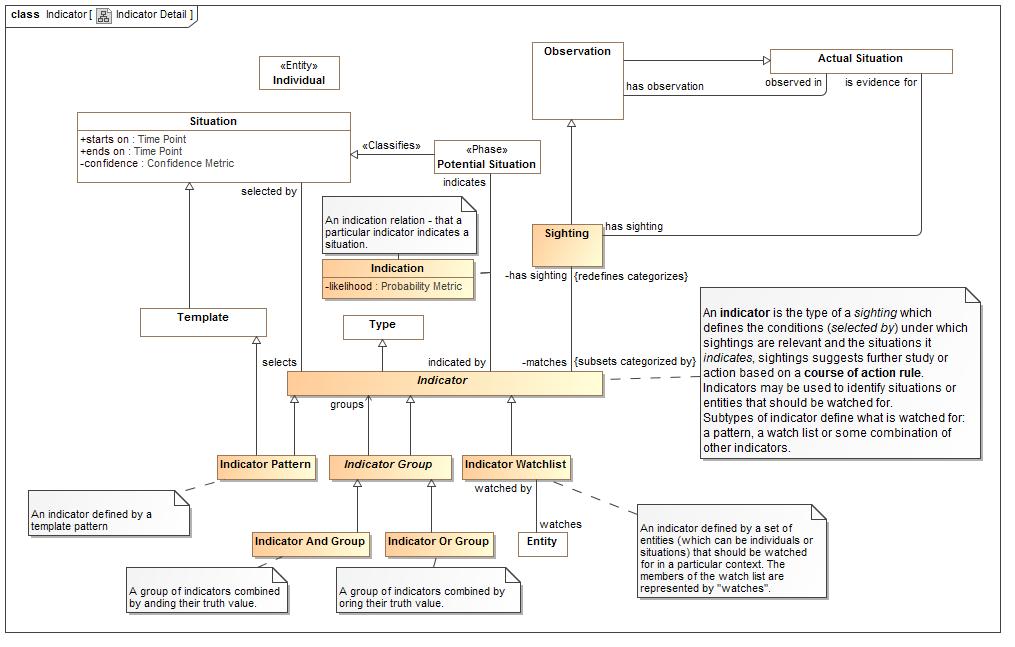
-1438860915.jpg likelihood : [Probability Metric](#_c4bee9dc62c41effa96910b60385b774)

The probability that the indication actually indicates the situation.

## Class Indicator

An **indicator** is the type of a *sighting* which defines the conditions (*selected by*) under which sightings are relevant and the situations it *indicates*, sightings suggests further study or action based on a **course of action rule**. Indicators may be used to identify situations or entities that should be watched for.

Subtypes of indicator define what is watched for: a pattern, a watch list or some combination of other indicators.



1. Indicator Detail

### Direct Supertypes

[Type](#_61a8a5071631445cf89e87ddacf2ecc2)

**package** Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Indicator

**extends** [Type](#_61a8a5071631445cf89e87ddacf2ecc2)

### Associations

-1115658578.jpg has sighting:[Sighting](#_e771cce4eb7bb47efae93a7539a40e8e) *Redefines*: categorizes:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

Sightings of an indicator

414591249.jpg selected by:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

Situation which scopes (contextualizes) the validity of an indicator.

2057692105.jpg indicates:[Potential Situation](#_b5881b0e5e4eeb119cdf881b4c32b91f)

The situation or situation or situation pattern indicated by an indicator.

### Inherited Features

***From*** [Category](#_1e46c059e4f9b5846cdb98d6adff437a):

‘categorizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Class Indicator And Group

A group of indicators combined by anding their truth value.

### Direct Supertypes

[Indicator Group](#_d84deb5a930ade6d70b710d634419914)

**package** Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Indicator

**extends** [Indicator Group](#_d84deb5a930ade6d70b710d634419914)

### Inherited Features

***From*** [Indicator Group](#_d84deb5a930ade6d70b710d634419914):

‘groups’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

***From*** [Indicator](#_0ea506f57adef61cfa374e799c7f4b3e):

‘has sighting’:[Sighting](#_e771cce4eb7bb47efae93a7539a40e8e)

‘selected by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘indicates’:[Potential Situation](#_b5881b0e5e4eeb119cdf881b4c32b91f)

***From*** [Category](#_1e46c059e4f9b5846cdb98d6adff437a):

‘categorizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Class Indicator Group

An indicator expression that groups other indicators.

### Direct Supertypes

[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

**package** Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Indicator

**extends** [Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

### Associations

1725383223.jpg groups:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

The set of indicators grouped for an "and" or a "or"

### Inherited Features

***From*** [Indicator](#_0ea506f57adef61cfa374e799c7f4b3e):

‘has sighting’:[Sighting](#_e771cce4eb7bb47efae93a7539a40e8e)

‘selected by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘indicates’:[Potential Situation](#_b5881b0e5e4eeb119cdf881b4c32b91f)

***From*** [Category](#_1e46c059e4f9b5846cdb98d6adff437a):

‘categorizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Class Indicator Or Group

A group of indicators combined by oring their truth value.

### Direct Supertypes

[Indicator Group](#_d84deb5a930ade6d70b710d634419914)

**package** Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Indicator

**extends** [Indicator Group](#_d84deb5a930ade6d70b710d634419914)

### Inherited Features

***From*** [Indicator Group](#_d84deb5a930ade6d70b710d634419914):

‘groups’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

***From*** [Indicator](#_0ea506f57adef61cfa374e799c7f4b3e):

‘has sighting’:[Sighting](#_e771cce4eb7bb47efae93a7539a40e8e)

‘selected by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘indicates’:[Potential Situation](#_b5881b0e5e4eeb119cdf881b4c32b91f)

***From*** [Category](#_1e46c059e4f9b5846cdb98d6adff437a):

‘categorizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Class Indicator Pattern

An indicator defined by a template pattern

### Direct Supertypes

[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e), [Template](#_6db5f6447173086a1a7d18af4f144b69)

**package** Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Indicator

**extends** [Template](#_6db5f6447173086a1a7d18af4f144b69), [Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

### Inherited Features

***From*** [Template](#_6db5f6447173086a1a7d18af4f144b69):

‘categorizes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Category](#_1e46c059e4f9b5846cdb98d6adff437a):

‘categorizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Indicator](#_0ea506f57adef61cfa374e799c7f4b3e):

‘has sighting’:[Sighting](#_e771cce4eb7bb47efae93a7539a40e8e)

‘selected by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘indicates’:[Potential Situation](#_b5881b0e5e4eeb119cdf881b4c32b91f)

## Class Indicator Watchlist

An indicator defined by a set of entities (which can be individuals or situations) that should be watched for in a particular context. The members of the watch list are represented by "watches".

### Direct Supertypes

[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

**package** Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Indicator

**extends** [Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

### Associations

-324390161.jpg watches:[Entity](#_13f9005c9106d00d7131680982c2727a)

The entities (individuals, systems, situations etc.) watched by a watchlist.

### Inherited Features

***From*** [Indicator](#_0ea506f57adef61cfa374e799c7f4b3e):

‘has sighting’:[Sighting](#_e771cce4eb7bb47efae93a7539a40e8e)

‘selected by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘indicates’:[Potential Situation](#_b5881b0e5e4eeb119cdf881b4c32b91f)

***From*** [Category](#_1e46c059e4f9b5846cdb98d6adff437a):

‘categorizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

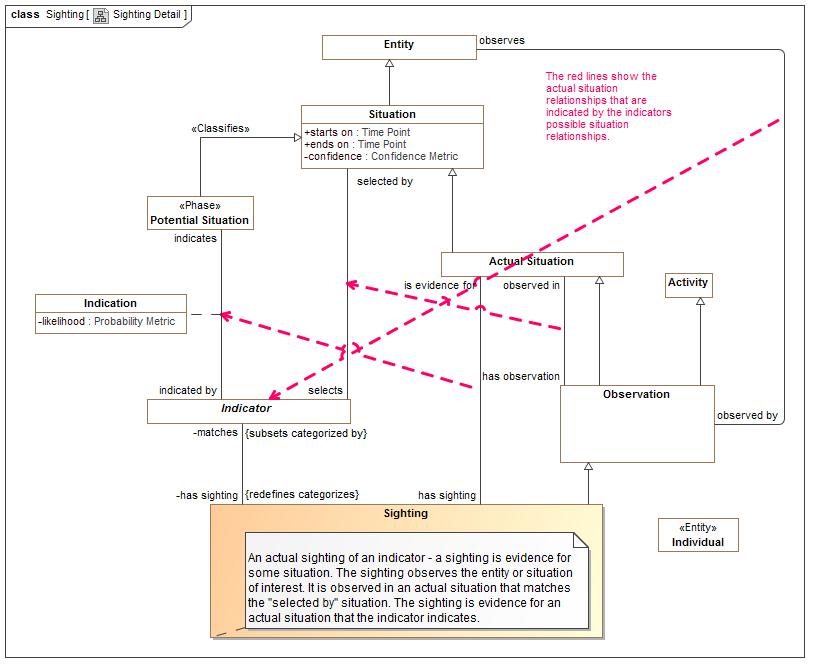
‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Class Sighting

An actual sighting of an indicator - a sighting is evidence for some situation. The sighting observes the entity or situation of interest. It is observed in an actual situation that matches the "selected by" situation. The sighting is evidence for an actual situation that the indicator indicates.



1. Sighting Detail

### Direct Supertypes

[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

**package** Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Indicator

**extends** [Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

### Associations

-1115658578.jpg matches:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e) *Subsets*: categorized by:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

Indicators a sighting matches

1842775683.jpg is evidence for:[Actual Situation](#_08a2eb20d8bf045e6dbd9fe9c6a5931a)

Situation that is indicated by a sighting.

### Inherited Features

***From*** [Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2):

‘observes’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘observer’:[Actor](#_195976dea0d8187e1656ac43c072c070)

‘observed in’:[Actual Situation](#_08a2eb20d8bf045e6dbd9fe9c6a5931a)

***From*** [Activity](#_bf62ccd25fcc4695eba838a426996db5):

‘performed by’:[Actor](#_195976dea0d8187e1656ac43c072c070)

***From*** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f):

‘uses’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘creates’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘step in’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘step’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘when’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Actual Situation](#_08a2eb20d8bf045e6dbd9fe9c6a5931a):

‘has sighting’:[Sighting](#_e771cce4eb7bb47efae93a7539a40e8e)

‘has observation’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

# Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Risk

*Risks* are identified **potential dangers**, *situations* with inherent uncertainty having a negative impact (*harm*) on objectives, people or resources. A risk typically identifies the risk to a *primary asset* - a *resource* of direct interest to stakeholders. Kinds of risks include *threats* and *hazards* which are intentional and unintentional, respectively. All relations relevant to any *danger* may be utilized to understand a risk.

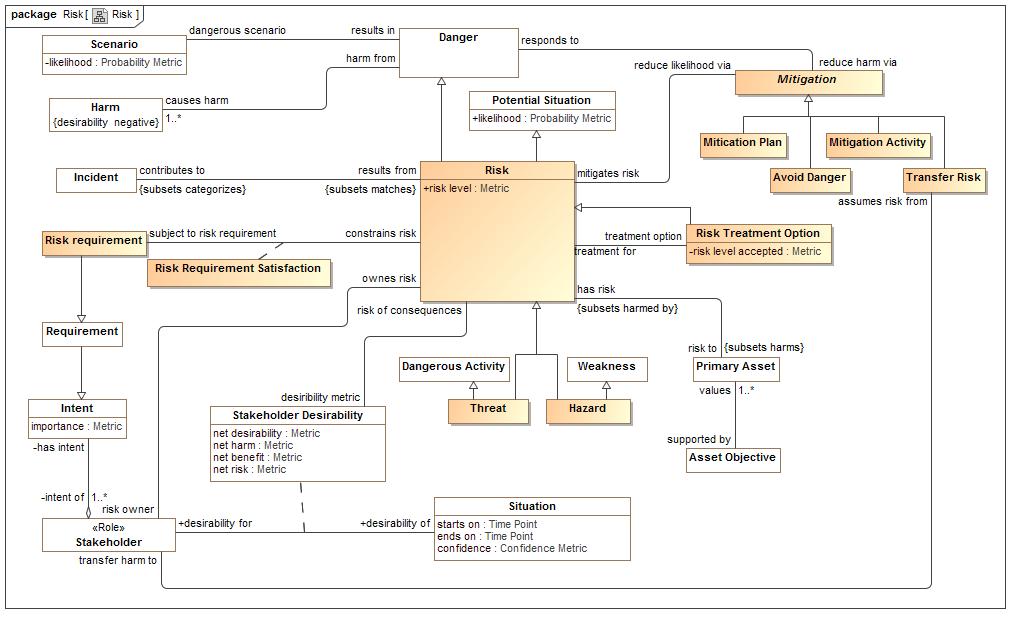
*Desirability metrics,* computed based on all the *consequences* of a *situation* on the *objectives* of a *stakeholder*, provide the basis for the calculation of the risk level and the evaluation of what risk may be accepted and what may be avoided or mitigated.

Risk may be subject to *risk requirements* and may have a history of where that risk *contributed* to *incidents*. A risk may have *mitigations* to *reduce harm* as well as mitigations to *reduce the likelihood* of the risk. Such mitigations include *plans* and *activities*.

Risk planing includes the identification of risk treatment options. As a risk is a "possible future", each *risk treatment option* is an alternative possible future based on taking certain actions. These actions include:

* Avoiding the risk
* Transfer of risk to another stakeholder
* Reducing the likelihood
* Reducing the impact
* Accepting the risk

## Diagram: Risk



1. Risk

## Class Avoid Danger

A likelihood reduction strategy whereby a stakeholder decides not to engage in a risky activity.

### Direct Supertypes

[Mitigation](#_70807c15a257bc97a908d5f6b48d6c3d)

**package** Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Risk

**extends** [Mitigation](#_70807c15a257bc97a908d5f6b48d6c3d)

### Inherited Features

***From*** [Mitigation](#_70807c15a257bc97a908d5f6b48d6c3d):

‘mitigates risk’:[Risk](#_04a1907e89ec9aacd39369717010d596)

‘responds to’:[Danger](#_4bdee0568b2f36e553f586b458dace32)

‘degree of prevention’:[Metric](#_23c4326044009f885190c5ab985800db)

## Class Hazard

A hazard is a condition that may lead to undesired consequences. Hazards lack intent and do not require the involvement of a threat actor.

### Direct Supertypes

[Risk](#_04a1907e89ec9aacd39369717010d596), [Weakness](#_503237c91822aea6eb1e81f160d33ce1)

**package** Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Risk

**extends** [Weakness](#_503237c91822aea6eb1e81f160d33ce1), [Risk](#_04a1907e89ec9aacd39369717010d596)

### Inherited Features

***From*** [Weakness](#_503237c91822aea6eb1e81f160d33ce1):

‘weakness of’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

***From*** [Danger Source](#_e92228f26631bd725a174bd1e0d187f6):

‘contributes to’:[Danger](#_4bdee0568b2f36e553f586b458dace32)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Danger](#_4bdee0568b2f36e553f586b458dace32):

‘severity’:[Metric](#_23c4326044009f885190c5ab985800db)

‘reduce harm via’:[Mitigation](#_70807c15a257bc97a908d5f6b48d6c3d)

‘dangerous scenario’:[Scenario](#_f85923f748ecc6b222c0eb85c28ef892)

‘source of danger’:[Danger Source](#_e92228f26631bd725a174bd1e0d187f6)

‘causes harm’:[Harm](#_dc3f174a7d2e028c99d9ddf49c48c64f)

‘harms’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [State](#_927c2855748f476d96735ff79da4ebff):

‘state of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

***From*** [Risk](#_04a1907e89ec9aacd39369717010d596):

‘desiribility metric’:[Stakeholder Desirability](#_11010295f8ed009bedb40bfa3aed7f4c)

‘risk level’:[Metric](#_23c4326044009f885190c5ab985800db)

‘contributes to’:[Incident](#_72703355926e6f9d23631bfd436b3d75)

‘treatment option’:[Risk Treatment Option](#_2264274457b40c420209d1358827f34a)

‘risk to’:[Primary Asset](#_47ee5282957e27e87ceca3ae35620f9a)

‘risk owner’:[Stakeholder](#_e6b0cbf74d66e662c0e3b43efa323757)

‘reduce likelihood via’:[Mitigation](#_70807c15a257bc97a908d5f6b48d6c3d)

***From*** [Potential Situation](#_b5881b0e5e4eeb119cdf881b4c32b91f):

‘likelihood’:[Probability Metric](#_c4bee9dc62c41effa96910b60385b774)

‘indicated by’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘predicted by’:[Prediction](#_af120e4b8e21c3cb078f624ef4016abe)

***From*** [Template](#_6db5f6447173086a1a7d18af4f144b69):

‘categorizes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Category](#_1e46c059e4f9b5846cdb98d6adff437a):

‘categorizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Class Mitication Plan

A plan to lessen the probability or impact of a risk.

### Direct Supertypes

[Mitigation](#_70807c15a257bc97a908d5f6b48d6c3d), [Plan](#_e388f590d0bd984e68d22f9ed9adbbba)

**package** Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Risk

**extends** [Mitigation](#_70807c15a257bc97a908d5f6b48d6c3d), [Plan](#_e388f590d0bd984e68d22f9ed9adbbba)

### Inherited Features

***From*** [Mitigation](#_70807c15a257bc97a908d5f6b48d6c3d):

‘mitigates risk’:[Risk](#_04a1907e89ec9aacd39369717010d596)

‘responds to’:[Danger](#_4bdee0568b2f36e553f586b458dace32)

‘degree of prevention’:[Metric](#_23c4326044009f885190c5ab985800db)

***From*** [Plan](#_e388f590d0bd984e68d22f9ed9adbbba):

‘supports objective’:[Objective](#_1a3b26382bc038a9cd845e258d24db0f)

***From*** [Process](#_83d65b9404a78ed941a332943863e039):

‘requires’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

‘triggered by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f):

‘uses’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘creates’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘step in’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘step’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘when’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Template](#_6db5f6447173086a1a7d18af4f144b69):

‘categorizes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Category](#_1e46c059e4f9b5846cdb98d6adff437a):

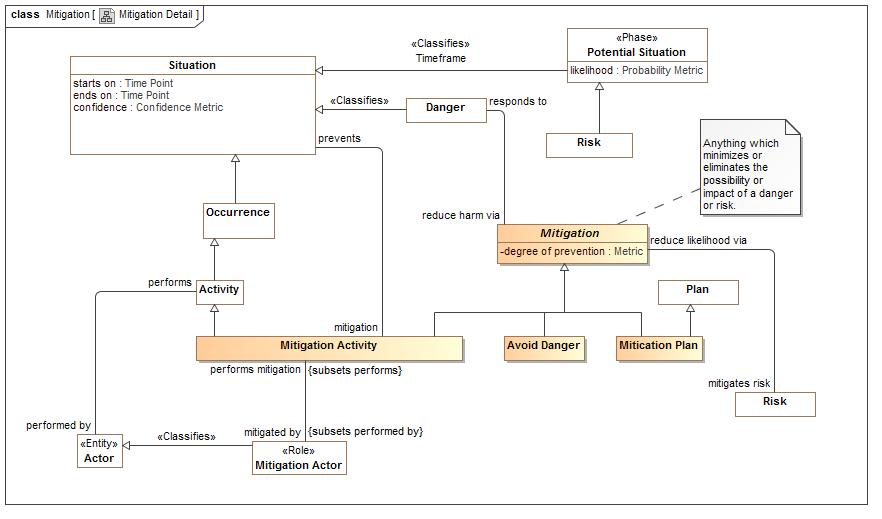
‘categorizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Activity](#_bf62ccd25fcc4695eba838a426996db5):

‘performed by’:[Actor](#_195976dea0d8187e1656ac43c072c070)

## Class Mitigation

Anything which minimizes or eliminates the possibility or impact of a danger or risk.



1. Mitigation Detail

**package** Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Risk

### Attributes

534497747.jpg degree of prevention : [Metric](#_23c4326044009f885190c5ab985800db)

A metric for how much a mitigation mitigates a dangerous situation.

### Associations

1949928154.jpg mitigates risk:[Risk](#_04a1907e89ec9aacd39369717010d596)

Risks mitigated by a mitigation.

-1319770645.jpg responds to:[Danger](#_4bdee0568b2f36e553f586b458dace32)

Danger that a mitication responds to.

## Class Mitigation Activity

An act of mitigating, or lessening the force or intensity of something unpleasant, as wrath, pain, grief, or extreme circumstances [dictionary.com]

### Direct Supertypes

[Activity](#_bf62ccd25fcc4695eba838a426996db5), [Mitigation](#_70807c15a257bc97a908d5f6b48d6c3d)

**package** Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Risk

**extends** [Activity](#_bf62ccd25fcc4695eba838a426996db5), [Mitigation](#_70807c15a257bc97a908d5f6b48d6c3d)

### Associations

1538757110.jpg mitigated by:[Mitigation Actor](#_54ac2232a62cea44227bb2836a1a1334) *Subsets*: performed by:[Actor](#_195976dea0d8187e1656ac43c072c070)

The actor(s) that may peform a mitigation.

-1388018520.jpg prevents:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

What a mitigation activity prevents or is intended to prevent.

### Inherited Features

***From*** [Activity](#_bf62ccd25fcc4695eba838a426996db5):

‘performed by’:[Actor](#_195976dea0d8187e1656ac43c072c070)

***From*** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f):

‘uses’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘creates’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘step in’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘step’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘when’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Mitigation](#_70807c15a257bc97a908d5f6b48d6c3d):

‘mitigates risk’:[Risk](#_04a1907e89ec9aacd39369717010d596)

‘responds to’:[Danger](#_4bdee0568b2f36e553f586b458dace32)

‘degree of prevention’:[Metric](#_23c4326044009f885190c5ab985800db)

## Class Mitigation Actor

One who performs a mitigation

### Direct Supertypes

[Actor](#_195976dea0d8187e1656ac43c072c070), [Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

**package** Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Risk

**extends** [Actor](#_195976dea0d8187e1656ac43c072c070), [Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

### Associations

1538757110.jpg performs mitigation:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd) *Subsets*: performs:[Activity](#_bf62ccd25fcc4695eba838a426996db5)

The mitication an actor performs.

### Inherited Features

***From*** [Actor](#_195976dea0d8187e1656ac43c072c070):

‘performs’:[Activity](#_bf62ccd25fcc4695eba838a426996db5)

‘operates at’:[Physical Location](#_e1d8064cf80a8d37d141d659cfacdfad)

‘contact via’:[Contact Information](#_659fd398b9354d627eab9d3a069a3988)

‘enabled by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

‘has observation’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Resource](#_d442d75c9ac335e7a2aadbc96919fc2d):

‘has weakness’:[Weakness](#_503237c91822aea6eb1e81f160d33ce1)

‘responsibility of’:[Stakeholder](#_e6b0cbf74d66e662c0e3b43efa323757)

‘supports’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

‘impacted by’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘required by’:[Process](#_83d65b9404a78ed941a332943863e039)

‘has vunerability’:[Vulnerability](#_d936caf19626476c163d1b8384647aa0)

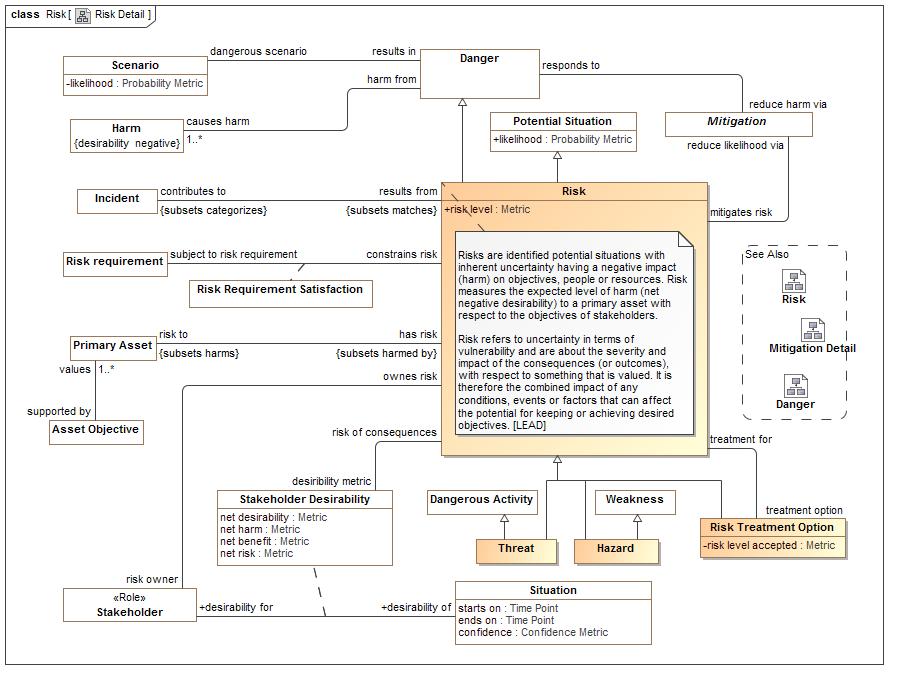
‘depends on’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

‘subject to’:[Authority](#_4a5f789e0663312e51a7733bd354bc59)

‘harmed by’:[Danger](#_4bdee0568b2f36e553f586b458dace32)

## Class Risk

Risks are identified potential situations with inherent uncertainty having a negative impact (harm) on objectives, people or resources. Risk measures the expected level of harm (net negative desirability) to a primary asset with respect to the objectives of stakeholders.Risk refers to uncertainty in terms of vulnerability and are about the severity and impact of the consequences (or outcomes), with respect to something that is valued. It is therefore the combined impact of any conditions, events or factors that can affect the potential for keeping or achieving desired objectives. [LEAD]



1. Risk Detail

### Direct Supertypes

[Danger](#_4bdee0568b2f36e553f586b458dace32), [Potential Situation](#_b5881b0e5e4eeb119cdf881b4c32b91f)

**package** Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Risk

**extends** [Potential Situation](#_b5881b0e5e4eeb119cdf881b4c32b91f), [Danger](#_4bdee0568b2f36e553f586b458dace32)

### Attributes

-1191367753.jpg risk level : [Metric](#_23c4326044009f885190c5ab985800db)

Net harm times net likelihood

### Associations

389476031.jpg desiribility metric:[Stakeholder Desirability](#_11010295f8ed009bedb40bfa3aed7f4c)

How much something is desired by a stakeholder.

2004790005.jpg contributes to:[Incident](#_72703355926e6f9d23631bfd436b3d75) *Subsets*: categorizes:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

Risks that have contributed incidents

1568753261.jpg treatment option:[Risk Treatment Option](#_2264274457b40c420209d1358827f34a)

An option for handling a risk.

-17417802.jpg risk to:[Primary Asset](#_47ee5282957e27e87ceca3ae35620f9a) *Subsets*: harms:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

Asset that would be in danger should a risk happen.

-1067369733.jpg risk owner:[Stakeholder](#_e6b0cbf74d66e662c0e3b43efa323757)

Stakeholder that manages a risk.

1949928154.jpg reduce likelihood via:[Mitigation](#_70807c15a257bc97a908d5f6b48d6c3d)

A potential safeguard against a risk to minimize the possibility of the danger occurring.

### Inherited Features

***From*** [Potential Situation](#_b5881b0e5e4eeb119cdf881b4c32b91f):

‘likelihood’:[Probability Metric](#_c4bee9dc62c41effa96910b60385b774)

‘indicated by’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘predicted by’:[Prediction](#_af120e4b8e21c3cb078f624ef4016abe)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Template](#_6db5f6447173086a1a7d18af4f144b69):

‘categorizes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Category](#_1e46c059e4f9b5846cdb98d6adff437a):

‘categorizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Danger](#_4bdee0568b2f36e553f586b458dace32):

‘severity’:[Metric](#_23c4326044009f885190c5ab985800db)

‘reduce harm via’:[Mitigation](#_70807c15a257bc97a908d5f6b48d6c3d)

‘dangerous scenario’:[Scenario](#_f85923f748ecc6b222c0eb85c28ef892)

‘source of danger’:[Danger Source](#_e92228f26631bd725a174bd1e0d187f6)

‘causes harm’:[Harm](#_dc3f174a7d2e028c99d9ddf49c48c64f)

‘harms’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

## Class Risk requirement

A requirement that constrains a risk or the management of a risk.

### Direct Supertypes

[Requirement](#_60ffdb442b83b0187668266dd268f2b9)

**package** Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Risk

**extends** [Requirement](#_60ffdb442b83b0187668266dd268f2b9)

### Inherited Features

***From*** [Intent](#_5d818d24bb3ea2953ed8691f26985a13):

‘intent of’:[Stakeholder](#_e6b0cbf74d66e662c0e3b43efa323757)

‘importance’:[Metric](#_23c4326044009f885190c5ab985800db)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Association Class Risk Requirement Satisfaction

How a risk requirement is satisfied.

### Direct Supertypes

[Satisfaction of requirement](#_0ef8c405c79715687856788b13022eea)

**package** Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Risk

**extends** [Satisfaction of requirement](#_0ef8c405c79715687856788b13022eea)

#### Association Ends

1510583319.jpg subject to risk requirement : [Risk requirement](#_a1a3b28eec0ca3f1341c66c33609bd9f)

A requirement that is being satisfied.

1510583319.jpg constrains risk : [Risk](#_04a1907e89ec9aacd39369717010d596)

A constraint on risk.

### Inherited Features

***From*** [Satisfaction of requirement](#_0ef8c405c79715687856788b13022eea):

‘degree of satisfaction’:[Metric](#_23c4326044009f885190c5ab985800db)

‘constrains’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘subject to’:[Requirement](#_60ffdb442b83b0187668266dd268f2b9)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

## Class Risk Treatment Option

A representation of a Risk modified in some way to represent an option for the management and handling of a risk.

### Direct Supertypes

[Risk](#_04a1907e89ec9aacd39369717010d596)

**package** Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Risk

**extends** [Risk](#_04a1907e89ec9aacd39369717010d596)

### Attributes

-1386936664.jpg risk level accepted : [Metric](#_23c4326044009f885190c5ab985800db)

### Associations

1568753261.jpg treatment for:[Risk](#_04a1907e89ec9aacd39369717010d596)

Risk for which an option is being defined.

### Inherited Features

***From*** [Risk](#_04a1907e89ec9aacd39369717010d596):

‘desiribility metric’:[Stakeholder Desirability](#_11010295f8ed009bedb40bfa3aed7f4c)

‘risk level’:[Metric](#_23c4326044009f885190c5ab985800db)

‘contributes to’:[Incident](#_72703355926e6f9d23631bfd436b3d75)

‘treatment option’:[Risk Treatment Option](#_2264274457b40c420209d1358827f34a)

‘risk to’:[Primary Asset](#_47ee5282957e27e87ceca3ae35620f9a)

‘risk owner’:[Stakeholder](#_e6b0cbf74d66e662c0e3b43efa323757)

‘reduce likelihood via’:[Mitigation](#_70807c15a257bc97a908d5f6b48d6c3d)

***From*** [Potential Situation](#_b5881b0e5e4eeb119cdf881b4c32b91f):

‘likelihood’:[Probability Metric](#_c4bee9dc62c41effa96910b60385b774)

‘indicated by’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘predicted by’:[Prediction](#_af120e4b8e21c3cb078f624ef4016abe)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

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‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Template](#_6db5f6447173086a1a7d18af4f144b69):

‘categorizes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Category](#_1e46c059e4f9b5846cdb98d6adff437a):

‘categorizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Danger](#_4bdee0568b2f36e553f586b458dace32):

‘severity’:[Metric](#_23c4326044009f885190c5ab985800db)

‘reduce harm via’:[Mitigation](#_70807c15a257bc97a908d5f6b48d6c3d)

‘dangerous scenario’:[Scenario](#_f85923f748ecc6b222c0eb85c28ef892)

‘source of danger’:[Danger Source](#_e92228f26631bd725a174bd1e0d187f6)

‘causes harm’:[Harm](#_dc3f174a7d2e028c99d9ddf49c48c64f)

‘harms’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

## Class Threat

Threat is a situation that increases the likelihood of one or more related attacks.The threat consists of the existence of one or more potential attackers together with a set of one or more system conditions or states that provide motivation to the attackers. Thus, the threat of theft may result in an actual theft (attack), and threats correspond to attacks that are typically classified by attacker motivation (e.g., theft) as opposed to technique (e.g., spoofing). In some books and articles, the different but highly related terms “attack” and “threat” are sometimes confounded by being used as synonyms [Firesmith 03, Tulloch 03].

### Direct Supertypes

[Dangerous Activity](#_66d5bceb1d0432b3ead820d2dfa08e8e), [Risk](#_04a1907e89ec9aacd39369717010d596)

**package** Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Risk

**extends** [Dangerous Activity](#_66d5bceb1d0432b3ead820d2dfa08e8e), [Risk](#_04a1907e89ec9aacd39369717010d596)

### Inherited Features

***From*** [Dangerous Activity](#_66d5bceb1d0432b3ead820d2dfa08e8e):

‘perpitrator’:[Threat Actor](#_a2021927a094afb50933eb829143a391)

***From*** [Danger](#_4bdee0568b2f36e553f586b458dace32):

‘severity’:[Metric](#_23c4326044009f885190c5ab985800db)

‘reduce harm via’:[Mitigation](#_70807c15a257bc97a908d5f6b48d6c3d)

‘dangerous scenario’:[Scenario](#_f85923f748ecc6b222c0eb85c28ef892)

‘source of danger’:[Danger Source](#_e92228f26631bd725a174bd1e0d187f6)

‘causes harm’:[Harm](#_dc3f174a7d2e028c99d9ddf49c48c64f)

‘harms’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

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‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

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‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

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‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

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‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

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***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

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‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f):

‘uses’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘creates’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘step in’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘step’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘when’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Activity](#_bf62ccd25fcc4695eba838a426996db5):

‘performed by’:[Actor](#_195976dea0d8187e1656ac43c072c070)

***From*** [Risk](#_04a1907e89ec9aacd39369717010d596):

‘desiribility metric’:[Stakeholder Desirability](#_11010295f8ed009bedb40bfa3aed7f4c)

‘risk level’:[Metric](#_23c4326044009f885190c5ab985800db)

‘contributes to’:[Incident](#_72703355926e6f9d23631bfd436b3d75)

‘treatment option’:[Risk Treatment Option](#_2264274457b40c420209d1358827f34a)

‘risk to’:[Primary Asset](#_47ee5282957e27e87ceca3ae35620f9a)

‘risk owner’:[Stakeholder](#_e6b0cbf74d66e662c0e3b43efa323757)

‘reduce likelihood via’:[Mitigation](#_70807c15a257bc97a908d5f6b48d6c3d)

***From*** [Potential Situation](#_b5881b0e5e4eeb119cdf881b4c32b91f):

‘likelihood’:[Probability Metric](#_c4bee9dc62c41effa96910b60385b774)

‘indicated by’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘predicted by’:[Prediction](#_af120e4b8e21c3cb078f624ef4016abe)

***From*** [Template](#_6db5f6447173086a1a7d18af4f144b69):

‘categorizes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Category](#_1e46c059e4f9b5846cdb98d6adff437a):

‘categorizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

## Class Transfer Risk

A strategy to cause another to assume the impact of a risk such as insurance.

### Direct Supertypes

[Mitigation](#_70807c15a257bc97a908d5f6b48d6c3d)

**package** Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Risk

**extends** [Mitigation](#_70807c15a257bc97a908d5f6b48d6c3d)

### Associations

-612095893.jpg transfer harm to:[Stakeholder](#_e6b0cbf74d66e662c0e3b43efa323757)

### Inherited Features

***From*** [Mitigation](#_70807c15a257bc97a908d5f6b48d6c3d):

‘mitigates risk’:[Risk](#_04a1907e89ec9aacd39369717010d596)

‘responds to’:[Danger](#_4bdee0568b2f36e553f586b458dace32)

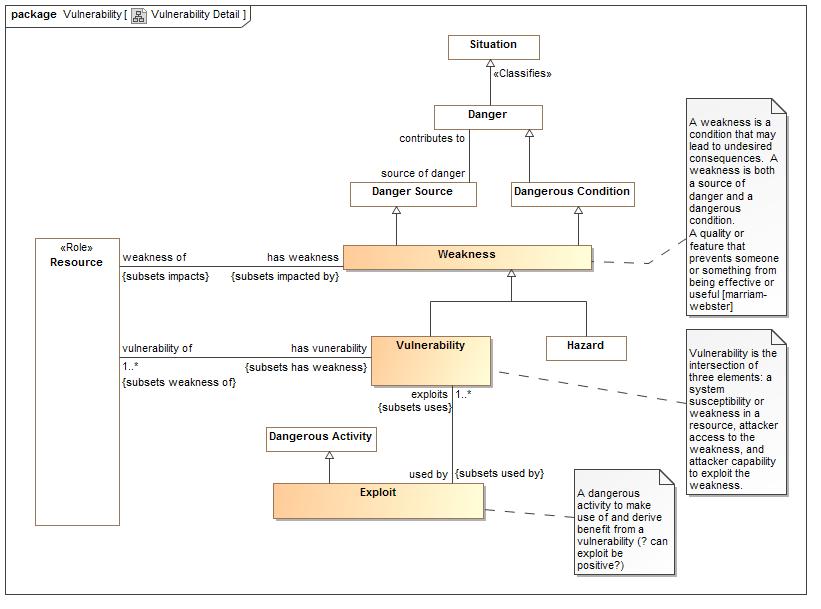
‘degree of prevention’:[Metric](#_23c4326044009f885190c5ab985800db)

# Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Vulnerability

Vulnerabilities and weaknesses represent flaws or inherent qualities of some resource that can be the source of danger.

Vulnerabilities are more specific in that a vulnerability may be exploited to cause harm.

## Diagram: Vulnerability Detail



1. Vulnerability Detail

## Class Exploit

A dangerous activity to make use of and derive benefit from a vulnerability (? can exploit be positive?)

### Direct Supertypes

[Dangerous Activity](#_66d5bceb1d0432b3ead820d2dfa08e8e)

**package** Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Vulnerability

**extends** [Dangerous Activity](#_66d5bceb1d0432b3ead820d2dfa08e8e)

### Associations

2048649128.jpg exploits:[Vulnerability](#_d936caf19626476c163d1b8384647aa0) [1..\*] *Subsets*: uses:[Entity](#_13f9005c9106d00d7131680982c2727a)

Vulnerability exploited.

### Inherited Features

***From*** [Dangerous Activity](#_66d5bceb1d0432b3ead820d2dfa08e8e):

‘perpitrator’:[Threat Actor](#_a2021927a094afb50933eb829143a391)

***From*** [Danger](#_4bdee0568b2f36e553f586b458dace32):

‘severity’:[Metric](#_23c4326044009f885190c5ab985800db)

‘reduce harm via’:[Mitigation](#_70807c15a257bc97a908d5f6b48d6c3d)

‘dangerous scenario’:[Scenario](#_f85923f748ecc6b222c0eb85c28ef892)

‘source of danger’:[Danger Source](#_e92228f26631bd725a174bd1e0d187f6)

‘causes harm’:[Harm](#_dc3f174a7d2e028c99d9ddf49c48c64f)

‘harms’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f):

‘uses’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘creates’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘step in’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘step’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘when’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

***From*** [Activity](#_bf62ccd25fcc4695eba838a426996db5):

‘performed by’:[Actor](#_195976dea0d8187e1656ac43c072c070)

## Class Vulnerability

Vulnerability is the intersection of three elements: a system susceptibility or weakness in a resource, attacker access to the weakness, and attacker capability to exploit the weakness.

### Direct Supertypes

[Weakness](#_503237c91822aea6eb1e81f160d33ce1)

**package** Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Vulnerability

**extends** [Weakness](#_503237c91822aea6eb1e81f160d33ce1)

### Associations

-2047782013.jpg vulnerability of:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d) [1..\*] *Subsets*: weakness of:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

Resources a vunerability may affect.

2048649128.jpg used by:[Exploit](#_482d41d0c1ece6ad2f9b08e478cca7ff) *Subsets*: used by:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

Exploits used by a vunerability.

### Inherited Features

***From*** [Weakness](#_503237c91822aea6eb1e81f160d33ce1):

‘weakness of’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

***From*** [Danger Source](#_e92228f26631bd725a174bd1e0d187f6):

‘contributes to’:[Danger](#_4bdee0568b2f36e553f586b458dace32)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Danger](#_4bdee0568b2f36e553f586b458dace32):

‘severity’:[Metric](#_23c4326044009f885190c5ab985800db)

‘reduce harm via’:[Mitigation](#_70807c15a257bc97a908d5f6b48d6c3d)

‘dangerous scenario’:[Scenario](#_f85923f748ecc6b222c0eb85c28ef892)

‘source of danger’:[Danger Source](#_e92228f26631bd725a174bd1e0d187f6)

‘causes harm’:[Harm](#_dc3f174a7d2e028c99d9ddf49c48c64f)

‘harms’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

***From*** [State](#_927c2855748f476d96735ff79da4ebff):

‘state of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

## Class Weakness

A weakness is a condition that may lead to undesired consequences. A weakness is both a source of danger and a dangerous condition.A quality or feature that prevents someone or something from being effective or useful [marriam-webster]

### Direct Supertypes

[Danger Source](#_e92228f26631bd725a174bd1e0d187f6), [Dangerous Condition](#_1e65602d4dd275cfb1ddaa86376c7fed)

**package** Conceptual Modeling and Mapping Library::Risk and Threat Concepts::Vulnerability

**extends** [Danger Source](#_e92228f26631bd725a174bd1e0d187f6), [Dangerous Condition](#_1e65602d4dd275cfb1ddaa86376c7fed)

### Associations

-526131549.jpg weakness of:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d) *Subsets*: impacts:[Entity](#_13f9005c9106d00d7131680982c2727a)

A resource that has some hazard or vulnerability

### Inherited Features

***From*** [Danger Source](#_e92228f26631bd725a174bd1e0d187f6):

‘contributes to’:[Danger](#_4bdee0568b2f36e553f586b458dace32)

***From*** [Entity](#_13f9005c9106d00d7131680982c2727a):

‘used by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is part of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has part’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘has state’:[State](#_927c2855748f476d96735ff79da4ebff)

‘created by’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘is related to’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘impacted by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘identified by’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘has name’:[Name](#_afe5a48976a2df078be9473827611fb8)

‘prefered identifier’:[Identifier](#_a9304dce0833e68d6c1871feed7ba4c8)

‘watched by’:[Indicator Watchlist](#_a3511bec5be4181aed91476c6b138095)

‘observed by’:[Observation](#_1a5b22ec96adcbdd1b918a17fe9b44b2)

‘made available by’:[Alter Capability](#_e0710944ed85fab755fb953e7174c8dd)

***From*** [Anything](#_3a4ff69ced5d7f7c66bb882997dea37e):

‘categorized by’:[Category](#_1e46c059e4f9b5846cdb98d6adff437a)

‘plays role’:[Role](#_190ab2c7aab2e6a3ec0c198e969a574d)

‘bound by’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘in contex of’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘described by’:[Description](#_21b1e229139c6220bd38cb2e45595f68)

‘stated by’:[Source](#_c014482263e2addd6be470b251dd86b3)

***From*** [Danger](#_4bdee0568b2f36e553f586b458dace32):

‘severity’:[Metric](#_23c4326044009f885190c5ab985800db)

‘reduce harm via’:[Mitigation](#_70807c15a257bc97a908d5f6b48d6c3d)

‘dangerous scenario’:[Scenario](#_f85923f748ecc6b222c0eb85c28ef892)

‘source of danger’:[Danger Source](#_e92228f26631bd725a174bd1e0d187f6)

‘causes harm’:[Harm](#_dc3f174a7d2e028c99d9ddf49c48c64f)

‘harms’:[Resource](#_d442d75c9ac335e7a2aadbc96919fc2d)

***From*** [Situation](#_63104765cd42c5f76cf72fdc4ed90397):

‘starts on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘ends on’:[Time Point](#_404887ca511c022e037ede12e1a8f37a)

‘has binding’:[Binding](#_59d00381296cc32f8d191ec24ae537cd)

‘has consequence’:[Consequence](#_9bf67544840a1cd6396f28cc292e3ca0)

‘impacts’:[Entity](#_13f9005c9106d00d7131680982c2727a)

‘matches’:[Template](#_6db5f6447173086a1a7d18af4f144b69)

‘confidence’:[Confidence Metric](#_515aa0b3c8b3af1351822986548c803a)

‘happens before’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘happens after’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘selects’:[Indicator](#_0ea506f57adef61cfa374e799c7f4b3e)

‘do’:[Occurrence](#_c05d8ea54231ef8385ae369a8cb18a7f)

‘course of action’:[Process](#_83d65b9404a78ed941a332943863e039)

‘caused by’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘causes’:[Situation](#_63104765cd42c5f76cf72fdc4ed90397)

‘mitigation’:[Mitigation Activity](#_d62cdaff29d6a9151ff47cf9daa85ffd)

***From*** [Context](#_81284aa430d71f6e8d9c1804d9149488):

‘generalizes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘specializes’:[Context](#_81284aa430d71f6e8d9c1804d9149488)

‘contextualizes’:[Anything](#_3a4ff69ced5d7f7c66bb882997dea37e)

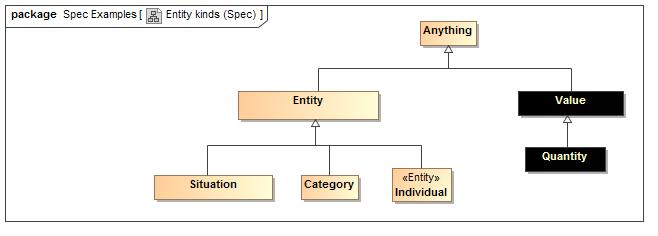
***From*** [State](#_927c2855748f476d96735ff79da4ebff):

‘state of’:[Entity](#_13f9005c9106d00d7131680982c2727a)

# Conceptual Modeling and Mapping Library::Spec Examples

The following diagrams are used for the production of the specification document and not otherwise relevant.

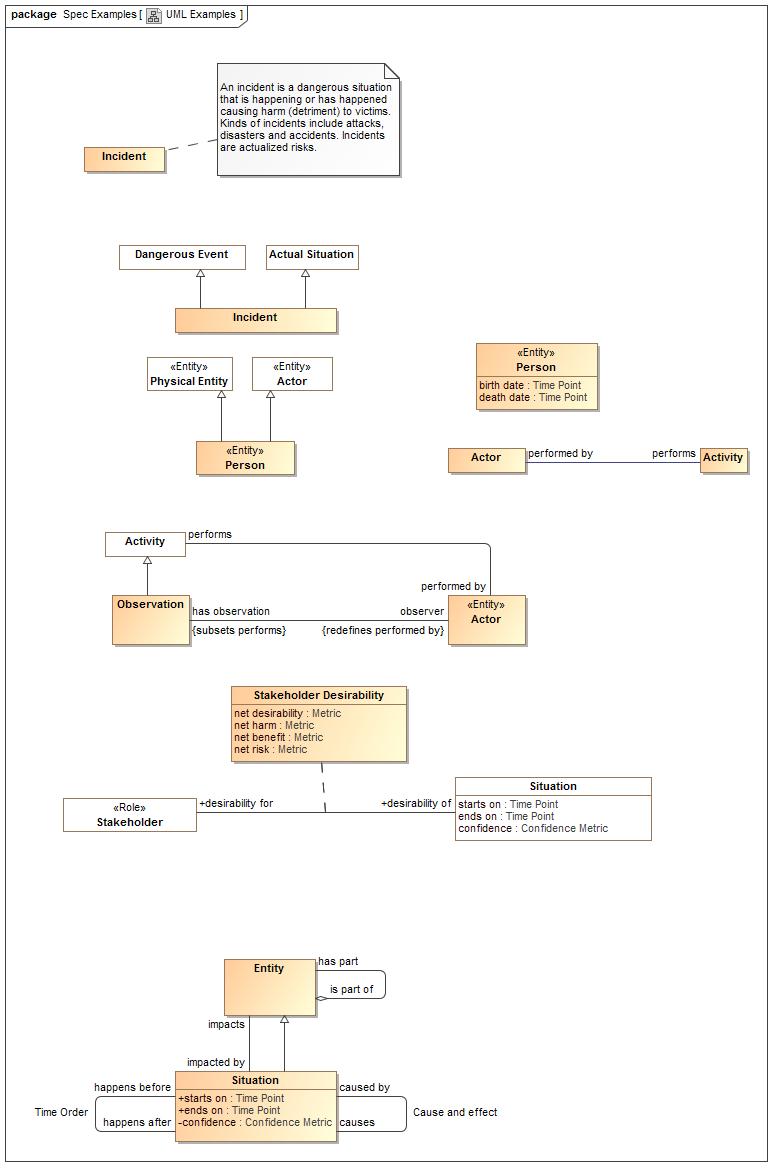
## Diagram: Entity kinds (Spec)



1. Entity kinds (Spec)

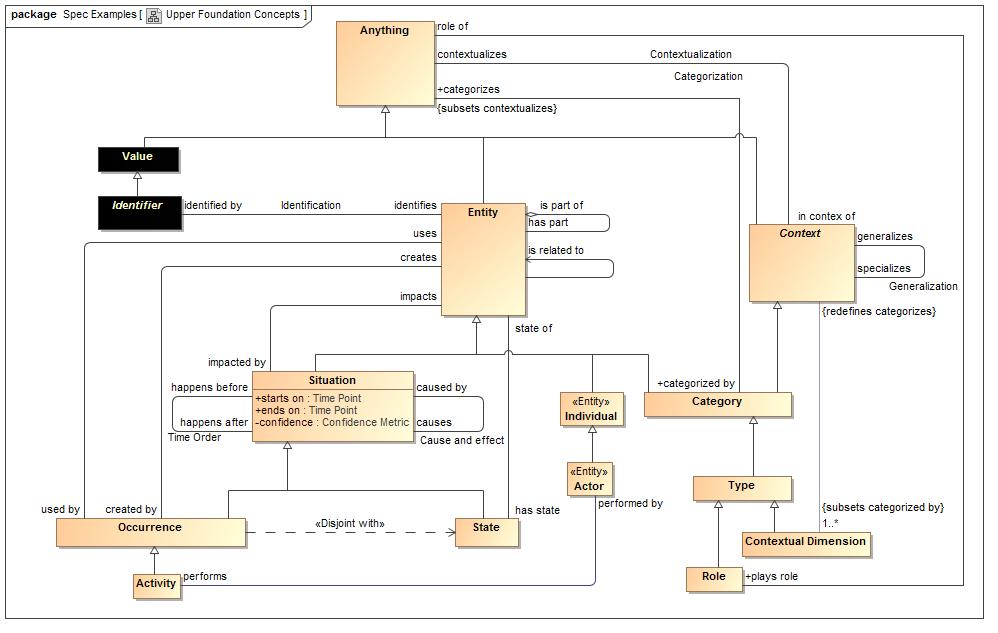
Any thing or value that does or may exist

## Diagram: UML Examples



1. UML Examples

## Diagram: Upper Foundation Concepts



1. Upper Foundation Concepts

# Data Type

## Number

Any number

## ordered

Assertion that elements of a collection are ordered in some way.

# Tree

## Class Hierarchy

## Enumeration Hierarchy