

# Application - Config - Summary of Dynamic Links

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 **Summary:** this section explains how to manage Dynamic Links.

## Introduction

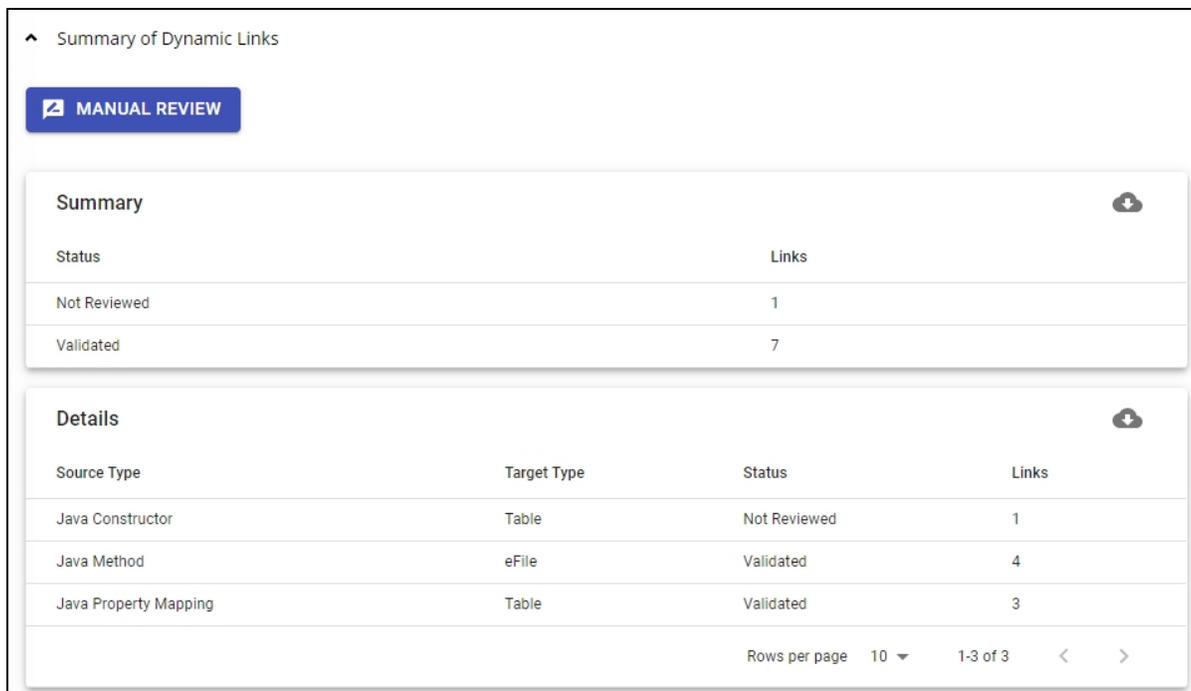
When an analysis is run the authenticity of some links that have been identified between objects cannot be absolutely determined by CAST - these links are known as "dynamic links". Often these "unverified links" systematically occur or have no meaning for the specific technology you are working with. This screen displays:

- a **summary** of the dynamic links detected in the most recent analysis
- **detailed information** about each link
- the ability to **manually review (see below)** each unverified link to state whether the link is correct or false

Reviewing Dynamic Links forms an important part of the analysis validation process and is explained in more detail in [Advanced onboarding - validate Dynamic Links](#).

## Available options

*Click to enlarge*



Summary of Dynamic Links

[MANUAL REVIEW](#)

**Summary**

Status	Links
Not Reviewed	1
Validated	7

**Details**

Source Type	Target Type	Status	Links
Java Constructor	Table	Not Reviewed	1
Java Method	eFile	Validated	4
Java Property Mapping	Table	Validated	3

Rows per page 10 1-3 of 3

## Summary

The **Summary** section provides a basic overview of the status of Dynamic Links in the Application as a result of the most recent source code analysis:

<b>Not Reviewed</b>	Number of links that <b>need to be reviewed manually (see below)</b> . This means that Console does not know whether the link is real or not and therefore you should <b>review the code</b> that creates the link to determine its status and then either validate or ignore it.
<b>Ignored / Validated</b>	<p>Number of links that:</p> <ul style="list-style-type: none"> <li>• <b>have already been validated as correct (Validated)</b></li> <li>• <b>have already been ignored as invalid/false (Ignored)</b></li> </ul> <p>Validation/ignore can occur through a variety of methods:</p> <ul style="list-style-type: none"> <li>• Manual review in Console (see <a href="#">below</a>)</li> <li>• Manual review in CAST Management Studio - this is discouraged since it can be achieved through Console.</li> <li>• Automatic review through: <ul style="list-style-type: none"> <li>• The <a href="#">Automatic Links Validator</a> extension</li> <li>• Dynamic Link Rules - see <a href="#">Application - Config - Dynamic Links Rules</a></li> <li>• Parameterization - see <a href="#">Application - Config - Dynamic Links Rules</a></li> </ul> </li> </ul>
	Use this button to download the list of Dynamic Links in this section in <b>CSV</b> format.

 Clicking a row in the table will take you direct to the [Manual Review](#) section with a filter applied to match the contents of the row.

## Details

The **Details** section provides more information about the links listed in the **Summary** section:

<b>Source Type</b>	Lists the object type that contains the code for the "source" of the link. Typically these are Methods and Constructors, but can be others.
<b>Target Type</b>	Lists the object type that is the target of the source object. Typically these are database object types, but can be others.
<b>Status</b>	<p>Indicates the status of the link as explained in the <a href="#">Summary</a> section above.</p> <ul style="list-style-type: none"> <li>• <b>Not Reviewed</b></li> <li>• <b>Ignored</b></li> <li>• <b>Validated</b></li> </ul>
<b>Links</b>	Indicates the <b>total number of links</b> that exist between the source and target object type. The total number of links reported in the <b>Summary</b> link (Not Reviewed + Validated) will equal the total number of links in this column.
	Use this button to download the list of Dynamic Links in this section in CSV format.

 Clicking a row in the table will take you direct to the [Manual Review](#) section with a filter applied to match the contents of the row.

## Manual Review

This button opens a new window where you can manually review each link. By default the window will show **all links that need to be reviewed** - i.e. all links that are still considered to be "unverified". The first link in the list will be selected and the source code that creates the link will be displayed automatically - this will help you decide whether the link is **correct** and needs to be marked as valid, or whether the link is **invalid** and needs to be marked as ignored:

*Click to enlarge*

Source Object	Source Type	Target Object	Target Type	Link	Status	Validate / Ignore / To Do
..javabeen.AuthorManager.getListeAuthorsDelete	Java Method	..EUDON_V2\main_sources\JSP\ListTitles.jsp\	eFile	Use()	Not Reviewed	<input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
..javabeen.AuthorManager.getListeAuthorsinsert	Java Method	..EUDON_V2\main_sources\JSP\ListTitles.jsp\	eFile	Use()	Not Reviewed	<input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
..javabeen.AuthorManager.getListeAuthorsinsert	Java Method	..EUDON_V2\main_sources\JSP\ListTitles.jsp\	File which contains ..	Use()	Not Reviewed	<input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
..demo.javabeen.AuthorManager.getListeAuthors	Java Method	..data\deploy\MEUDON_V2\main_sources\JSP\	Universal Directory	Use()	Not Reviewed	<input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
..s\JSP\WEB-INF\request_mapping.properties\	Java Property Mappi...	dbo.titleauthor	Table	Use(select)	Not Reviewed	<input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
..ookdemo.javabeen.NewSaleEjbjtff.NewSaleEjbjtff	Java Constructor	dbo.authors	Table	Use()	Not Reviewed	<input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
..s\JSP\WEB-INF\request_mapping.properties\	Java Property Mappi...	dbo.authors	Table	Use(select)	Not Reviewed	<input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
..javabeen.AuthorManager.getListeAuthorsDelete	Java Method	..data\deploy\MEUDON_V2\main_sources\JSP\	Universal Directory	Use()	Not Reviewed	<input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>

Source Object: ..orManager.getListeAuthorsDelete  
Target Object: ..main\_sources\JSP\ListTitles.jsp\

**Bookmarks found:**

```

1 public String getListeAuthorsDelete() throws SQLException
2 {
3     ResultSet rs=null;
4     String lResult = "";
5
6     try
7     {
8         rs = this.getConnection().createSQL("delete authors");
9     } catch (SQLException e)
10    {
11        throw e;
12    }
13
14    try
15    {
16        while( rs.next() )
17        {
18            lResult += "<tr><td width='50%'>";
19            lResult += "<div align='center'><a href='"+rs.getString(1)+"'.jsp?";
20            lResult += rs.getString( "AU_NAME" ) + "</a></div></td> </tr>";
21            lResult += "<br>";
22            lResult += "<div align='center'><a href='"+rs.getString(1)+"'.jsp?";
23            lResult += rs.getString( "AU_NAME" ) + "</a></div></td></tr>";
24        } catch (SQLException e)
25        {
26            throw e;
27        }
28    }
29
30    return lResult;
31 }

```

Links can, however, be in one of three states:

- **Validated:** links are in this state when they have already been manually or automatically validated as correct or true. By default Validated links are **not displayed** in the GUI - you will need to specifically select the Validated check box to display them.
- **Ignored:** links are in this state they have already been manually or automatically reviewed as invalid or false. By default Ignored links are **not displayed** in the GUI - you will need to specifically select the Validated check box to display them.
- **To review:** links displayed in this state when you open the Dynamic Link Manager after the completion of an analysis - these links **must be reviewed**.

### Available options

DISCARD
APPLY

☰ Filter by
 Reference Finder
 Validated
 Ignored
 To Review

☰

☰

i

This option is not available if at least one link is selected in the list. Instead a radio button offering three choices is displayed - this is the action required to review the link:

Validate

Ignore

To Review

Use this button to do

☰ Allows you to choose t

**Show Columns**

- Source Obj
- Source Typ
- Target Obj
- Target Typ
- Link
- Status

Allows you to discard or ap

Filters the display of Dynar  
You can select a combinati

Note that the Reference Fir

☰ Provides options for filtering and applying the filter will o

*Click to enlarge*

FILTERS	RESET
Source Object	
Target Object	
Link	

- Use the **Reset** button
- Use the **Apply Filters**

<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

The tick boxes enable you to

**Source Object**

Lists the name of the object

**Source Type**

Lists the type of source object

**Target Object**

Lists the name of the object

**Target Type**

Lists the type of source object

**Link**

Lists the type of link between

**Status**

Current status:

- **Validated:** links are in **displayed** in the GUI
- **Ignored:** links are in the GUI - you will not see them
- **Not reviewed:** links displayed

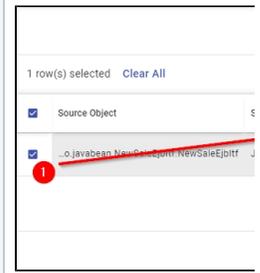
### Validate/Ignore/To Do radio buttons

### Validate / Ignore /



These radio buttons allow you to confirm the status of the link in the top right corner to confirm the link status.

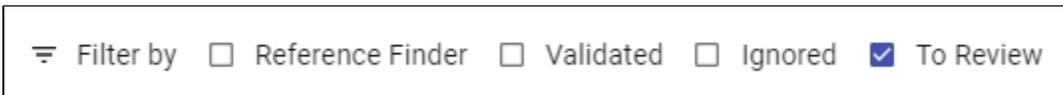
[Click to enlarge](#)



## Process of reviewing Dynamic Links

The process of reviewing Dynamic Links is as follows:

- Ensure that the filter is set to **To Review**:



- Tick the link you want to review:

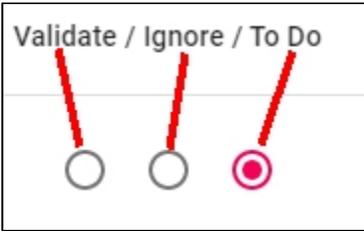


- If necessary, check the source code to help you decide if the link is **correct** and needs to be marked as valid, or whether the link is **invalid** and needs to be marked as ignored:

[Click to enlarge](#)



- Click the appropriate radio button to either **Validate (as correct)** or **Ignore (as false)** the link



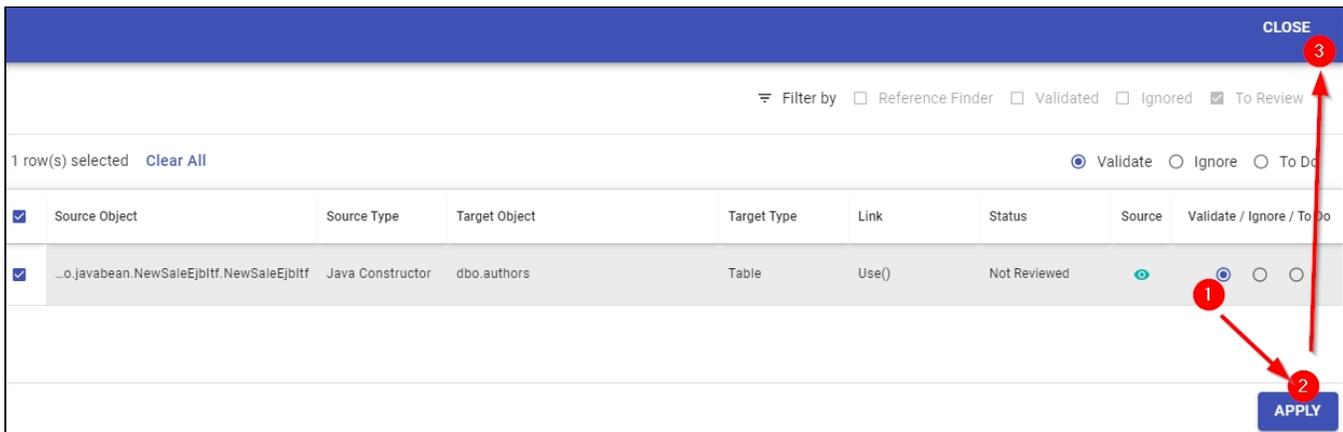
**i** Ignore Dynamic Links when:

- Source code uses a logger information message
- Basic text displayed in a message box or a frame

Validate Dynamic Links when:

- code uses a manipulation of SQL queries
- code uses a direct call from a business layer to a database table or function
- code links a client part and a server part of an application

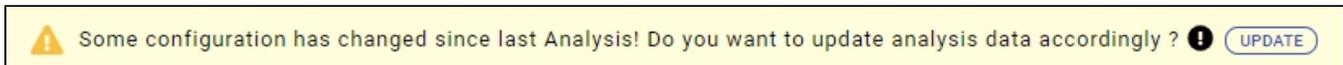
- Finally click the **Apply** button in the bottom right corner to confirm the change in status of the link, then close the window:



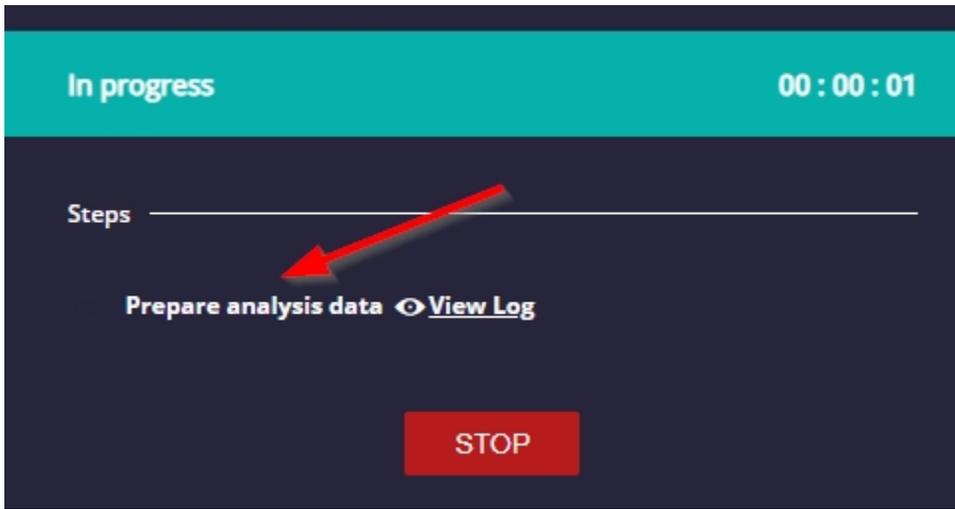
- The **Summary/Details** screen will then update to reflect your changes.

## Changes made

Any changes made in the **Summary of Dynamic Links** page (e.g. reviewing Dynamic Links and applying the changes) will cause a banner to appear at the top:



This indicates that the changes you have made will impact your analysis results and therefore that the data that is used for the Architecture Studio, Transaction configuration and upload to CAST Imaging will not be up-to-date. Clicking the **Update** button in the banner will run a special step called **Prepare analysis data** that should complete relatively quickly (more quickly than a full analysis or snapshot) and ensures that the data used by the Architecture Studio, Transaction configuration and upload to CAST Imaging is up-to-date based on the changes you have made.



This step is always actioned when you either **run an analysis (without a snapshot)** or **generate a new snapshot**. When the **Prepare analysis data** step is complete, the banner will no longer be displayed.