# Tests for test selection process:

## Test of top level selection.

For certain level/version selection some tags will be disabled.

Select each LV selection and check that the appropriate items have been disabled.

## Level 1 Version 2

When this is selected the following should be disabled:

| Components tags       | Test tags                            |  |
|-----------------------|--------------------------------------|--|
| FunctionDefinition    | 2-D compartments                     |  |
| InitialAssignment     | 1-D compartments                     |  |
| Events with delays    | 0-D compartments                     |  |
| Events without delays | Species using initial concentration  |  |
|                       | Species with 'hasOnlySubstanceUnits' |  |
|                       | Species declared as constant         |  |
|                       | Use of formulas in stoichiometries   |  |
|                       | Use of csymbol 'time'                |  |

#### Level 2 Version 1

When this is selected the following should be disabled:

| Components tags   | Test tags |
|-------------------|-----------|
| InitialAssignment |           |

## **Tests for component selection**

Selecting certain component tags should automatically select other (dependent) items.

Select the component tag and check that the items listed are selected. Reset form after each test. Note these should be tested for each Level/Version selection but that any disabled fields should not get selected.

| <b>Component selected</b> | Disables other tags   |                                      |
|---------------------------|-----------------------|--------------------------------------|
| _                         | <b>Component tags</b> | Test tags                            |
| Parameter                 |                       | Varying parameter values             |
| Reactions                 |                       | 'Fast' reactions                     |
|                           |                       | Reversible reactions                 |
|                           |                       | Stoichiometries not 1                |
|                           |                       | Use of formulas in stoichiometries   |
|                           |                       | Local parameters in reactions        |
| Species                   | Reactions             | Tags as for Reactions                |
|                           |                       | Species using initial amounts        |
|                           |                       | Species using initial concentrations |
|                           |                       | Species with                         |
|                           |                       | 'hasOnlySubstanceUnits'              |
|                           |                       | Species as boundary conditions       |
|                           |                       | Species declared as constant         |
| Compartments              | Species               | Tags as for Species                  |
|                           | Reaction              | Tags as for Reactions                |
|                           |                       | 2-D compartments                     |
|                           |                       | 1-D compartments                     |
|                           |                       | 0-D compartments                     |
|                           |                       | Varying size compartments            |
|                           |                       | Compartments with size not 1         |
|                           |                       | Multiple compartments                |

Check that selecting any other component tag alone does not preselect anything else.

#### **Tests for test tags selection**

There are no dependencies between test tags. Thus selecting any test tag should not preselect any other.

It is worth checking this.

#### **Combinations**

Selecting certain combinations of component tags should automatically select other (dependent) items or indeed exclude all possibilities.

These are fairly specific and so detailed separately:

- 1) Selecting all four component tags Compartments, Species, Reactions and Parameters should produce a message saying there will be no models.
- 2) For Level 1 Version 2 selecting all three component tags Assignments rules, Rate rules and Algebraic rules should preselect the test tags: Varying-size compartments; Varying parameter values
- 3) For Level 1 Version 2 selecting all four component tags Assignments rules, Rate rules, Algebraic rules and Reactions should produce a message saying there are no models. . This should be the case regardless of whether Compartment, Species and Parameters are selected or not.
- 4) For Level 2 all versions selecting all five component tags Assignments rules, Rate rules, Algebraic rules, Events with delays, Events with no delays should preselect the test tags: Varying-size compartments; Varying parameter values
- 5) For Level 2 all versions selecting all six component tags Assignments rules, Rate rules, Algebraic rules, Events with delays, Events with no delays and Reactions should produce a message saying there are no models. This should be the case regardless of whether Compartment, Species and Parameters are selected or not.