**User Manual**

**Summary**

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**1. Introduction**

The software package provides a micro language, which permits to load, create, save, show, modify and export a system model.

A breve tutorial to the micro language is given in section 2.

The system model is described with a JSON format (see <http://www.json.org/> for details). The model includes system components and their hierarchical relations as well as properties of these components and relations. The syntax of the system model is given in section 3.

The semantics of the system model requires a respect to certain modeling rules. The non-respect of rules results in exceptions under the name of “error” or “warning”. An error must be correct before continuing the modeling process. A warning indicates a possibly undesired consequence in the modeling process and should be payed attention to. A table of errors and warning is given in section 4.

The functions of the micro language is provided by python programs of the package. The execution of these programs create a working environment of the language under which the user can manipulate system models with predefined functions in a terminal. Under the working environment, the command line “RauLang –help” displays the list of predefined functions. Detailed function description are given in section 5.

The software package provides system model templates for the users. Some predefined models can be used to show typical errors and warnings in a modeling process. Details descriptions of these templates are given in section 6.

**2. A tutorial**

In this section, the usage of the product is demonstrated through a breve tutorial. Examples used in this section can be found in models provided in the package.

**3.System model syntax**

**4.Error handling**

**5.API description**

The functions that users can use to manipulate a system model once “Rauzy-Language” application launched are presented in this section. In the python shell, once the application launched, the user can execute “RauLang --help” to have a list of all the APIs and their simple descriptions.

**6.Models reference**

The models provided along with the package for tests and tutorial are presented in this section.