

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

1 Domain specific language

1.1 General

1.1.1. **TODO** `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** 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** Complex expressions and pre-conditions shall not be used together.

remark: this rule is mutually exclusive to 2.1.1.1.1.

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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.

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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.

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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.

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