

# Deriving relations

In Enterprise Studio relations between objects can be modeled by means of profiles or by means of drawing relations visually. For this, the derived relations view provides an overview of indirect, derived relations in a model. Based on the relations between model elements, an overview of the derived relations is shown.

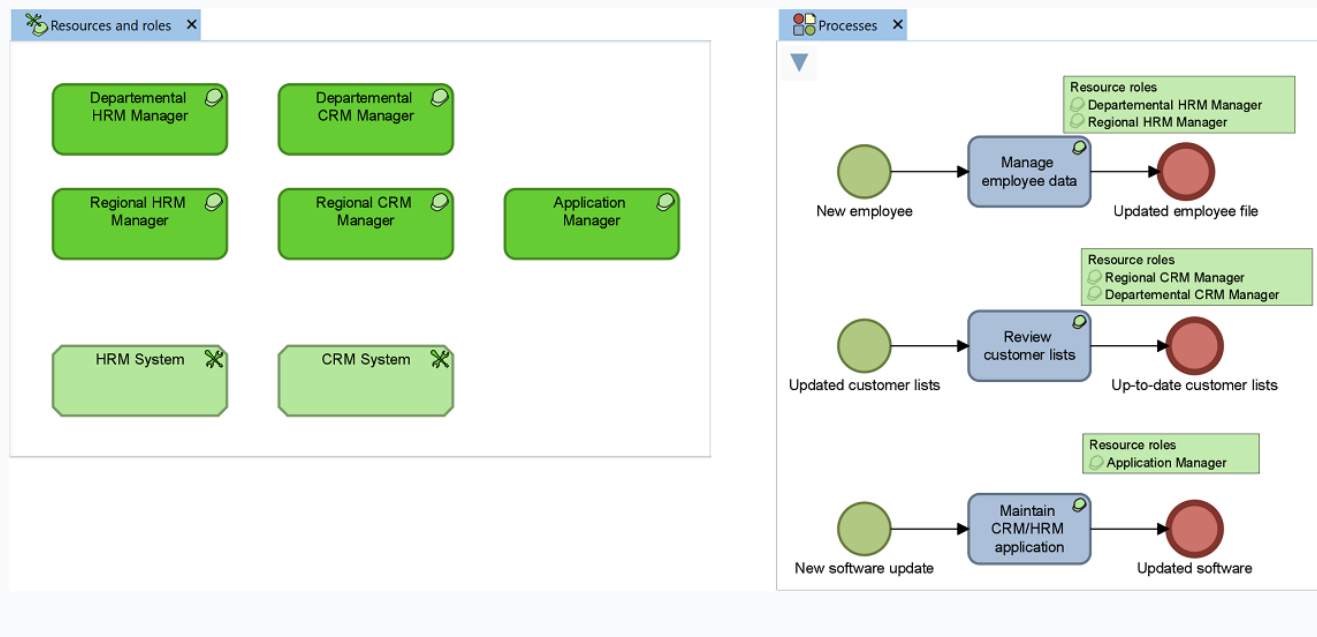
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- [Saving derived relations as viewpoint](#)
- [Changing displayed table information](#)

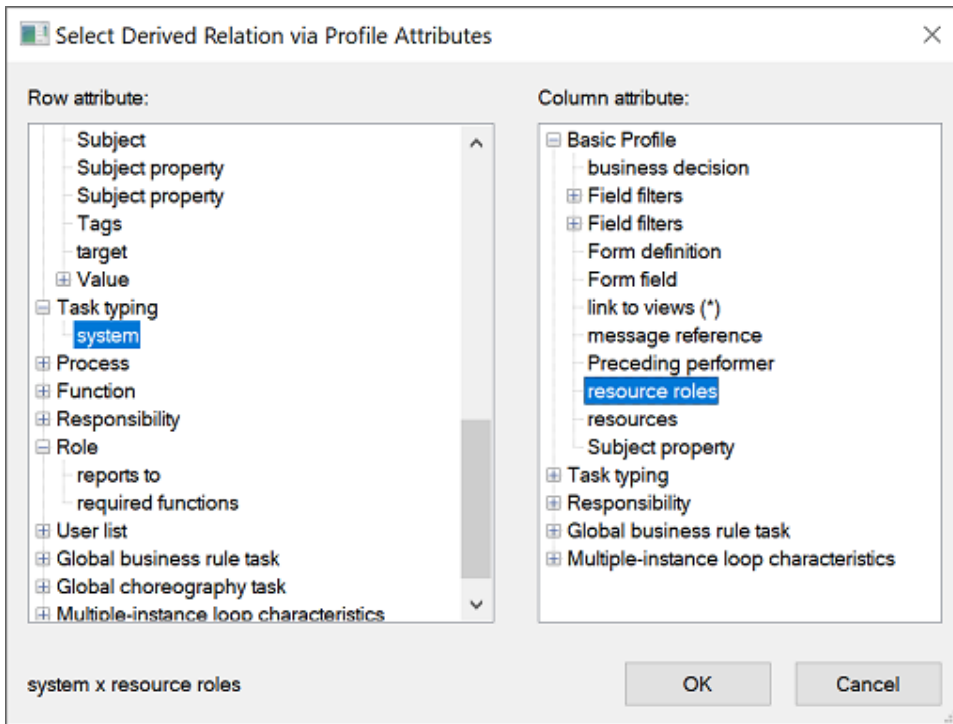
## Deriving relations via profile attributes

### Example

The tasks of BPMN processes are on one side linked to resources that have been defined as systems (via the "Task typing" profile on the task and "System" profile on the resource). On the other side the tasks are linked to resource roles. By deriving relations via profile attributes you can find out which systems are used by which resource roles.



1. On the **Advanced** tab, in the **Tables** group, click **Derive Relations > Via Profile Attributes**.
2. In the window that appears, specify between which attributes the indirect relations must be presented.



3. Click **OK**.

A relation cross-reference table is shown containing the derived relations between objects.

system x resource roles












		Review process	Resources and roles	Application Manager	Departmental CRM Manager	Departmental HRM Manager	Regional CRM Manager	Regional HRM Manager
		Review process						
		Resources and roles						
		CRM System		X	X		X	
		HRM System		X		X		X

Refresh      Print...      Copy      Copy +       Show why in cells       Labels...       Landscape colors...

Show why in cells

By selecting the **Show why in cells** check box you can visualize the elements that cause the relationship between the model elements shown in the table. The relevant object will be shown in the cell. If possible, its name is shown, otherwise, the object type is shown. In the example below the respective elements are the tasks, which are the connecting elements.

system x resource roles

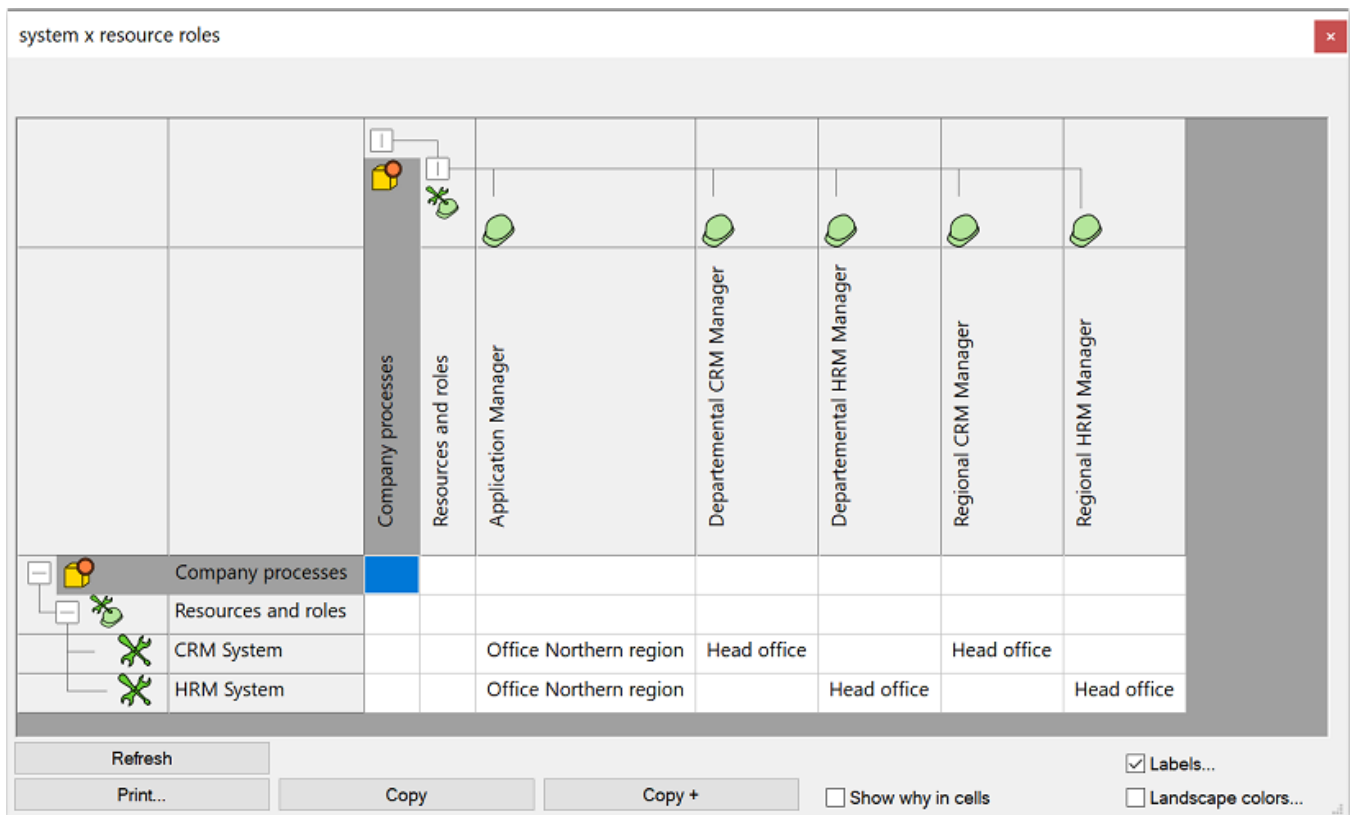
								
		Review process	Resources and roles	Application Manager	Departmental CRM Manager	Departmental HRM Manager	Regional CRM Manager	Regional HRM Manager
		Review process						
		Resources and roles						
		CRM System		Maintain CRM/HRM application	Review customer lists		Review customer lists	
		HRM System		Maintain CRM/HRM application		Manage employee data		Manage employee data

Refresh      Print...      Copy      Copy +       Show why in cells       Labels...       Landscape colors...

## Labels

By selecting the **Labels** check box you can display additional properties of the connecting elements in the cells by means of labels. These properties can be selected in the window that appears after you have selected the option. The selected properties will appear in the cells of the table. The example below shows the locations of the tasks (via profile attribute "location").

The **Labels** and **Landscape colors** options can be used together. They cannot be used together with the **Show why in cells** option.



## Landscape colors

The **Landscape colors** check box can be selected to show additional properties of the connecting elements in color. Select the properties in the window that appears after you have selected the option. Your choices will result in a landscape map. The colors can be changed by clicking an item in the legend and then selecting the desired color. In the example below the landscape color shows the locations of the tasks (via profile attribute "location").

system x resource roles

	Company processes	Resources and roles	Application Manager	Departmental CRM Manager	Departmental HRM Manager	Regional CRM Manager	Regional HRM Manager
Company processes							
Resources and roles							
CRM System			X	X		X	
HRM System			X		X		X

**Legend**

locations

Head office

Office Northern region

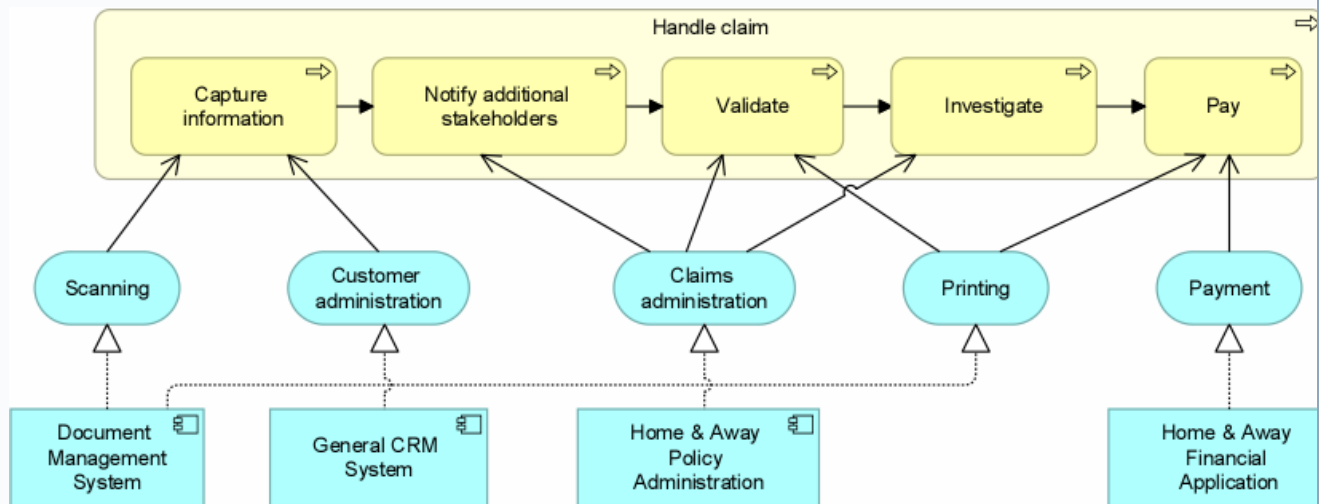
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## Deriving relations via relations

### Example

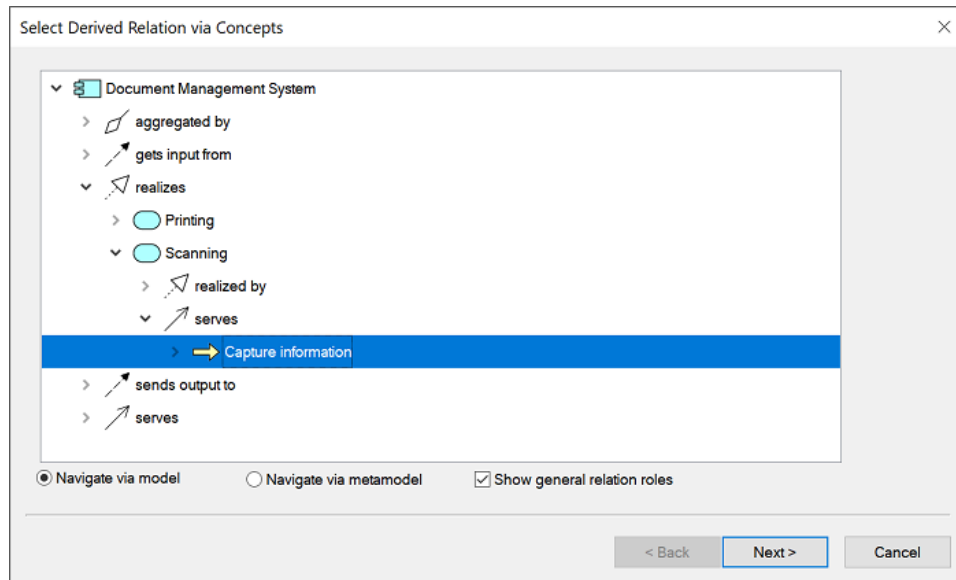
An example of deriving relations via visually drawn relations is the relationship between application components and business processes in an ArchiMate® model. An application service can be realized by application components and can serve business processes. Based on these relations, the relationship between application components and business processes can be derived: which application components can be related to which business processes.



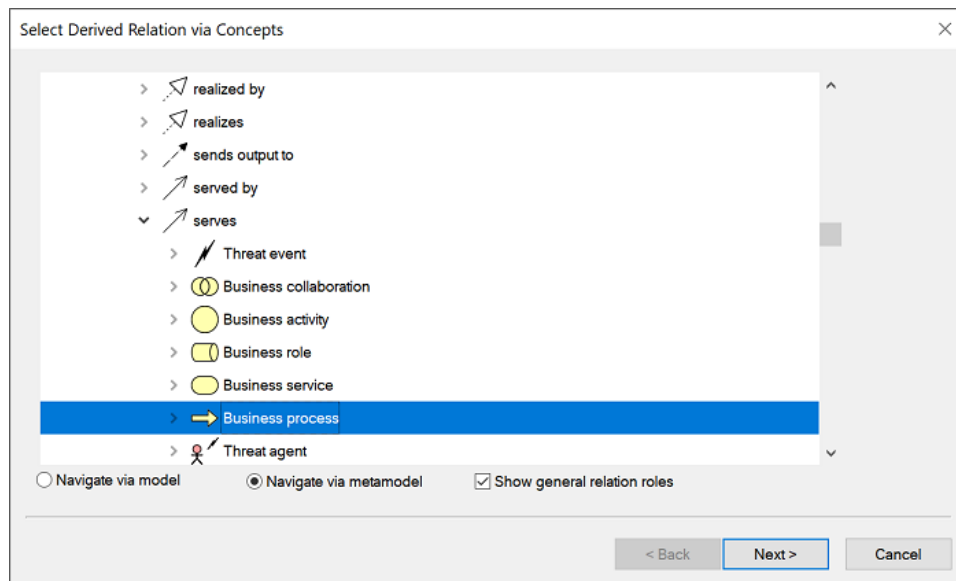
1. If you want to navigate via a specific object, select an object in the model browser. If you do not want to start with a specific object and instead navigate via a concept (object type), select any element in the model package (or the model package itself).
2. On the **Advanced** tab, in the **Tables** group, click **Derive Relations > Via Relations**.

In the window that appears, do one of the following:

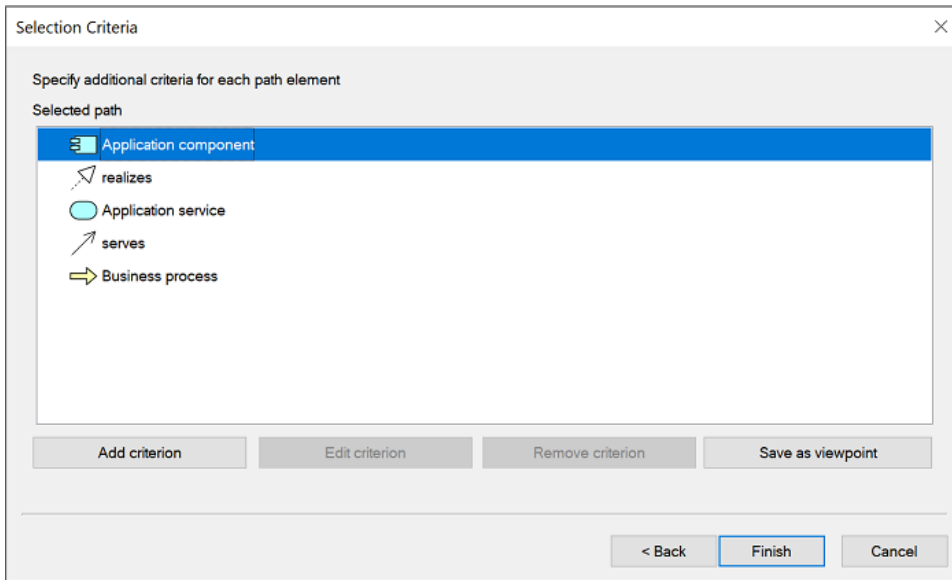
- If you have selected a specific object, select the requested (derived) path between two objects by navigating via the model. Following the above example, the application component "Document Management System" is used as the starting point. Chosen derived relation (path) is "*Document Management System > realizes > Scanning > serves > Capture information*".



- If you have not selected an object, you can navigate via the metamodel. Select **Navigate via metamodel**, and then select the requested (derived) path between two object types. Following the example, the object type application component is used as the starting point. Chosen derived relation (path) is "*Application component > realizes > Application service > serves > Business process*".



3. Click **Next**.
4. Optional: In the **Selection Criteria** window you can specify the conditions that must be met if desired. For example, the business processes must have a specific goal. By adding a criterion containing the goal to the business process you can define this precondition.



5. Click **Finish**.

A relation cross-reference table is shown containing the derived relations between objects. The title bar of the table shows the derived relation (path).

Application component realizes Application service serves Business process

	ArchiSurance	Business layer	Handle claim	Capture inform	Investigate	Notify addition	Pay	Validate	Insurance premi	Issue new policy
ArchiSurance										
Application layer										
ArchiSurance Ba...			X							
Auto Insurance ...										
Call Center Appl...										
Data warehousi...										
Document Man...				X			X	X		
General CRM Sy...				X						
Home & Away F...							X			
Home & Away ...				X	X			X		
Legal Expense B...										
Legal Expense C...										
MyArchiSurance...										
Web portal										

Refresh    Print...    Copy    Copy +     Show why in cells     Labels...     Landscape colors...

Show why in cells

By selecting the **Show why in cells** check box you can visualize the elements that cause the relationship between the selected model elements. The relevant relation object will be shown in the cell. If possible, its name is shown, otherwise, the object type is shown.

Application component realizes Application service serves Business process

	ArchiSurance	Business layer	Handle claim	Capture information
ArchiSurance				
Application layer				
ArchiSurance Back Office Suite			realizes service Policy administration services serves process realizes service Financial services serves process	
Auto Insurance Application				
Call Center Application				
Data warehousing solution				
Document Management System				realizes service Scanning ser
General CRM System				realizes service Customer administra
Home & Away Financial Application				

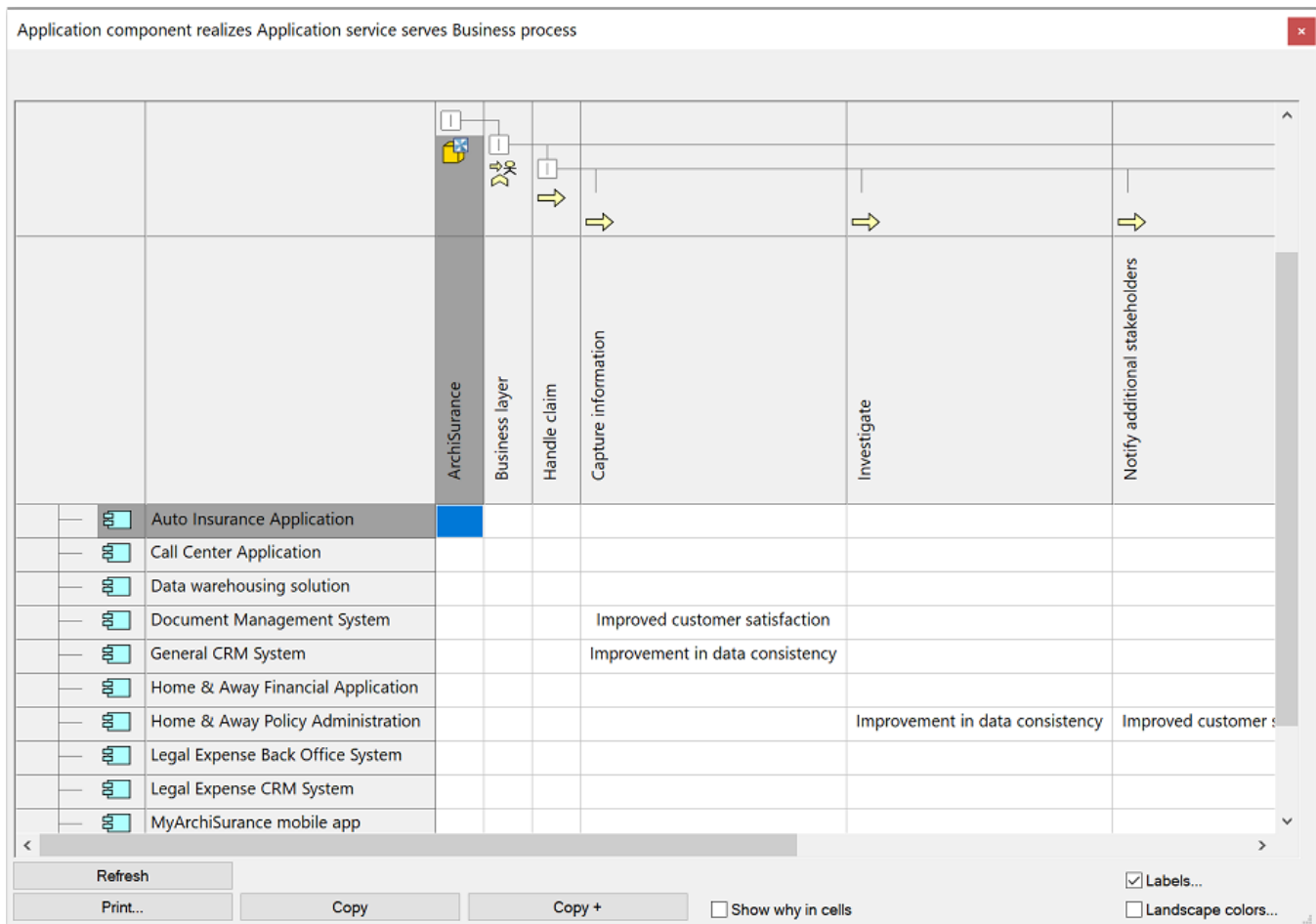
Refresh    Print...    Copy    Copy +     Show why in cells     Labels...     Landscape colors...

## Labels

By selecting the **Labels** check box you can display additional properties of the relations in the cells by means of labels. These properties can be selected in the window that appears after you have selected the option. The selected properties will appear in the cells of the table. The example below shows the goals the business process is related to via the serve relation.

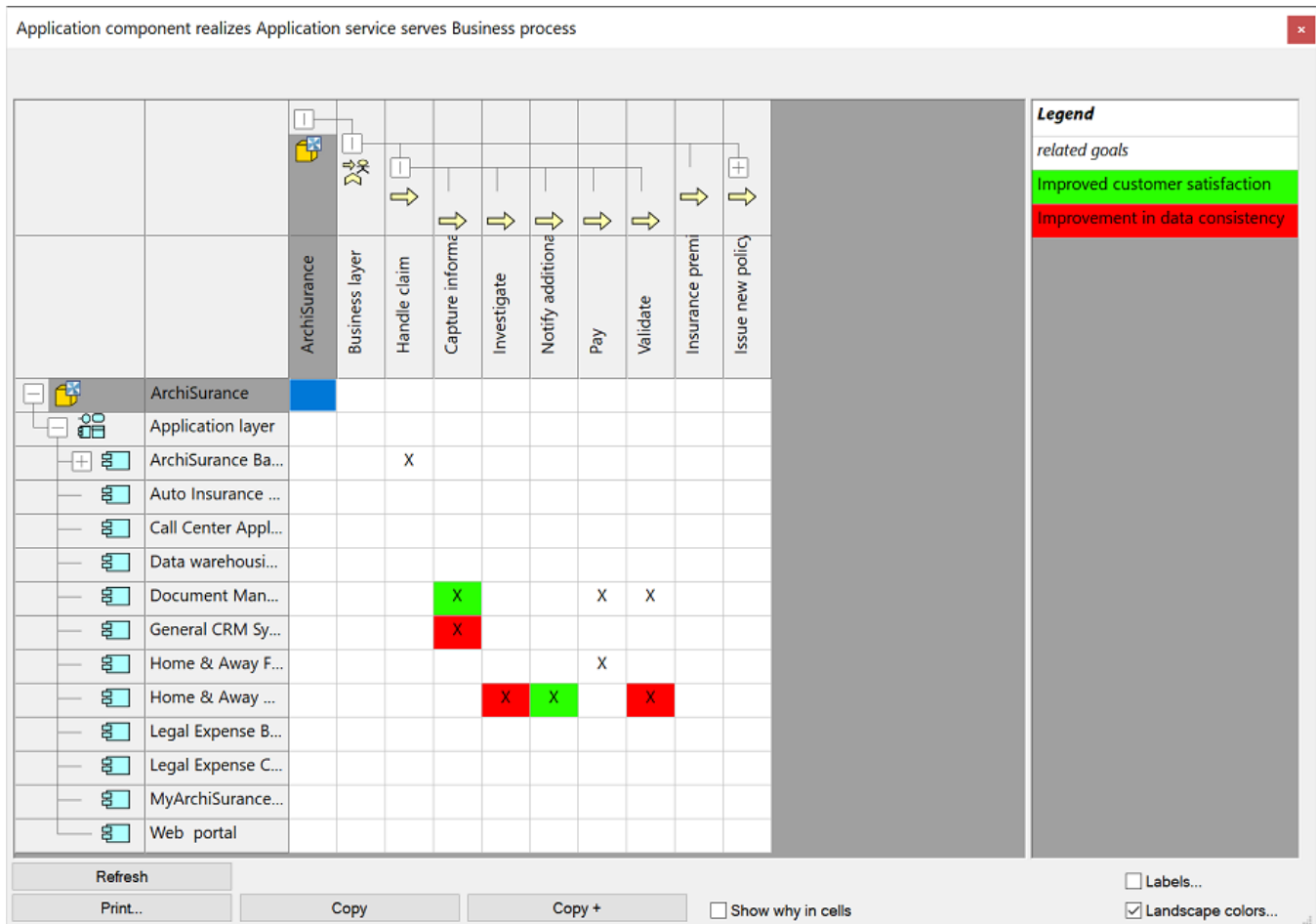
The **Labels** and **Landscape colors** options can be used together. They cannot be used together with the **Show why in cells** option.





## Landscape colors

The **Landscape colors** check box can be selected to show additional properties of the relations in color. Select the properties in the window that appears after you have selected the option. Your choices will result in a landscape map. The colors can be changed by clicking an item in the legend and then selecting the desired color. In the example below the landscape color shows which goals the business process is related to via the serve relation.



## Saving derived relations as viewpoint

You can save the settings of your derived relations analysis as viewpoint. With a saved viewpoint you can repeatedly perform the analysis without having to specify the view parameters again and again. You can also include the viewpoint in reports (see [Reporting models to RTF: including viewpoints](#)).

When you specify the selection criteria, the second selection window has the **Save as viewpoint** button. Click it to save the analysis.

## Changing displayed table information

By using the table's context menu you can change the information that is shown in the table, for example hide all empty rows and columns. To open the context menu, right click a random cell in the table. Which functions are available, depends on the location in the table where you click. For additional information about the available functions in the context menu, see [Displayed table information](#).

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## Related articles

- [Deriving relations](#)
- [Derived relations](#)
- [Model content checks for ArchiMate models](#)
- [Tables in Enterprise Studio](#)
- [Viewing all ServiceNow tables available on the server](#)
- [Using table charts for populating a chart](#)

### **Introductory eLearning course**

Check out the free Enterprise Studio introductory eLearning course to learn about analysis in Enterprise Studio.

[View course](#)