

SAIC Digital Engineering (DE) Toolkit for Rhapsody

User Manual

05/17/2023

This presentation consists of SAIC general capabilities information that does not contain controlled technical data as defined by the International Traffic in Arms (ITAR) Part 120.10 or Export Administration Regulations (EAR) Part 734.7-11.

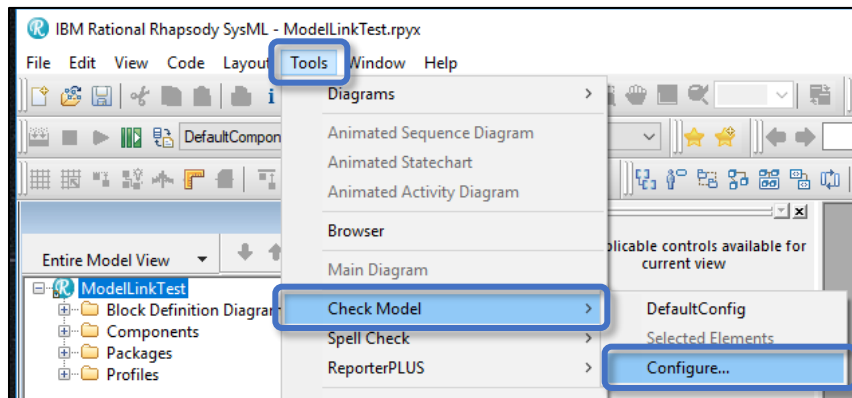
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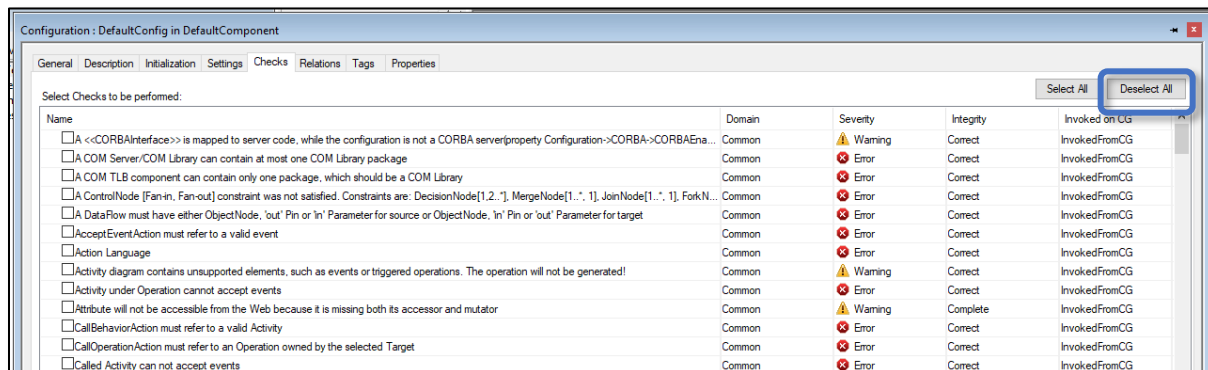
Note: This user manual presumes the profile is already successfully added to your SysML model. Please see the installation procedure for instructions on adding the profile to your model.

Configuring the Validation Rules

1. Open a Rhapsody SysML model that has the SAIC DE Toolkit Profile added
2. Select **Tools > Check Model > Configure**

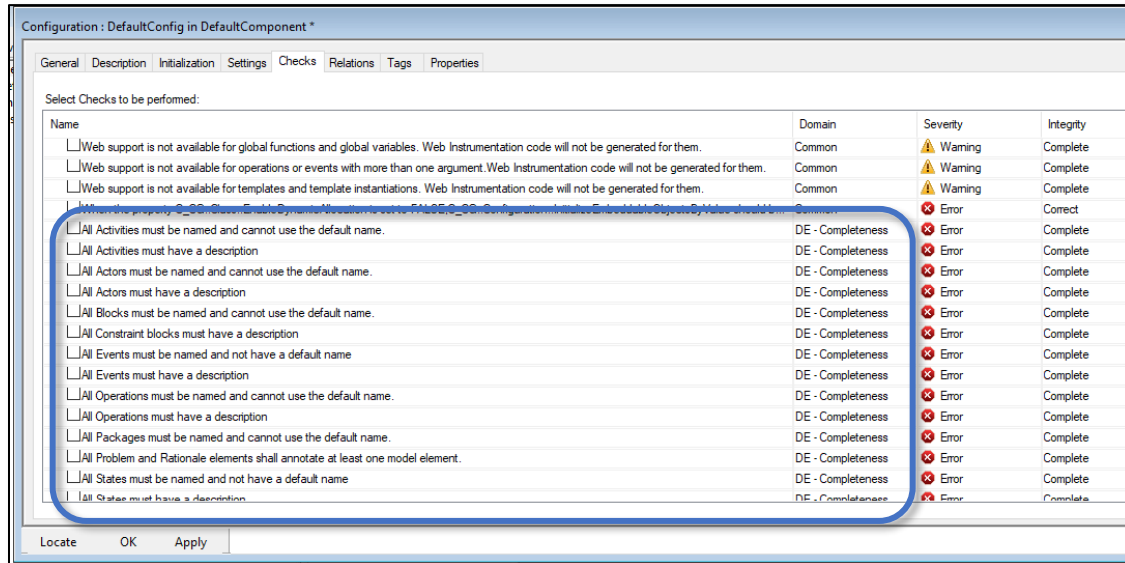


3. The Model Check window will open. Click **Deselect All**.

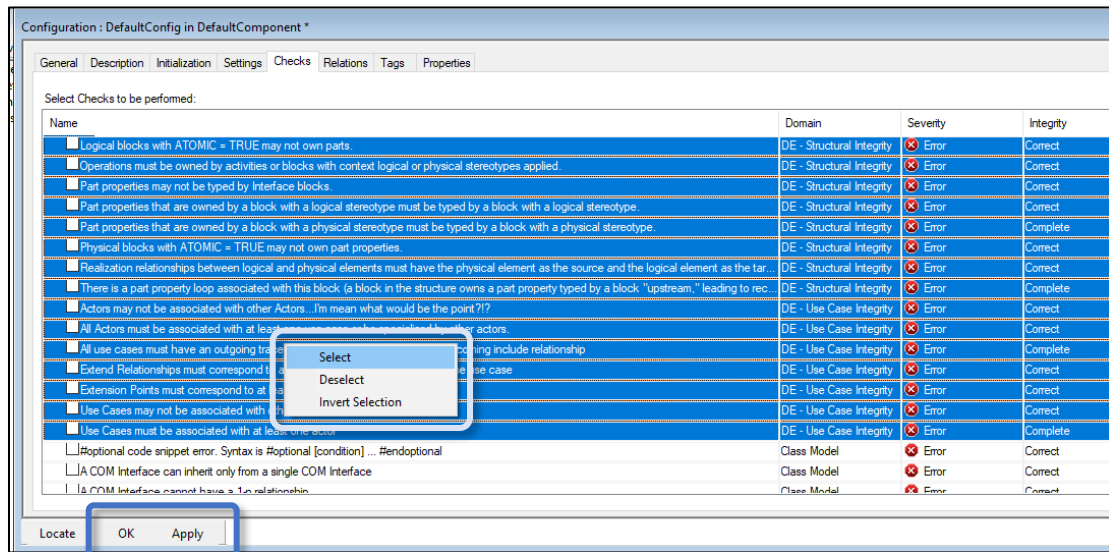


Note: Rhapsody comes with Model Checking rules out of the box. Those rules have domain types (See the “Domain” Column in the checker) of Common, Class Model and State Chart. And in most instances are rules for auto-code generation from the model. All of the DE Profile Validation Rules have a domain that starts with “DE”. All the DE rules are grouped together.

4. **Scroll down** until you see rules for the “DE” Domain.



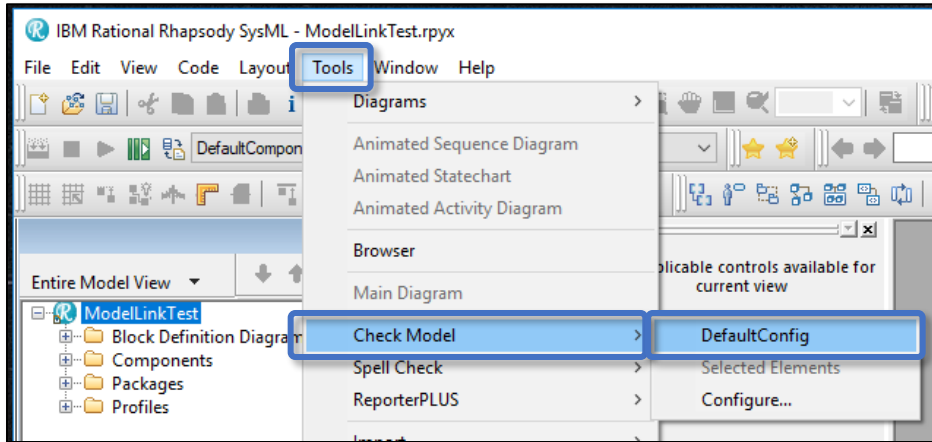
5. To select **ALL** the Validation Rules,
- Click** on the first DE rule
 - Scroll Down** to the last DE rule
 - Hold Shift** and **Click** the last DE rule. This will highlight all the DE Validation Rules
 - Right Click** the selection and **Click Select** then **Click Apply**, then **Click OK**



6. To select a customized set of rules to run, simply check the boxes of the rules you want to run, then **Click Select** then **Click Apply**, then **Click OK** (not shown in a graphic)

Running the Validation Rules on the Entire Model

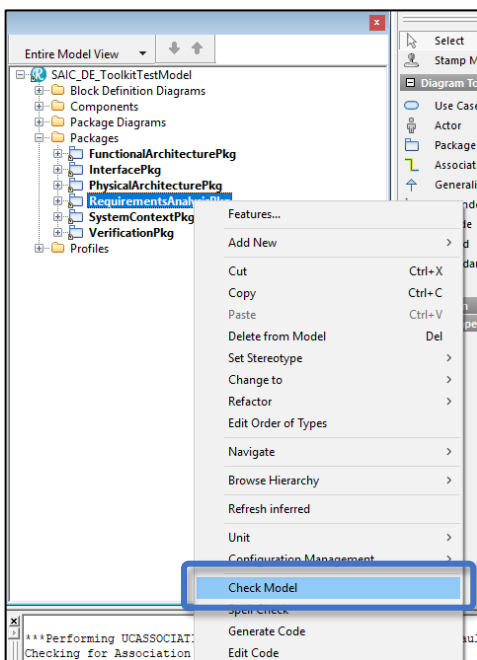
1. Configure the Validation Rules per the *Configuring the Validation Rules* section
2. Select **Tools > Check Model > Default Config**



3. The checker will run all the selected Validation Rule checks against the entire model. (*Note: Depending on how many elements are in the model, this may take several minutes*)
4. See *Viewing the Results* section for how to observe the results of the check

Running the Validation Rules on a Single Package

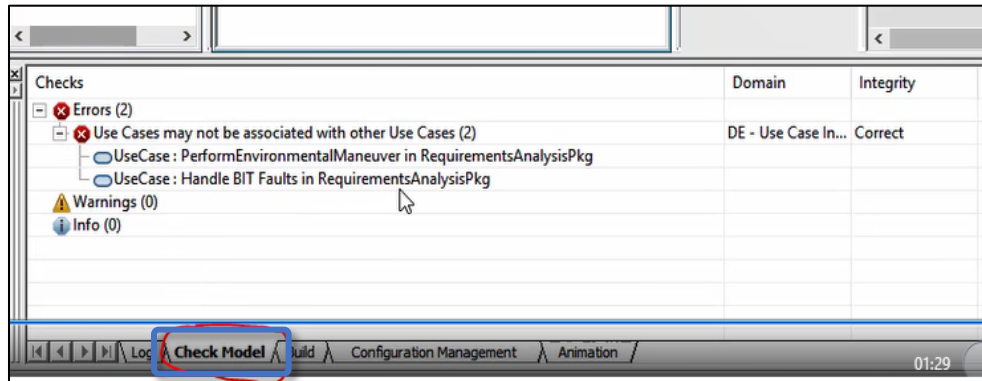
1. Configure the Validation Rules per the *Configuring the Validation Rules* section
2. **Right Click** the package you want to run the check and **Select Check Model**



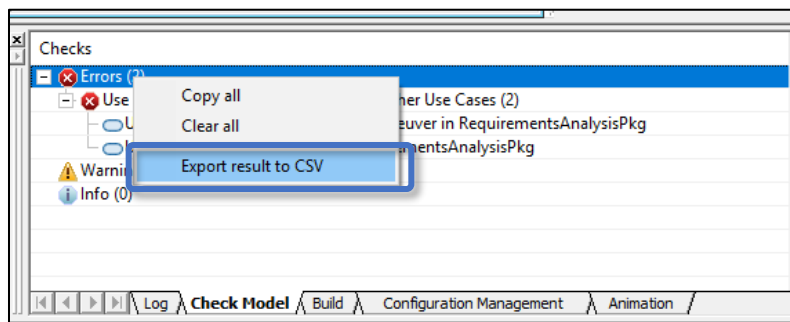
3. The checker will run all the selected Validation Rule checks against the selected package. (*Note: Depending on how many elements are in the package, this may take several minutes*)
4. See *Viewing the Results* section for how to observe the results of the check

Viewing the Results

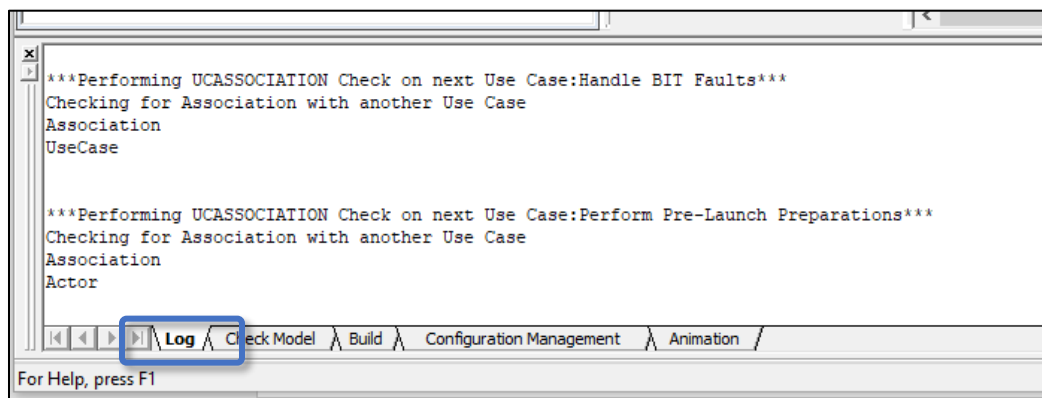
1. Run the Validation Rules per the *Running the Validation Rules* sections
2. Rhapsody displays the results in its output window. If the output window isn't open, **Select View > Output Window** or simply **Click** <alt>+3 to toggle the output window.
3. In the output window, **Click** on the *Check Model* tab to see the results



4. This view displays all the errors, warnings and info results from the check. For each type of error, it displays the Domain (e.g., DE – Use Case Integrity), and all the model elements that failed the check
5. To export the full list of Validation Rule results, **Right Click** on *Errors*, and **Select Export Results to CSV**



6. **Double Click** on the offending model element and Rhapsody will highlight its location in the Model Browser and open the element's Feature Dialog box
7. To see amplifying information on all the checks performed, **Click** on the *Log* tab



Note: After the model fixes have been implemented, simply re-run the Validation Rules check per this manual.

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SAIC DE Toolkit Profile

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SAIC Validation Rules

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