

Model

Package in package "

Model
Version Phase 1.0 Proposed
alberto created on 06/04/2019. Last modified 06/04/2019

Requirements

Package in package 'Model'

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Version Phase 1.0 Proposed
alberto created on 06/04/2019. Last modified 06/04/2019

Requirements diagram

Custom diagram in package 'Requirements'

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**REQ_GRAL_01: Simulación de
un semáforo**

Figure 1: Requirements

REQ_GRAL_01: Simulación de un semáforo

Requirement «Functional» in package 'Requirements'

Se debera simular el funcionamiento de un semaforo en una avenida principal con una interseccion secundaria. Dicha interseccion tendra un semaforo encendido con la luz verde como estado normal y se debera apagar en las siguientes situaciones:

- cuando un peaton presione el boton de cruce
- cuando un automovil de la calle secundaria de la vuelta para su incorporacion a la avenida principal y sea detectado por un sensor de cruce.

REQ_GRAL_01: Simulación de un semáforo
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alberto created on 06/04/2019. Last modified 06/04/2019

Requirements Model

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alberto created on 06/04/2019. Last modified 19/11/2005

Requirements Model diagram

Custom diagram in package 'Requirements Model'

Requirements Model
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alberto created on 06/04/2019. Last modified 06/04/2019

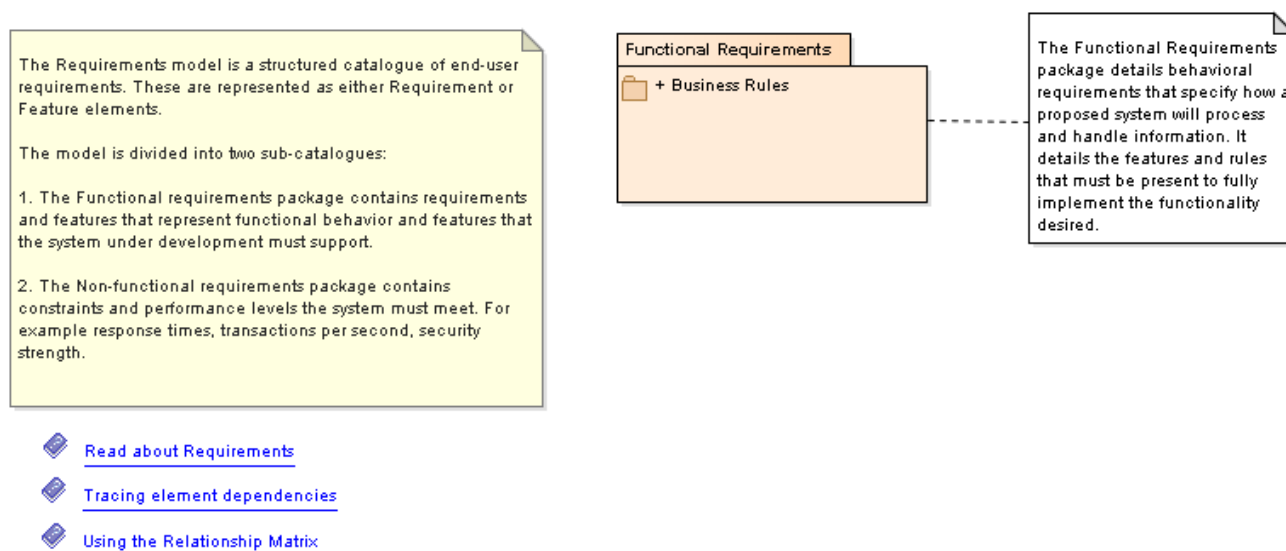


Figure 2: Requirements Model

Note

Note in package 'Requirements Model'

The Functional Requirements package details behavioral requirements that specify how a proposed system will process and handle information. It details the features and rules that must be present to fully implement the functionality desired.

Note
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alberto created on 06/04/2019. Last modified 06/04/2019
Extends

Note

Note in package 'Requirements Model'

The Requirements model is a structured catalogue of end-user requirements. These are represented as either Requirement or Feature elements.

The model is divided into two sub-catalogues:

1. The Functional requirements package contains requirements and features that represent functional behavior and features that the system under development must support.

2. The Non-functional requirements package contains constraints and performance levels the system must meet. For example response times, transactions per second, security strength.

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Extends

Functional Requirements

Package in package 'Requirements Model'

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[\\$help://elementrelationshipmatrix.htm](#)

Text in package 'Requirements Model'

[\\$help://elementrelationshipmatrix.htm](#)
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alberto created on 06/04/2019. Last modified 06/04/2019
Alias Using the Relationship Matrix
Extends

[\\$help://requirements_model_pattern.htm](#)

Text in package 'Requirements Model'

[\\$help://requirements_model_pattern.htm](#)
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alberto created on 06/04/2019. Last modified 06/04/2019
Alias Read about Requirements
Extends

[\\$help://trace_requirements.htm](#)

Text in package 'Requirements Model'

[\\$help://trace_requirements.htm](#)
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alberto created on 06/04/2019. Last modified 06/04/2019
Alias Tracing element dependencies
Extends

Functional Requirements

Package in package 'Requirements Model'

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Functional Requirements diagram

Custom diagram in package 'Functional Requirements'

Functional Requirements
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alberto created on 06/04/2019. Last modified 06/04/2019

Functional Requirements describe the features, behavior, business rules and general functionality that the proposed system must support.

Business Rules




-  + BLF01: Se botón de cruce peatonal deberá poner el rojo el semáforo
-  + BLF02: El sensor de cruce de automóvil (botón) deberá poner en rojo
-  + BLF03: El botón y el sensor no se deben activar al mismo tiempo

Figure 3: Functional Requirements

Note

Note in package 'Functional Requirements'

Functional Requirements describe the features, behavior, business rules and general functionality that the proposed system must support.

Note
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alberto created on 06/04/2019. Last modified 06/04/2019
Extends

Business Rules

Package in package 'Functional Requirements'

Business Rules
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Business Rules

Package in package 'Functional Requirements'

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Business Logic diagram

Custom diagram in package 'Business Rules'

Business Logic

The Business Rules package is a catalogue of explicit business rules which are required to be implemented within the current project. Business Rules are typically executed during program execution and control the processing of information and transactions.

BLF01: Se botón de cruce peatonal deberá poner el rojo el semáforo

BLF02: El sensor de cruce de automóvil (botón) deberá poner en rojo el semáforo

BLF03: El botón y el sensor no se deben activar al mismo tiempo

Figure 4: Business Logic

Note

Note in package 'Business Rules'

The Business Rules package is a catalogue of explicit business rules which are required to be implemented within the current project. Business Rules are typically executed during program execution and control the processing of information and transactions.

Note

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Extends

BLF01: Se botón de cruce peatonal deberá poner el rojo el semáforo

Requirement «Functional» in package 'Business Rules'

El boton de cruce del peaton debera encender la luz roja del semafono de acuerdo a la siguiente secuencia:

1. La luz verde parpadeara 3 veces antes de apagarse
2. Se enciende la luz amarilla durante 1 segundo y despues se apaga
3. Se enciende la luz roja durante 4 segundos y se apaga
4. Se vuelve a encender la luz verde

BLF01: Se botón de cruce peatonal deberá poner el rojo el semáforo

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BLF02: El sensor de cruce de automóvil (botón) deberá poner en rojo el semáforo

Requirement «Functional» in package 'Business Rules'

El boton de cruce del automovil debera encender la luz roja del semafono de acuerdo a la siguiente secuencia:

1. La luz verde parpadeara 3 veces antes de apagarse

2. Se enciende la luz amarilla durante 1 segundo y despues se apaga
3. Se enciende la luz roja durante 2 segundos y se apaga
4. Se vuelve a encender la luz verde

BLF02: El sensor de cruce de automóvil (botón) deberá poner en rojo el semáforo
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BLF03: El botón y el sensor no se deben activar al mismo tiempo

Requirement «Functional» in package 'Business Rules'

El boton del peaton no debera llamar la funcion de apagado del semaforo si la misma fue llamada primeramente por el sensor.

El sensor no debera llamar la funcion de apagado del semafono si la misma fue llamada primeramente por el boton del peaton

BLF03: El botón y el sensor no se deben activar al mismo tiempo
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alberto created on 06/04/2019. Last modified 06/04/2019