

AIP Console - Architecture Studio - Existing Models

- Available options
 - Create a Model from scratch in Console
 - Check a Model
 - Run a check on part of the model

i Summary: this section provides instructions for working with existing **Architecture** or **Quality Rule Models** in the **Architecture Studio**.

Available options

Architecture Model	<p>Critical ⚡ Application context Global <input type="text" value="Search models"/></p> <table border="1"><thead><tr><th>Metric ID</th><th>Name ↑</th><th>File Name</th><th>Weight</th><th>Last Modified</th><th>Last Published</th><th></th></tr></thead><tbody><tr><td>3000000</td><td>TEST</td><td>javatosql.CASTArchitect</td><td>1</td><td>18/07/2022</td><td>18/07/2022</td><td> </td></tr></tbody></table> <p>Rows per page 10 1-1 of 1 < ></p>	Metric ID	Name ↑	File Name	Weight	Last Modified	Last Published		3000000	TEST	javatosql.CASTArchitect	1	18/07/2022	18/07/2022	
Metric ID	Name ↑	File Name	Weight	Last Modified	Last Published										
3000000	TEST	javatosql.CASTArchitect	1	18/07/2022	18/07/2022										
Quality Rule Model	<p>Application context Global <input type="text" value="Search models"/></p> <table border="1"><thead><tr><th>Metric ID</th><th>Name ↑</th><th>File Name</th><th>Last Modified</th><th>Last Published</th><th></th></tr></thead><tbody><tr><td>0</td><td>TEST</td><td>TEST.CASTRule</td><td>03/03/2021</td><td></td><td> </td></tr></tbody></table> <p>Rows per page 10 1-1 of 1 < ></p>	Metric ID	Name ↑	File Name	Last Modified	Last Published		0	TEST	TEST.CASTRule	03/03/2021				
Metric ID	Name ↑	File Name	Last Modified	Last Published											
0	TEST	TEST.CASTRule	03/03/2021												

Options:

<input type="text" value="Search models"/>	Use this to search for a specific model. Search will be performed on the file nam
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Application context MEUDON

- Global
- MEUDON

This option is used to select a context when running a [Check a model](#) on a spec

Application context MEUDON

Weight	Critical	
1		
1		

The drop down list will display a **Global** context option by default (when set to **Global** Application will enable the check icon and allow you to perform a check against the

The context selected here will be replicated in the [Model editor](#) (although this ca

Application context MEUDON

i Technically, selecting an application will load the appropriate metamodel application.

Critical ⚡

i Only available when working with Architecture Models.

This option filters Architecture Models that are set as **critical** via their properties

Edit Architecture Model Properties

MODEL	DOCUMENTATION	ASSESSMENT MODEL
1		<input type="checkbox"/> Consider the model as critical

Select the weight that is going to be used to compute the grade



Metric ID

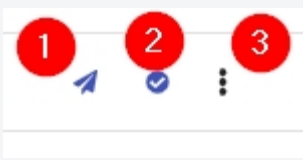
A unique identifier for your model. This ID is used to identify the Model throughout

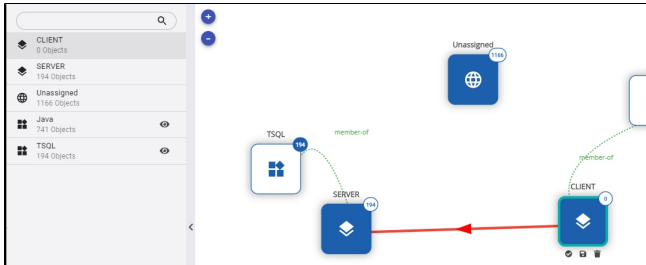
Name

Name of the existing Model that can then be attached to a specific Application/ pointer over the name of the model will reveal the **Description** assigned to the m

Metric ID	Name ↓
3000000	TEST
0	Test model - forbidden Java to SQL

<p>File Name</p>	<p>Name of the .castarchitecture/.castrule file name assigned to the model. Files are stored in the following locations:</p> <pre> 2.x \\share\Public\aip-node-data\common-data\upload\architecture\ 1.x %PROGRAMDATA%\CAST\AipConsole\AipConsole\upload\architecture\ </pre> <p>Note:</p> <ul style="list-style-type: none"> • for Models created from scratch in the Console, the file name will automatically be generated. • for imported Models, the file name will have been determined when the Model was imported. • File names cannot be changed. • You will be alerted if you attempt to create or import a Model with the same name.
<p>Last Modified</p>	<p>Displays the date the model was last modified. For imported Models that have not been published, the date is the date the Model was imported.</p>
<p>Weight</p>	<p> Only available when working with Architecture Models.</p> <p>Displays the Weight applied to the corresponding rule. This value defines how "important" the rule is. For more information, see Architecture Studio - Model editor.</p>
<p>Last Published</p>	<p>Displays the date the model was last published as an extension. See AIP Console.</p>
<p></p>	<p>This icon indicates that the model has been modified since the last time it was published.</p>



1	Publish See AIP Console - Architecture Studio - Publishing models.
2	Check See Check a Model below.
3	Options <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;"> <div style="text-align: center; padding: 5px; border-bottom: 1px solid #ccc;">Edit</div> <div style="text-align: center; padding: 5px; border-bottom: 1px solid #ccc;">Download</div> <div style="text-align: center; padding: 5px;">Remove</div> </div> <p>Edit</p> <p>Use this option to edit the Model in the Model editor (you can also click th</p> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;">  </div> <p>Download</p> <p>Use this option to download the Model (whether created from scratch or i</p> <p>Remove</p> <p>Use this option to remove the Model. Removing a Model cannot be rever</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <p>i</p> <ul style="list-style-type: none"> If a model which is attached to an Application (see Applicat case user has the possibility to download it from the Applica Once a model is removed, it can not be recovered. </div>

Create a Model from scratch in Console

This option enables you to create a **brand new Model/Library Component** using the interface available in Console. Choose the configuration settings for the new model, then click **OK** to start the editing process - see [AIP Console - Architecture Studio - Model editor](#) for more information:

Create a new Architecture Model

Authorized links Model

Name

CANCEL

OK

Create new Quality Rule Model

Name

CANCEL



OK


Create new Library Component



Name

CANCEL

OK

Authorized / Forbidden	<div data-bbox="357 136 1485 220" style="border: 1px solid #ccc; padding: 5px;"> <p> Only applicable when creating an Architecture Model.</p> </div> <p>Choose the type of model you would like to create:</p> <ul style="list-style-type: none"> • a model defining Authorized links between layers - i.e. links between objects that are authorized • a model defining Forbidden links between layers - i.e. links between objects that are forbidden <div data-bbox="357 357 1485 703" style="border: 1px solid #ccc; padding: 5px;"> <p> Authorized model type</p> <ul style="list-style-type: none"> • When two layers have no links between them in the model and in reality there are links, then a violation will be reported. • If a link between two layers is created in the model, then no violations will ever be raised regardless of whether in reality links exist or not. <p>Forbidden model type</p> <ul style="list-style-type: none"> • When two layers have no link between them in the model, whatever the reality is, no violations will be reported. • Violations will be reported only when a link between two layers is created in the model and in reality the link exists. </div>
Name	Enter a name for the model/Library Component.


 Note that you can also create a model using a **Product or user-defined template** as a starting point. Use the following icon in the **Templates** section. See also [Create an Architecture Model from a template](#)

 CREATE
 UPLOAD

.NET - Direct access between Front-End and DB Layers
PRODUCT

File Name
NET - Direct access between Front-End and DB Layers.CASTArchitect

Last Modified 12/11/2020


...

Check a Model

The Console can run a check of your Model against the current Application (ensure you choose an application in the drop down context list) so that you can see any violations of the current Model. A **snapshot** is required, but the Model does not need to have been "attached" to a specific Application/version or published as an extension for the results to show:

Architecture Models Quality Rule Models Library Components

+ CREATE UPLOAD Show Templates

Critical ⚡ Application context MEUDON Search models 🔍

Metric ID	Name ↑	File Name	Last Modified	Weight	
3000000	TEST	javatosql.CASTArchitect	03/03/2021	1	

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Results of the check will be shown as below - each violation of the rule is shown in one row of information (the example below is for a model that forbids a dependency from Java client code to SQL database code):

Click to enlarge

(5) Violations for architecture model: TEST

[View Model Description](#)

Caller Layer	Caller name	Caller type	Callee Layer	Callee name	Callee type	Link type	Dynamic
CLIENT	getListeAuthors	Java Method	SERVER	authors	Table	Use(select)	✓
CLIENT	getListeAuthorsDelete	Java Method	SERVER	authors	Table	Use(delete)	✓
CLIENT	getListeAuthorsinsert	Java Method	SERVER	authors	Table	Use(insert)	✓
CLIENT	getListeAuthorsUpdate	Java Method	SERVER	authors	Table	Use(update,delete)	✓
CLIENT	NewSaleEjbitf	Java Constructor	SERVER	authors	Table	Use()	✓

Jump to Page: 1 Rows per page: 10 1-5 of 5

Object "getListeAuthors" calling "authors"

⚠ Bookmarks found:

```

1 public String getListeAuthors() throws SQLException
2 {
3     ResultSet rs=null;
4     String lResult = "";
5
6     try
7     {
8         rs = this.getDbConn().execSQL("Select au_lname, au_fname FROM authors"
9     ) catch (SQLException e)
10    { throw e; }
11
12    try
13    {
14        while( rs.next() )
15        {
16            lResult += "<tr<td width='538'>";
17            lResult += "<div align='center'><a href='\"+listeTitles.jsp?lname="+rs.ge
18            lResult += rs.getString( "AU_LNAME" )+"\"></a></div></td> \n";
19            lResult += "<td width='478'>";
20            lResult += "<div align='center'><a href='\"+listeTitles.jsp?lname="+rs.ge
21            lResult += rs.getString( "AU_FNAME" )+"\"></a></div></td></tr> \n";
22        } catch (SQLException e)
23        { throw e; }
24    }
25
26    return lResult;
27

```

Links between CLIENT layer and SERVER layer [5]

[View Model Description](#) Test model - forbidden Java to SQL



Information about the results:

- the two layers involved
- the number of links identified between
- a description of the model (when roll

- 1 Search for an object in the list.
- 2 Download a report in Microsoft E: containing:
 - Application name
 - Model name and description
 - Report date and time
 - number of violations
 - List of violations

3 Choose additional columns for display

Show Columns

- Caller type
- Caller fullname
- Caller path
- Callee type
- Callee fullnam
- Callee path
- Link type
- Internal
- Dynamic
- Dynamic Info

The **Dynamic Info** column displays information about the link. A tick is present in the **Dynamic** column if the link is dynamic (a tick is present in the **Dynamic** column).

- **Inference Engine** - this indicates if the link is based on its inference engine parameters, function returns
- **Grep-Validated** - this indicates if the link has already been validated by Grep objects and the link has already been reviewed
- **Grep-Not Reviewed** - this indicates if the link has not been reviewed by Grep objects and the link has not been reviewed

4 Use this option to filter the content of the columns. This can be used to filter the content of the columns by name, type etc. - this can be used to filter the content of the columns by name, type etc.

FILTERS RESET

Caller Layer

Caller name

Caller type

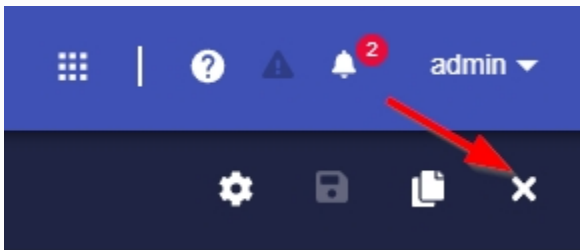
Caller fullname

Caller layer	The name of the Layer in the model the caller object belongs to.
Caller name	The name of the caller object
Caller type	The caller object type.
Caller path	Full path to the caller object.

Callee layer	The name of the Layer in the model the c
Callee name	The name of the callee object
Callee type	The callee object type.
Callee path	Full path to the callee object.
Link type	Type of link between the two objects.
Dynamic	A tick in this column indicates that the link is valid (see Dynamic Links).

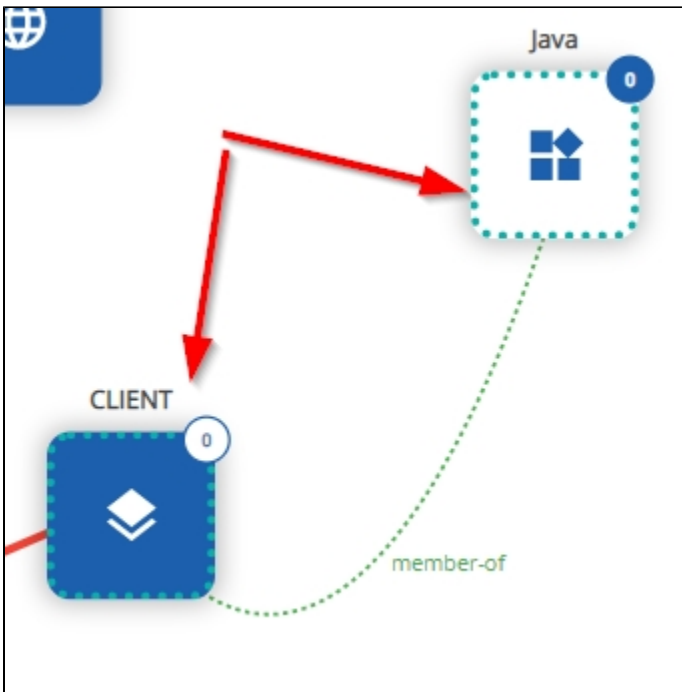
<div data-bbox="147 478 743 978"> <p>Object "getListeAuthors" calling "authors"</p> <p>⚠ Bookmarks found:</p> <pre> 1 public String getListeAuthors() throws SQLException 2 { 3 ResultSet rs=null; 4 String lResult = ""; 5 6 try 7 { 8 rs = this.getOraCon().execSQL("Select au_lname, au_fname FROM authors" 9 } catch (SQLException e) 10 { throw e; } 11 12 try 13 { 14 while(rs.next()) 15 { 16 lResult += "<tr><td width=\\"53%\\">"; 17 lResult += "<div align=\\"center\\"><a href=\\"ListTitles.jsp?lname="+rs.ge 18 lResult += rs.getString("AU_LNAME")+"</div></td> \n"; 19 lResult += "<td width=\\"47%\\">"; 20 lResult += "<div align=\\"center\\"><a href=\\"ListTitles.jsp?lname="+rs.ge 21 lResult += rs.getString("AU_FNAME")+"</div></td></tr> \n"; 22 } 23 } catch (SQLException e) 24 { throw e; } 25 26 return lResult; 27 </pre> </div>	<p>Specific piece of code on the caller side is shown. To view the code, select the link in the list.</p>
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i Note that 2.0.0-funcrel includes the ability to cancel the check action if the action takes too long to complete: after 30 seconds have elapsed, the close editor icon will be enabled, allow you to cancel the action:

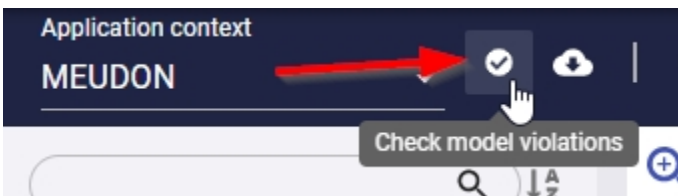


Run a check on part of the model

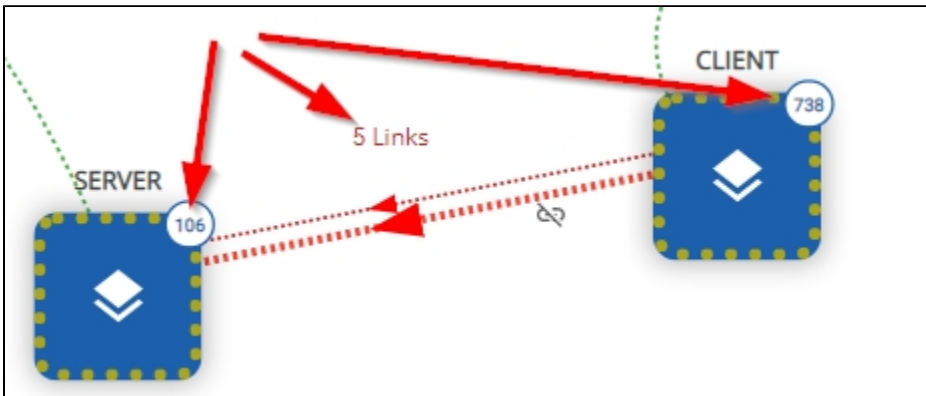
It is possible to run a check on **part of the model** (e.g. specific Layers or Sets) rather than the entire model. To do so, select the Layers/Sets you want to check using the CTRL key and the mouse - a green dashed border indicates the selected items:



Click the **Check Model** button to start the check:



Results are displayed directly in the viewer with the number of matched items updated and any violations are also displayed:



i Note that the yellow dashed border indicates that these layers (that were selected for the partial check) involve dependent sets.