

ACH - Configuring model properties



Starting from CAST AIP 8.3.23, **CAST Architecture Checker** will no longer be installed as part of the CAST AIP setup, whether installing CAST AIP from scratch or on a server where a previous release of CAST AIP exists. CAST Architecture Checker has evolved into a **standalone component** where all feature requests and bug fixes are now managed. This standalone component can be downloaded from **CAST Extend** (<https://extending.castsoftware.com/#/search-results?q=archchecker>).

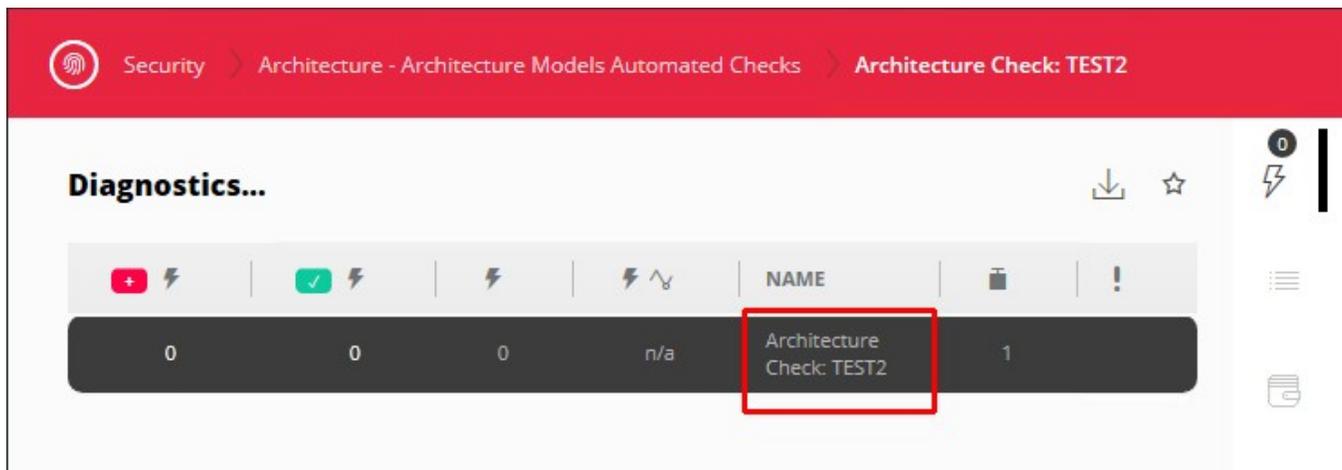
Up-to-date documentation can be found here: [CAST Architecture Checker](#).

Configuring model properties

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Introduction

Each Architecture Model that is created in the CAST Architecture Checker, assigned to an Application in the CAST Management Studio and included in an analysis/snapshot will be visible in the results as a **distinct Quality Rule** under the **"Security" Health Factor** and **"Architecture Models Automated Checks" Technical Criterion**. For example here in the CAST Engineering Dashboard:



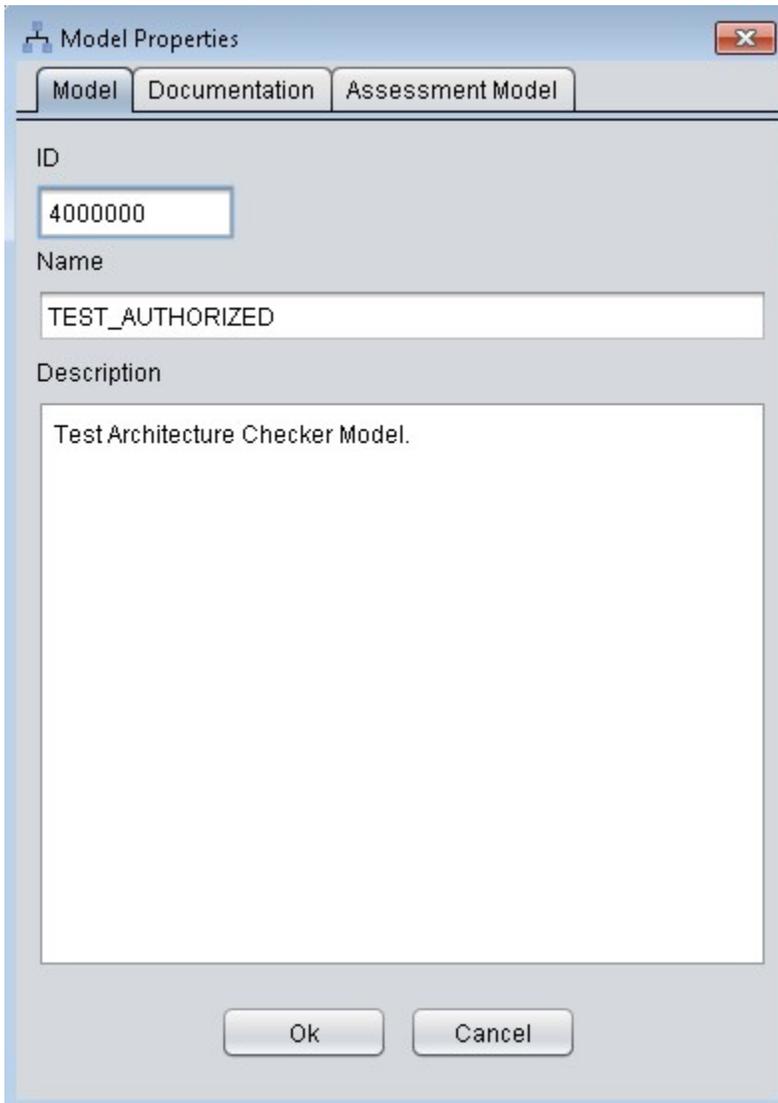
In previous releases of CAST AIP, the properties of this Quality Rule (Name, Weight and Criticality) were configured in the CAST Management Studio. However, these properties are now configurable directly in CAST Architecture Checker. Additional properties can also be configured (for example all fields in the Quality Rule).

Configuring model properties

To configure the current model's properties:

- Use the [File > Properties](#) menu
- Using the [Toolbar](#) icon

A dialog box containing various tabs will then be displayed enabling you to configure the properties:

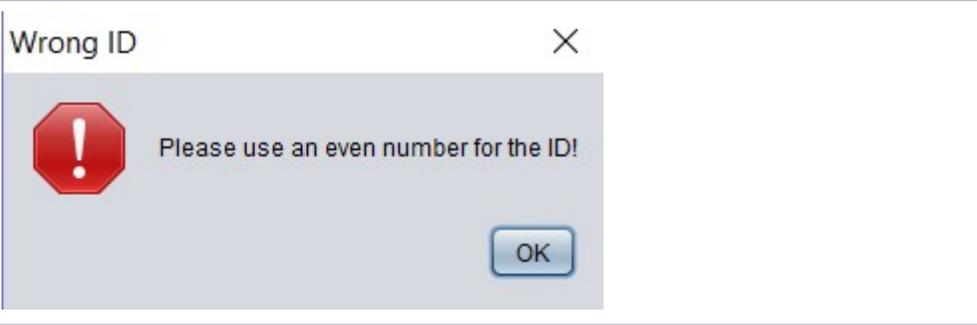
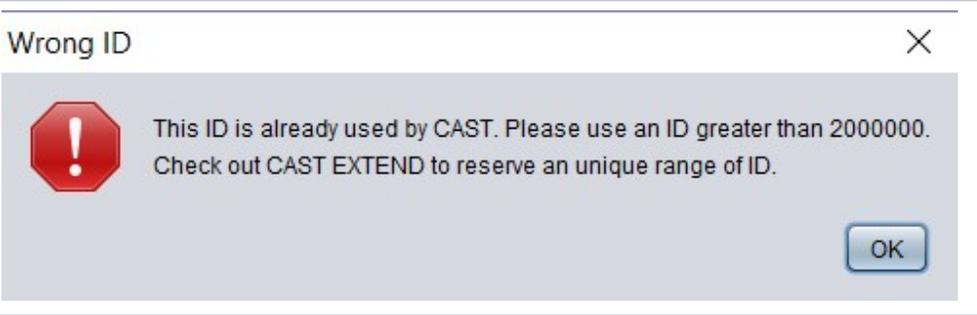
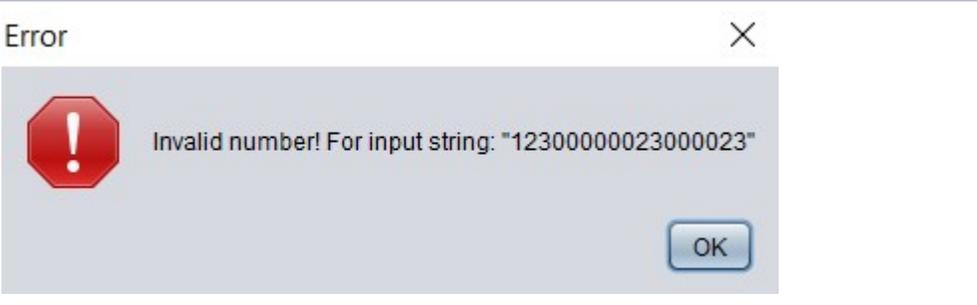


The following properties can be configured:

Model tab

- **ID:**
 - A unique identifier for your Architecture Model must be defined in the CAST Architecture Checker GUI for all models assigned to Applications in CAST AIP 8.3.2. This ID is used to identify the Architecture Model throughout the CAST Management Studio and the CAST dashboards (the ID will be saved to a table in the CAST Management Service schema).
 - A positive and even number above **2,000,000** can be assigned as an ID (values less than this are already reserved for use by CAST). CAST recommends using [CAST Extend](#) to reserve a range of IDs for your use (if you have not done so already). To do so, sign in to CAST Extend and select **ID Ranges > Quality Range Reservation > Reserve Rule ID Range:**
 - The **Extension ID** field is of the form: **com.castsoftware.uc.<free-form text>**. Where **<free-form text>** can be any string that describes your initiative or your project.
For the **Range amount** field, choose a number between 1 and 10. 1 corresponds to a range of 1000 IDs, therefore if you enter 3, you will be granted 3000 IDs.
After you have clicked on Reserve, a range of rule IDs are defined and ready for your use.
 - See [Managing ID ranges for custom extensions](#) for more information about this.
 - If an existing Model from CAST AIP 8.3.1 (where IDs were not available) is opened, then the ID will be set to the default value (0).
 - If an Architecture Model has already been assigned to an Application in the CAST Management Studio with ID = X, then even if the Architecture Model is subsequently edited in the CAST Architecture Checker and the ID changed (to ID = Y, for example), the Model will retain the **same ID** in the CAST Management Service schema as long as it is not removed from the Application.
 - The ID must be **unique** in the CAST Management Service schema. If two Architecture Models with the same ID are associated to an Application, only the first Model will be used and the second will be ignored.
 - If the ID is set to **0** (default) or **blank**, then the Architecture Model will be ignored when the snapshot is generated.
 - When saving the Model, the following is checked. If any of the below checks fail, an error will be displayed:

Check	Error
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That an even number has been used	 <p>A dialog box titled "Wrong ID" with a close button (X) in the top right corner. On the left is a red octagonal warning icon with a white exclamation mark. The main text reads: "Please use an even number for the ID!". At the bottom right is a blue "OK" button.</p>
That a number above 2,000,000 has been used	 <p>A dialog box titled "Wrong ID" with a close button (X) in the top right corner. On the left is a red octagonal warning icon with a white exclamation mark. The main text reads: "This ID is already used by CAST. Please use an ID greater than 2000000. Check out CAST EXTEND to reserve an unique range of ID.". At the bottom right is a blue "OK" button.</p>
That an invalid number has not been used (for example a very large number, or a negative number)	 <p>A dialog box titled "Error" with a close button (X) in the top right corner. On the left is a red octagonal warning icon with a white exclamation mark. The main text reads: "Invalid number! For input string: \"12300000023000023\"". At the bottom right is a blue "OK" button.</p>

- **Name:** the name of the Model as it will appear in the CAST AIP dashboards
- **Description:** a description of the model - only displayed in CAST Architecture Checker

Documentation tab

Documentation fields for the Quality Rule associated to the Architecture Model:

- **Name:** the name of the Quality Rule associated to the model
- **Rationale:** Reason why the violation pattern is a risk.
- **Description:** Description of the violation pattern that is tracked down.
- **Remediation:** How to remove the violation pattern.
- **Reference:** Source reference of this violation pattern.
- **Sample:** Sample of source code showing the violation pattern.
- **Remediation sample:** Sample of source code showing the proposed remediation.
- **Output:** Description of available information for the violations.
- **Scope:** Description of the scope of tested objects.

Assessment Model tab

- **Quality Rule weight:** This option enables you to change the Weight applied to the corresponding Quality Rule. This value defines how "important" the Quality Rule is in the parent Technical Criterion "**Architecture Models Automated Checks**". You can select a value between 0 and 9 (both included); a value equal to 0 has the same effect as ignoring the corresponding Architecture Model; the default value is 1.
- **Quality Rule criticality:** This option enables you to choose whether the corresponding Quality Rule is set as Critical or not, i.e. it allows you to threshold the grade of the parent metric using the grade of the child metric. The default value is "not Critical".

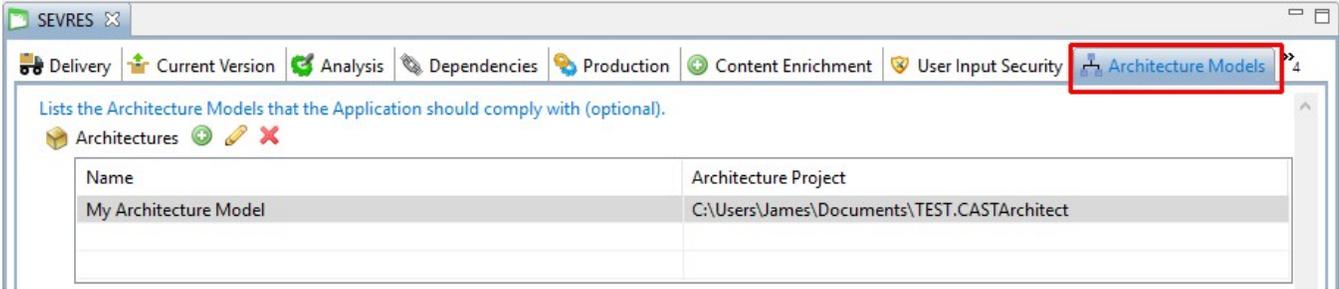
Saving updated properties

When you have completed the updates, ensure you save the model (see [Toolbar](#)).

When can I see the updated properties in the CAST dashboard?

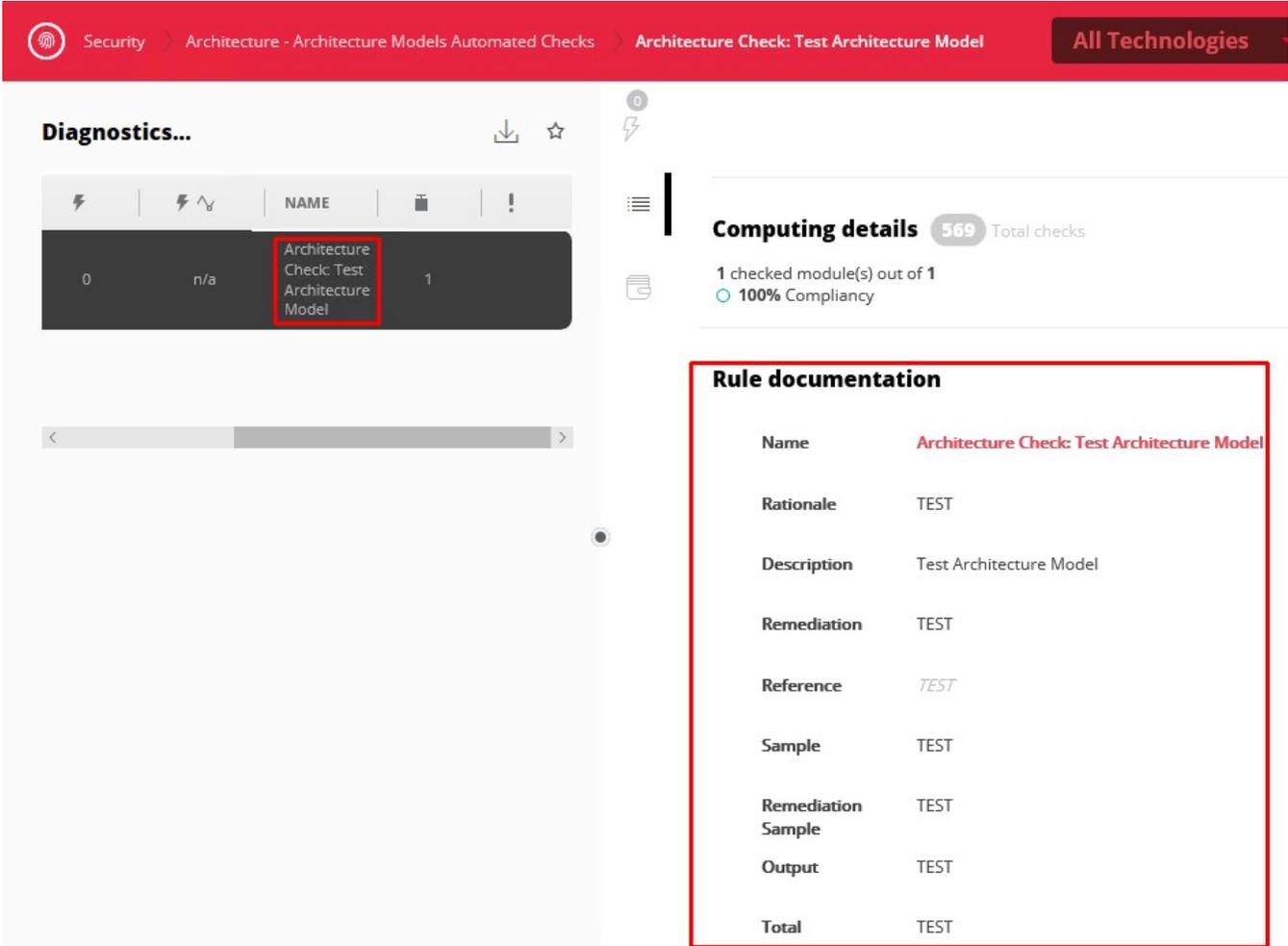
To view the custom properties in the CAST dashboards you need to:

- Ensure that the Architecture Model is assigned to an Application in the CAST Management Studio:



- Have generated a snapshot on this Application

Results will be available in the CAST dashboards, for example:



What happens if I open an Architecture Model that was created with a previous release of CAST AIP?

If you open an Architecture Model created and saved with a previous release of CAST AIP (8.3.0), then you may be warned as follows:

Information: opening old format



This model has not been defined with the latest version of Architecture Checker and some elements are missing. They have been automatically initialized and saving the model will copy these changes into the model file. This will have an impact on AIP results if that file is currently attached to an application

OK

This means that the Architecture Model was created with an older release of CAST AIP that did not include the ability to set Properties on the model. As such, the CAST Architecture Checker has initialized these Properties in the Architecture Model with **default values**. These default values may not correspond to the values you may have set in the CAST Management Studio and therefore may impact results when the Architecture Model is used in an analysis.

