MBUI - UI Commons Model

Editor’s draft - MBUI Working Group Specification

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Editors

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Comments

Abstract

Model-Based User Interface Design facilitates interchange of designs through a layered approach that separates out different levels of abstraction in user interface design. This document covers the specification of UI Common Models.

Status of This Document

This section describes the status of this document at the time of its publication. Other documents may supersede this document. A list of current W3C publications and the latest revision of this technical report can be found in the W3C technical reports index at http://www.w3.org/TR/.

This document is being published to complement the specification on Abstract User Interface Models.

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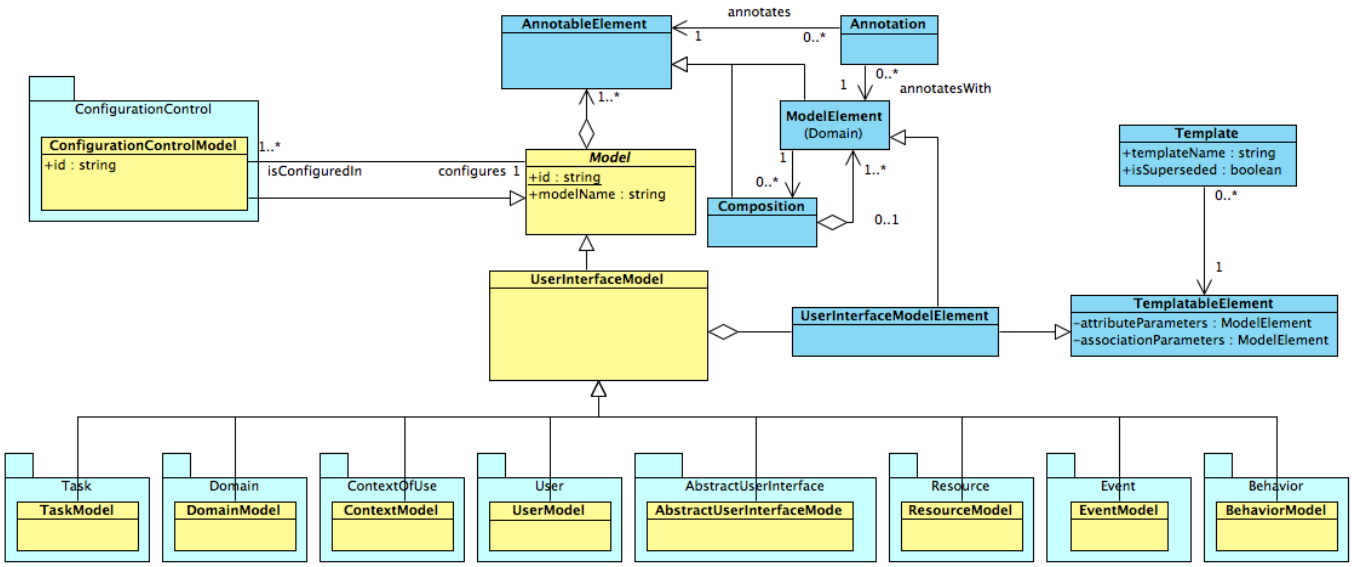
New Version (06/09/2013)



The updated version of the UICommons contains the Template class connected to the Model (please check the relationship type if it is correct) and the 3 packages for: Resource, Event and Behavior models.

Model

Definition: defines a model
Attributes:

- id (string)
- modelName (string)

Relationships:

- *aggregates*(AnnotableElement): a Model is defined by a AnnotableElement
- *generalizes*(UserInterfaceModel)
- *generalizes*(ConfigurationControlModel)
- *isConfiguredby*(ConfigurationControlModel)

ConfigurationControlModel (Package Configuration Control)

Definition: defines a model to control de configuration
Attributes:

- id (string)

Relationships:

- *Configures*(Model)
- *Inheritsfrom*(Model)

UserinterfaceModel

Definition: defines a model for User Interfaces
Attributes:

- none

Relationships:

- *Inheritsfrom*(Model): is generalized by a Model
- *aggregates*(UserInterfaceModelElement)
- *inherits*(TaskModel)
- *inherits*(DomainModel)
- *inherits*(ContextModel)
- *inherits*(UserModel)
- *inherits*(AbstractUserinterfaceModel)
- *inherits*(ResourceModel)
- *inherits*(EventModel)
- *inherits*(BehaviorModel)

AnnotableElement

Definition: defines that an element can be annotated
Attributes:

- none

Relationships:

- *isAggregatedIn*(Model): a Model is defined by an AnnotableElement
- *isAnnotatedby*(Annotation)
- *inherits*(ModelElement)
- *inherits*(Composition)

Annotation

Definition: defines an annotation
Attributes:

- none

Relationships:

- *isAssociatedWith*(AnnotableElement): an AnnotableElement is annotated by an Annotation
- *isAssociatedWith*(ModelElement): an ModelElement is annotated with an Annotation

ModelElement (Domain)

Definition: defines an element of a model of the domain
Attributes:

- none

Relationships:

- *isAnnotatedWith*(Annotation): an ModelElement is annotated by an Annotation
- *inherits*(UserinterfaceModelElement)
- *isAggregatedIn*(Composition)
- *isAssociatedWith*(Composition)
- *inheritsFrom*(AnnotableElement)

Composition

Definition: defines a composition
Attributes:

- none

Relationships:

- *isAssociatedWith*(ModelElement): a Composition is associated with a Model Element
- *inheritsFrom*(AnnotableElement)
- *isAggregatedIn*(ModelElement)

UserInterfaceModelElement

Definition: defines an element for the user interface model
Attributes:

- none

Relationships:

- *inheritsFrom*(ModelElement)
- *inheritsFrom*(TemplatableElement)
- *isAggregatedIn*(UserInterfaceModel)

TemplatableElement

Definition: defines that an element can have a template associated with it
Attributes:

- attributeParameters(ModelElement)
- associateParameters(ModelElement)

Relationships:

- *isAggregatedIn*(Model): a Model is defined by an AnnotableElement
- *isAnnotatedby*(Annotation)
- *inherits*(ModelElement)
- *inherits*(Composition)

Template

Definition: consists of any UI model element defined as a pattern. Such a template could be

defined once and used as many times as required through a reference mechanism. When a Template is reused, three forms are allowed: *direct reuse* (the pattern is simply reused, any change on the initial pattern is automatically propagated to all its instances), *fixed reuse* (the pattern is reused, but its definition cannot be changed, even if the initial pattern changes), or *reuse with overwriting* (the pattern is reused, but its instantiation could be modified locally without affecting the pattern definition).

Attributes:

- *templateName* (string, 1-1): specifies a logical name for the Template
- *isSuperseded* (Boolean, 1-1): specifies whether a Template is superseded. For instance, an UI model element that has become a Template could be either preserved (in this case, each time its definition changes, it is propagated through all instances) or superseded (in this case, any instance could be modified independently of the Template)

Relationships:

- *isAssociatedWith*(TemplatableElement): a template defines a templated element

TaskModel (Task Package)

Definition: defines the task model
Attributes:

- none

Relationships:

- *inheritsFrom*(UserInterfaceModel)

DomainModel (Domain Package)

Definition: defines the domain model
Attributes:

- none

Relationships:

- *inheritsFrom*(UserInterfaceModel)

ContextModel (ContextOfUse Package)

Definition: defines the context model
Attributes:

- none

Relationships:

- *inheritsFrom*(UserInterfaceModel)

UserModel (User Package)

Definition: defines the user model
Attributes:

- none

Relationships:

- *inheritsFrom*(UserInterfaceModel)

AbstractUserInterfaceModel (AbstractUserInterface Package)

Definition: defines the abstract user interface model
Attributes:

- none

Relationships:

- *inheritsFrom*(UserInterfaceModel)

ResourceModel (Resource Package)

Definition: defines the resource model
Attributes:

- none

Relationships:

- *inheritsFrom*(UserInterfaceModel)

EventModel (Event Package)

Definition: defines the event model
Attributes:

- none

Relationships:

- *inheritsFrom*(UserInterfaceModel)

BehaviorModel (Behavior Package)

Definition: defines the behavior model
Attributes:

- none

Relationships:

- *inheritsFrom*(UserInterfaceModel)

Localization

Definition: refers to the possibility of a AIU to be localized, i.e. adapted according to a specific country or region (e.g. concerning cultural aspects). Such a localization is considered as a specific case of contextualization. In general, a contextualization refers to the adaptation of a AUI depending on a particular expected context of use (covering, user, platform, and environment). In particular, a localization refers to the adaptation of a AUI for a particular set of users in a certain environment (typically, a country, a

continent, a set of countries sharing the same culture and/or language). Complementary to localization is the globalization, which refers to the adaptation of a AUI for the larger set of users working in the larger set of environments.

Attributes:

- *languageCode* (string[2], 1-1): specifies the type of language according to the international nomenclature of language codes (e.g., “EN” for English”, “FR” for French, “NL” for Dutch).
- *label* (string): defines the label localized for a particular language (typically, a translation).
- *helpText* (string): defines the help text localized for a particular language.

Relationships:

- none