

# **ERTMS Formal Specs Workbench**

**Coding Guidelines, Version: 0.1**

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# Revision History

Revision	Date	Author(s)	Description
0.1	31/10/2013	MD	initial draft

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# How to read this file

## TODO *MD*

- intended audience
- typographical conventions
- ...

# 1 Domain specific language

## 1.1 General

1.1.1. **TODO** *MD* **EMPTY** vs. **NOT AVAILABLE()** vs. **[]**

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1.1.2. **SUM** *List* **USING** *X* shall be preferred over **REDUCE** *List* **USING** *X* + **RESULT**.

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1.1.3. **THERE\_IS\_IN** *List* | *Condition* shall be preferred over **MAP** *List* | *Condition* **USING** *X*.

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## 2 Model

### 2.1 Functions

#### 2.1.1 Cases

##### 2.1.1.1 General

- 2.1.1.1.1. TBD MD Cases shall only contain trivial expressions (i.e. all logic shall be defined inside pre-conditions).

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- 2.1.1.1.2. TBD MD Complex expressions and pre-conditions shall not be used together.  
this rule is mutually exclusive to 2.1.1.1.1. MD

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##### 2.1.1.2 Pre-conditions

- 2.1.1.2.1. Cases with no pre-condition assigned shall always come as the very last case.

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- 2.1.1.2.2. Cases with no pre-condition assigned shall always be named "Otherwise".

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## 3 Tests

### 3.1 Structure

- 3.1.1. The first sub-step of the first step of a test frame shall only contain the expression  
`Kernel.InitializeTestEnvironment()`.

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- 3.1.1.1. There shall be no Expectation associated with this sub-step.

*MD, 31/10/2013*

### 3.2 Naming conventions

- 3.2.1. Individual test steps shall be named Step n - explanation.  
*Explanation* is a user-defined text to summarize the actions and expectations of the current step.

*MD, 31/10/2013*

# 4 Git

## 4.1 General

- 4.1.1. Own edits shall always be committed into a personal fork of the EFS repository and then transferred by issuing a pull-request.

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## 4.2 Commits

### 4.2.1 General

- 4.2.1.1. numerous small commits dealing with a single issue are preferable over few huge commits possibly dealing with many different issues.

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### 4.2.2 commit description texts

- 4.2.2.1. The text shall not contain line-breaks (i.e. consist of a single line only).

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- 4.2.2.2. Commits dealing with the modeling part of the tool shall begin with *EA\_MODEL* followed by a reference to the sections of the subset the commit is related to and a descriptive text.

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- 4.2.2.3. Commits dealing with the testing part of the tool shall begin with *EA\_TEST* followed by a reference to the sections of the subset the commit is related to and a descriptive text.

*MD, 31/10/2013*



# List of Corrections

MD: TODO . . . . .	4
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