



Data Flow Design

Process Governance

Version 9.7 - Service Release 2

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This document applies to ARIS Version 9.7 and to all subsequent releases. Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

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1 Start context

This sign  stands for an incoming data flow, this sign  for an outgoing data flow.

In/Out	Name	Details	Data type
	Current database	Name of the database from which the process was started	<Text>
	Current server	Name of the ARIS Design Server on which the process was started.	<Text>
	Current user	Login of the user who initiates the process. For example, this user can be assigned as a predefined user to an object of type Human task : The user starting the process is logged in to a modeling database. Please note that there may be situations in which the user is unknown, e.g., if the user is logged in anonymously or as a guest to a ARIS Publisher export, or if the process is started outside of ARIS from an intranet page. If you want to ensure that the initiator is known, add a field to the initial dialog into which the e-mail address of the user can be entered. You can then assign this field to an object of type Human task or to an object of type Notification (To, Cc, etc.) by using the operator Determine user via e-mail/login name .	<Text>
	Current filter	Name of the filter used for logging in to the database from which the process was started.	<Text>
	Current language	Language the user used for logging in to the database from which the process was started.	<Text>
	GUIDs of the selected items	Outputs the type names of items for which the process was started, e. g., Organizational chart or Function.	
	Types	Outputs the type names of items for which the process was started, e. g., Organizational chart or Function. This field may contain input data for an object of type Automated task or for a list in an object of type Human task .	<Text collection>



In/Out	Name	Details	Data type
	Current database	Name of the database from which the process was started	<Text>
	Names of the selected items	Lists the names of items for which the process was started, e. g., models or objects.	
	Names	Lists all names of items for which the process was started, e. g., models or objects. This field may contain input data for an object of type Automated task or for a list in an object of type Human task .	<Text collection>
	Type names of the selected items	Outputs the type names of items for which the process was started, e. g., Organizational chart or Function.	
	Types	Outputs the type names of items for which the process was started, e. g., Organizational chart or Function. This field may contain input data for an object of type Automated task or for a list in an object of type Human task .	<Text collection>
	API names of the selected items	Outputs the API names of items for which the process was started, e. g., MT_ORG_CHRT for an organizational chart or OT_FUNC for a function.	
	API names	Outputs the API names of items for which the process was started, e. g., MT_ORG_CHRT for an organizational chart or OT_FUNC for a function. This field may contain input data for an object of type Automated task or for a list in an object of type Human task.	<Text collection>

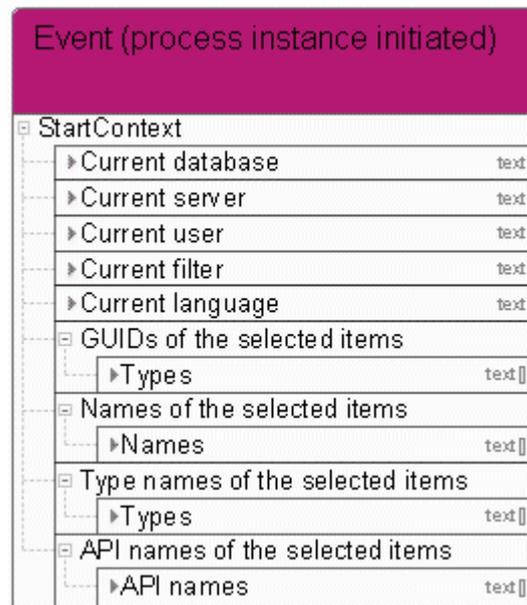


Figure 1: Start context



2 Human task

2.1 General data mapping

In/Out	Name	Details	Data type
	Task name	<p>This box shows the task name that the task is to be displayed with. If an explicit name is not modeled in the data flow, the name of the associated object of the Human task type is displayed.</p> <p>The simple text structure required can be modeled as follows:</p> <p>For example, connect a constant with the value Request from: with an operator of the Create collection type and with an additional constant that represents the current date. Connect the Create collection operator with the Task name box via an operator of the Format lines type.</p>	<Text>
	Task description	<p>This field represents the description of the task with which the task is to be displayed. If no explicit description is modeled in the data flow, nothing is displayed.</p>	<Text>



In/Out	Name	Details	Data type
	Task name	<p>This box shows the task name that the task is to be displayed with. If an explicit name is not modeled in the data flow, the name of the associated object of the Human task type is displayed.</p> <p>The simple text structure required can be modeled as follows:</p> <p>For example, connect a constant with the value Request from: with an operator of the Create collection type and with an additional constant that represents the current date. Connect the Create collection operator with the Task name box via an operator of the Format lines type.</p>	<Text>
	Group of executors (mandatory input)	<p>This field represents one or multiple person(s) who carry out the object of the type Human task. If an automation-relevant organizational element is connected with an object of type Human task via a connection of type carries out, a constant is automatically created. (Exception: The connection attribute is specified).</p> <p>The constant contains in its value the name of the organizational element and also complex XML information.</p> <p>If the input data is the XML structure that is transferred differently, the constant can be deleted. This is the case, for example, if:</p> <ul style="list-style-type: none"> ▪ a person selected while an object of the type Human task is being carried out can be connected as input data. ▪ the login name can be connected as input data via the operator Determine user via e-mail/login name. <p>Both options represent complex XML data.</p>	<User>
	Login of the predefined executor	This field must be connected with the login of exactly one person from the group of executors.	<Text>



In/Out	Name	Details	Data type
	Task name	<p>This box shows the task name that the task is to be displayed with. If an explicit name is not modeled in the data flow, the name of the associated object of the Human task type is displayed.</p> <p>The simple text structure required can be modeled as follows:</p> <p>For example, connect a constant with the value Request from: with an operator of the Create collection type and with an additional constant that represents the current date. Connect the Create collection operator with the Task name box via an operator of the Format lines type.</p>	<Text>
	(optional)	<p>(If the person is not a member of this group, the assignment is ignored.)</p> <p>The simple text structure required can be modeled as follows:</p> <ul style="list-style-type: none"> ▪ Connect a text field of an object of type Human task, into which the login information was entered manually. ▪ The current user of an initial dialog can be modeled as input data. ▪ You can assign the Web service as input data, which extracts the login information from an ARIS attribute. 	
	Priority	Each object of the type Human task has a priority. If no priority is specified, the priority normal is applied. To define a priority as high or low , connect a constant with the corresponding value with this field.	<Text>
	Throughput time	<p>This duration represents the time allowed for performing the task. (If this time is exceeded, an escalation e-mail is sent.)</p> <p>If the field is empty, the attribute Maximum throughput time of the object of the type Human task is used.</p>	<Duration>



In/ Out	Name	Details	Data type
	Task name	<p>This box shows the task name that the task is to be displayed with. If an explicit name is not modeled in the data flow, the name of the associated object of the Human task type is displayed.</p> <p>The simple text structure required can be modeled as follows:</p> <p>For example, connect a constant with the value Request from: with an operator of the Create collection type and with an additional constant that represents the current date. Connect the Create collection operator with the Task name box via an operator of the Format lines type.</p>	<Text>
		<p>If this field is connected with a duration, the time attribute is not effective.</p> <p>There are two ways to define a duration:</p> <ul style="list-style-type: none"> ▪ As input data, define a constant and connect it with the field, or connect an object of the type Human task for which the user has defined a duration. ▪ With the second option, the duration that an object of the type Human task may have is dynamically defined during execution. 	
	Task-specific escalation	<p>If a task is not performed in the predefined time, an escalation e-mail is sent to the person responsible. If this field is not connected, an e-mail is sent to the person who is organization manager for the executor of this object of the Human task type. If this field is connected with an escalation-relevant organization element, the e-mail is sent to this role. Example: the position QM Manager has to carry out an object of the Human task type. The escalation e-mail is sent to the process manager instead of the QM manager.</p>	<User>

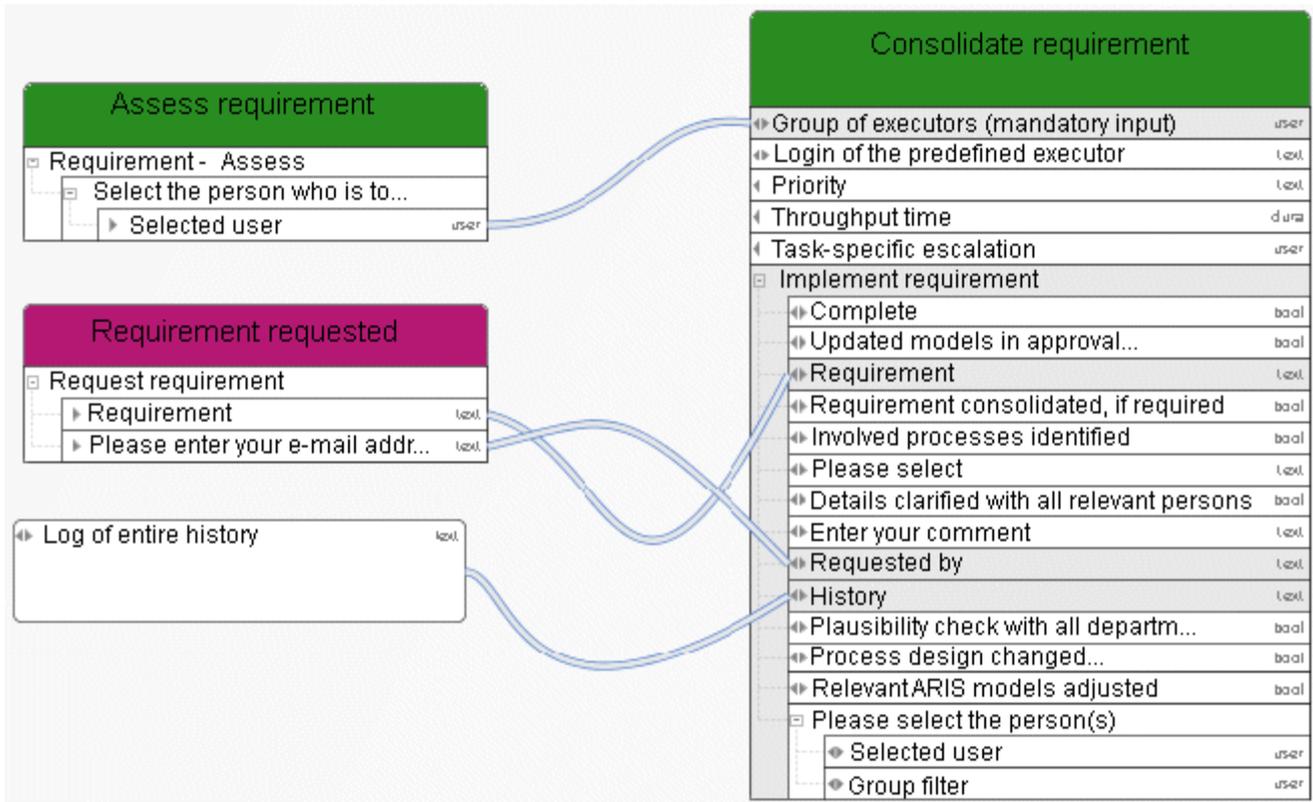


Figure 2: Task description

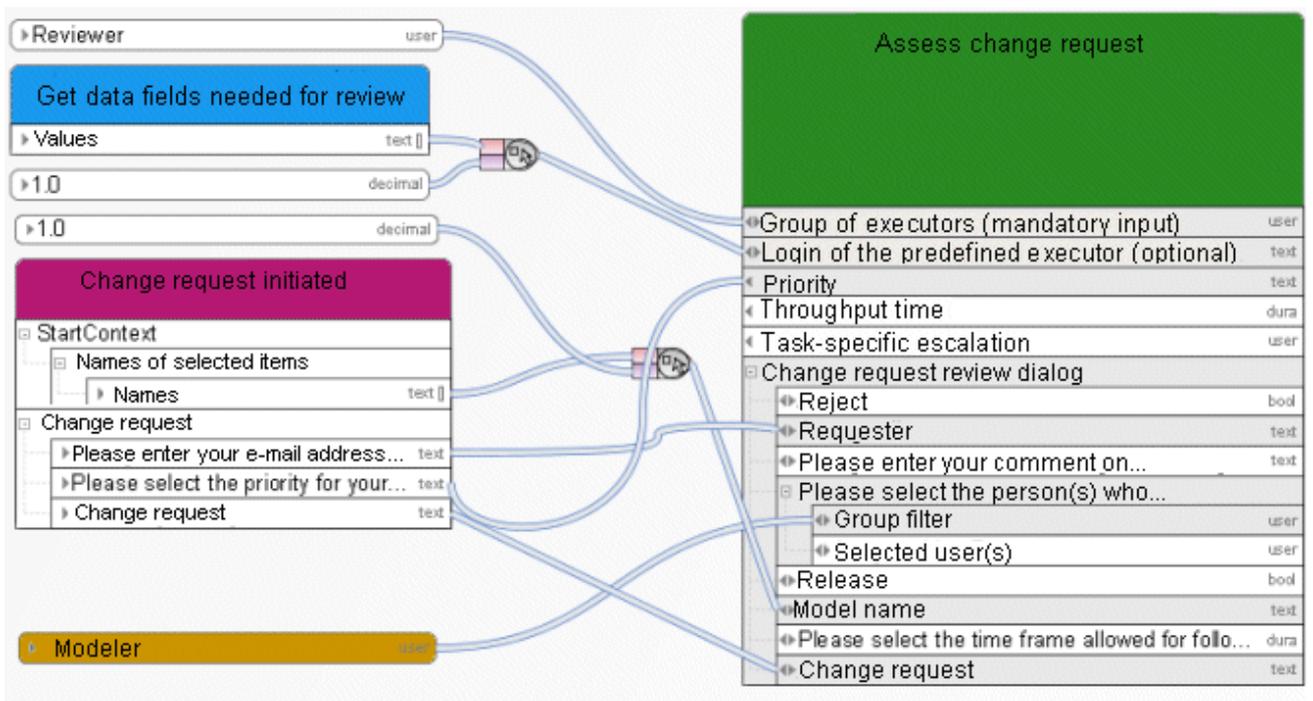


Figure 3: Example 1 - General data mapping - Login

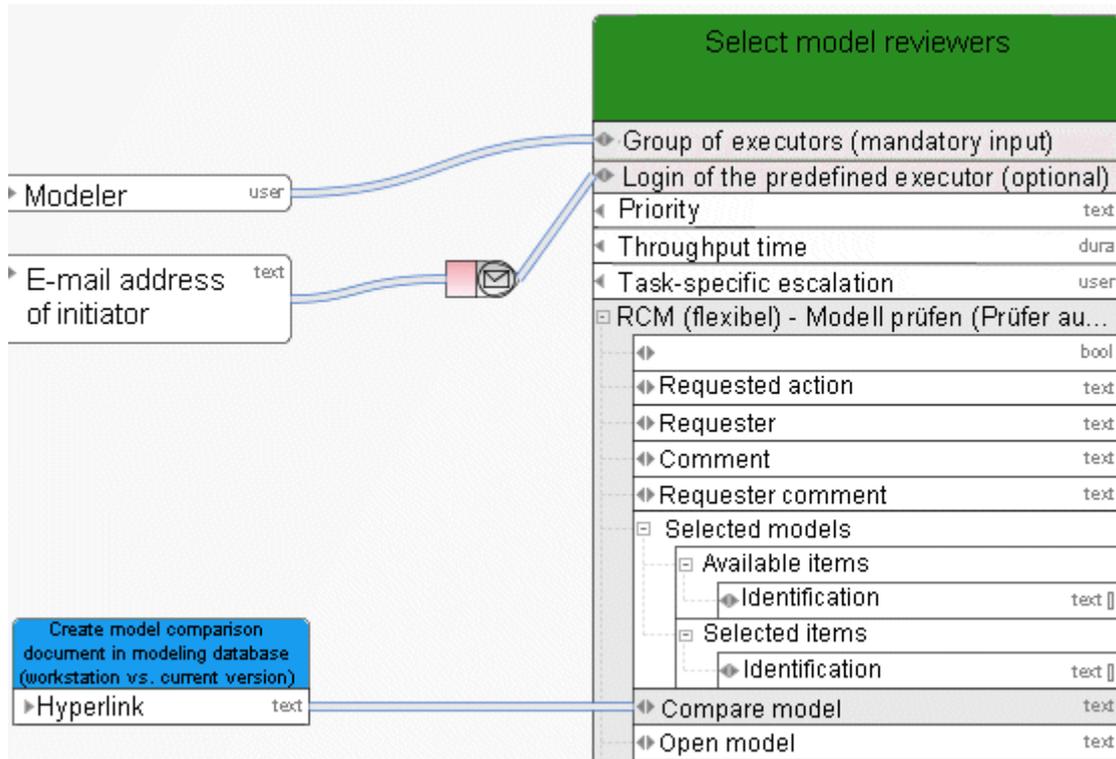


Figure 4: Example 2 – General data mapping - Login

2.2 Data mapping for user selection

In/Out	Name	Details	Data type
	Selected user	If a selection of executors is offered in a dialog, these persons may have been preselected. (Input data from another object of the Human task type with user preselection) or they can be selected (output data of this object of the Human task type). If no input data are modeled, no preselection is displayed in the dialog. (The output data can be connected with the field Group of executors (mandatory input) of the object of the Human task type.)	<User>
	Group filter	If a selection of executors is used, the list of persons that the executor can select is defined	<User>



In/Out	Name	Details	Data type
	Selected user	If a selection of executors is offered in a dialog, these persons may have been preselected. (Input data from another object of the Human task type with user preselection) or they can be selected (output data of this object of the Human task type). If no input data are modeled, no preselection is displayed in the dialog. (The output data can be connected with the field Group of executors (mandatory input) of the object of the Human task type.)	<User>
		by modeling an organizational element. If no organizational element is modeled, all persons with a license for Process Board are available.	

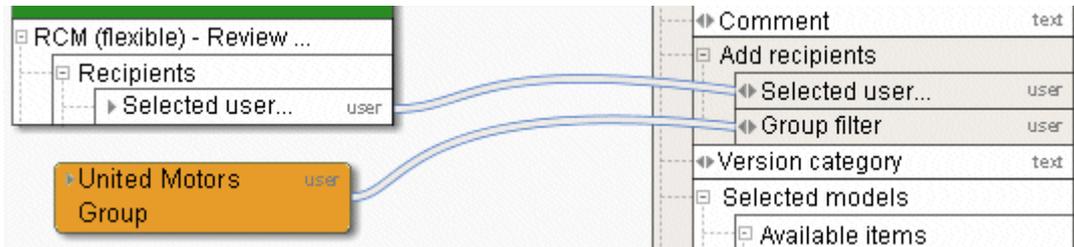


Figure 5: User selection



2.3 Data mapping for lists

In/Out	Name	Details	Data type
	Available items	If a list is used in the dialog, values may be contained, e.g., a list of models.	
↻	Identification	To fill this list with values, either connect models or objects from the preselection of another object of the type Human task , Automated task , Event (process instance started) , or enter GUIDs and use the Create collection operator.	<Text collection>
	Selected items	If an editable list is used in the dialog, the executor can select items from the list, e. g., models.	
↻	Identification	The executor can select entries from a list. They can serve as input data for another object of type Human task or Automated task .	<Text collection>

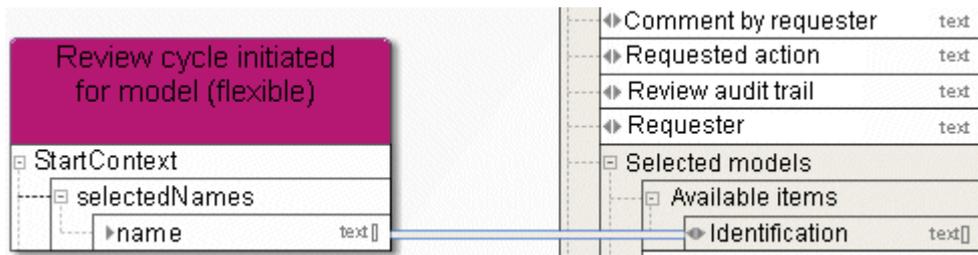


Figure 6: Lists



3 Notification and live message

In/Out	Name	Details	Data type
	To	Recipient of the notification. Only for notifications.	<User>
	Cc	Copy, also a recipient of the notification. Only for notifications.	<User>
	Bcc	Blind copy, also a recipient of the notification. Only for notifications.	<User>
	Subject	Short description of the contents or topic.	<Text>
	Contents	Contents of the notification or live message.	<Text>

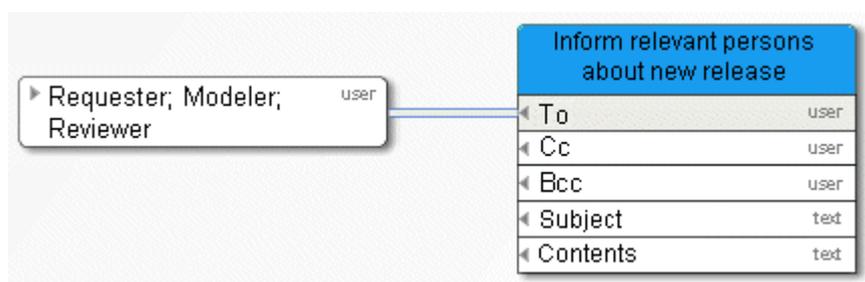


Figure 7: Example 1 – Notification

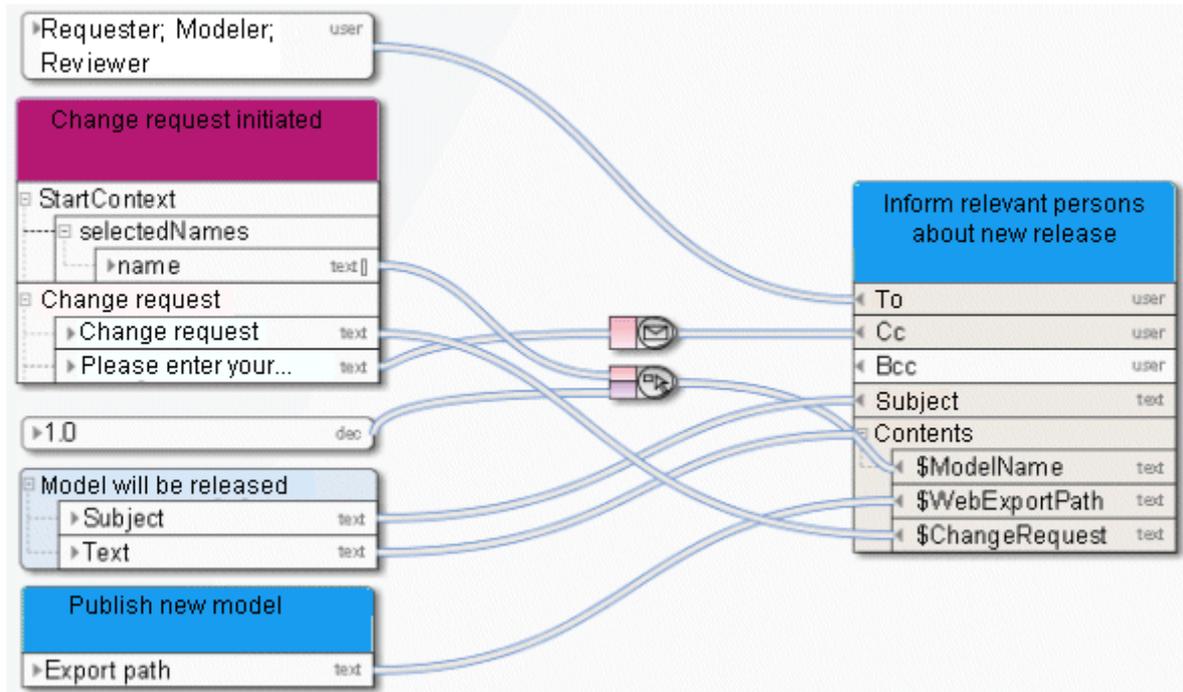


Figure 8: Example 2 – Notification

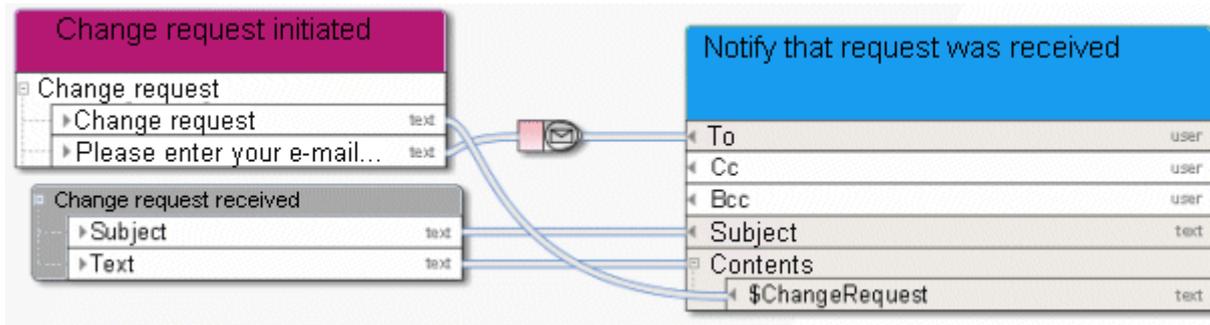


Figure 9: Live message



4 Business services

4.1 Create ARIS Publisher export

This service creates Web exports to provide other persons with specific models in read-only mode. The export is static and the files that are output can easily be made available to a larger group of persons, e. g., via e-mail.

In/Out	Name	Details	Data type
	Database name	Name of the database in which the function of type Automated task is carried out.	<Text>
	Database language	Language the service uses for logging in to the database, e. g., en for English. You can specify this in more detail, e. g., en for English or en_US for English (United States). For example, this is helpful if English (Australia) is set but not the default English (USA) is set in the database. If you want to add the country you need to create a language constant and model it as a language in the data flow.	<Text>
	User login	Login name of the user that is used for carrying out the Automated task function. If no user is defined, arisservice is used.	<Text>
	Password	Password of the user that is used for carrying out the Automated task function.	<Password>
	Selected items	Select the models to be published.	
	Identification	Either connect models of another object of type Human task, Automated task, or Event (process instance started) , or enter GUIDs and use the Create collection operator.	<Text collection>
	Path	Specify the path where you want to save the export, e. g., C:\temp\Export.	<Text>
	Content root	Specify the path to the content root, e. g., http://system123.me.corp.example.com:0909.	<Text>
	Create object pages	Specify for which object types you want to display information.	



In/Out	Name	Details	Data type
	Object type	Define object types by using their API names, e. g., OT_FUNC for Function, and use the Create collection operator. If you do not define anything, object pages are generated for all object types.	<Text collection>
	Assignment level	To add detailed models to the selected models specify an assignment level greater than zero.	<Decimal>
	Use print scale	Define the Boolean constant as TRUE to display models using the specified print scale, otherwise as FALSE. If no specification is made, the default value FALSE is used.	<Boolean>
	Initial scaling	Define initial scaling, e. g., 100.	<Decimal>
	Scaling	Define the scaling steps for your model, for example: 75,100,125,150.	<Text>
	Black and white	Define the Boolean constant as TRUE to display your model in black and white, otherwise as FALSE. If no specification is made, the default value FALSE is used.	<Boolean>
	Transparent	Define the Boolean constant as TRUE to display your model as transparent, otherwise as FALSE. If no specification is made, the default value FALSE is used.	<Boolean>
	List of document links	Specify the link attributes for which you want to copy documents.	
	Attribute type	Define link attribute types by using the API name, e. g., AT_EXT_1 for Link 1, or enter GUIDs and use the Create collection operator.	<Text collection>
	Layout	Select the layout for the ARIS Publisher output, e. g., defaultLayout .	
	Client key	Technical background information only - please ignore.	<Text>
	Error	If automation errors occur, context-specific error messages are displayed indicating, e. g., that ARIS Design Server is not available.	<Text>



In/Out	Name	Details	Data type
⬅️	Result	Returns either TRUE or FALSE (Boolean), depending on whether or not the service was successfully performed.	<Boolean>
⬅️	Export path	Storage path and name of the export result. This can be used as a hyperlink.	<Text>

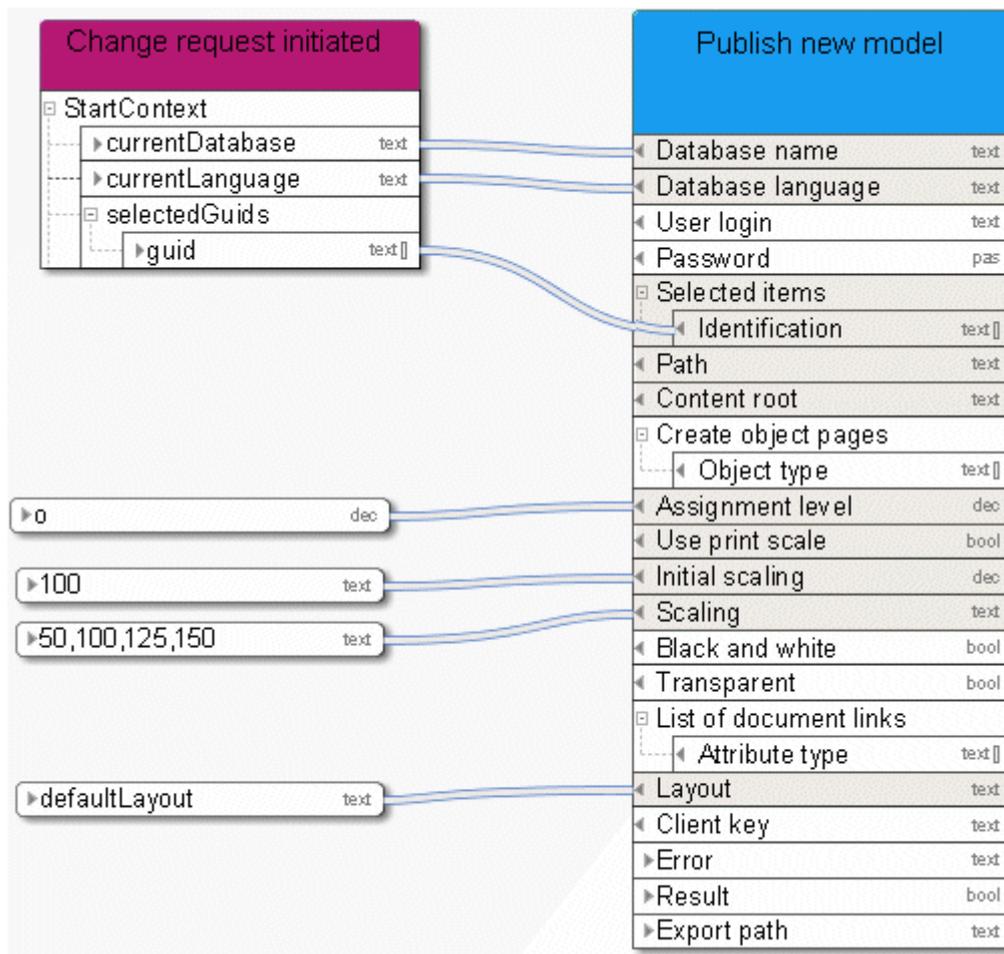


Figure 10: Create ARIS Publisher export



4.2 Insert - Models/objects/groups

This service merges models and/or objects of a source database into a target database.

In/Out	Name	Details	Data type
	Database name	Name of the database in which the function of type Automated task is carried out.	<Text>
	Database language	Language the service uses for logging in to the database, e. g., en for English. You can specify this in more detail, e. g., en for English or en_US for English (United States). For example, this is helpful if English (Australia) is set but not the default English (USA) is set in the database. If you want to add the country you need to create a language constant and model it as a language in the data flow.	<Text> or <Language>
	User login	Login name of the user that is used for carrying out the Automated task function. If no user is defined, arisservice is used.	<Text>
	Password	Password of the user that is used for carrying out the Automated task function.	<Password>
	Selected items	Select models, objects, or groups to be merged into the target database.	
	Identification	Either connect models, objects, or groups from the preselection of another object of type Human task , Automated task , or Event (process instance started) , or enter GUIDs and use the Create collection operator. (GUIDs do not exist for groups.)	<Text collection>
	Target database	Either connect the target database from the preselection of another object of type Human task , Automated task , or Event (process instance started) , or enter the name of the target database using a constant.	<Text>
	Merge attributes	Define the Boolean constant as TRUE to merge the source and target attributes. Otherwise: FALSE If no specification is made, the default value FALSE is used.	<Boolean>



In/Out	Name	Details	Data type
	Assignment level	Use a constant to specify the assignment level up to which assignments are included in the merge process.	<Decimal>
	Assignment outside the selection	Define how assignments are to be included in the merge process: Define the Boolean constant as TRUE to include border items. Otherwise: FALSE If no specification is made, the default value FALSE is used.	<Boolean>
	Connection outside the selection	Define how connections are to be included in the merge process: Define the Boolean constant as TRUE to include border items. Otherwise: FALSE If no specification is made, the default value FALSE is used.	<Boolean>
	Models: Source overwrites target	Define the settings you want to use in the event of a conflict: Define the Boolean constant as TRUE to have items of the source database overwrite items of the target database. Otherwise: FALSE If no specification is made, the default value FALSE is used.	<Boolean>
	Objects: Source overwrites target	Define the settings you want to use in the event of a conflict: Define the Boolean constant as TRUE to have items of the source database overwrite items of the target database. Otherwise: FALSE If no specification is made, the default value FALSE is used.	<Boolean>
	Connections: Source overwrites target	Define the settings you want to use in the event of a conflict: Define the Boolean constant as TRUE to have items of the source database overwrite items of the target database. Otherwise: FALSE If no specification is made, the default value FALSE is used.	<Boolean>
	Fonts: Source overwrites target	Define the settings you want to use in the event of a conflict: Define the Boolean constant as TRUE to have items of the source database overwrite items of the target database. Otherwise: FALSE If no specification is made, the default value FALSE is used.	<Boolean>



In/Out	Name	Details	Data type
	User: Source overwrites target	Define the settings you want to use in the event of a conflict: Define the Boolean constant as TRUE to have items of the source database overwrite items of the target database. Otherwise: FALSE If no specification is made, the default value FALSE is used.	<Boolean>
	User groups: Source overwrites target	Define the settings you want to use in the event of a conflict: Define the Boolean constant as TRUE to have items of the source database overwrite items of the target database. Otherwise: FALSE If no specification is made, the default value FALSE is used.	<Boolean>
	Merge users	Define the Boolean constant as TRUE to merge associated user groups. Otherwise: FALSE If no specification is made, the default value FALSE is used.	<Boolean>
	Group: Include source	Define the Boolean constant as TRUE to select the group containing the source in the event of a conflict. Otherwise: FALSE If no specification is made, the default value FALSE is used.	<Boolean>
	Synchronize assignments	Define the Boolean constant as TRUE to synchronize assignments. If relationships to a model did exist in the source database and if, during a merge, this model is found in the target database (e. g., from a previous merge), these relationships are created again.	<Boolean>
	Path	Path where the log file is to be saved.	<Text>
	Content root	Specify the part of the path to the content root, e. g., http://system123.me.corp.example.com:0909.	<Text>
	Client key	Technical background information only - please ignore.	<Text>
	Error	If automation errors occur, context-specific error messages are displayed indicating, e. g., that ARIS Design Server is not available.	<Text>



In/Out	Name	Details	Data type
	Result	Returns either TRUE or FALSE (Boolean), depending on whether or not the service was successfully performed.	<Boolean>
	Hyperlink	The hyperlink to the generated log file is output.	<Text>

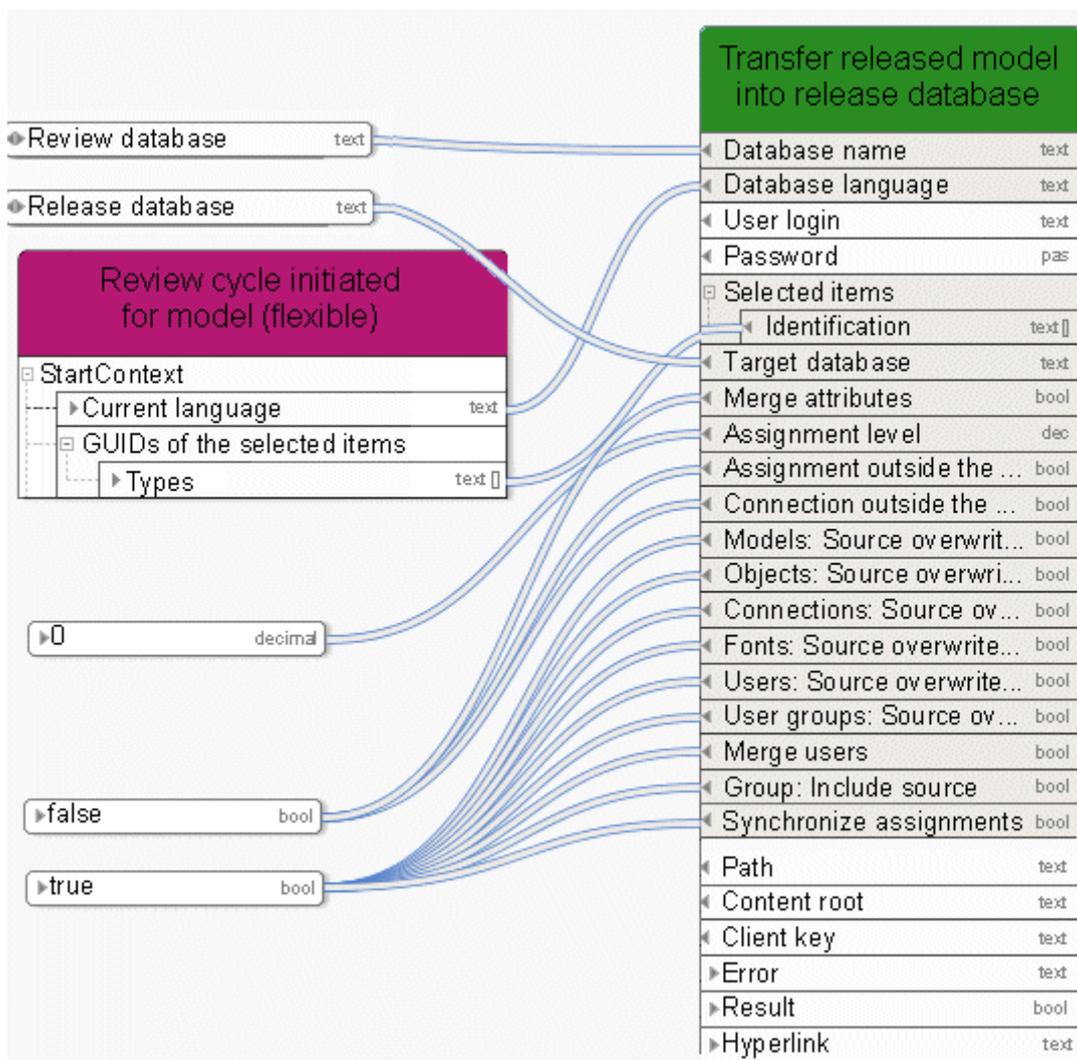


Figure 11: Merge models/objects/groups



4.3 Unlock - Model(s)/Object(s)

This service unlocks models and/or objects. You can select the models or objects you want to unlock. You may also force unlocking (Administrator: Unlock).

In/Out	Name	Details	Data type
	Database name	Name of the database in which the function of type Automated task is carried out.	<Text>
	Database language	Language the service uses for logging in to the database, e. g., en for English. You can specify this in more detail, e. g., en for English or en_US for English (United States). For example, this is helpful if English (Australia) is set but not the default English (USA) is set in the database. If you want to add the country you need to create a language constant and model it as a language in the data flow.	<Text> or <Language>
	User login	Login name of the user that is used for carrying out the Automated task function. If no user is defined, arisservice is used.	<Text>
	Password	Password of the user that is used for carrying out the Automated task function.	<Password>
	Selected items	Select the models or objects you want to unlock.	
	Identification	Either connect models or objects from the preselection of another object of type Human task , Automated task , or Event (process instance started) , or enter the GUIDs and use the Create collection operator.	<Text collection>
	Administrator: Unlock	Define the Boolean constant as TRUE to force unlocking. If no Boolean constant is defined, FALSE is used. If no specification is made, the default value FALSE is used.	<Boolean>
	Client key	Technical background information only - please ignore.	<Text>



In/Out	Name	Details	Data type
➡	Use current user for locking	If the current user is assigned to the corresponding field in the data flow via a connection, locking models or objects is performed as if the current user were doing it manually. This means that the personal privileges of the current user are taken into account, not the privileges of user arisservice actually performing the service.	<Text>
⬅	Error	If automation errors occur, context-specific error messages are displayed indicating, e. g., that ARIS Design Server is not available.	<Text>
⬅	Result	Returns either TRUE or FALSE (Boolean), depending on whether or not the service was successfully performed.	<Boolean>

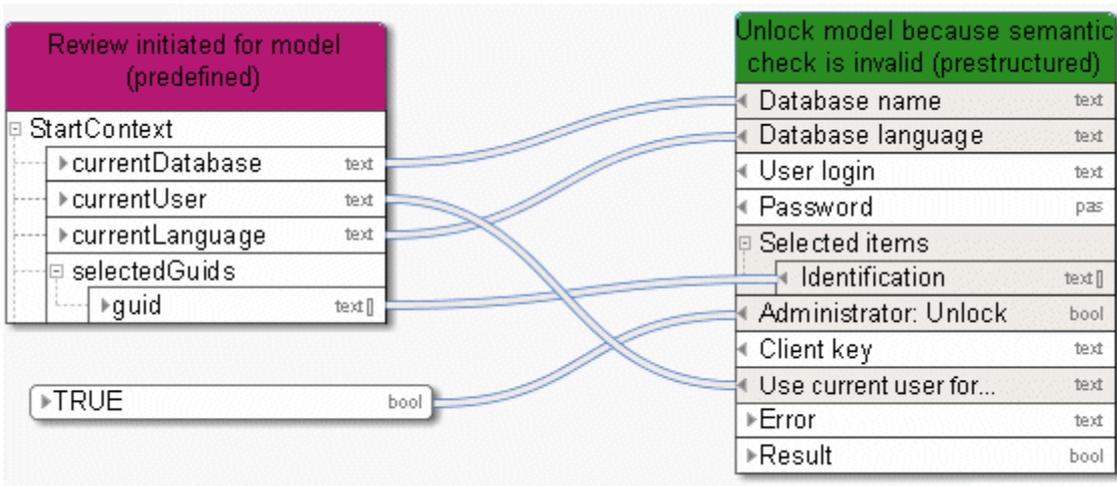


Figure 12: Unlock models and/or objects



4.4 Retrieve - 1 (superior) directory attribute

This service retrieves exactly one attribute (e. g., 'Description') from a group. If the requested attribute is not specified, the service continues retrieving the corresponding attribute from the superior group until a specified attribute is found or the main group is reached.

In/Out	Name	Details	Data type
	Database name	Name of the database in which the function of type Automated task is carried out.	<Text>
	Database language	Language the service uses for logging in to the database, e. g., en for English. You can specify this in more detail, e. g., en for English or en_US for English (United States). For example, this is helpful if English (Australia) is set but not the default English (USA) is set in the database. If you want to add the country you need to create a language constant and model it as a language in the data flow.	<Text> or <Language>
	User login	Login name of the user that is used for carrying out the Automated task function. If no user is defined, arisservice is used.	<Text>
	Password	Password of the user that is used for carrying out the Automated task function.	<Password>
	Selected items	Exactly one attribute is retrieved from multiple groups, e. g., the attribute Description/Definition . Groups can also be identified by selecting multiple models or objects. In this case, groups containing these models and objects are selected.	
	Identification	Either connect models, objects, or groups from the preselection of another object of type Human task, Automated task or Event (process instance started) , or enter the GUIDs and use the Create collection operator. (GUIDs do not exist for groups.) The group containing the selected items is identified.	<Text collection>



In/Out	Name	Details	Data type
➡	(Superior) group attribute to be retrieved	The selected attribute is retrieved (exactly one group attribute from multiple groups). If the group attribute is empty, retrieval of the attribute of the superior group continues until a specified attribute is found or the main group is reached. Either connect a group attribute type from the preselection of another object of type Human task, Automated task, or Event (process instance started) , or enter the API name or a GUID.	<Text>
➡	Client key	Technical background information only - please ignore.	<Text>
⬅	Error	If automation errors occur, context-specific error messages are displayed indicating, e. g., that ARIS Design Server is not available.	<Text>
⬅	Result	Returns either TRUE or FALSE (Boolean), depending on whether or not the service was successfully performed.	<Boolean>
⬅	Values	Required attribute values are returned in a list.	<Text collection>

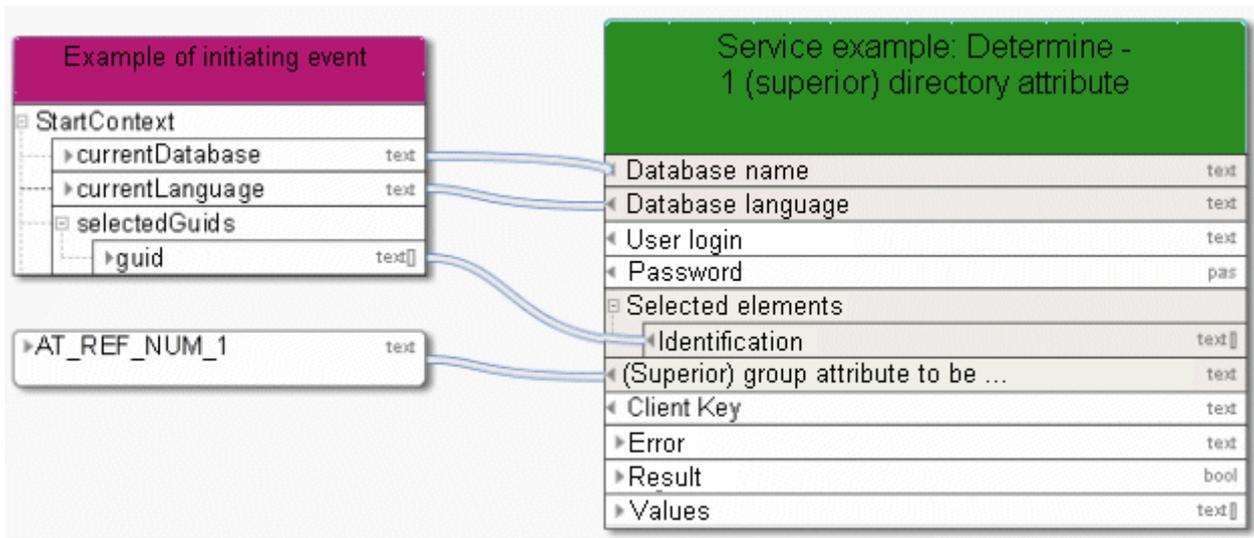


Figure 13: Retrieve exactly one (superior) group attribute



4.5 Retrieve - 1 attribute for multiple items

This service retrieves exactly one attribute (e. g., 'Description') from models, objects, or groups.

In/Out	Name	Details	Data type
	Database name	Name of the database in which the function of type Automated task is carried out.	<Text>
	Database language	Language the service uses for logging in to the database, e. g., en for English. You can specify this in more detail, e. g., en for English or en_US for English (United States). For example, this is helpful if English (Australia) is set but not the default English (USA) is set in the database. If you want to add the country you need to create a language constant and model it as a language in the data flow.	<Text> or <Language>
	User login	Login name of the user that is used for carrying out the Automated task function. If no user is defined, arisservice is used.	<Text>
	Password	Password of the user that is used for carrying out the Automated task function.	<Password>
	Selected items	Exactly one attribute is retrieved from multiple models, objects, or groups, e. g., the attribute Description/Definition .	
	Identification	Either connect models, objects, or groups from the preselection of another object of type Human task, Automated task or Event (process instance started) , or enter the GUIDs and use the Create collection operator. (GUIDs do not exist for groups.)	<Text collection>
	Attribute to be retrieved	The selected attribute is retrieved (exactly one attribute of multiple items, e. g., models).	<Text>
	Client key	Technical background information only - please ignore.	<Text>
	Error	If automation errors occur, context-specific error messages are displayed indicating, e. g., that ARIS Design Server is not available.	<Text>



In/Out	Name	Details	Data type
	Result	Returns either TRUE or FALSE (Boolean), depending on whether or not the service was successfully performed.	<Boolean>
	Values	Required attribute values are returned in a list.	<Text collection>

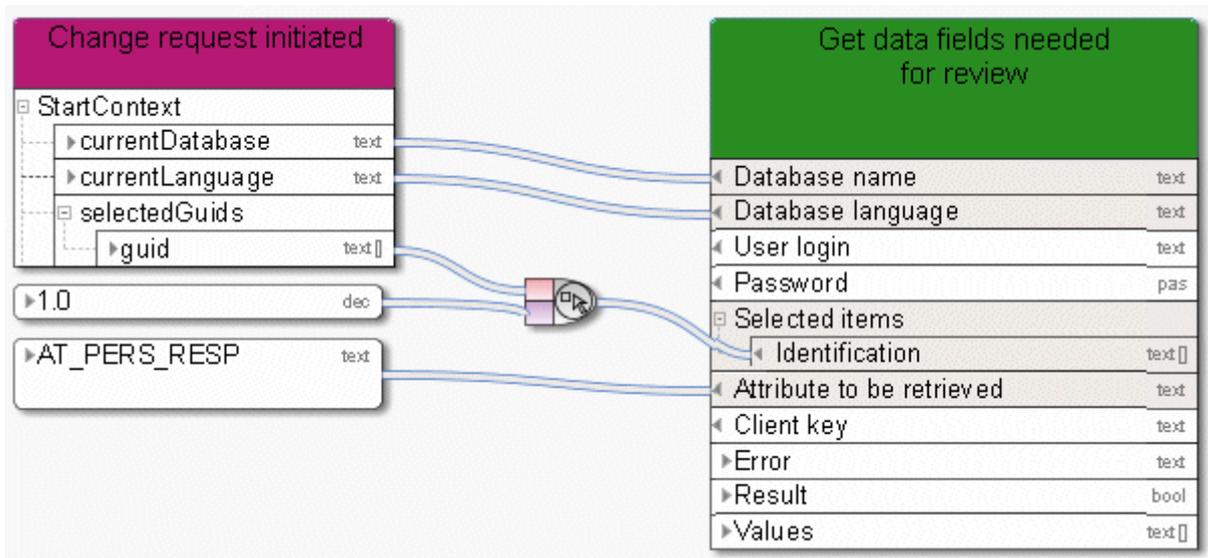


Figure 14: Retrieve exactly one attribute from multiple items



4.6 Retrieve - Current technical version of model(s)

This service selects the latest change list (current models) for the required models from the list of available versions.

In/Out	Name	Details	Data type
	Database name	Name of the database in which the function of type Automated task is carried out.	<Text>
	Database language	Language the service uses for logging in to the database, e. g., en for English. You can specify this in more detail, e. g., en for English or en_US for English (United States). For example, this is helpful if English (Australia) is set but not the default English (USA) is set in the database. If you want to add the country you need to create a language constant and model it as a language in the data flow.	<Text> or <Language>
	User login	Login name of the user that is used for carrying out the Automated task function. If no user is defined, arisservice is used.	<Text>
	Password	Password of the user that is used for carrying out the Automated task function.	<Password>
	Selected items	Select the models whose current version you require.	
	Identification	Either connect models, objects, or groups from the preselection of another object of type Human task, Automated task or Event (process instance started) , or enter the GUIDs and use the Create collection operator.	<Text collection>
	Client key	Technical background information only - please ignore.	<Text>
	Error	If automation errors occur, context-specific error messages are displayed indicating, e. g., that ARIS Design Server is not available.	<Text>



In/Out	Name	Details	Data type
⌂	Result	Returns either TRUE or FALSE (Boolean), depending on whether or not the service was successfully performed.	<Boolean>
⌂	Change list	The Current version change list number will be returned for each model.	<Decimal collection>

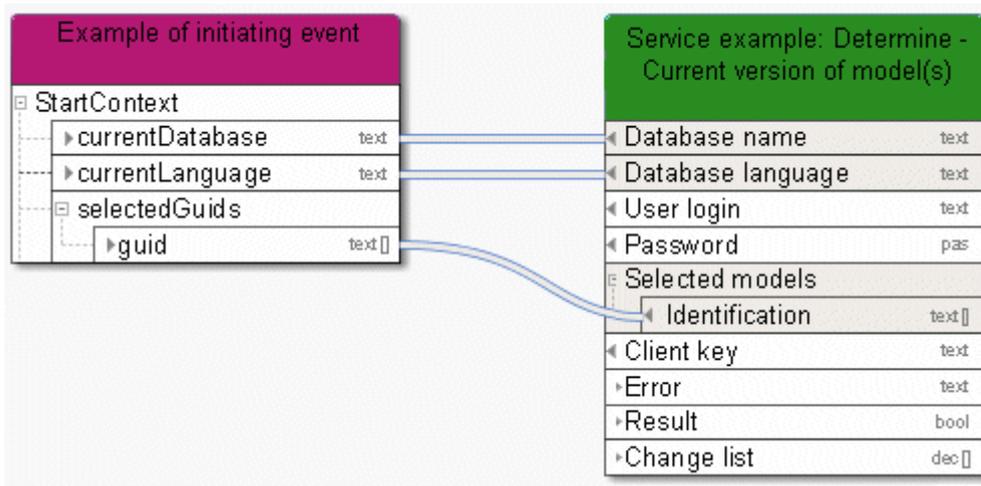


Figure 15: Select current model version

4.7 Retrieve - ARIS user group attributes

This service selects an ARIS user group and returns the user group attributes.

In/Out	Name	Details	Data type
➡	Database name	Name of the database in which the function of type Automated task is carried out.	<Text>
➡	Database language	Language the service uses for logging in to the database, e. g., en for English. You can specify this in more detail, e. g., en for English or en_US for English (United States). For example, this is helpful if English (Australia) is set but not the default English (USA) is set in the database. If you want to add the country you need to create a language constant and model it as a language in the data flow.	<Text> or <Language>



In/Out	Name	Details	Data type
➔	User login	Login name of the user that is used for carrying out the Automated task function. If no user is defined, arisservice is used.	<Text>
➔	Password	Password of the user that is used for carrying out the Automated task function.	<Password>
➔	Name of the user group	Enter the name of the ARIS database user group from which you want to retrieve attributes.	<Text>
➔	Client key	Technical background information only - please ignore.	<Text>
⬅	Error	If automation errors occur, context-specific error messages are displayed indicating, e. g., that ARIS Design Server is not available.	<Text>
⬅	Result	Returns either TRUE or FALSE (Boolean), depending on whether or not the service was successfully performed.	<Boolean>
⬅	Values	The attribute value list of the user group in the ARIS database is output.	<Text collection>

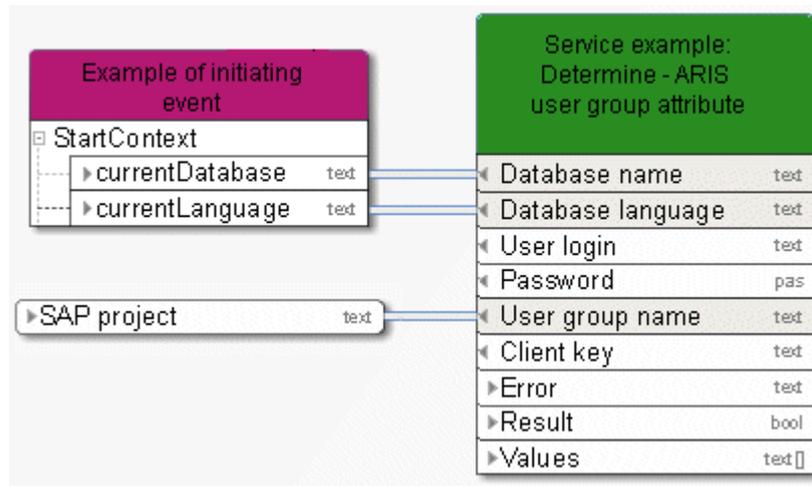


Figure 16: Retrieve attributes from ARIS user group



4.8 Retrieve - Item(s) via GUID(s)

This service finds all items (e. g., models) according to a predefined GUID list. These items can be used for further processing.

In/Out	Name	Details	Data type
	Database name	Name of the database in which the function of type Automated task is carried out.	<Text>
	Database language	Language the service uses for logging in to the database, e. g., en for English. You can specify this in more detail, e. g., en for English or en_US for English (United States). For example, this is helpful if English (Australia) is set but not the default English (USA) is set in the database. If you want to add the country you need to create a language constant and model it as a language in the data flow.	<Text> or <Language>
	User login	Login name of the user that is used for carrying out the Automated task function. If no user is defined, arisservice is used.	<Text>
	Password	Password of the user that is used for carrying out the Automated task function.	<Password>
	Selected items	Select the models or objects you want to find.	
	Identification	Either connect models, objects, or groups from the preselection of another object of type Human task, Automated task or Event (process instance started) , or enter the GUIDs and use the Create collection operator.	<Text collection>
	Client key	Technical background information only - please ignore.	<Text>
	Error	If automation errors occur, context-specific error messages are displayed indicating, e. g., that ARIS Design Server is not available.	<Text>
	Result	Returns either TRUE or FALSE (Boolean), depending on whether or not the service was successfully performed.	<Boolean>
	Items found	Returns the list of all items found, e. g., models.	



In/Out	Name	Details	Data type
⌂	GUIDs	The list of GUIDs is output for the items that were found.	<Text collection>
	Items not found	Returns the list of all items that were not found, e. g., models.	
⌂	GUIDs	The list of GUIDs is output for the items that were not found.	<Text collection>

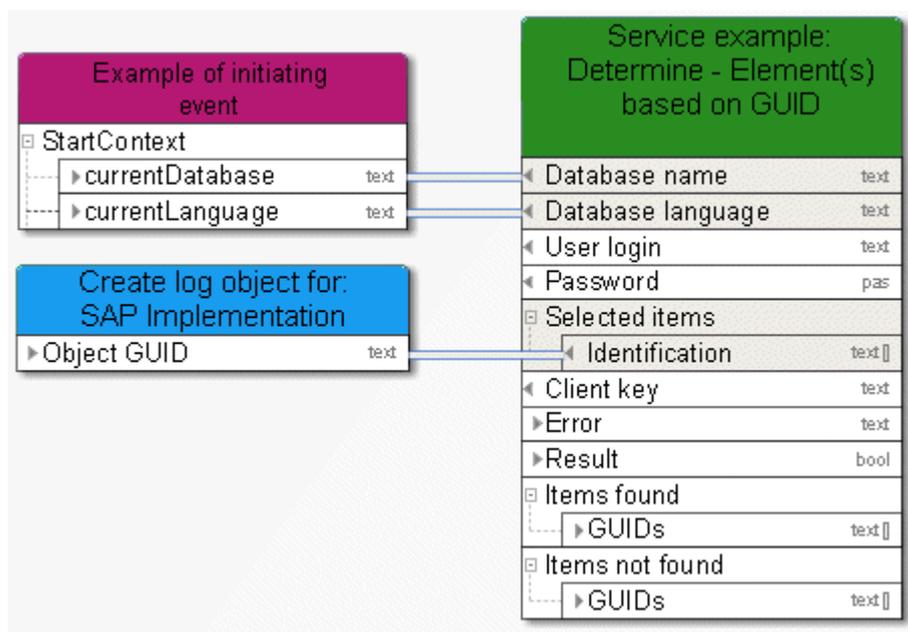


Figure 17: Find items via GUID



4.9 Retrieve - Group path for model(s) and object(s)

This service retrieves the group path for models and objects.

In/Out	Name	Details	Data type
	GUID	List of the GUIDs of the models and objects.	<Text collection>
	Result	Path of the respective model or object.	<Text collection>

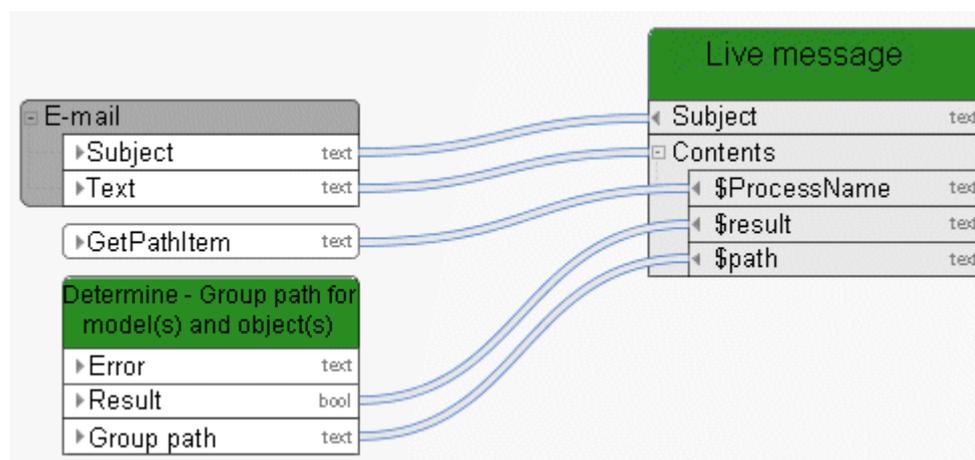


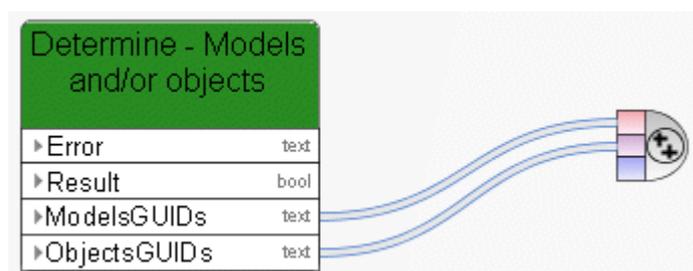
Figure 18: Retrieve - Group path for model(s)/object(s)



4.10 Retrieve - Models and/or objects

This service sorts input consisting of models and/or objects and outputs two lists sorted by GUID, one for models and one for objects.

In/Out	Name	Details	Data type
	Database name	Name of the database in which the function of type Automated task is carried out.	<Text>
	Database language	Language the service uses for logging in to the database, e. g., en for English. You can specify this in more detail, e. g., en for English or en_US for English (United States). For example, this is helpful if English (Australia) is set but not the default English (USA) is set in the database. If you want to add the country you need to create a language constant and model it as a language in the data flow.	<Text> or <Language>
	Selected items	An unsorted input of any objects and/or models.	<Complex>
	Result	The result is either TRUE or FALSE (Boolean), depending on whether the service was performed successfully or not.	<Boolean>
	GUIDs of models	List of models found in the input data sorted by GUID.	<Text>
	GUIDs of objects	List of objects found in the input data sorted by GUID.	<Text>





4.11 Retrieve - Lock status (model(s)/object(s))

This service retrieves the lock status for models and objects.

In/Out	Name	Details	Data type
	Database name	Name of the database in which the function of type Automated task is carried out.	<Text>
	Database language	Language the service uses for logging in to the database, e. g., en for English. You can specify this in more detail, e. g., en for English or en_US for English (United States). For example, this is helpful if English (Australia) is set but not the default English (USA) is set in the database. If you want to add the country you need to create a language constant and model it as a language in the data flow.	<Text> or <Language>
	User login	Login name of the user that is used for carrying out the Automated task function. If no user is defined, arisservice is used.	<Text>
	Password	Password of the user that is used for carrying out the Automated task function.	<Password>
	Selected items	Select the models or objects you want to check. The model check will return the status of the models, not the status of objects having occurrences in the models.	
	Identification	Either connect models, objects, or groups from the preselection of another object of type 'Human task', 'Automated task', or Event (process instance started) , or enter the GUIDs and use the 'Create collection' operator.	<Text collection>
	Client key	Technical background information only - please ignore.	<Text>
	Error	If automation errors occur, context-specific error messages are displayed indicating, e. g., that ARIS Design Server is not available.	<Text>
	Result	Returns either TRUE or FALSE (Boolean), depending on whether or not the service was successfully performed.	<Boolean>



In/Out	Name	Details	Data type
⬅️	No item locked	Returns TRUE (Boolean) if no item is locked. Returns FALSE (Boolean) if at least one item is locked.	<Boolean>
⬅️	At least one item locked	Returns TRUE (Boolean) if at least one item is locked. Returns FALSE (Boolean) if no item is locked.	<Boolean>
⬅️	All items locked	Returns TRUE (Boolean) if all items are locked. Returns FALSE (Boolean) if at least one item is not locked.	<Boolean>
⬅️	Names	The list of names is returned for the items that were checked.	<Text collection>
⬅️	GUID	The list of GUIDs is returned for the items that were checked.	<Text collection>
⬅️	Item owner	The list of item owners having locked the items is output.	<Text collection>

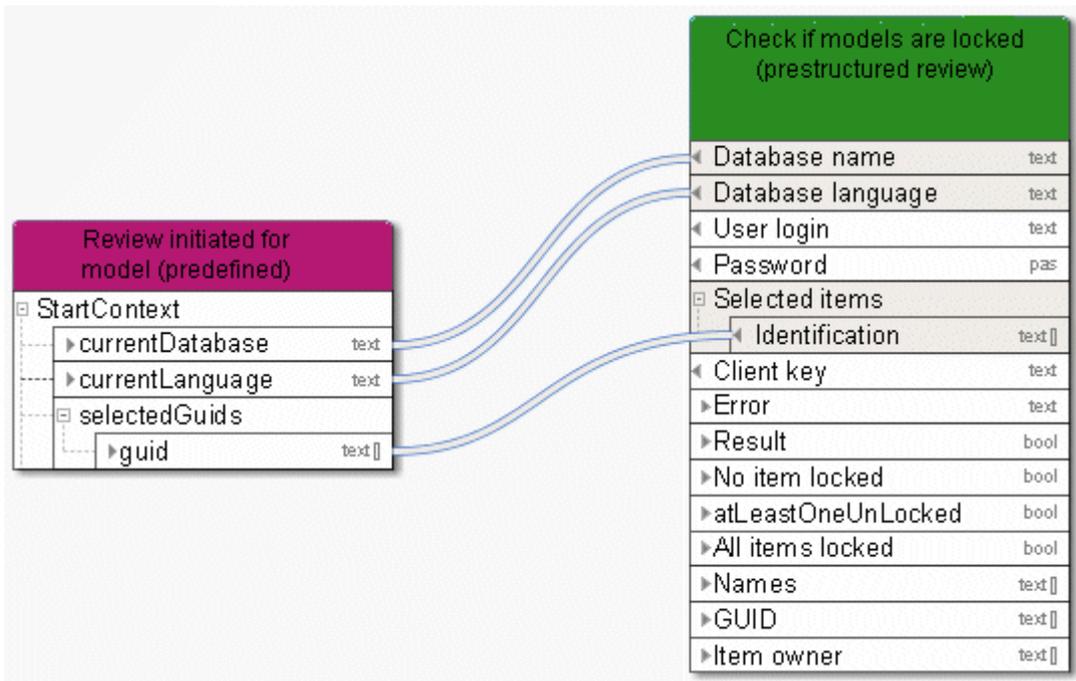


Figure 19: Check whether models or objects are locked



4.12 Retrieve - Multiple attributes for 1 item

This service retrieves multiple attributes (e. g., 'Model status', 'Version number', and 'Release') from exactly one item (model, object, or group).

In/Out	Name	Details	Data type
	Database name	Name of the database in which the function of type Automated task is carried out.	<Text>
	Database language	Language the service uses for logging in to the database, e. g., en for English. You can specify this in more detail, e. g., en for English or en_US for English (United States). For example, this is helpful if English (Australia) is set but not the default English (USA) is set in the database. If you want to add the country you need to create a language constant and model it as a language in the data flow.	<Text> or <Language>
	User login	Login name of the user that is used for carrying out the Automated task function. If no user is defined, arisservice is used.	<Text>
	Password	Password of the user that is used for carrying out the Automated task function.	<Password>
	Selected item	This service retrieves multiple attributes from exactly one model, one object, or one group, e. g., the attributes 'Description' and 'Author'. Either connect a model, object, or group from the preselection of another object of type Human task, Automated task, or Event (process instance started) , or enter the GUID. (GUIDs do not exist for groups.)	<Text>
	Attributes to be retrieved	Retrieves the selected attributes (multiple attributes from exactly one item, e. g., the following attributes from a model: 'Model status', 'Version number', and 'Release').	
	Type	Either connect several attribute types from the preselection of another object of type Human task, Automated task, or Event (process instance started) , or enter the API names or GUIDs and use the Create collection operator.	<Text collection>



In/Out	Name	Details	Data type
	Client key	Technical background information only - please ignore.	<Text>
	Error	If automation errors occur, context-specific error messages are displayed indicating, e. g., that ARIS Design Server is not available.	<Text>
	Result	Returns either TRUE or FALSE (Boolean), depending on whether or not the service was successfully performed.	<Boolean>
	Attributes	Attributes are returned in a list with the corresponding values.	
	Attribute and value	The relevant attributes are returned in a list with the corresponding values.	
	Attribute type	The list of required attribute types is returned.	<Text>
	Attribute value	The list of attribute values is returned for the required attribute types.	<Text>

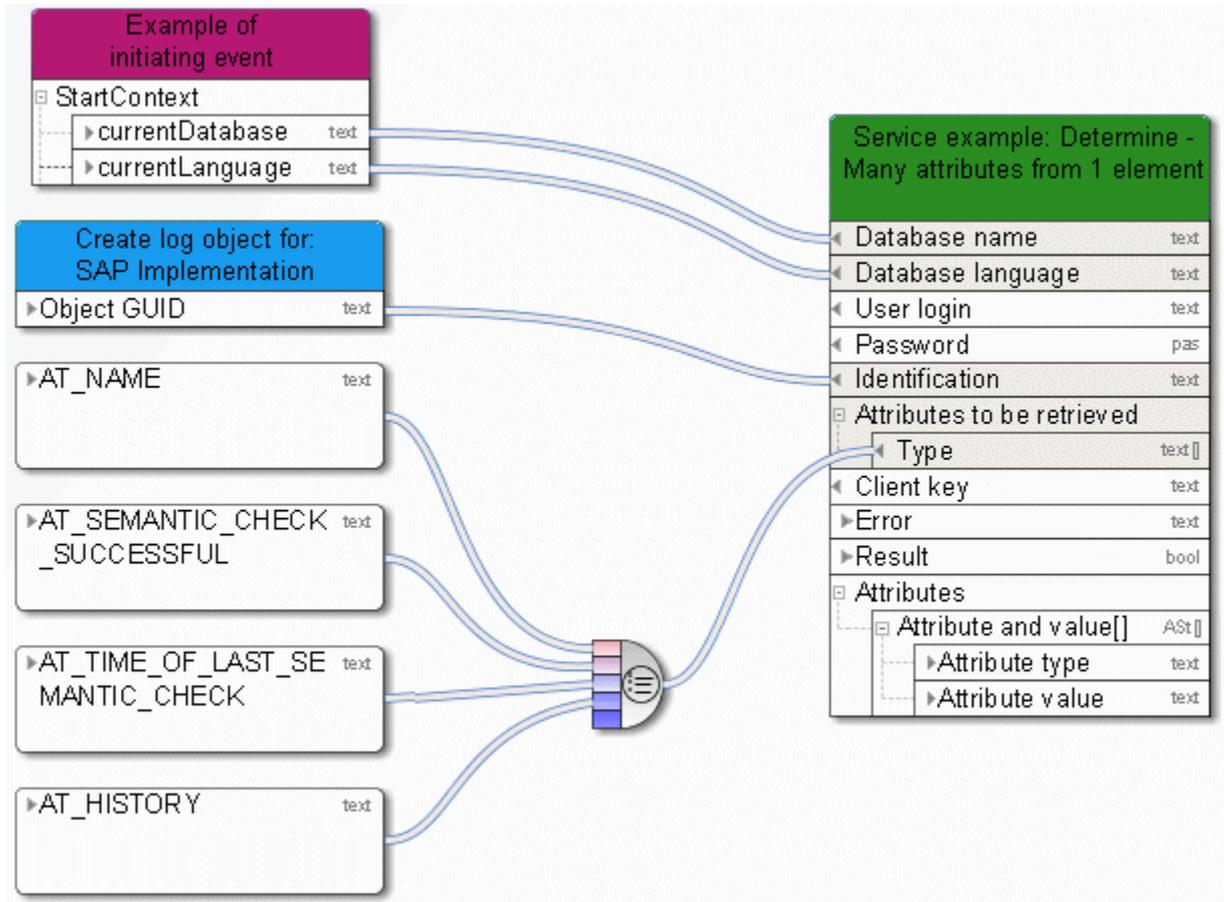


Figure 20: Retrieve multiple attributes from exactly one item



4.13 Create - 1 model

This service creates exactly one model of any required type.

In/Out	Name	Details	Data type
	Database name	Name of the database in which the function of type Automated task is carried out.	<Text>
	Database language	Language the service uses for logging in to the database, e. g., en for English. You can specify this in more detail, e. g., en for English or en_US for English (United States). For example, this is helpful if English (Australia) is set but not the default English (USA) is set in the database. If you want to add the country you need to create a language constant and model it as a language in the data flow.	<Text> or <Language>
	User login	Login name of the user that is used for carrying out the Automated task function. If no user is defined, arisservice is used.	<Text>
	Password	Password of the user that is used for carrying out the Automated task function.	<Password>
	Model name	Enter the name of the new model.	<Text>
	Model type	Define the model type by using the API name, e. g.: MT_EPC for Event-driven process chain.	<Text>
	Path	Enter the path in which you want to save the new model (e. g., Main group\Processes\Sales processes) in the relevant database using the correct database language.	<Text>
	Client key	Technical background information only - please ignore.	<Text>
	Error	If automation errors occur, context-specific error messages are displayed indicating, e. g., that ARIS Design Server is not available.	<Text>



In/Out	Name	Details	Data type
	Result	The result is either TRUE or FALSE (Boolean), depending on whether the service was performed successfully or not.	<Boolean>
	Model GUID	Returns the GUID of the newly created model.	<Text>

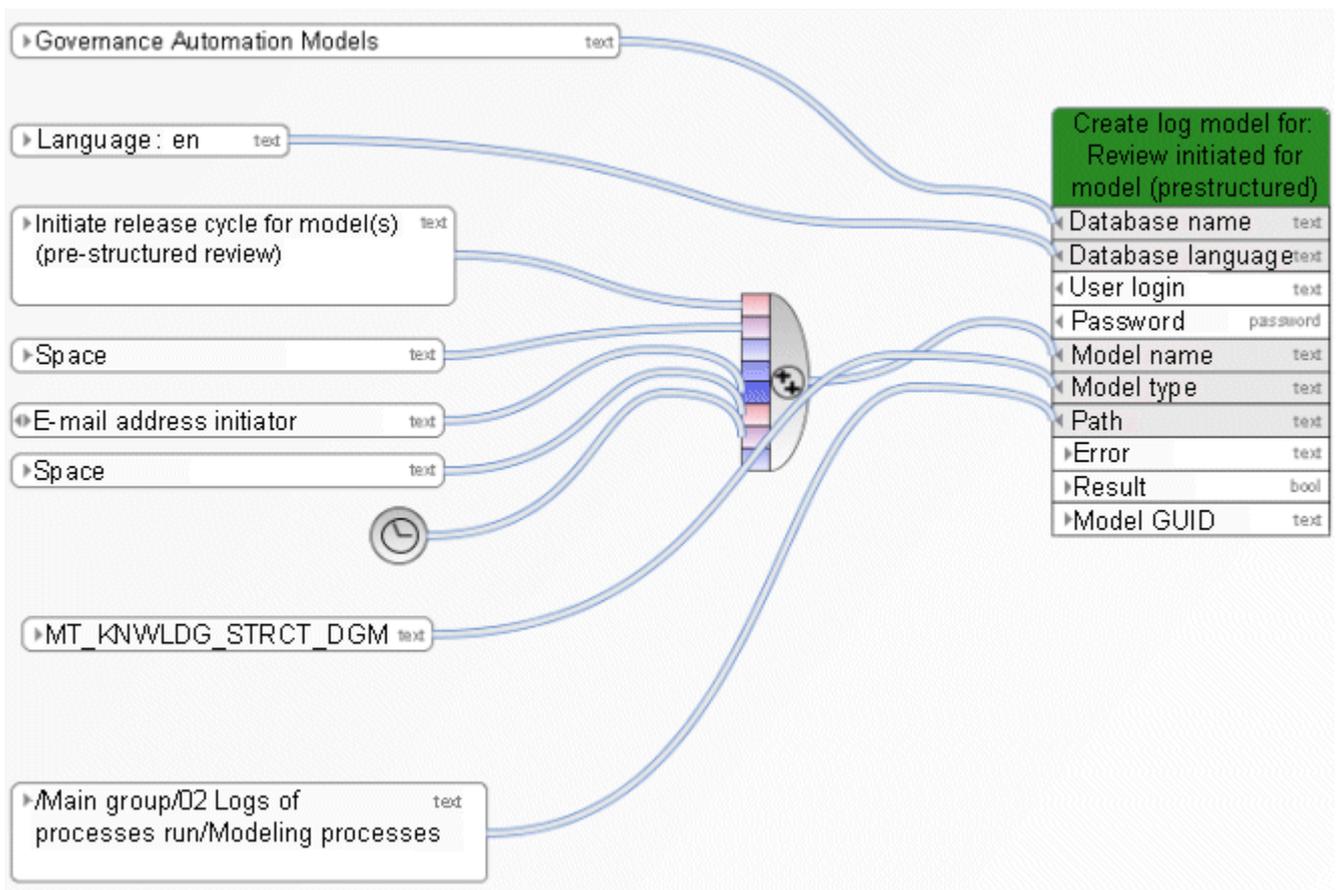


Figure 21: Create exactly one model



4.14 Create - 1 object

This service creates exactly one object of any required type. You can also create connections to existing objects and assignments for existing models.

In/Out	Name	Details	Data type
	Database name	Name of the database in which the function of the type Automated task is carried out.	<Text>
	Database language	Language the service uses for logging in to the database, e. g., en for English. You can specify this in more detail, e. g., en for English or en_US for English (United States). For example, this is helpful if English (Australia) is set but not the default English (USA) is set in the database. If you want to add the country you need to create a language constant and model it as a language in the data flow.	<Text> or <Language>
	User login	Login name of the user that is used for carrying out the Automated task function. If no user is defined, arisservice is used.	<Text>
	Password	Password of the user that is used for carrying out the Automated task function.	<Password>
	Object name	Enter the name for the new object.	<Text>
	Object type	Define the object type by using the API name, e. g.: OT_FUNC for function.	<Text>
	Occurrence in model	Specify in which models the new object will have occurrences.	
	Identification	Either connect models, objects, or groups from the preselection of another object of the type Human task, Automated task or Event (process instance started) or enter the GUIDs and use the Create collection operator.	<Text collection>
	Occurrence symbol	Specify which symbol should be used to display the new object. To do so, use the API name. Example: ST_PRCES_IF for Process interface . If no symbol is defined or if the symbol is not allowed in the model type, the default symbol is used.	<Text>



In/Out	Name	Details	Data type
	Model assignment	Existing models can be assigned to the object.	
	Identification	Specify which models are to be assigned. To do so, either connect models from the preselection of another object of the type Human task , Automated task or Event (process instance started) or enter the GUIDs and use the Create collection operator.	<Text collection>
	Source object	You can define connections to existing source objects.	
	Identification	Define source objects for which connections are created. To do so, either connect models from the preselection of another object of the type Human task , Automated task or Event (process instance started) or enter the GUIDs and use the Create collection operator.	<Text collection>
	Connection types of incoming connections	Define types for the connections that are created to run from existing objects to this new object.	
	Type	Define connection types by using the Create collection operator and the API name, e.g.: CT_IS_INP_FOR for Is input for . If you have defined multiple source objects using the Create collection operator, you may specify multiple connection types. In this case, the order is determined by which connections are created to which object (first source object is assigned to the first connection type, etc).	<Text collection>
	Target objects	Define connections for existing objects.	
	Identification	Define target objects for which connections are created. To do so, either connect models from the preselection of another object of the type Human task , Automated task or Event (process instance started) or enter the GUIDs and use the Create collection operator.	<Text collection>



In/Out	Name	Details	Data type
	Connection types of outgoing connections	Define types for the connections that are created to run from the new object to existing objects.	
➔	Type	Define connection types by using the Create collection operator and the API name, e.g.: CT_HAS_OUT for has as output . If you have defined multiple target objects using the Create collection operator, you may specify multiple connection types. In this case, the order is determined by which connections are created to which object (first target object is assigned to the first connection type, etc).	<Text collection>
➔	Path	Enter the path in which you want to save the new group (e. g., Main group\Processes\Sales processes) in the relevant database using the correct database language.	<Text>
➔	Client key	Technical background information only - please ignore.	<Text>
⬅	Error	If automation errors occur, context-specific error messages are displayed indicating, e. g., that ARIS Design Server is not available.	<Text>
⬅	Result	The result is either TRUE or FALSE (Boolean), depending on whether the service was performed successfully or not.	<Boolean>
⬅	Object GUID	Returns the GUID of the newly created object.	<Text>

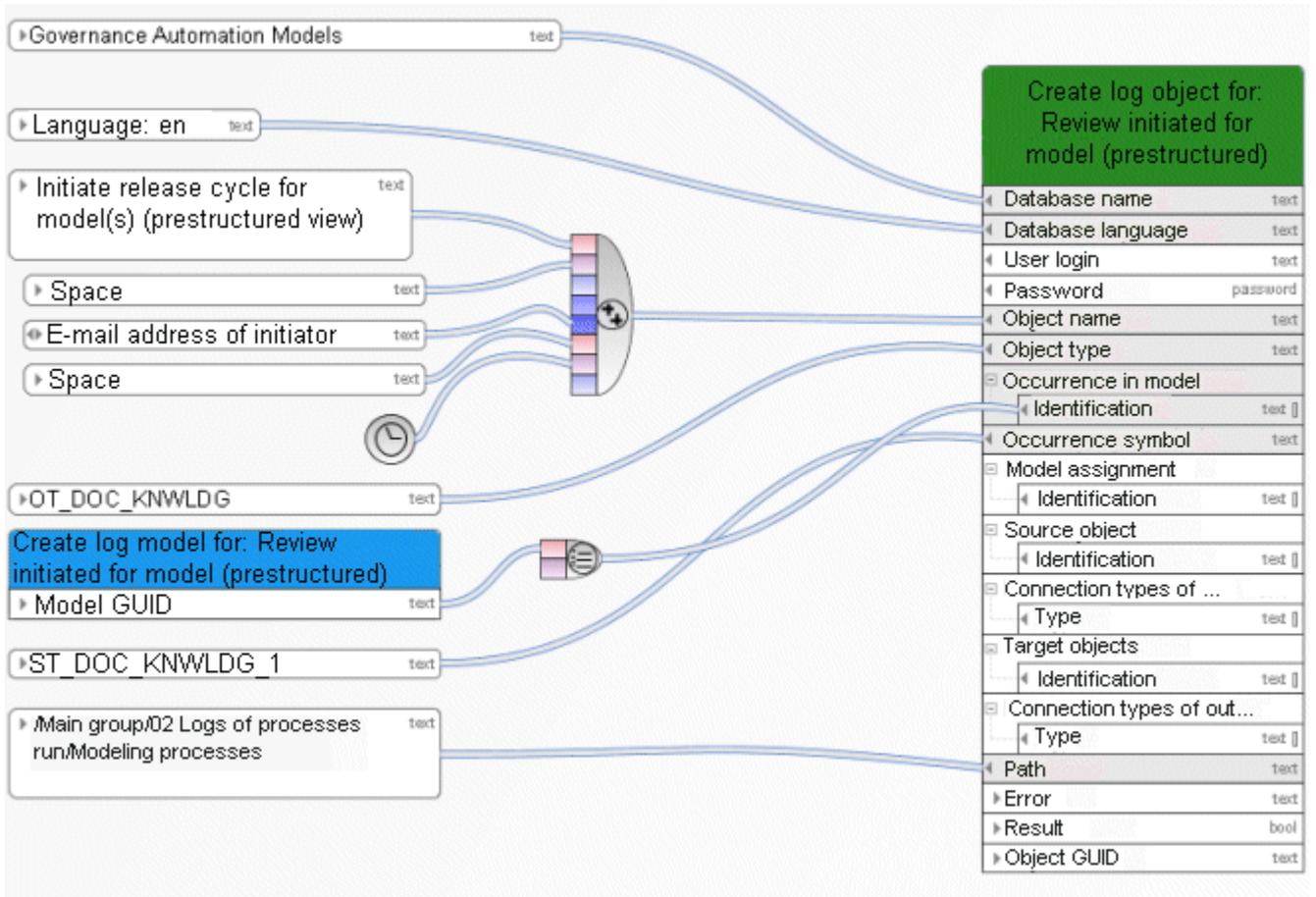


Figure 22: Create exactly one object



4.15 Create - 1 group/directory

This service creates exactly one group.

In/Out	Name	Details	Data type
	Database name	Name of the database in which the function of type Automated task is carried out.	<Text>
	Database language	Language the service uses for logging in to the database, e. g., en for English. You can specify this in more detail, e. g., en for English or en_US for English (United States). For example, this is helpful if English (Australia) is set but not the default English (USA) is set in the database. If you want to add the country you need to create a language constant and model it as a language in the data flow.	<Text> or <Language>
	User login	Login name of the user that is used for carrying out the Automated task function. If no user is defined, arisservice is used.	<Text>
	Password	Password of the user that is used for carrying out the Automated task function.	<Password>
	Path	Enter the path in which you want to save the new group (e. g., Main group\Processes\Sales processes) in the relevant database using the correct database language.	<Text>
	Group name	Enter the name of the new group, e. g.: Processes.	<Text>
	Client key	Technical background information only - please ignore.	<Text>
	Error	If automation errors occur, context-specific error messages are displayed indicating, e. g., that ARIS Design Server is not available.	<Text>
	Result	Returns either TRUE or FALSE (Boolean), depending on whether or not the service was successfully performed.	<Boolean>



In/Out	Name	Details	Data type
	Created path	The path to the created group.	<Text>
	Group GUID	GUID of the created group.	<Text>

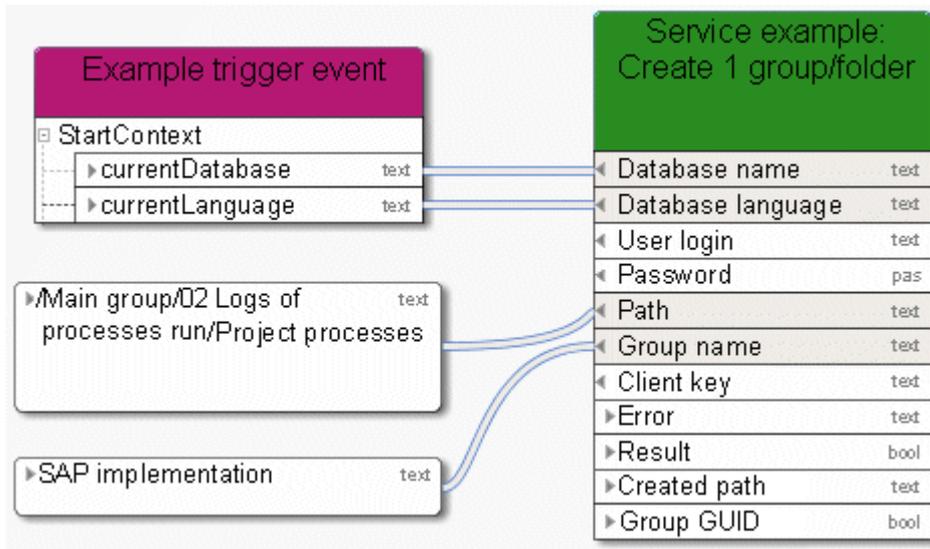


Figure 23: Create exactly one group/directory

4.16 Create - Database

This service creates a database. The name of the database is input data. If a database already exists with the same name, a number is attached to the name of the new database, e. g., <Name>(1).

In/Out	Name	Details	Data type
	Database name	Name of the database in which the function of type Automated task is carried out.	<Text>
	Database language	Language the service uses for logging in to the database, e. g., en for English. You can specify this in more detail, e. g., en for English or en_US for English (United States). This is helpful, for example, if English (Australia) has been set in the database, but standard English (USA) has not been set.	<Text> or <Language>



In/Out	Name	Details	Data type
		If you want to add the country, you need to create a language constant and model it as a language in the data flow.	
↪	User login	Login name of the user that is used for carrying out the Automated task function. If no user is defined, arisservice is used.	<Text>
↪	Password	Password of the user that is used for carrying out the Automated task function.	<Password>
↪	Name of the new database	The new database is created with this name. Special characters are not allowed. If the name contains special characters, an error message is displayed.	<Text>
↪	Is versionable	If the input is TRUE, the new database is created as a versionable database, if it is FALSE, the database is not versionable.	<Boolean>
↪	Client key	Technical background information only - please ignore.	<Text>
↩	Error	If automation errors occur, context-specific error messages are displayed indicating, e. g., that ARIS Design Server is not available.	<Text>
↩	Result	Returns either TRUE or FALSE (Boolean), depending on whether or not the service was successfully performed. If no specification is made, the default value FALSE is used.	<Boolean>

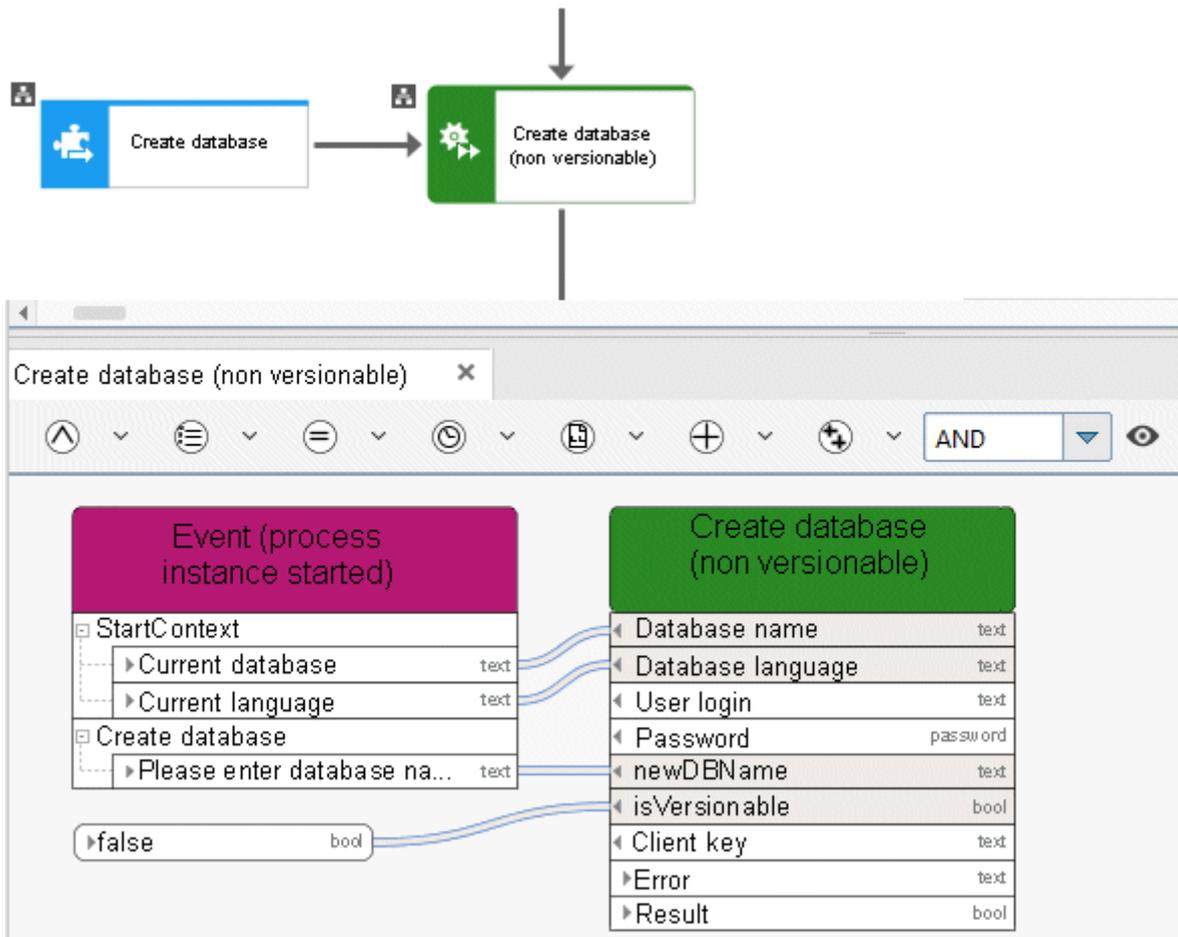


Figure 24: Create database

4.17 Create - Dynamic ARIS Publisher export

This service creates Web exports to provide other persons with specific models in read-only mode. The export is dynamic and thus takes into account access privileges, includes view generation, etc.

In/Out	Name	Details	Data type
➡	Database name	Name of the database in which the function of type Automated task is carried out.	<Text>
➡	Database language	Language the service uses for logging in to the database, e. g., en for English. You can specify this in more detail, e. g., en for English or en_US for English (United States). For example, this is helpful if English (Australia) is set but not the default English (USA) is set in the database.	<Text> or <Language>



In/Out	Name	Details	Data type
		If you want to add the country you need to create a language constant and model it as a language in the data flow.	
↻	User login	Login name of the user that is used for carrying out the Automated task function. If no user is defined, arisservice is used.	<Text>
↻	Password	Password of the user that is used for carrying out the Automated task function.	<Password>
↻	ARIS Publisher Server	Name of the ARIS Publisher Server on which the database is stored.	<Text>
↻	Export name	Name that is displayed in the list when the export opens.	<Text>
↻	Export description	Description that is displayed in the list when the export opens.	<Text>
↻	Change list	Define the change list number to export versioned contents. Either connect an object of type Automated task (which, e. g., generates a version and outputs the change list number), Human task , or the object of type Event (process instance started) (where the change list number was entered). Or connect a constant with the change list number.	<Decimal>
↻	Referenced export	Is used to specify the name of the export the current export references in order to navigate from one export to the other (e. g., from the current export to an older version).	<Text>
↻	Template	Enter the GUID of the template (see properties) you want to apply when performing an export.	<Text>
↻	Export language	Export the database in multiple languages.	
↻	Languages	Specify the language code as follows: en_US, en_US, en_US; de_DE, de_DE, de_DE. (ISO 639 language codes are used.) For a single language, you can use a constant of the Language (Page 156) type.	<Text collection>



In/Out	Name	Details	Data type
	Default language ID	Enter the ID of the language to be used if the contents is not specified in the selected language, e. g.: 1033 for English.	<Text>
	Profile name	Enter a name for the profile you want to use when performing exports.	<Text>
	Profile description	Enter a description for the profile you want to use when performing exports.	<Text>
	Path for copied documents	Specify the path to which you want to copy the linked documents.	<Boolean>
	Use print scale	Define the Boolean constant as TRUE to display models using the specified print scale, otherwise as FALSE. If no specification is made, the default value FALSE is used.	<Boolean>
	Initial scaling	Define initial scaling, e. g., 100.	<Decimal>
	Scaling	Define the scaling steps for your model, for example: 75,100,125,150.	<Text>
	Black and white	Define the Boolean constant as TRUE to display your model in black and white, otherwise as FALSE. If no specification is made, the default value FALSE is used.	<Boolean>
	Transparent	Define the Boolean constant as TRUE to display your model as transparent, otherwise as FALSE. If no specification is made, the default value FALSE is used.	<Boolean>
	List of document links	Specify the link attributes for which you want to copy documents.	
	Attribute type	Define link attribute types by using the API name, e. g., AT_EXT_1 for Link 1, or enter GUIDs and use the Create collection operator.	<Text collection>
	Layout	Select the layout for the ARIS Publisher output, e. g., defaultLayout .	



In/Out	Name	Details	Data type
	User name	Please enter a default login name so that the generated export opens automatically when a hyperlink is clicked in a dialog. If you do not enter a login name here, users must enter their login name when opening the export via a hyperlink.	<Text>
	Password	Please enter the password for the login name so that the generated export opens automatically when a hyperlink is clicked in a dialog. If you do not enter a password here, users must enter their password when opening the export via a hyperlink.	<Text>
	Anonymous	Define the Boolean constant as TRUE to make the export accessible to anyone, otherwise as FALSE. If no specification is made, the default value FALSE is used.	<Boolean>
	Client key	Technical background information only - please ignore.	<Text>
	Error	If automation errors occur, context-specific error messages are displayed indicating, e. g., that ARIS Design Server is not available.	<Text>
	Result	Returns either TRUE or FALSE (Boolean), depending on whether or not the service was successfully performed.	<Boolean>
	Export path	The path where the export result is stored. This can be used as a hyperlink.	<Text>

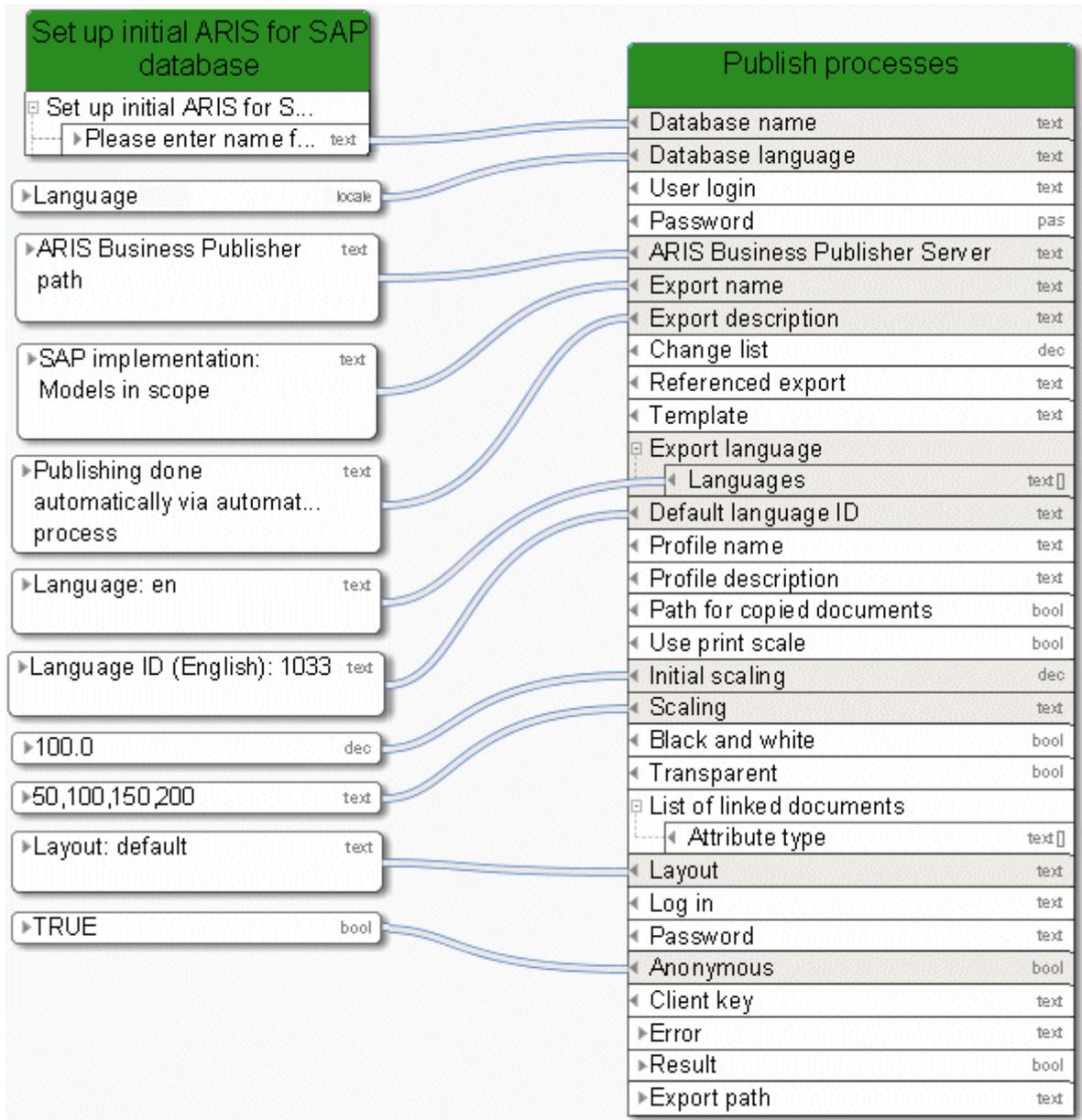


Figure 25: Create dynamic ARIS Publisher export



4.18 Create - Report

This service starts reports. If the report requires user-defined settings, please specify them. For settings to be defined in the data flow, the report script must be allowed to be started automatically. This may require report script changes.

In/Out	Name	Details	Data type
	Database name	Name of the database in which the function of type Automated task is carried out.	<Text>
	Database language	Language the service uses for logging in to the database, e. g., en for English. You can specify this in more detail, e. g., en for English or en_US for English (United States). For example, this is helpful if English (Australia) is set but not the default English (USA) is set in the database. If you want to add the country you need to create a language constant and model it as a language in the data flow.	<Text> or <Language>
	User login	Login name of the user that is used for carrying out the Automated task function. If no user is defined, arisservice is used.	<Text>
	Password	Password of the user that is used for carrying out the Automated task function.	<Password>
	Script ID	Enter the ID of the script you want to run (see properties).	<Text>
	Selected items	Start scripts for different contexts, such as database, model, object, or group.	
	Identification	Either connect models, objects, or groups from the preselection of another object of type Human task , Automated task or Event (process instance started) , or enter the GUIDs and use the Create collection operator. (GUIDs do not exist for groups. The database is always the one defined in the above field (database name).).	<Text collection>
	Method filter GUID	Enter the GUID of the method filter (see properties) you want to use when running the script.	<Text>
	Evaluation filter GUID	Enter the GUID of the evaluation filter (see properties) you want to use when running the script.	<Text>



In/Out	Name	Details	Data type
	Script language	Use the script to output a predefined text, e. g., for the term table of contents . Specify the language in which you want to output the text. (ISO 639 language codes are used, e. g., 'en' for English.) If you have not specified a language or the language you have specified is not available, the first language found is used.	<Text>
	Output format	Enter the output format you want to create, e. g., doc, xls, or pdf. (RTF = 0, TEXT = 2, HTML = 3, WORD = 4, EXCEL = 5, TABLE = 6, OTHER = 7, XML = 8, PDF = 9, SVG = 10, no output = -1)	<Decimal>
	Content root	Specify the path to the content root, e. g., http://system123.me.corp.example.com:0909 .	<Text>
	Path	Specify the path where you want to save the report output, e. g., C:\temp\Report.	<Text>
	Output file	Enter the file name, either by using the name of another object of type Human task, Automated task, Event (process instance started) , or by specifying it in a constant.	<Text>
	User property names	To run a report, you need to enter the input parameters. Please note: For settings to be defined, the report script must be allowed to be started automatically. This may require report script changes.	
	Type	Please enter the corresponding property names that are defined in the source code of the report. Please note: For settings to be defined, the report script must be allowed to be started automatically. This may require report script changes.	<Text collection>
	User input values	To run a report, you need to enter the input parameters. Please note: For settings to be defined, the report script must be allowed to be started automatically. This may require report script changes.	



In/Out	Name	Details	Data type
	Type	Please enter the corresponding values that are defined in the source code of the report. Please note: For settings to be defined, the report script must be allowed to be started automatically. This may require report script changes.	<Text collection>
	Client key	Technical background information only - please ignore.	<Text>
	Error	If automation errors occur, context-specific error messages are displayed indicating, e. g., that ARIS Design Server is not available.	<Text>
	Result	Returns either TRUE or FALSE (Boolean), depending on whether or not the service was successfully performed.	<Boolean>
	Output path	Export path and report name (path is output only if the path us entered as a property name and property value).	<Text>
	Output data	Depending on how the report script was programmed, it may be necessary that it passes on data. If you define data here, you can use this output data as input data for an object of type Human task or Automated task or for an object of type Notification .	
	Data combinations	Data consists of a data key and a data value. The first data key has the first data value, and so on.	
	Key	Please enter the valid data keys defined in the report's source code as constants. To do so, use the Create collection operator.	<Text>
	Value	For every valid data key enter the data value that is to be used as the output. To do so, use the Create collection operator. Please note that key and value must match: the first data key has the first data value, and so on.	<Text>

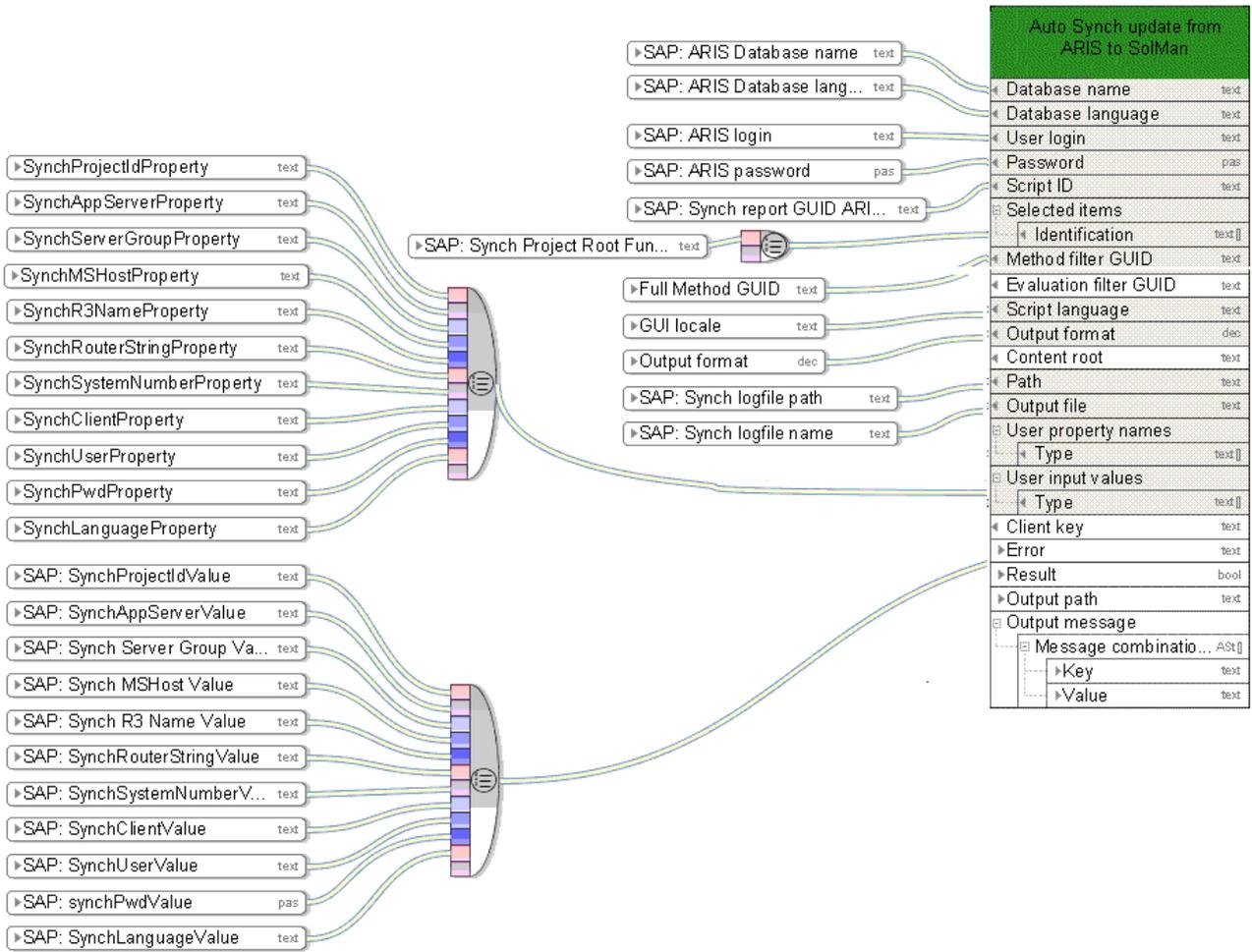


Figure 26: Synchronization with SAP® Solution Manager

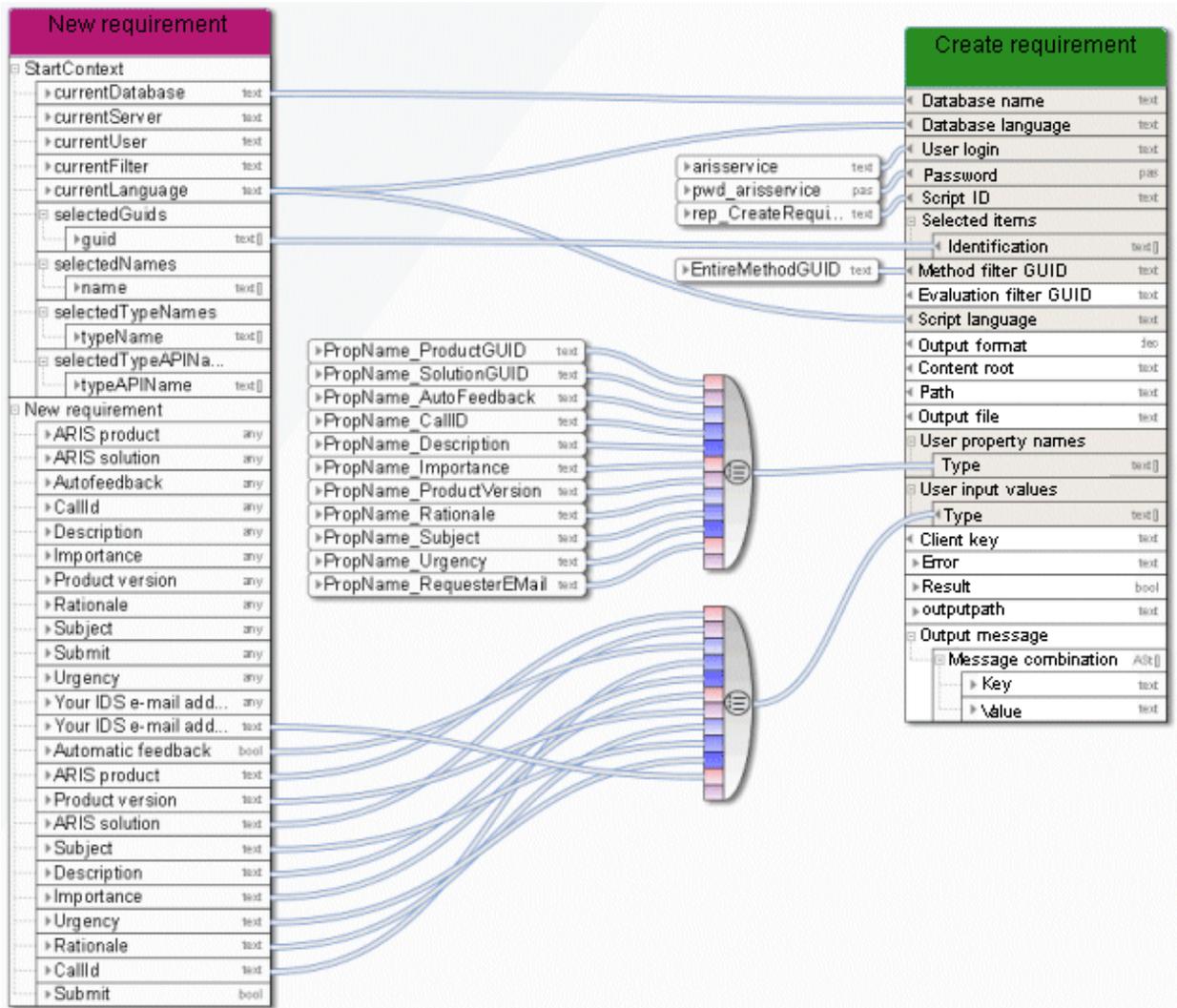


Figure 27: Example of an individual report



4.19 Create - Static ARIS Publisher export

This service creates Web exports to provide other persons with specific models in read-only mode. The export is static. If a distributed system is used, the export is saved as a ZIP file to ARIS document storage and a link is generated.

In/Out	Name	Details	Data type
	Database name	Name of the database in which the function of type Automated task is carried out.	<Text>
	Database language	Language the service uses for logging in to the database, e. g., en for English. You can specify this in more detail, e. g., en for English or en_US for English (United States). For example, this is helpful if English (Australia) is set but not the default English (USA) is set in the database. If you want to add the country you need to create a language constant and model it as a language in the data flow.	<Text> or <Language>
	User login	Login name of the user that is used for carrying out the Automated task function. If no user is defined, arisservice is used.	<Text>
	Password	Password of the user that is used for carrying out the Automated task function.	<Password>
	Profile	Select the profile to be used for the static ARIS Publisher export.	<Text>
	Navigation tree	Defines the structure of the navigation tree in the Publisher export. You can either display the group structure or the hierarchy of the model.	<Text>
	Selected items	Select the models or objects for which you want to create a static ARIS Publisher export.	
	Identification	Either connect models, objects, or groups from the preselection of another object of type 'Human task', 'Automated task', or Event (process instance started) , or enter the GUIDs and use the 'Create collection' operator.	<Text collection>
	Path	Path to the location where the export is saved.	<Text>



In/Out	Name	Details	Data type
	Content root	Object/Model or group representing the starting point of an export.	<Text>
	Create object pages	An HTML page is created for each object.	
	Object type	Define API names for the objects for which a page is to be created. For example, OT_Func is specified for a function.	<Text>
	Assignment level	Assignment level up to which assigned objects and models are to be exported.	<Decimal>
	Use print scale	Define the Boolean constant as TRUE to display models using the specified print scale, otherwise as FALSE. If no specification is made, the default value FALSE is used.	<Boolean>
	Initial scaling	Define initial scaling, e. g., 100.	<Decimal>
	Scaling	Define the scaling steps for your model, for example: 75,100,125,150.	<Text>
	Black and white	Define the Boolean constant as TRUE to display your model in black and white, otherwise as FALSE. If no specification is made, the default value FALSE is used.	<Boolean>
	Transparent	Define the Boolean constant as TRUE to display your model as transparent, otherwise as FALSE. If no specification is made, the default value FALSE is used.	<Boolean>
	List of document links	Specify the link attributes for which you want to copy documents.	
	Attribute type	Define link attribute types by using the API name, e. g., AT_EXT_1 for Link 1, or enter GUIDs and use the Create collection operator.	<Text collection>
	Layout	Select the layout for the ARIS Publisher output, e. g., defaultLayout .	
	Client key	Technical background information only - please ignore.	<Text>



In/Out	Name	Details	Data type
	Error	If automation errors occur, context-specific error messages are displayed indicating, e. g., that ARIS Design Server is not available.	<Text>
	Result	Returns either TRUE or FALSE (Boolean), depending on whether or not the service was successfully performed.	<Boolean>
	Export path	The path where the export result is stored. This can be used as a hyperlink.	<Text>

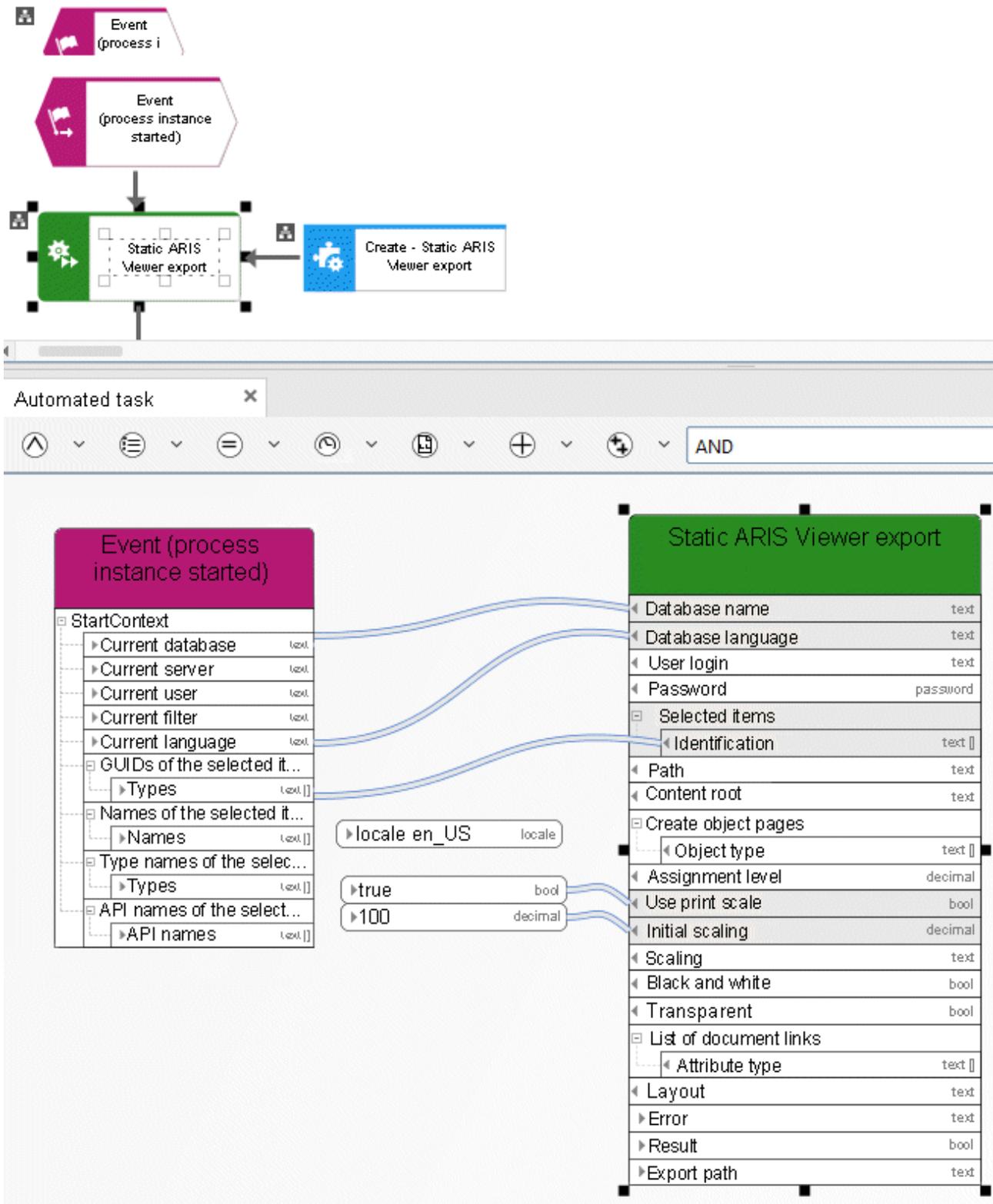


Figure 28: Create static ARIS Publisher export



4.20 Create - Shortcut(s)

This service creates shortcuts to existing models or objects.

In/Out	Name	Details	Data type
	Database name	Name of the database in which the function of type Automated task is carried out.	<Text>
	Database language	Language the service uses for logging in to the database, e. g., en for English. You can specify this in more detail, e. g., en for English or en_US for English (United States). For example, this is helpful if English (Australia) is set but not the default English (USA) is set in the database. If you want to add the country you need to create a language constant and model it as a language in the data flow.	<Text> or <Language>
	User login	Login name of the user that is used for carrying out the Automated task function. If no user is defined, arisservice is used.	<Text>
	Password	Password of the user that is used for carrying out the Automated task function.	<Password>
	Selected items	Select the models or objects you wish to create a shortcut for.	
	Identification	Either connect models, objects, or groups from the preselection of another object of type Human task , Automated task or Event (process instance started) , or enter the GUIDs and use the Create collection operator.	<Text collection>
	Path	Enter the path in which you want to save the new group (e. g., Main group\Processes\Sales processes) in the relevant database using the correct database language.	<Text>
	Client key	Technical background information only - please ignore.	<Text>
	Error	If automation errors occur, context-specific error messages are displayed indicating, e. g., that ARIS Design Server is not available.	<Text>



In/Out	Name	Details	Data type
⬅️	Result	Returns either TRUE or FALSE (Boolean), depending on whether or not the service was successfully performed.	<Boolean>

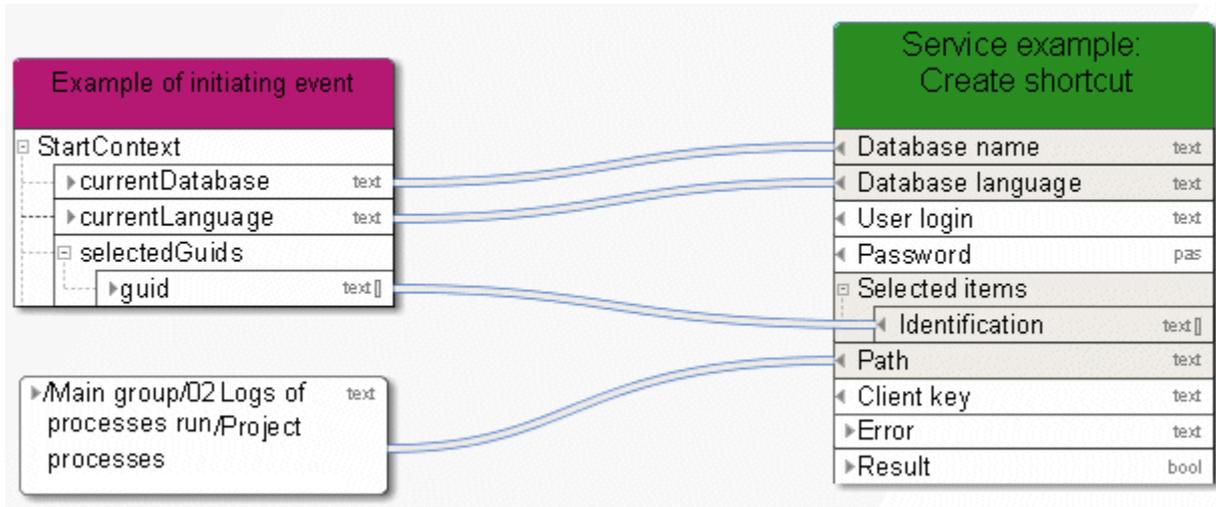


Figure 29: Create shortcut

4.21 Create - Version

Versioning during process execution: Performed service **Create version**.

In/Out	Name	Details	Data type
➡️	Database name	Name of the database in which the function of type Automated task is carried out.	<Text>
➡️	Database language	Language the service uses for logging in to the database, e. g., en for English. You can specify this in more detail, e. g., en for English or en_US for English (United States). For example, this is helpful if English (Australia) is set but not the default English (USA) is set in the database. If you want to add the country you need to create a language constant and model it as a language in the data flow.	<Text>



In/Out	Name	Details	Data type
	User login	Login name of the user that is used for carrying out the Automated task function. If no user is defined, arisservice is used.	<Text>
	Password	Password of the user that is used for carrying out the Automated task function.	<Password>
	Selected models	Select the models you want to create a version for.	<Text>
	Identification	Either connect models from the preselection of another object of type Human task , Automated task , or Event (process instance started) , or enter the GUIDs and use the Create collection operator. (GUIDs do not exist for groups.)	<Text collection>
	Description - Mandatory input	Enter a version description (mandatory input) that applies to all models for which a version was created.	<Text>
	Assignment: Include border items	Specify whether you want to include border items in assignments (Boolean constant = TRUE) or only the selection (Boolean constant = FALSE). If no specification is made, the default value FALSE is used.	<Boolean>
	Connections: Include border items	Specify whether you want to include border items (Boolean constant = TRUE) or only the selection (Boolean constant = FALSE). (If no specification is made, the default value FALSE is used.)	<Boolean>
	Assignment level	Define the assignment level for including assigned models in a version, e. g., 1.	<Decimal>
	Client key	Technical background information only - please ignore.	<Text>
	Error	If automation errors occur, context-specific error messages are displayed indicating, e. g., that ARIS Design Server is not available.	<Text>
	Result	Returns either TRUE or FALSE (Boolean), depending on whether or not the service was successfully performed.	<Boolean>



In/Out	Name	Details	Data type
	Version number	The created version number is output.	<Decimal>

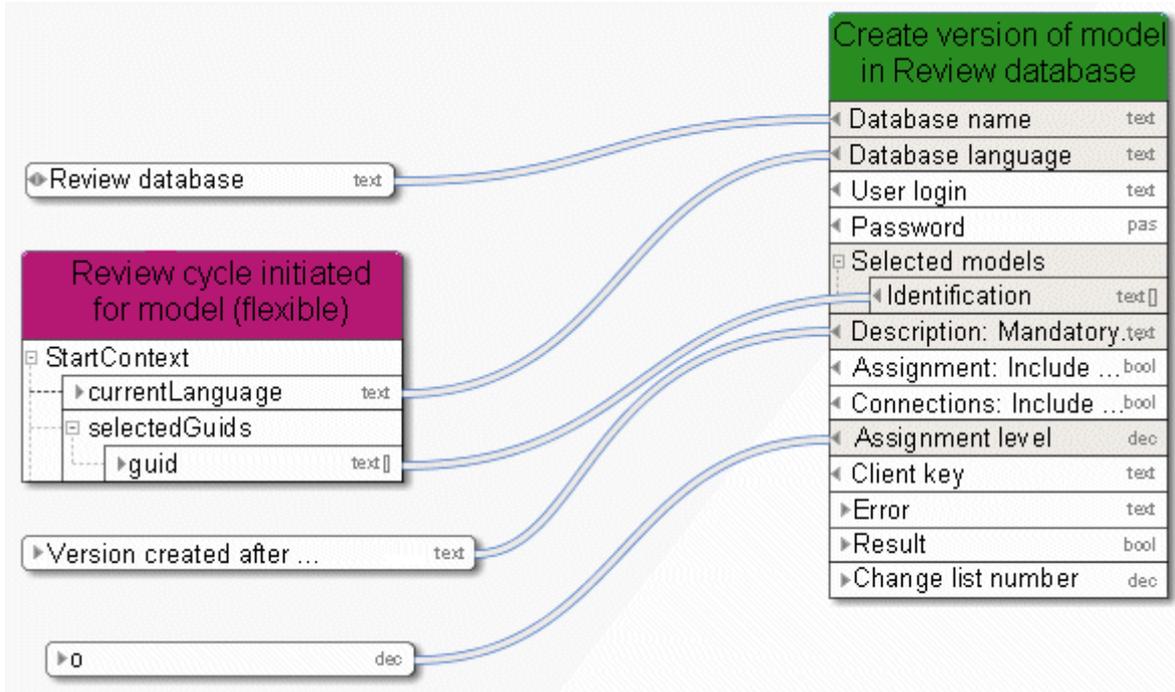


Figure 30: Create version

4.22 Copy - Database

This service copies an existing database and renames the new database as required.

In/Out	Name	Details	Data type
	Database name	Name of the database in which the function of type Automated task is carried out.	<Text>
	Database language	Language the service uses for logging in to the database, e. g., en for English. You can specify this in more detail, e. g., en for English or en_US for English (United States). For example, this is helpful if English (Australia) is set but not the default English (USA) is set in the database. If you want to add the country you need to create a language constant and model it as a language in the data flow.	<Text> or <Language>



In/Out	Name	Details	Data type
➔	User login	Login name of the user that is used for carrying out the Automated task function. If no user is defined, arisservice is used.	<Text>
➔	Password	Password of the user that is used for carrying out the Automated task function.	<Password>
➔	Name of the new database	The new database is created with this name.	<Text>
➔	DBADMIN password	Enter the database administrator password for a corresponding server by connecting a text either from another object of type Human task , Automated task , or Event (process instance started) type, or from a constant.	<Text>
➔	Client key	Technical background information only - please ignore.	<Text>
➔	Error	If automation errors occur, context-specific error messages are displayed indicating, e. g., that ARIS Design Server is not available.	<Text>
➔	Result	Returns either TRUE or FALSE (Boolean), depending on whether or not the service was successfully performed. If no specification is made, the default value FALSE is used.	<Boolean>

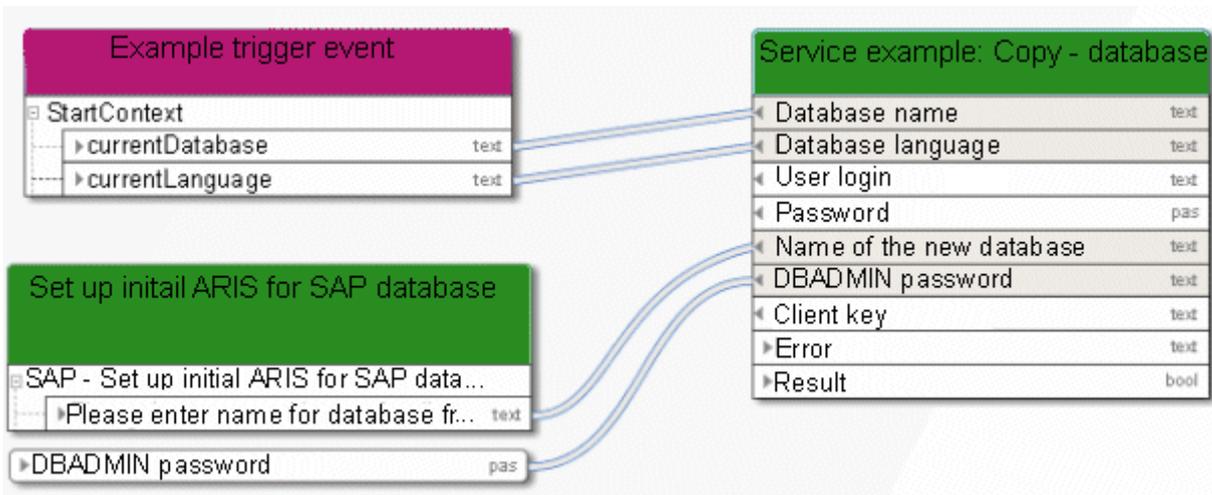


Figure 31: Copy database



4.23 Delete - Database

This service deletes a database.

In/Out	Name	Details	Data type
	Database name	Name of the database in which the function of type Automated task is carried out.	<Text>
	Database language	Language the service uses for logging in to the database, e. g., en for English. You can specify this in more detail, e. g., en for English or en_US for English (United States). This is helpful, for example, if English (Australia) has been set in the database, but standard English (USA) has not been set. If you want to add the country, you need to create a language constant and model it as a language in the data flow.	<Text> or <Language>
	Password	Password of the user that is used for carrying out the Automated task function.	<Password>
	Name of the database to be deleted.	Name of the database to be deleted by the Delete database service.	<Text>
	Administrator password for the server	Server administrator password.	<Text>
	Client key	Technical background information only - please ignore.	<Text>
	Error	If automation errors occur, context-specific error messages are displayed indicating, e. g., that ARIS Design Server is not available.	<Text>
	Result	Returns either TRUE or FALSE (Boolean), depending on whether or not the service was successfully performed. If no specification is made, the default value FALSE is used.	<Boolean>

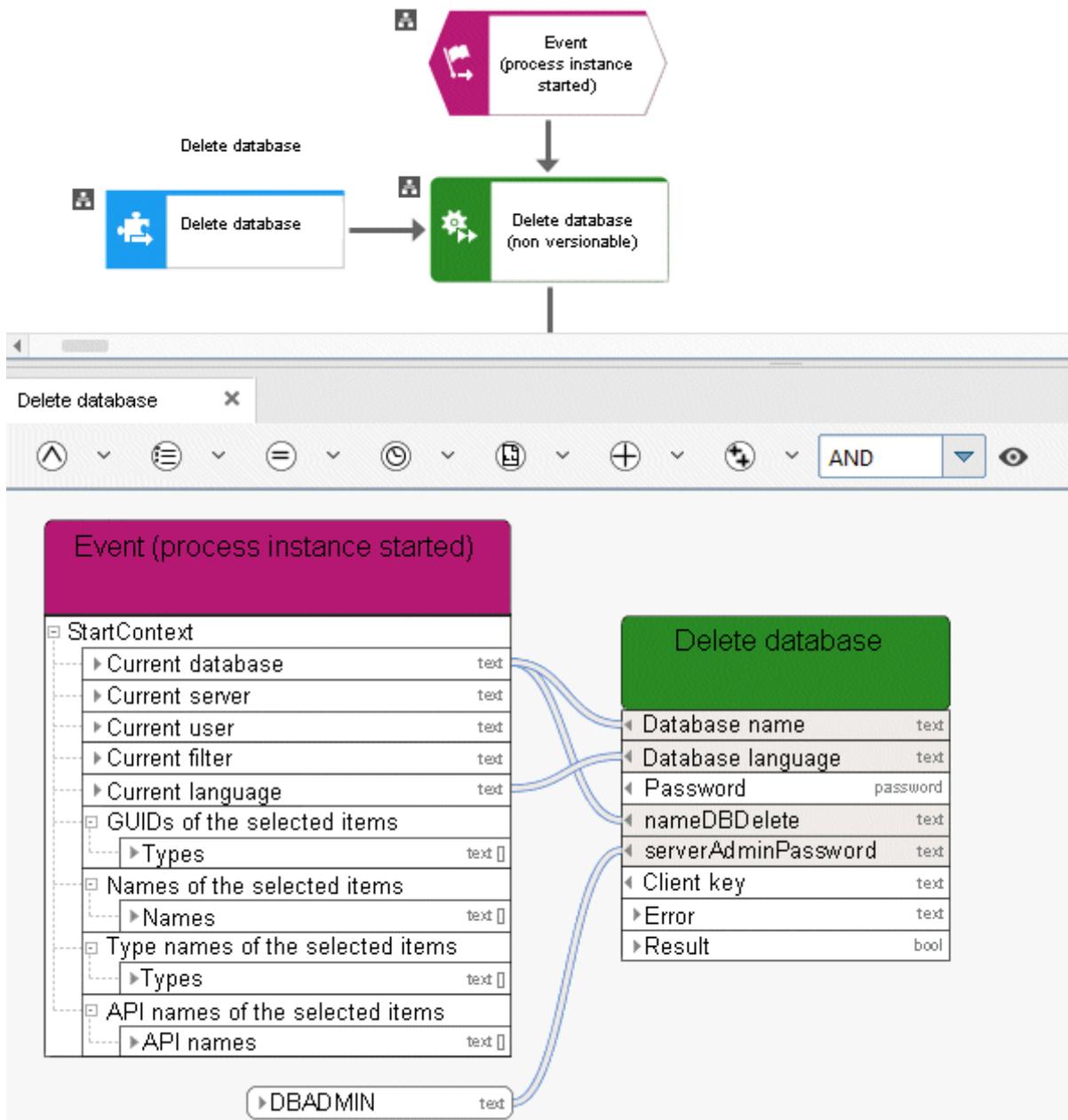


Figure 32: Delete database



4.24 Delete - Dynamic ARIS Publisher export

This service deletes a dynamic ARIS Publisher export.

In/Out	Name	Details	Data type
	Database name	Name of the database in which the function of type Automated task is carried out.	<Text>
	Database language	Language the service uses for logging in to the database, e. g., en for English. You can specify this in more detail, e. g., en for English or en_US for English (United States). For example, this is helpful if English (Australia) is set but not the default English (USA) is set in the database. If you want to add the country you need to create a language constant and model it as a language in the data flow.	<Text> or <Language>
	User login	Login name of the user that is used for carrying out the Automated task function. If no user is defined, arisservice is used.	<Text>
	Password	Password of the user that is used for carrying out the Automated task function.	<Password>
	ARIS Publisher Server	Name of the ARIS Publisher Server on which the database is stored.	<Text>
	Export name	Name that is displayed in the list when the export opens.	<Text>
	Client key	Technical background information only - please ignore.	<Text>
	Error	If automation errors occur, context-specific error messages are displayed indicating, e. g., that ARIS Design Server is not available.	<Text>
	Result	Returns either TRUE or FALSE (Boolean), depending on whether or not the service was successfully performed.	<Boolean>

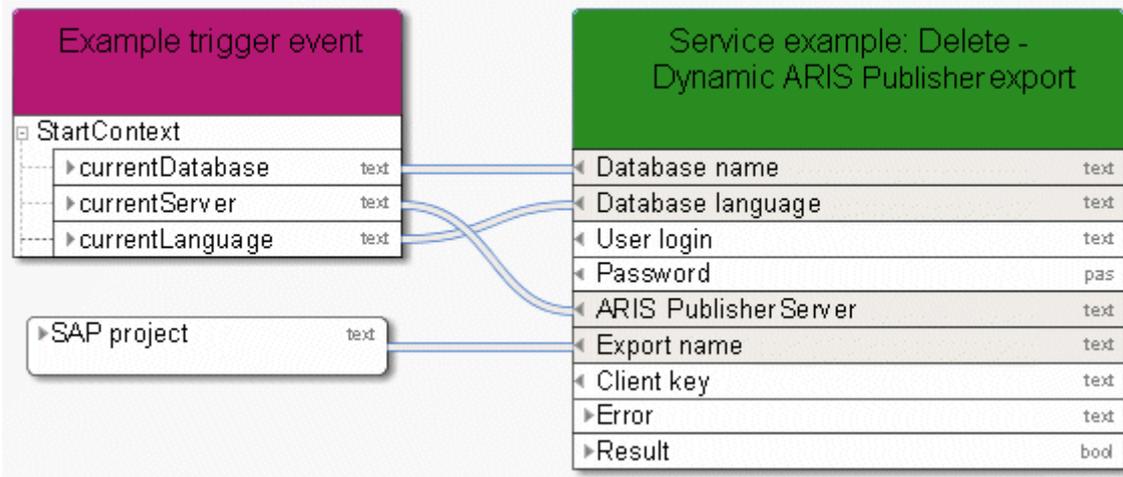


Figure 33: Delete dynamic ARIS Publisher export

4.25 Delete - Group(s)

This service deletes one or more groups.

In/Out	Name	Details	Data type
➔	Database name	Name of the database in which the function of type Automated task is carried out.	<Text>
➔	Database language	Language the service uses for logging in to the database, e. g., en for English. You can specify this in more detail, e. g., en for English or en_US for English (United States). This is helpful, for example, if English (Australia) has been set in the database, but standard English (USA) has not been set. If you want to add the country, you need to create a language constant and model it as a language in the data flow.	<Text> or <Language>
➔	Password	Password of the user that is used for carrying out the Automated task function.	<Password>
➔	Identification	GUID of the group or groups to be deleted.	<Text>
➔	Client key	Technical background information only - please ignore.	<Text>



In/Out	Name	Details	Data type
	Error	If automation errors occur, context-specific error messages are displayed indicating, e. g., that ARIS Design Server is not available.	<Text>
	Result	Returns either TRUE or FALSE (Boolean), depending on whether or not the service was successfully performed.	<Boolean>

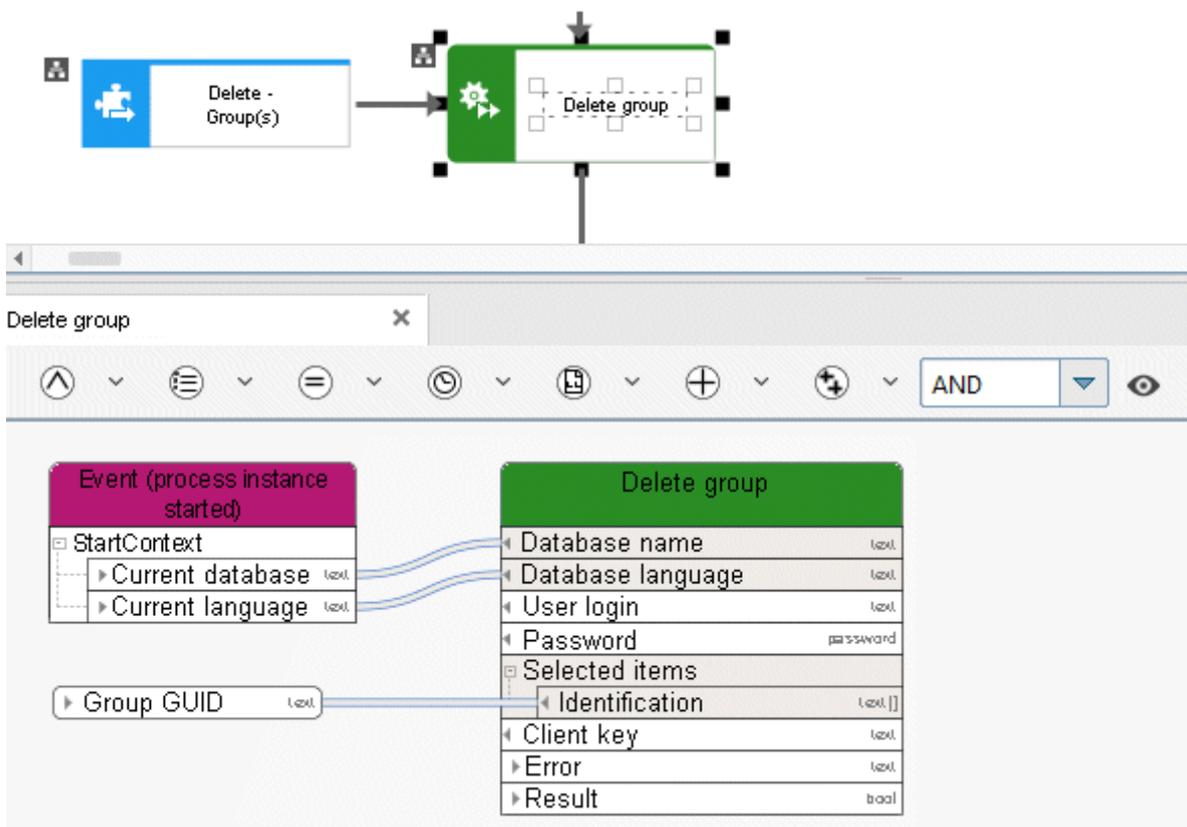


Figure 34: Delete group



4.26 Delete - Model(s)

This service deletes existing models together with their objects.

In/Out	Name	Details	Data type
	Database name	Name of the database in which the function of type Automated task is carried out.	<Text>
	Database language	Language the service uses for logging in to the database, e. g., en for English. You can specify this in more detail, e. g., en for English or en_US for English (United States). For example, this is helpful if English (Australia) is set but not the default English (USA) is set in the database. If you want to add the country you need to create a language constant and model it as a language in the data flow.	<Text> or <Language>
	User login	Login name of the user that is used for carrying out the Automated task function. If no user is defined, arisservice is used.	<Text>
	Password	Password of the user that is used for carrying out the Automated task function.	<Password>
	Selected models	Select the models to be deleted.	
	Identification	Either connect models of another object of type Human task, Automated task, or Event (process instance started) , or enter GUIDs and use the Create collection operator.	<Text collection>
	Client key	Technical background information only - please ignore.	<Text>
	Error	If automation errors occur, context-specific error messages are displayed indicating, e. g., that ARIS Design Server is not available.	<Text>
	Result	Returns either TRUE or FALSE (Boolean), depending on whether or not the service was successfully performed.	<Boolean>

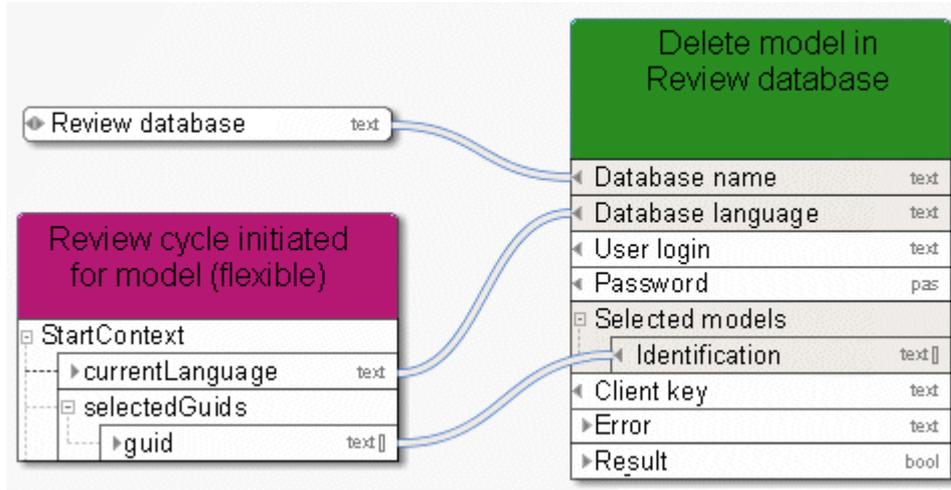


Figure 35: Delete models

4.27 Delete - Object(s)

This service deletes existing objects.

In/Out	Name	Details	Data type
➡	Database name	Name of the database in which the function of type Automated task is carried out.	<Text>
➡	Database language	Language the service uses for logging in to the database, e. g., en for English. You can specify this in more detail, e. g., en for English or en_US for English (United States). For example, this is helpful if English (Australia) is set but not the default English (USA) is set in the database. If you want to add the country you need to create a language constant and model it as a language in the data flow.	<Text> or <Language>
➡	User login	Login name of the user that is used for carrying out the Automated task function. If no user is defined, arisservice is used.	<Text>
➡	Password	Password of the user that is used for carrying out the Automated task function.	<Password>
	Selected objects	Select the objects to be deleted.	



In/Out	Name	Details	Data type
➡	Identification	Either connect models of another object of type 'Human task', 'Automated task', or ' Event (process instance started) ', or enter GUIDs and use the 'Create collection' operator.	<Text collection>
➡	Client key	Technical background information only - please ignore.	<Text>
⬅	Error	If automation errors occur, context-specific error messages are displayed indicating, e. g., that ARIS Design Server is not available.	<Text>
⬅	Result	Returns either TRUE or FALSE (Boolean), depending on whether or not the service was successfully performed.	<Boolean>

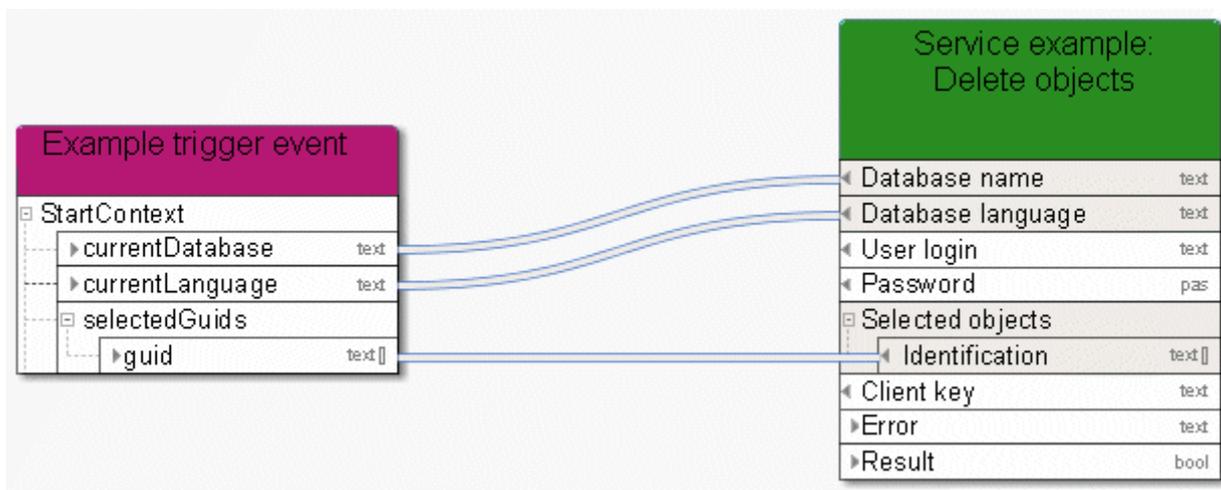


Figure 36: Delete objects



4.28 Reorganize - Database

This service deletes all objects and connections that do not have any occurrences in a model or dataflow.

In/Out	Name	Details	Data type
	Database name	Name of the database in which the function of type Automated task is carried out.	<Text>
	Password	Password of the user that is used for carrying out the Automated task function.	<Password>
	Client key	Technical background information only - please ignore.	<Text>
	Result	The result is a list with all objects and connections to be deleted.	<Text>

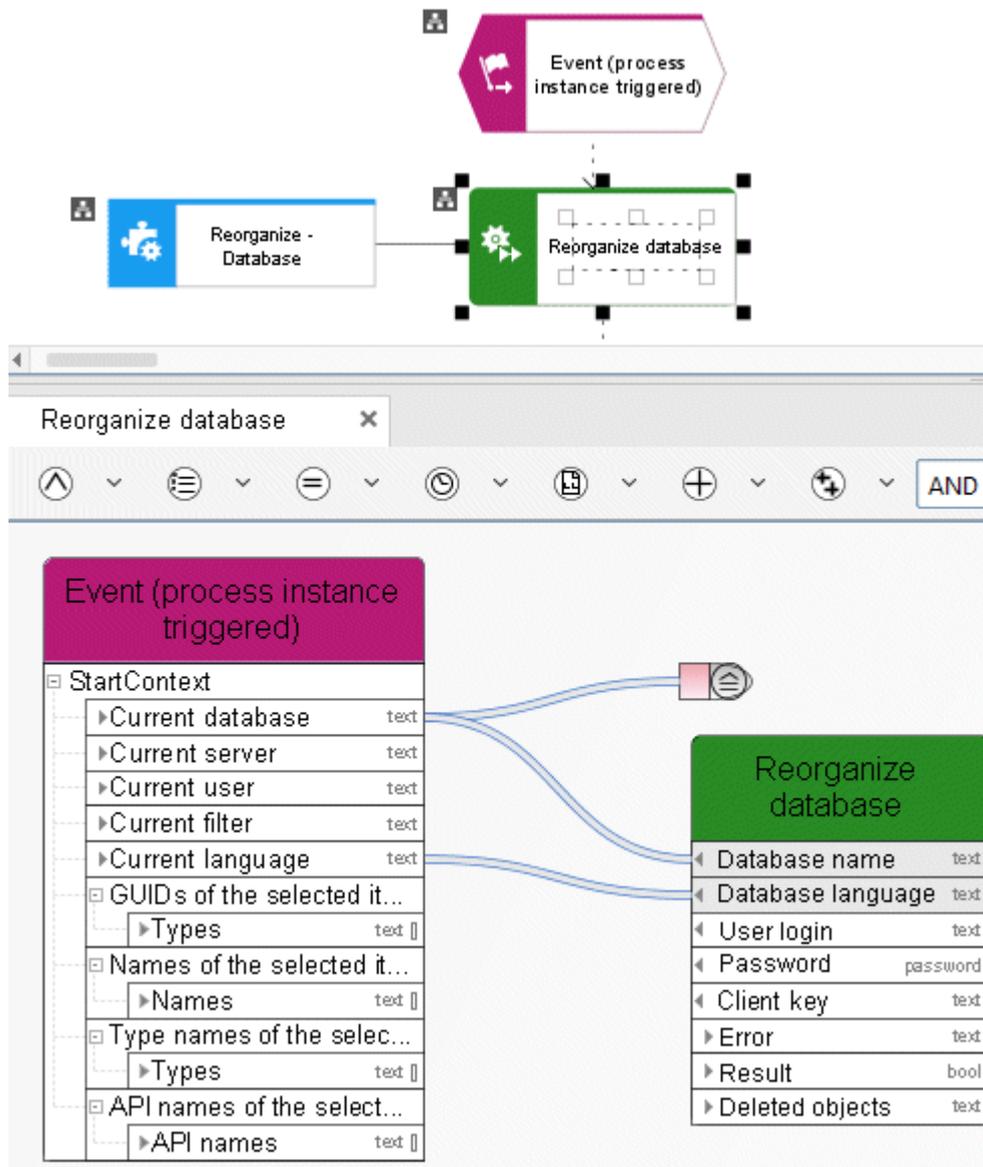


Figure 37: Reorganize database



4.29 Specify - 1 attribute for multiple items

This service specifies exactly one attribute (e. g., 'Description') for models, objects, or groups.

In/Out	Name	Details	Data type
	Database name	Name of the database in which the function of type Automated task is carried out.	<Text>
	Database language	Language the service uses for logging in to the database, e. g., en for English. You can specify this in more detail, e. g., en for English or en_US for English (United States). For example, this is helpful if English (Australia) is set but not the default English (USA) is set in the database. If you want to add the country you need to create a language constant and model it as a language in the data flow.	<Text> or <Language>
	User login	Login name of the user that is used for carrying out the Automated task function. If no user is defined, arisservice is used.	<Text>
	Password	Password of the user that is used for carrying out the Automated task function.	<Password>
	Selected items	Exactly one attribute is specified for multiple models, objects or groups, e. g., the attribute description.	
	Identification	Either connect models, objects, or groups from the preselection of another object of type Human task, Automated task or Event (process instance started) , or enter the GUIDs and use the Create collection operator. (GUIDs do not exist for groups.)	<Text collection>
	Attribute to be specified	Define the attributes you want to specify by using the API name, e. g.: AT_NAME for Name , or use the identifier if no API name exists.	<Text>
	Attribute value	Enter the value you want to specify for the attribute.	



	Value	Enter either a constant as a predefined value or use the data from another object of type Human task, Automated task, or Event (process instance started) as input data.	<Text collection>
	Overwrite values	Define the Boolean constant as TRUE to delete existing attribute content and overwrite it with new content. Define the Boolean constant as FALSE to add new content and retain existing content (e. g., for the model attribute 'Change history'). If no specification is made, the default value FALSE is used.	<Boolean>
	Client key	Technical background information only - please ignore.	<Text>
	Error	If automation errors occur, context-specific error messages are displayed indicating, e. g., that ARIS Design Server is not available.	<Text>
	Result	Returns either TRUE or FALSE (Boolean), depending on whether or not the service was successfully performed.	<Boolean>

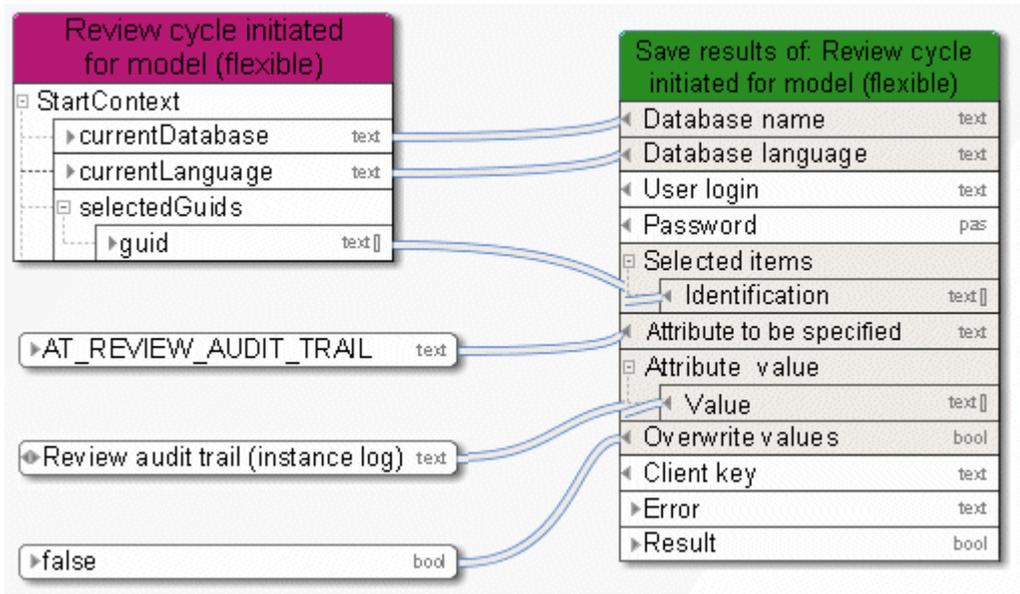


Figure 38: Specify exactly one attribute for multiple items



4.30 Specify - Multiple attributes for 1 item

This service specifies multiple attributes (e. g., 'Model status', 'Version number', and 'Release') for exactly one item (a model, object, or group).

In/Out	Name	Details	Data type
➔	Database name	Name of the database in which the function of type Automated task is carried out.	<Text>
➔	Database language	Language the service uses for logging in to the database, e. g., en for English. You can specify this in more detail, e. g., en for English or en_US for English (United States). For example, this is helpful if English (Australia) is set but not the default English (USA) is set in the database. If you want to add the country you need to create a language constant and model it as a language in the data flow.	<Text> or <Language>
➔	User login	Login name of the user that is used for carrying out the Automated task function. If no user is defined, arisservice is used.	<Text>
➔	Password	Password of the user that is used for carrying out the Automated task function.	<Password>
➔	Selected item	Either connect models, objects, or groups from the preselection of another object of type Human task, Automated task or Event (process instance started) , or enter the GUIDs and use the Create collection operator. (GUIDs do not exist for groups.)	<Text collection>
	Attributes to be specified	Is used to specify the selected attributes (multiple attributes for exactly one item, e. g., the following attributes for a model: 'Model status', 'Version number', and 'Release').	
➔	Type	Either connect several attribute types from the preselection of another object of type Human task, Automated task, or Event (process instance started) , or enter the API names or GUIDs and use the Create collection operator.	<Text collection>



	Attribute values	Define the values you want to specify for the attributes, e. g., a model status and model version number that were automatically defined by a preceding automated task.	
	Values	Either connect several attribute types from the preselection of another object of type Human task , Automated task , or Event (process instance started) , or enter the API names or GUIDs and use the Create collection operator.	<Text collection>
	Overwrite values	Define the Boolean constant as TRUE to delete existing attribute content and overwrite it with new content. Define the Boolean constant as FALSE to add new content and retain existing content (e. g., for the model attribute 'Change history'). If no specification is made, the default value FALSE is used.	<Boolean>
	Client key	Technical background information only - please ignore.	<Text>
	Error	If automation errors occur, context-specific error messages are displayed indicating, e. g., that ARIS Design Server is not available.	<Text>
	Result	Returns either TRUE or FALSE (Boolean), depending on whether or not the service was successfully performed.	<Boolean>

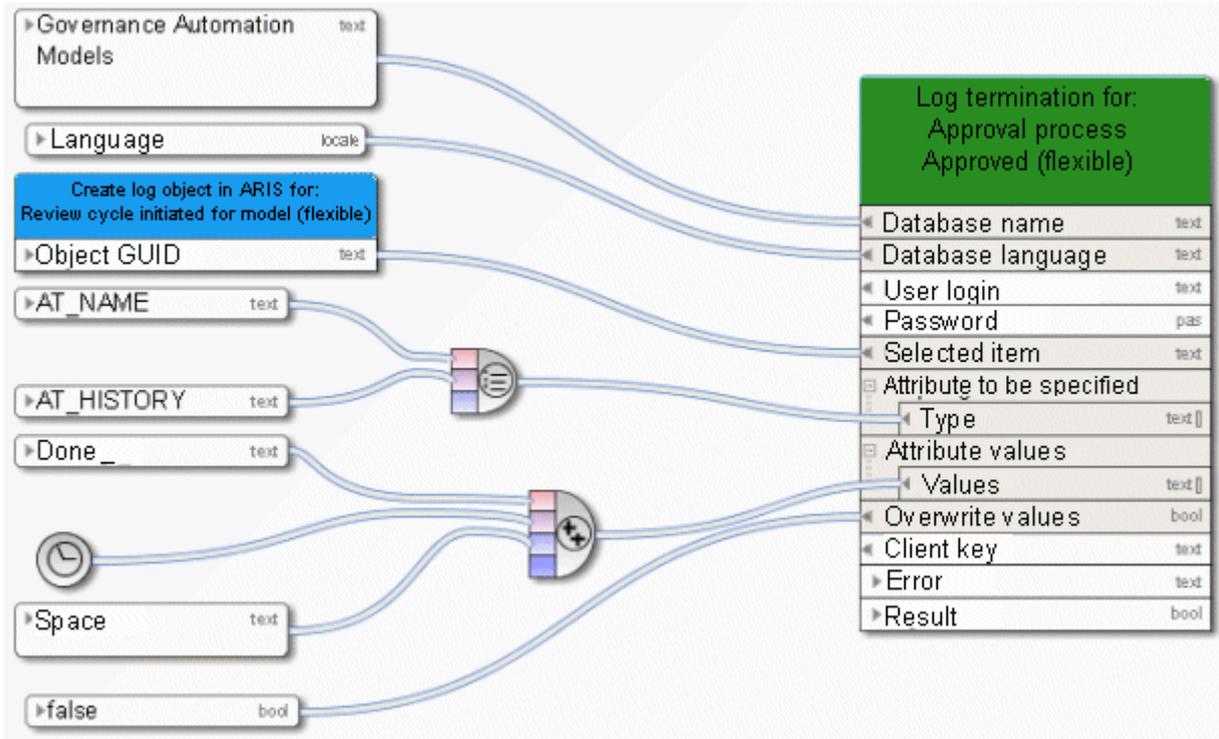


Figure 39: Specify multiple attributes for exactly one item

4.31 Lock - Model(s)/Object(s)

This service locks models and/or objects. You can select the models or objects you want to lock.

In/Out	Name	Details	Data type
➡	Database name	Name of the database in which the function of type Automated task is carried out.	<Text>
➡	Database language	Language the service uses for logging in to the database, e. g., en for English. You can specify this in more detail, e. g., en for English or en_US for English (United States). For example, this is helpful if English (Australia) is set but not the default English (USA) is set in the database. If you want to add the country you need to create a language constant and model it as a language in the data flow.	<Text> or <Language>
➡	User login	Login name of the user that is used for carrying out the Automated task function. If no user is defined, arisservice is used.	<Text>



In/Out	Name	Details	Data type
	Password	Password of the user that is used for carrying out the Automated task function.	<Password>
	Selected items	Selected models or objects you want to lock.	
	Identification	Either connect models or objects from the preselection of another object of type Human task, Automated task, or Event (process instance started) , or enter the GUIDs and use the 'Create collection' operator.	<Text collection>
	Include objects	Include associated objects when locking models. To do so, define the Boolean constant as TRUE, otherwise as FALSE. If no specification is made, the default value FALSE is used.	<Boolean>
	Client key	Technical background information only - please ignore.	<Text>
	Use current user for locking	If the current user is assigned to the corresponding field in the data flow via a connection, locking models or objects is performed as if the current user were doing it manually. This means that the personal privileges of the current user are taken into account, not the privileges of user arisservice actually performing the service.	<Text>
	Error	If automation errors occur, context-specific error messages are displayed indicating, e. g., that ARIS Design Server is not available.	<Text>
	Result	Returns either TRUE or FALSE (Boolean), depending on whether or not the service was successfully performed.	<Boolean>

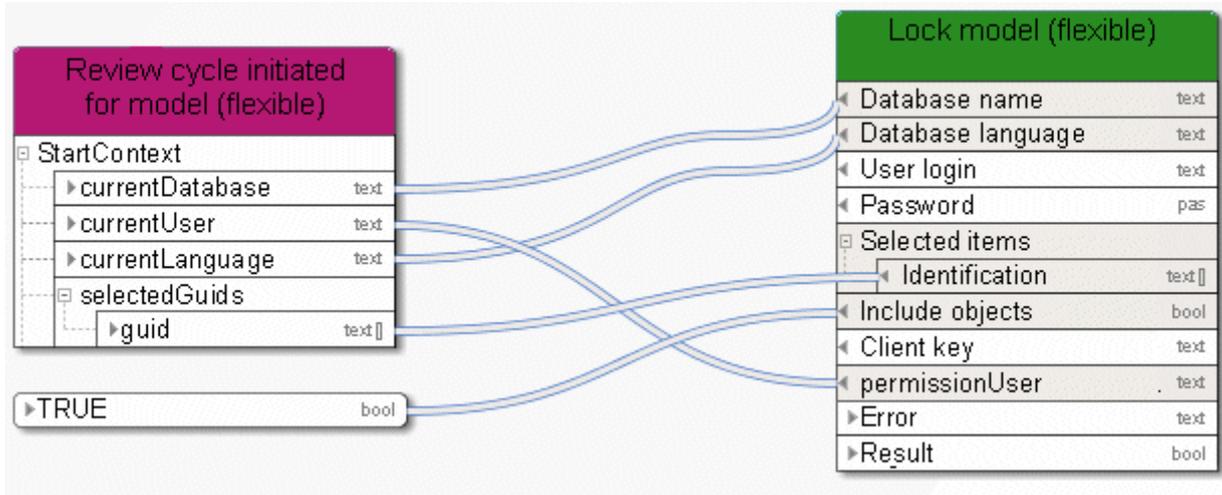


Figure 40: Lock models and objects

4.32 Find - Value in string

This service selects an ARIS user group and returns the user group attributes.

In/Out	Name	Details	Data type
➔	Search value	String that should be contained in another string.	<Text>
➔	Match case	Specify whether the case should be matched.	<Boolean>
➔	Input string	The string to be searched.	<Text>
➔	Position found	Position in the input string at which the search value was found.	<Text>
➔	Number found	Frequency that the search value occurs with in the input string.	<Text>
➔	String without search value	New string when all search values are removed.	<Text>
➔	Search values	All search values found in the input string.	<Text>
➔	Was found	Specifies whether this search value is contained in the input string at all.	<Text>
➔	Case sensitivity	Specifies whether case sensitivity plays a role.	<Text>



Automated task	
< * valueForSearch	anyType []
< isSensitive	anyType []
< * inputString	anyType []
> foundPos	anyType []
> foundCount	anyType []
> stringWithoutValuean...	
> foundValues	anyType []
> isFound	anyType []
> isSensitive	anyType []

4.33 Delete temporary files

The **Delete temporary files** service deletes temporary files that can accumulate when using Process Governance. Usage of this service is configured in Administration. Files are deleted from the directory defined for the static export of ARIS Publisher. This works only in a non-distributed scenario in which everything is installed on a single server. If these paths differ from the default paths, you can configure them in Administration (property `com.idsscheer.age.serviceenabling.staticExport.exportDir`).

In/Out	Name	Details	Data type
	Result	Returns either TRUE or FALSE (Boolean), depending on whether or not the service was successfully performed.	<Boolean>
	Error	If it was impossible to delete all temporary files a corresponding error message will be displayed.	<Text>

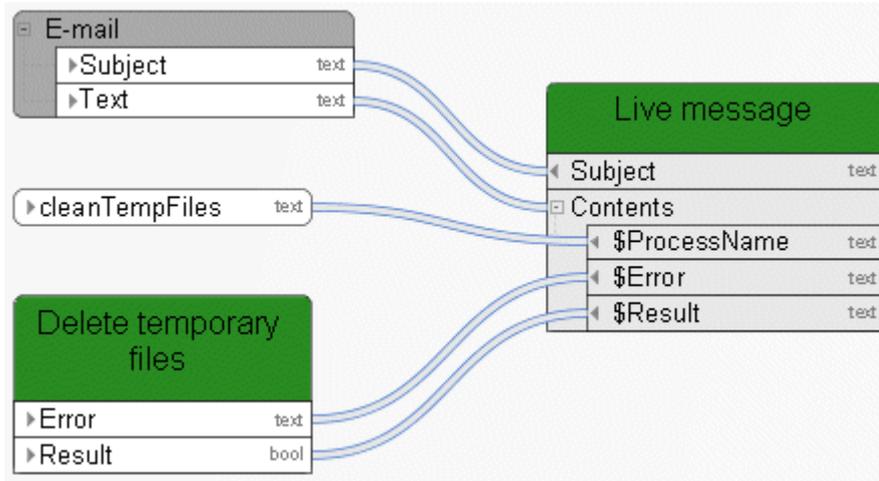


Figure 41: Delete temporary files

4.34 Compare - Model versions

This service compares two versions of a model.

In/Out	Name	Details	Data type
	Database name	Name of the database in which the function of type Automated task is carried out.	<Text>
	Database language	Language the service uses for logging in to the database, e. g., en for English. You can specify this in more detail, e. g., en for English or en_US for English (United States). This is helpful, for example, if English (Australia) has been set in the database, but standard English (USA) has not been set. If you want to add the country, you need to create a language constant and model it as a language in the data flow.	<Text> or <Language>
	User login	Login name of the user that is used for carrying out the Automated task function. If no user is defined, arisservice is used.	<Text>
	Password	Password of the user that is used for carrying out the Automated task function.	<Password>
	Selected models	Specifies the models to be compared.	



In/Out	Name	Details	Data type
	Model GUID	GUID of the model whose versions are to be compared.	<Text>
	Change list	Change list number of the latest version of the model.	<Decimal>
	Compare model properties	If the input is TRUE , the service compares whether the model properties of the versions to be compared differ. If the input is FALSE , this will not be compared.	<Boolean>
	Compare items that exist only in the source model	If the input is TRUE , the service compares whether the items that exist only in the source model differ in the versions to be compared. If the input is FALSE , this will not be compared.	<Boolean>
	Compare items that exist only in the target model	If the input is TRUE , the service compares whether the items that exist only in the target model differ in the versions to be compared. If the input is FALSE , this will not be compared.	<Boolean>
	Compare items from both models	If the input is TRUE , the service compares whether the items that exist in the source and target model differ in the versions to be compared. If the input is FALSE , this will not be compared.	<Boolean>
	Compare object definitions	If the input is TRUE , the service compares whether the object definitions of the versions to be compared differ. If the input is FALSE , this will not be compared.	<Boolean>
	Compare object occurrences	If the input is TRUE , the service compares whether the object occurrences of the versions to be compared differ. If the input is FALSE , this will not be compared.	<Boolean>
	Compare object occurrences: Appearance	If the input is TRUE , the service compares whether the appearance of the object occurrences of the versions to be compared differ. If the input is FALSE , this will not be compared.	<Boolean>



In/Out	Name	Details	Data type
	Compare object occurrences: Position/Size	If the input is TRUE , the service compares whether the position and/or size of the object occurrences of the versions to be compared differ. If the input is FALSE , this will not be compared.	<Boolean>
	Compare object occurrences: Attribute placement	If the input is TRUE , the service compares whether the attribute placements of the object occurrences of the versions to be compared differ. If the input is FALSE , this will not be compared.	<Boolean>
	Compare connection definitions	If the input is TRUE , the service compares whether the connection definitions of the versions to be compared differ. If the input is FALSE , this will not be compared.	<Boolean>
	Compare connection occurrences	If the input is TRUE , the service compares whether the connection occurrences of the versions to be compared differ. If the input is FALSE , this will not be compared.	<Boolean>
	Connection appearance	If the input is TRUE , the service compares whether the connection appearance of the versions to be compared differs. If the input is FALSE , this will not be compared.	<Boolean>
	Inflection points	If the input is TRUE , the service compares whether the inflection points of the versions to be compared differ. If the input is FALSE , this will not be compared.	<Boolean>
	Connection attribute placement	If the input is TRUE , the service compares whether the connection attribute placements of the versions to be compared differ. If the input is FALSE , this will not be compared.	<Boolean>
	Compare graphic objects	If the input is TRUE , the service compares whether the graphic objects of the versions to be compared differ. If the input is FALSE , this will not be compared.	<Boolean>



In/Out	Name	Details	Data type
	Compare OLE objects	If the input is TRUE , the service compares whether the OLE objects of the versions to be compared differ. If the input is FALSE , this will not be compared.	<Boolean>
	Compare free-form texts	If the input is TRUE , the service compares whether the free-form texts of the versions to be compared differ. If the input is FALSE , this will not be compared.	<Boolean>
	Path	If the input is TRUE , the service compares whether the paths of the versions to be compared differ. If the input is FALSE , this will not be compared.	<Boolean>
	Content root	If the input is TRUE , the service compares whether the content roots of the versions to be compared differ. If the input is FALSE , this will not be compared.	<Boolean>
	Client key	Technical background information only - please ignore.	<Text>
	Error	If automation errors occur, context-specific error messages are displayed indicating, e. g., that ARIS Design Server is not available.	<Text>
	Result	Returns either TRUE or FALSE (Boolean), depending on whether or not the service was successfully performed. If no specification is made, the default value FALSE is used.	<Boolean>
	Hyperlink	Hyperlink to the result of the model version comparison.	<Text>

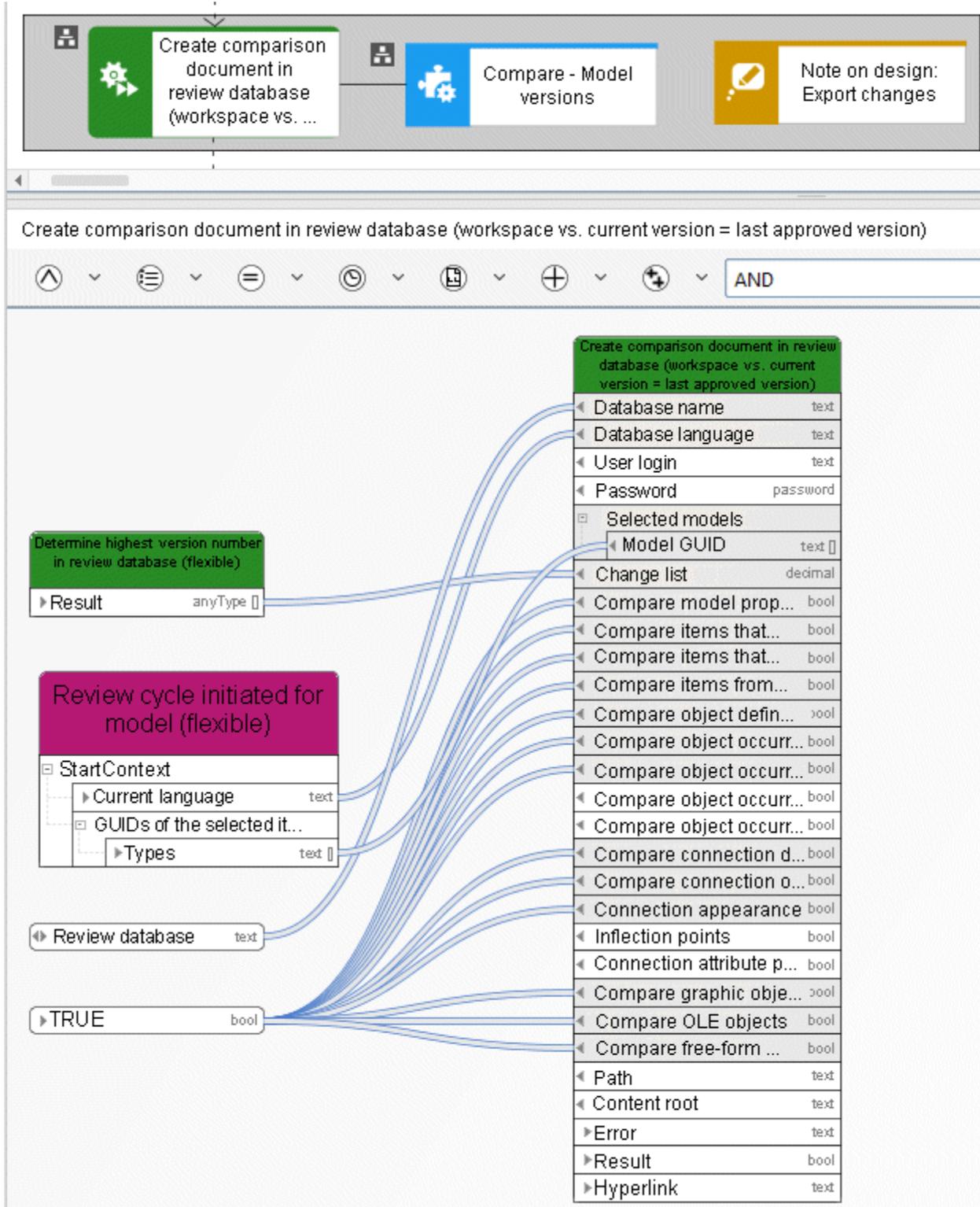


Figure 42: Compare - Model versions



4.35 Move - Models/Objects (within database)

This service moves models or objects within the database.

In/Out	Name	Details	Data type
	Database name	Name of the database in which the function of type Automated task is carried out.	<Text>
	Database language	Language the service uses for logging in to the database, e. g., en for English. You can specify this in more detail, e. g., en for English or en_US for English (United States). For example, this is helpful if English (Australia) is set but not the default English (USA) is set in the database. If you want to add the country you need to create a language constant and model it as a language in the data flow.	<Text> or <Language>
	User login	Login name of the user that is used for carrying out the Automated task function. If no user is defined, arisservice is used.	<Text>
	Password	Password of the user that is used for carrying out the Automated task function.	<Password>
	Selected items	Select the models or objects you want to move.	
	Identification	Either connect models or objects from the preselection of another object of type Human task , Automated task , or Event (process instance started) , or enter GUIDs and use the Create collection operator.	<Text collection>
	Target path	Enter the path to which you want to move models or objects (e.g., Main group\Processes\Sales processes) in the correct database language.	<Text>
	Move related objects	Define the Boolean constant as TRUE to include objects when moving models. If no specification is made, the default value FALSE is used.	<Boolean>
	Client key	Technical background information only - please ignore.	<Text>



In/Out	Name	Details	Data type
⌂	Error	If automation errors occur, context-specific error messages are displayed indicating, e. g., that ARIS Design Server is not available.	<Text>
⌂	Result	Returns either TRUE or FALSE (Boolean), depending on whether or not the service was successfully performed.	<Boolean>

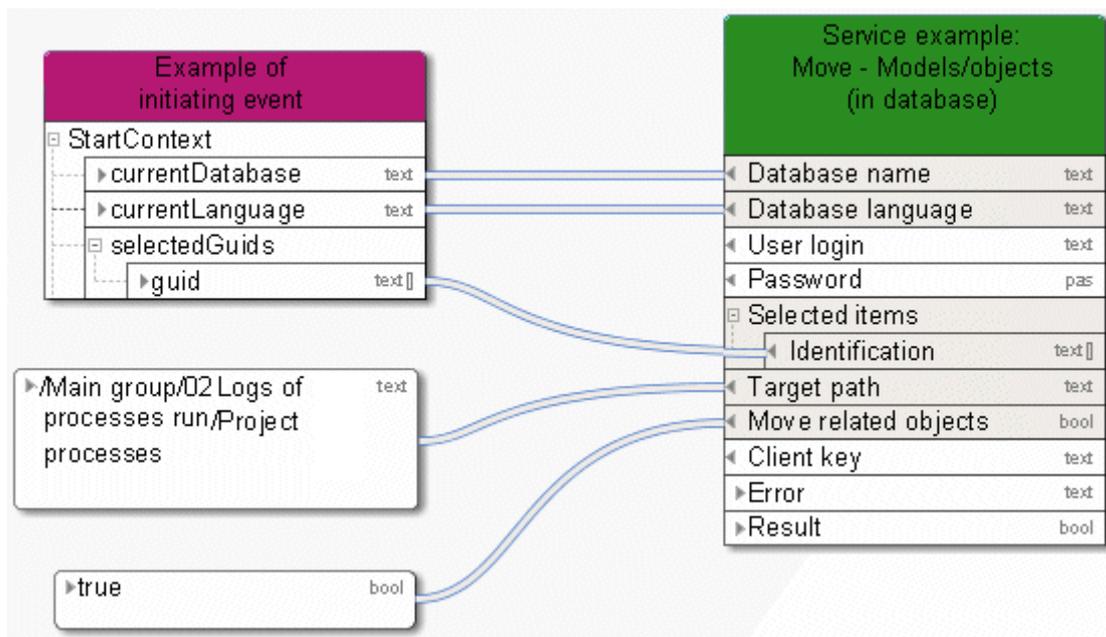


Figure 43: Move models/objects within the database



5 Publishing services in ARIS Connect

5.1 Retrieve - Link in ARIS Connect

The service provides a list of links to models in ARIS Connect in order to make them available to users that do not work with ARIS Architect, for example.

In/Out	Name	Details	Data type
	Database name	Name of the current database	<Text>
	Database version	Version of the database, for example, returned by the service Create - Version (Page 63).	<Decimal number>
Selected items		Select the models to which a link is to be created in ARIS Connect.	
	Identifier	GUID of the models to which a link is to be retrieved in ARIS Connect.	<Text>
	Locale	Standard database language. Mandatory field.	<Text>
	Link list	A link list is provided for all relevant models. Exactly one link is allowed for each link field in a dialog. The service provides a list of links if more than one link is specified for accessing a model. Model every single link in a data flow of a dialog by using an operator that determines the selection.	<Text collection>

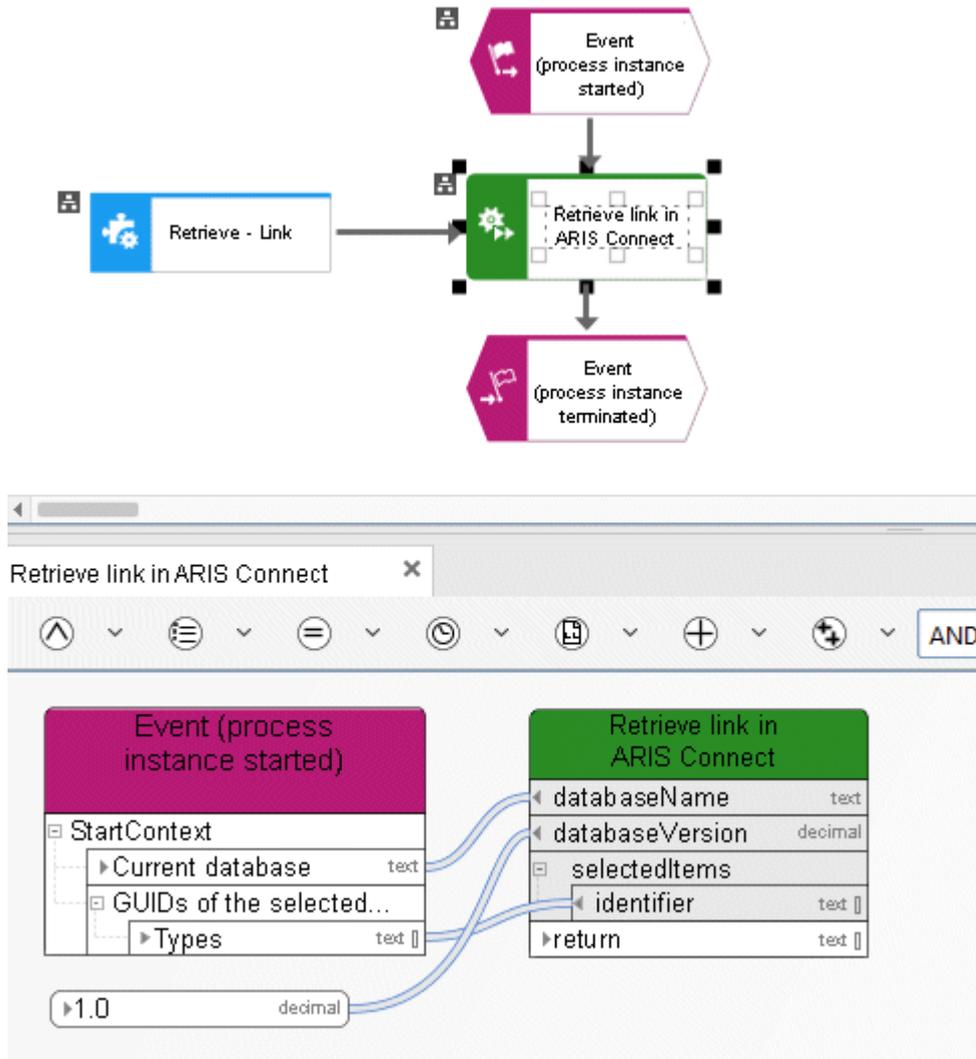


Figure 44: Retrieve - Link

5.2 Publish - Database

This service publishes a database or specific version of a database in ARIS Connect in order to make it available to users that do not work with ARIS Architect.

In/Out	Name	Details	Data type
	Database name	Name of the database to be published. Mandatory field.	<Text>
	Database version	Version of the database, for example, returned by the service Create - Version (Page 63).	<Decimal number>
	Locale	Standard database language. Mandatory field.	<Text>



In/Out	Name	Details	Data type
	Result	The result is TRUE if the database was successfully published in ARIS Connect and FALSE if this failed.	<Boolean>

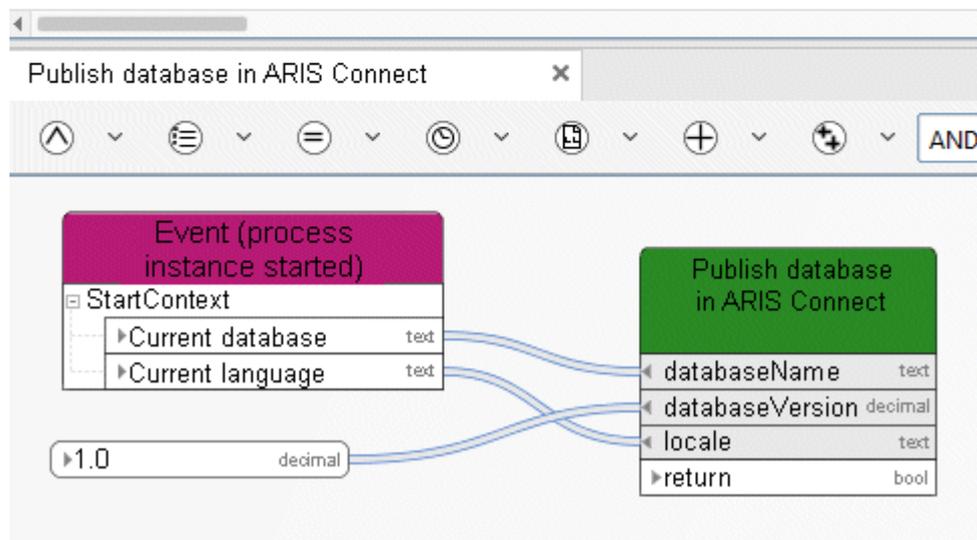
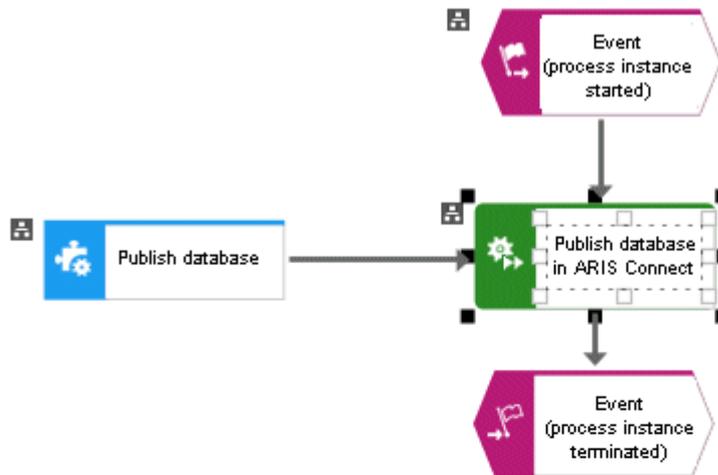


Figure 45: Publish database in ARIS Connect



6 User management

6.1 Update - User information

This service updates information about a user from the user management of Administration.

In/Out	Name	Details	Data type
	User	User whose information is to be updated.	<User>
	First name	First name of the user.	<Text>
	Last name	New last name of the user.	<Text>
	E-mail	New e-mail address of the user.	<Text>
	User	Login name of the updated user.	<Text>

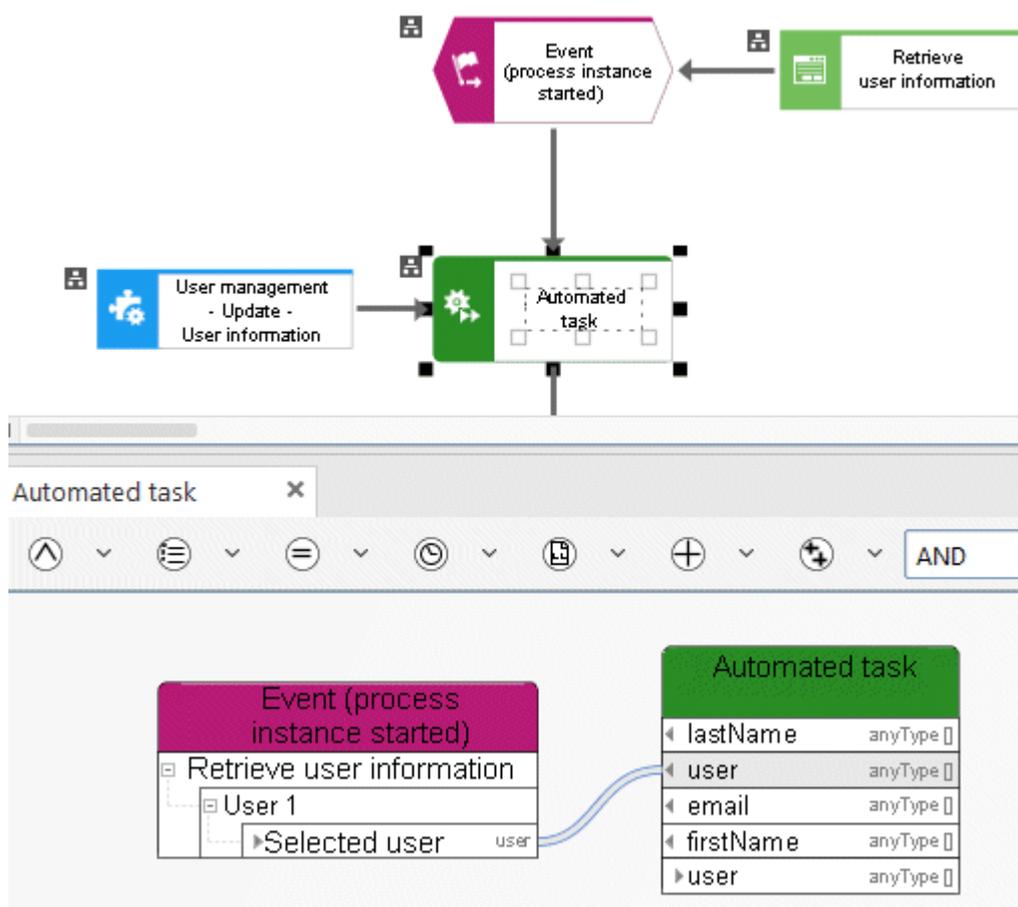


Figure 46: User management - Update - User information



6.2 Retrieve - Process Board user

This service checks if a user has a Process Board license.

In/Out	Name	Details	Data type
	User	User about which information is to be provided.	<User>
	Result	The result is TRUE if the user has a Process Board license and FALSE if not.	<Boolean>

6.3 Retrieve - User selection empty

This service retrieves information on whether a user was selected or not in the user selection of a dialog that is displayed when a task is performed.

In/Out	Name	Details	Data type
	User	Selected user box in a dialog for which the information is to be retrieved.	<User>
	Result	The result is TRUE if at least one user was selected in the dialog, and FALSE if not.	<Boolean>

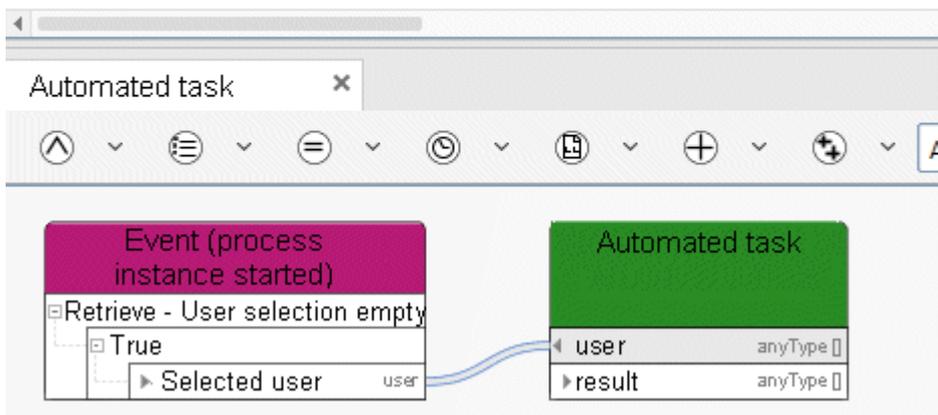
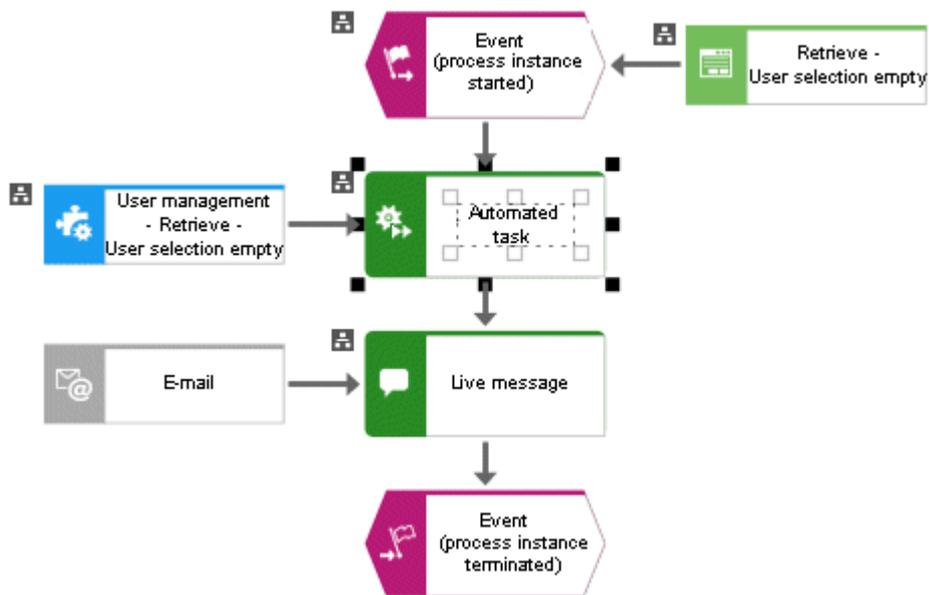


Figure 47: User management - Retrieve - User selection empty



6.4 Identify - User group of user

This service checks whether a user is associated with a specific user group in the user management.

In/Out	Name	Details	Data type
	User group	User group to be checked for user association.	<User> or <text>
	User	User to be checked for user group association.	<User> or <text>
	Result	The result is TRUE if the user belongs to the user group, otherwise FALSE.	<Boolean>

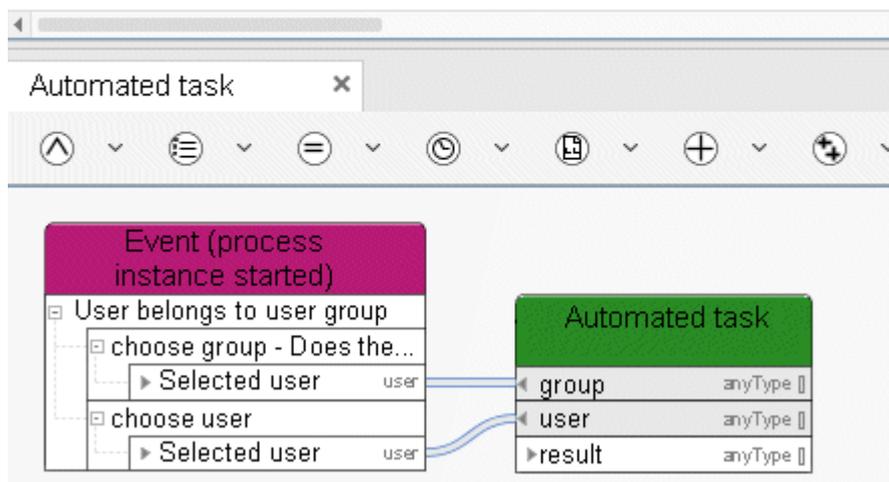
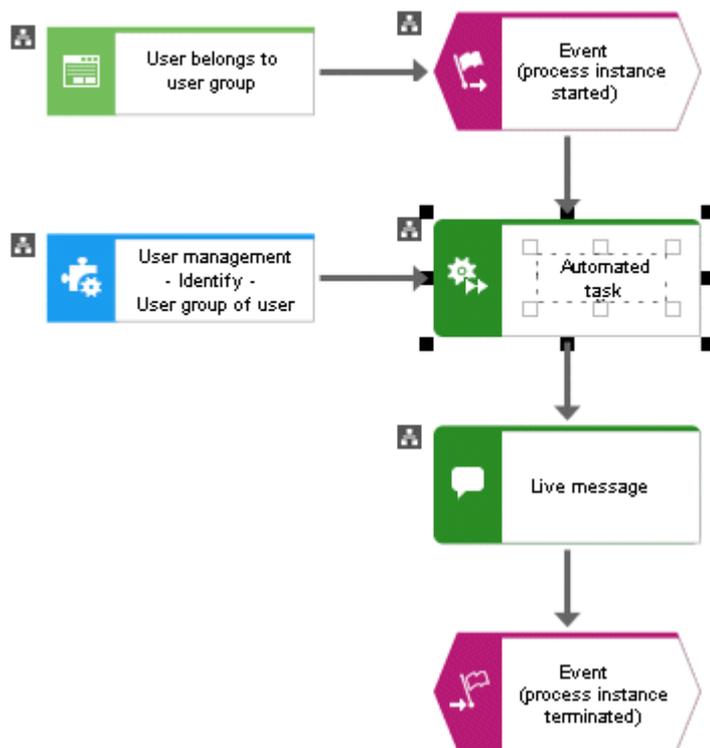


Figure 48: User management - Identify - User group of user



6.5 Retrieve - User information

This service retrieves information about a user from the user management of Administration.

In/Out	Name	Details	Data type
	User	User about which information is to be provided.	<User>
	Login name	Name that the user enters when logging in.	<Text>
	First name	First name of the user.	<Text>
	UUID	Unique identifier of the user.	<Text>
	Display name	Display name of the user.	<Text>
	First name	First name of the user.	<Text>
	Last name	Last name of the user.	<Text>
	E-mail	E-mail address of the user.	<Text>

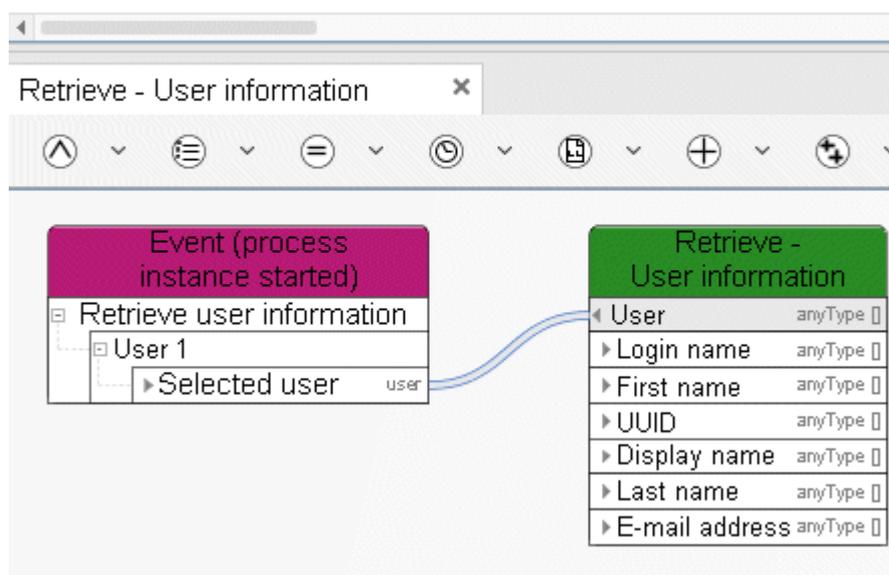
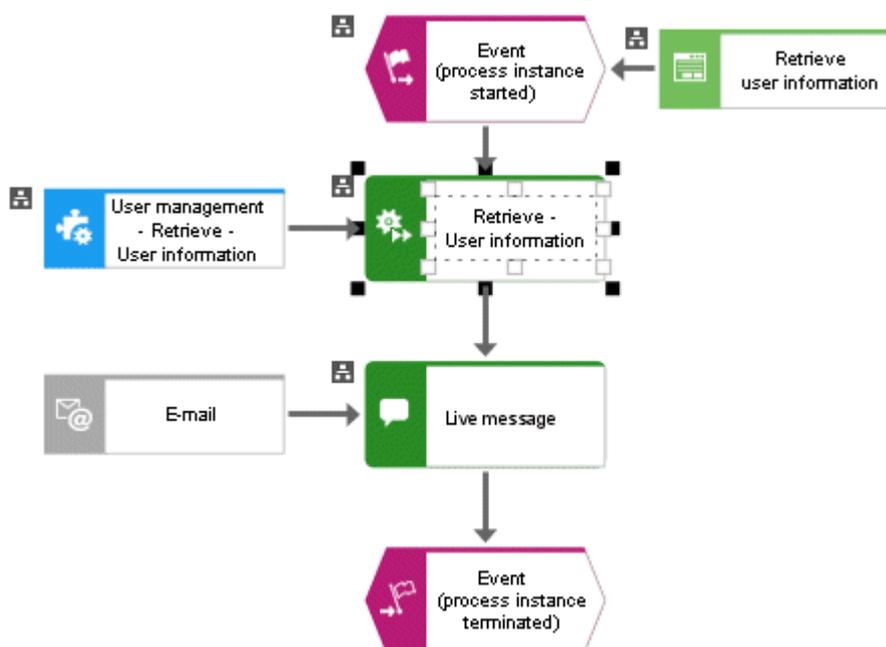


Figure 49: User management - Retrieve - User information



6.6 Generate - User

This service generates a new user in the user management of Administration.

In/Out	Name	Details	Data type
	Login name	Name that the user uses to log in to CentraSite.	<Text>
	Last name	Last name of the user to be generated.	<Text>
	First name	First name of the user to be generated.	<Text>
	User	Login name of the generated user.	<Text>

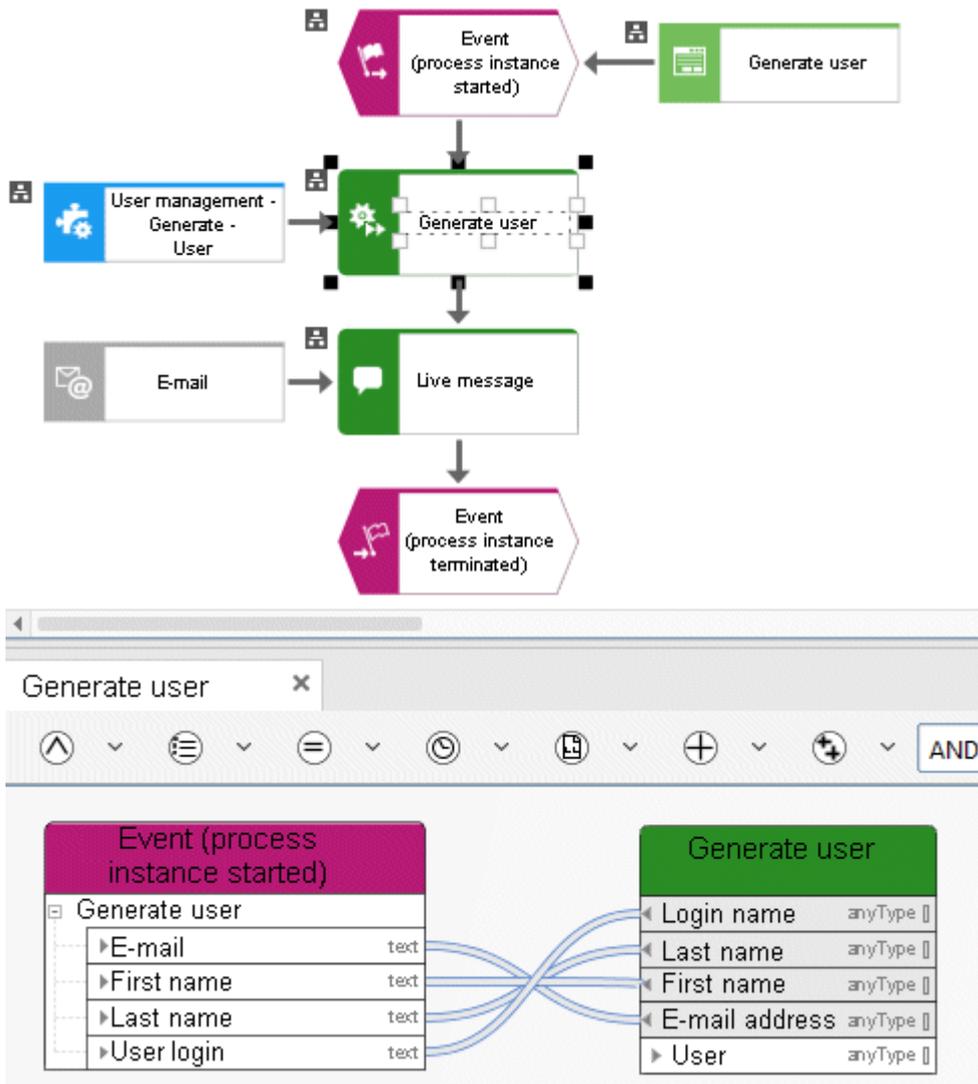


Figure 50: User management - Generate - User



6.7 Generate - User group

This service generates a user group in the user management of Administration. The name of the user group is input data. If a user group with the same name already exists it is returned as output data.

In/Out	Name	Details	Data type
	Name of the user group	Name of the user group to be generated in the database and in the user management of Administration.	<Text>
	User group	The name of the generated user group.	<Text>

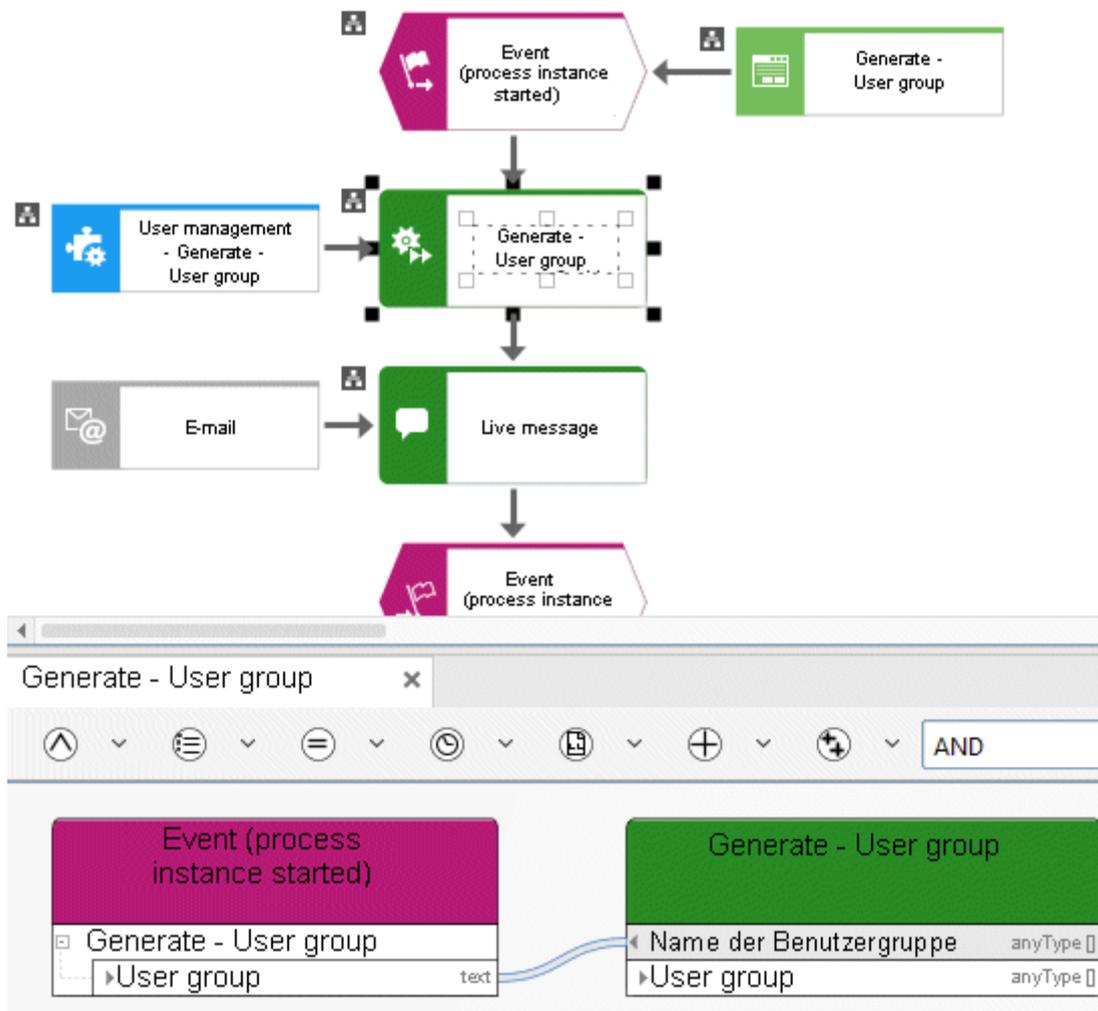


Figure 51: User management - Generate - User group



6.8 Delete - User

This service deletes a user from the user management of Administration.

In/Out	Name	Details	Data type
	User	User to be deleted.	<User>

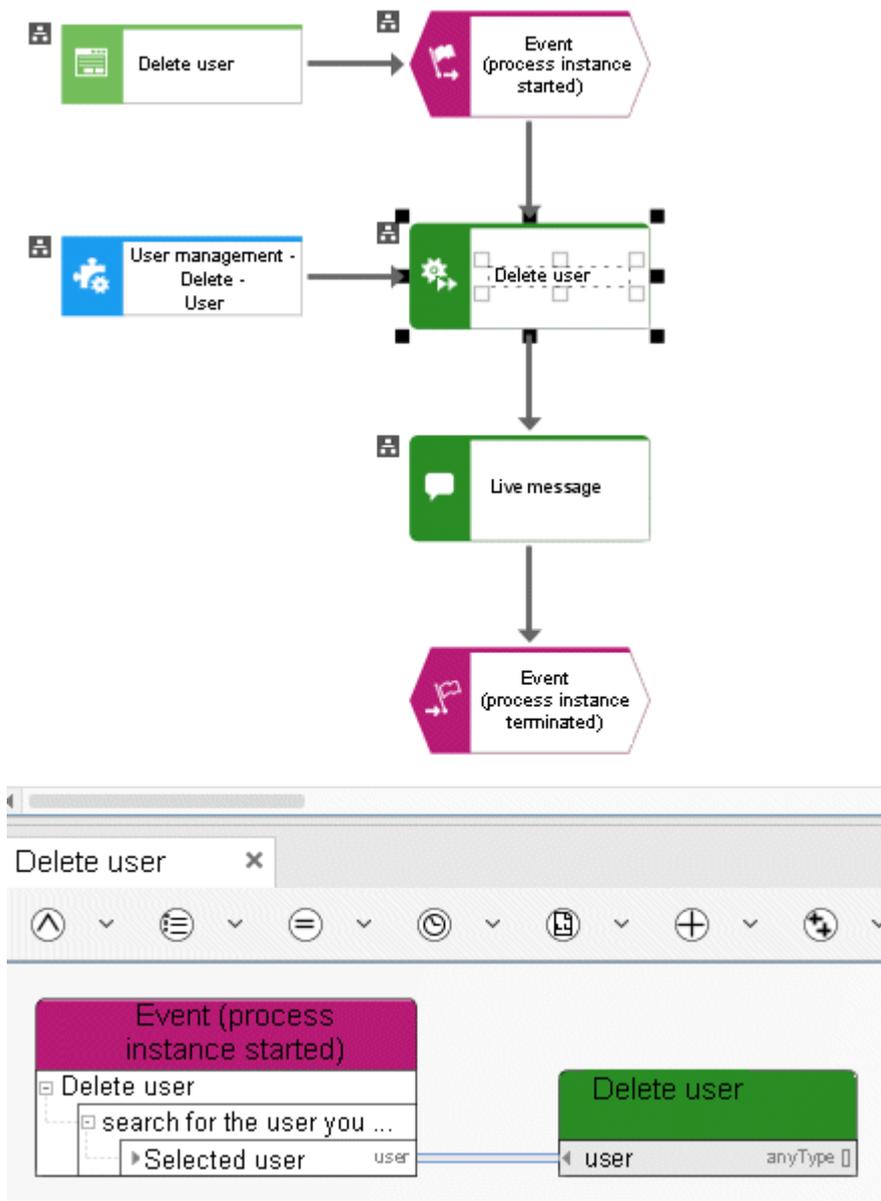


Figure 52: User management - Delete - User



6.9 Delete - User group

This service deletes a user group from the user management of Administration.

In/Out	Name	Details	Data type
	User group	User group to be deleted.	<User> or <text>

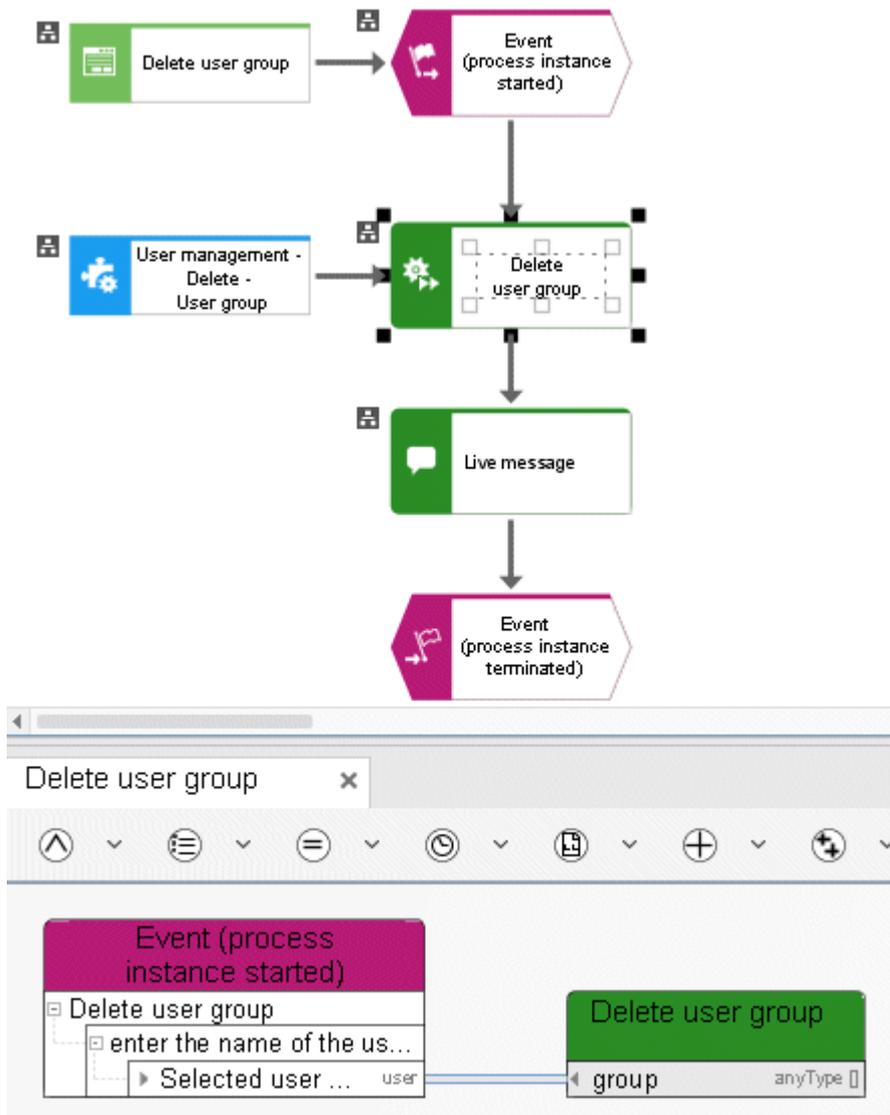


Figure 53: User management - Delete - User group



6.10 Associate - User group

This service associates a user with a specific user group in the user management of Administration.

In/Out	Name	Details	Data type
	User group	User group with which a user is to be associated.	<User> or <text>
	User	User to be associated with a specific user group.	<User> or <text>
	Result	The result is either TRUE or FALSE (Boolean), depending on whether the service was performed successfully or not.	<Boolean>

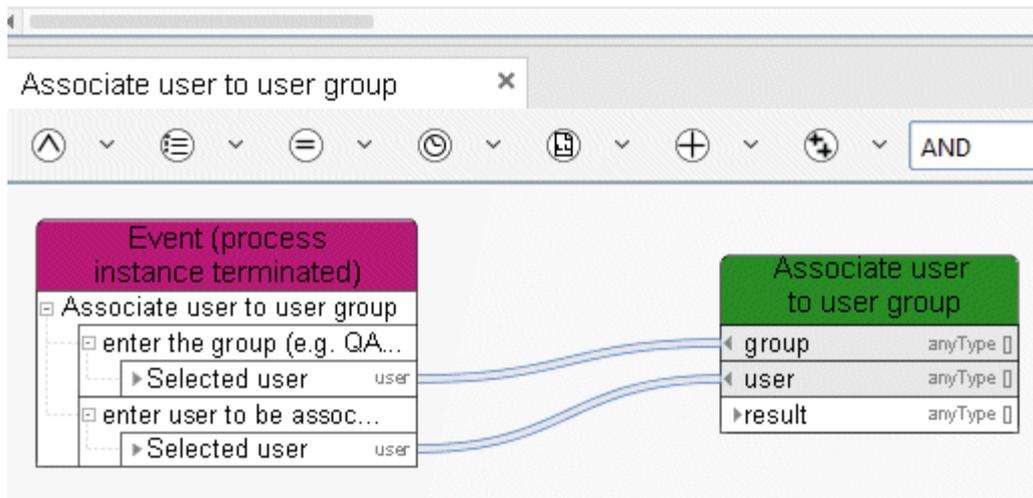
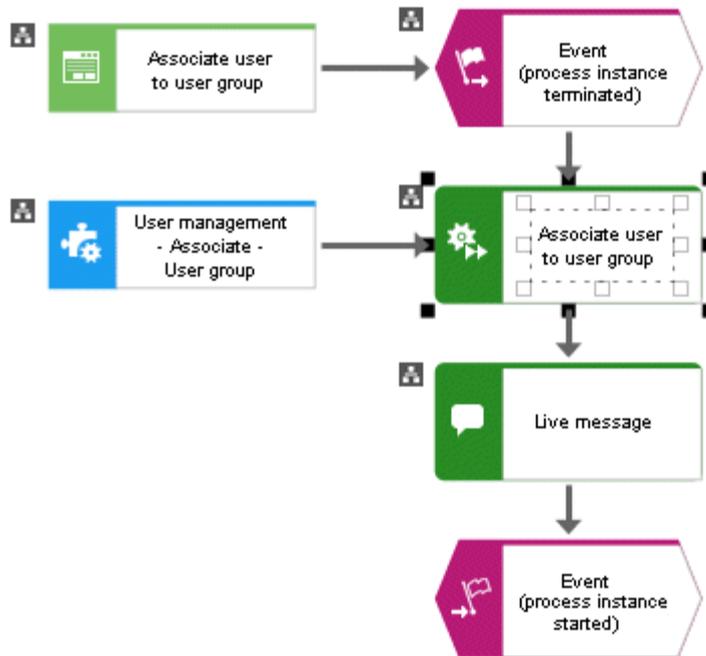


Figure 54: User management - Associate - User group



6.11 Assign - Function privileges to user

This service assigns function privileges to users.

In/Out	Name	Details	Data type
	User	User who is to be assigned a function privilege.	<User>
	Function privilege	The function privilege to be assigned to the user, e. g., Process Governance administrator.	<Text>
	Result	The result is either TRUE or FALSE (Boolean), depending on whether the service was performed successfully or not.	<Boolean>

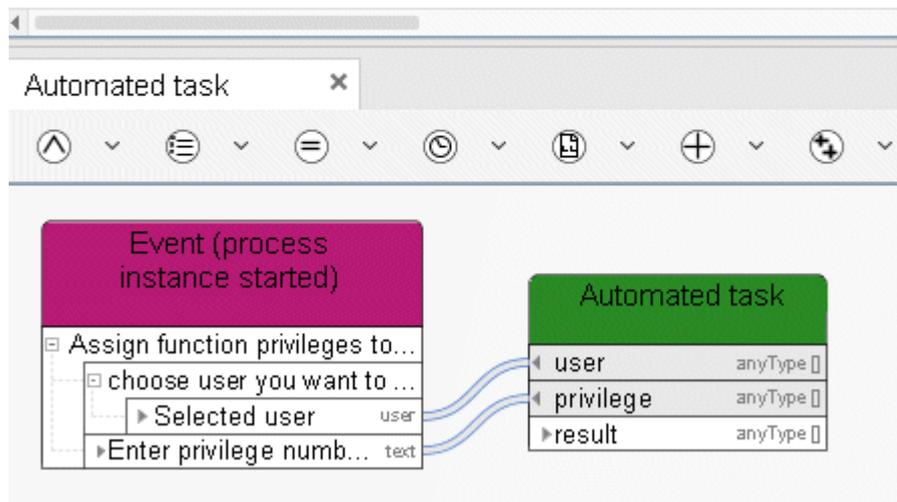
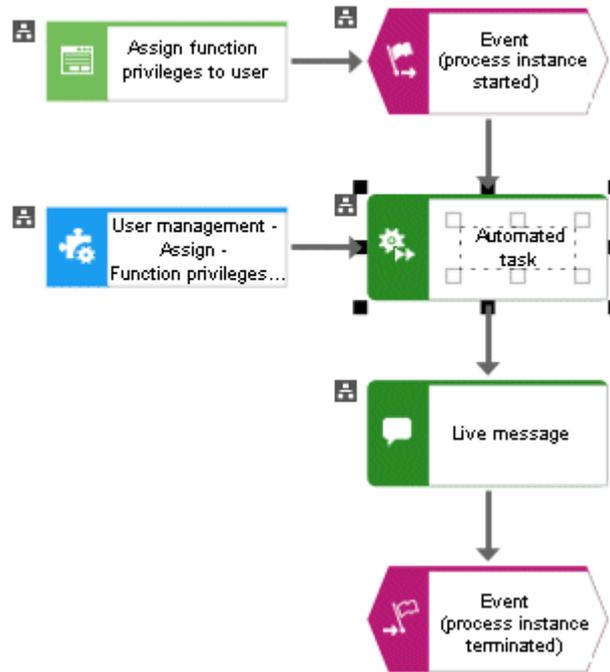


Figure 55: User management - Assign - Function privileges to user



6.12 Assign - License

This service assigns a license to a user.

In/Out	Name	Details	Data type
	User	User who is to be assigned a specific license.	<User>
	Product code	Specific product license to be assigned to the user, e. g., YBU for ARIS Publisher.	<Text>
	Result	The result is either TRUE or FALSE (Boolean), depending on whether the service was performed successfully or not.	<Boolean>

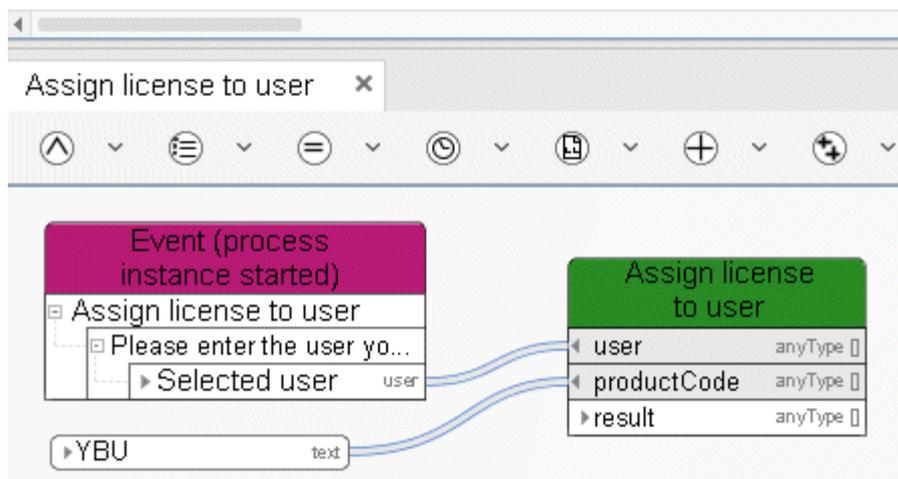
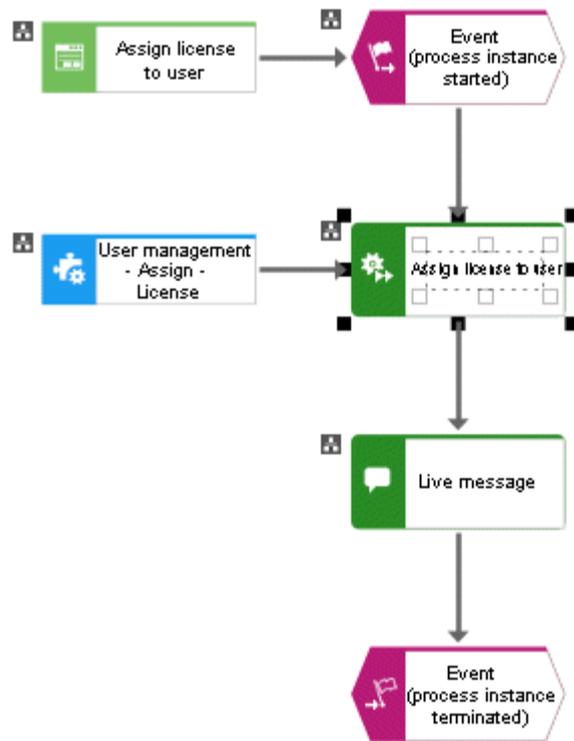


Figure 56: User management - Assign - License



7 ARIS document storage

7.1 Create document

This service creates a new document in ARIS document storage.

In/Out	Name	Details	Data type
	ADS user	Is optional and is applied only if an external document management system is used. For ARIS document storage, the user arisservice is used.	<Text>
	ADS password	Is optional and is applied only if an external document management system is used. For ARIS document storage, the password of the arisservice user is used.	<Password>
	Target folder	URL to the storage location in ARIS document storage to which the document should be uploaded, mandatory field. Example: Repository:/root/	<Folder>
	Title	Document title.	<Text>
	Description	Document description.	<Text>
	Status	Document status. The following values shown in uppercase letters are possible: <ul style="list-style-type: none"> ▪ APPROVED (Approved) ▪ IN_PROGRESS (In process) ▪ ON_APPROVAL (To be approved) ▪ REJECTED (Rejected) 	<Text>
	Version	Document version.	<Text>
	Tags	Tags identifying the document.	<Text collection>
	File URL	URL to the physical location of the file on ARIS Design Server, mandatory field. Example: D:\temp\document.doc.	<Text>
	Document	Document created (<Document> type)	<Document collection>

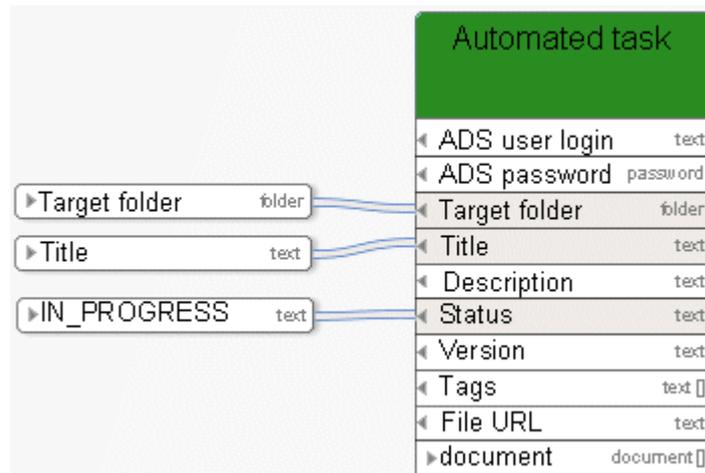


Figure 57: Create document

7.2 Download document

This service downloads a document from ARIS document storage.

In/Out	Name	Details	Data type
➔	ADS user	Is optional and is applied only if an external document management system is used. For ARIS document storage, the user arisservice is used.	<Text>
➔	ADS password	Is optional and is applied only if an external document management system is used. For ARIS document storage, the password of the arisservice user is used.	<Password>
➔	Document	Document to be downloaded, mandatory field.	<Document>
➔	Path	URL to the physical location of the file on ARIS Design Server, mandatory field. Example: D:\temp\document.doc.	<Text>
➔	Overwrite	Can assume the values TRUE (overwrite) or FALSE (do not overwrite)	<Boolean>
➞	Document	Document content	<Text>

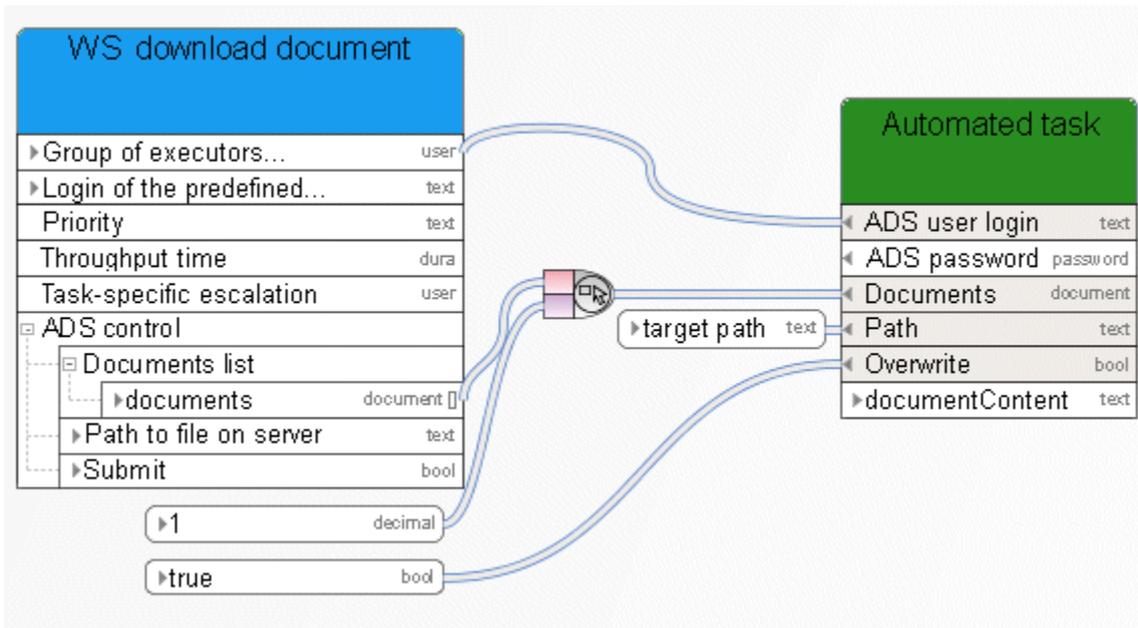


Figure 58: Download document

7.3 Update documents

This service is performed on the server side. The document with the new content that is to update the document in ARIS document storage must exist on ARIS Design Server. Typically, this is the case with report results or log files. Usually, the service is called by an object of the **Automated task** type.

In/Out	Name	Details	Data type
➡	ADS user	Is optional and is applied only if an external document management system is used. For ARIS document storage, the user arisservice is used.	<Text>
➡	ADS password	Is optional and is applied only if an external document management system is used. For ARIS document storage, the user arisservice is used.	<Password>
➡	Document	List of documents that are stored in ARIS document storage and the content of which is to be updated, mandatory field.	<Document collection>
➡	Path	URL to the physical location of the file on ARIS Design Server, mandatory field. Example: D:\temp\document.doc.	<Text collection>



In/Out	Name	Details	Data type
	Updated documents	List of updated documents	<Document collection>

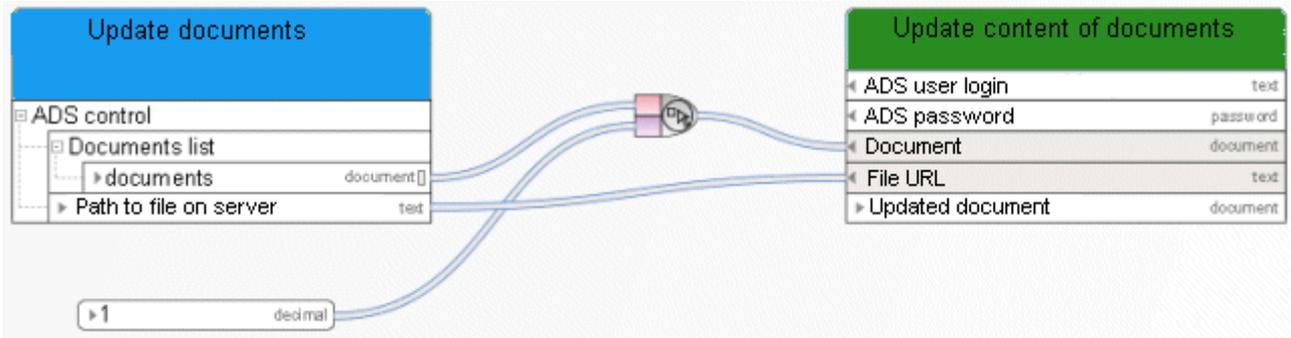


Figure 59: Update documents

7.4 Unlock documents

This service unlocks documents in ARIS document storage.

In/Out	Name	Details	Data type
	ADS user	Is optional and is applied only if an external document management system is used. For ARIS document storage, the user arisservice is used.	<Text>
	ADS password	Is optional and is applied only if an external document management system is used. For ARIS document storage, the password of the arisservice user is used.	<Password>
	Documents	List of documents to be unlocked, mandatory field.	<Document collection>
	Successful	Returns information on whether all documents were unlocked.	<Boolean>

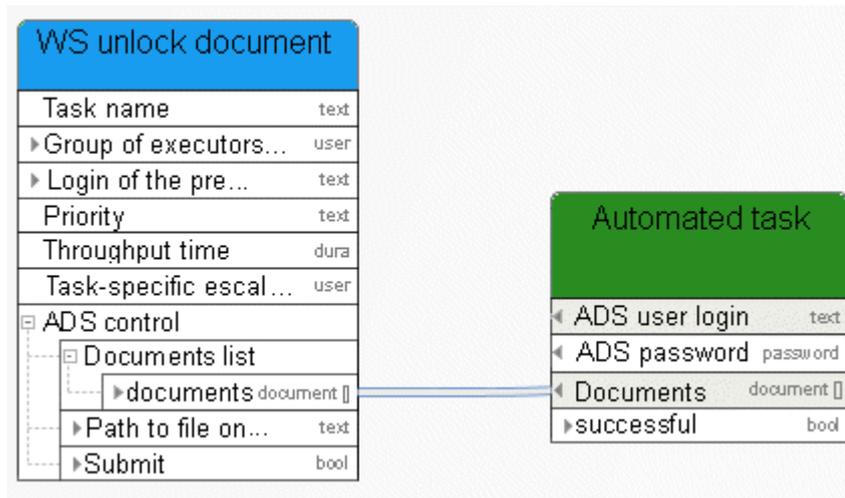


Figure 60: Unlock documents

7.5 Delete documents

This service deletes documents from ARIS document storage.

In/Out	Name	Details	Data type
➡	User	Is optional and is applied only if an external document management system is used. For ARIS document storage, the user arisservice is used.	<Text>
➡	Password	Is optional and is applied only if an external document management system is used. For ARIS document storage, the user arisservice is used.	<Password>
➡	Documents	List of documents to be deleted, mandatory field.	<Document collection>

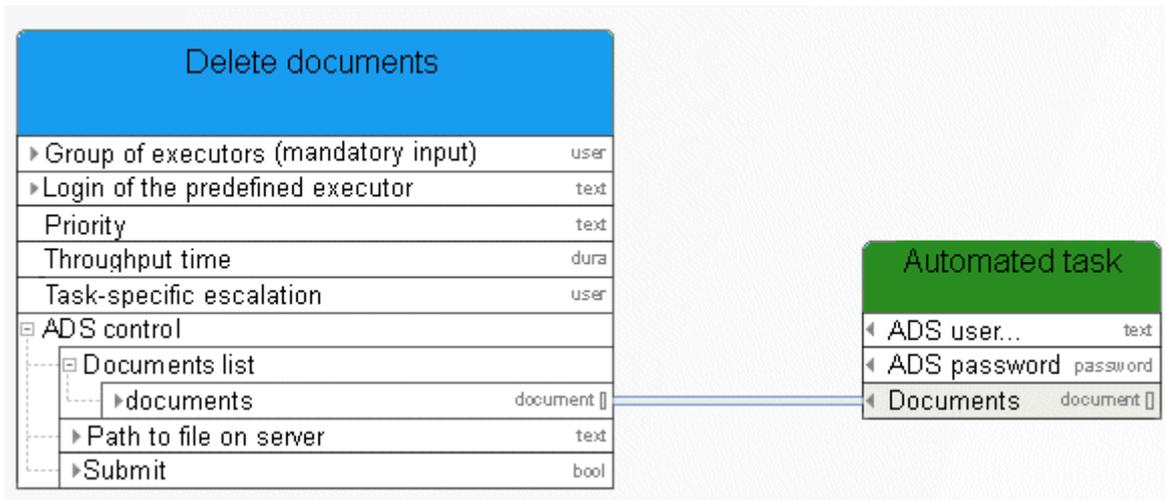


Figure 61: Delete document

7.6 Lock documents

This service locks documents in ARIS document storage for editing by other users.

In/Out	Name	Details	Data type
➡	ADS user	Is optional and is applied only if an external document management system is used. For ARIS document storage, the user arisservice is used.	<Text>
➡	ADS password	Is optional and is applied only if an external document management system is used. For ARIS document storage, the user arisservice is used.	<Password>
➡	Documents	List of documents to be locked, mandatory field.	<Document collection>
⬅	Successful	Returns information on whether all documents were locked.	<Boolean>

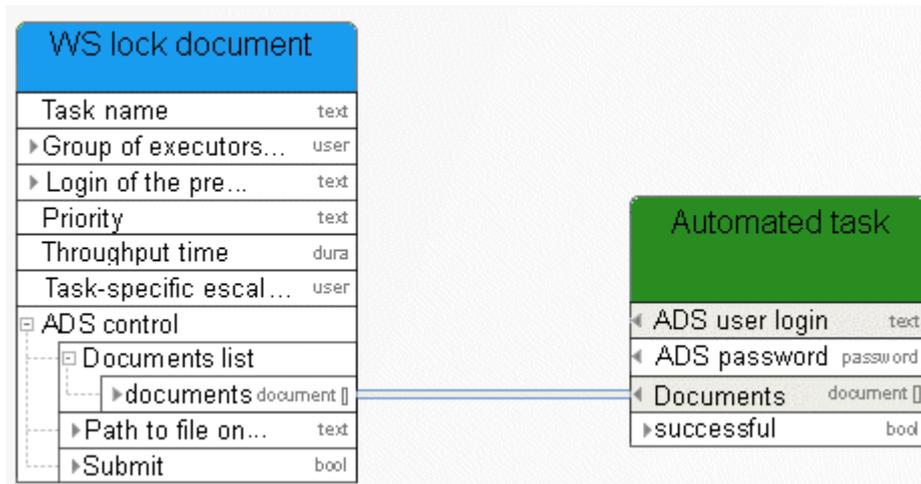


Figure 62: Lock documents

7.7 Move documents

You can use this service to either transfer a temporary document into ARIS document storage or to move a permanently saved document to another folder within ARIS document storage.

In/Out	Name	Details	Data type
➡	User	Is optional and is applied only if an external document management system is used. For ARIS document storage, the user arisservice is used.	<Text>
➡	Password	Is optional and is applied only if an external document management system is used. For ARIS document storage, the user arisservice is used.	<Password>
➡	Documents	List of documents to be moved, mandatory field.	<Document collection>
➡	Target folder	Target folder into which the documents are to be moved, mandatory field.	<Text> or <Folder>
⬅	List of documents	List of documents (Document data type)	<Document collection>

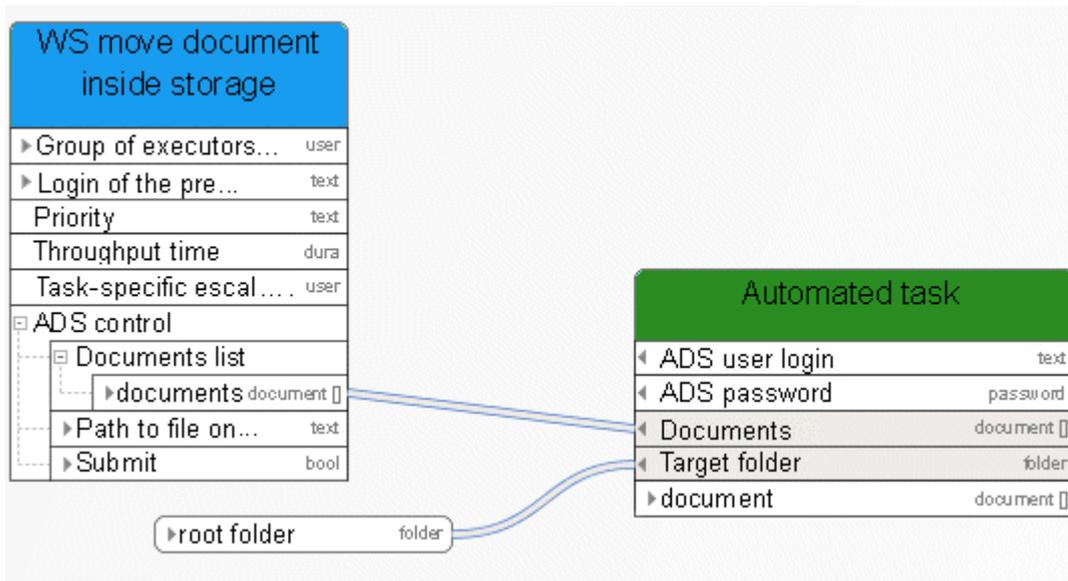


Figure 63: Move documents

7.8 Update metadata of a document

This service updates the metadata of a document.

In/Out	Name	Details	Data type
➡	ADS user	Is optional and is applied only if an external document management system is used. For ARIS document storage, the user arisservice is used.	<Text>
➡	ADS password	Is optional and is applied only if an external document management system is used. For ARIS document storage, the user arisservice is used.	<Password>
➡	Document	Document whose metadata is to be updated, mandatory field.	<Document>
➡	Key	List of metadata keys to be updated, mandatory field.	<Text collection>
➡	Values	List of metadata values to be updated, mandatory field.	<Text collection>



In/Out	Name	Details	Data type
↶	Updated document	Document whose metadata was updated. If the document name is changed during the update, the document name prior to the update is returned.	<Document>

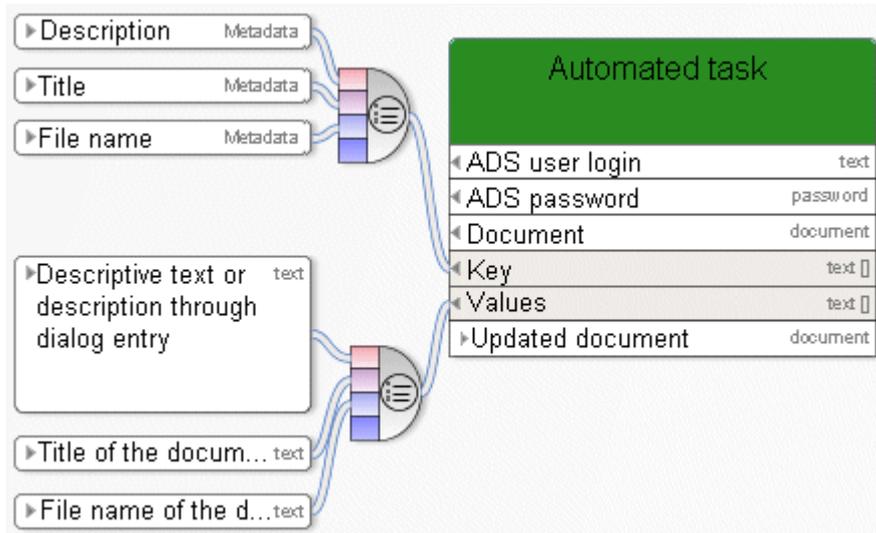


Figure 64: Update metadata of a document

7.9 Update metadata of multiple documents

This service updates a metadata key and value pair for multiple documents.

In/Out	Name	Details	Data type
➡	ADS user	Is optional and is applied only if an external document management system is used. For ARIS document storage, the user arisservice is used.	<Text>
➡	ADS password	Is optional and is applied only if an external document management system is used. For ARIS document storage, the user arisservice is used.	<Password>
➡	Documents	List of documents whose metadata is to be updated, mandatory field.	<Document collection>



In/ Out	Name	Details	Data type
➡	Key	Metadata key that is to be updated for all documents in the document list, mandatory field.	<Text>
➡	Value	Metadata value that is to be updated for all documents in the document list, mandatory field.	<Text>
⬅	Updated documents	List of documents for which a metadata key/value pair was updated. If document names are changed during the update, the document names prior to the update are returned.	<Document collection>

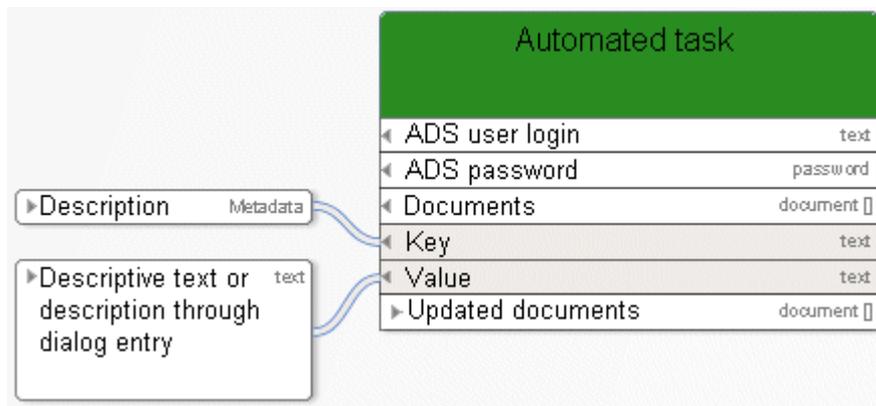


Figure 65: Update metadata of multiple documents

7.10 Create folder

This service creates a new folder in ARIS document storage with the given name.

In/ Out	Name	Details	Data type
➡	ARIS document storage user	Is optional and is applied only if an external document management system is used. For ARIS document storage, the user arisservice is used.	<Text>



In/ Out	Name	Details	Data type
➔	ARIS document storage user password	Is optional and is applied only if an external document management system is used. For ARIS document storage, the password of the arisservice user is used.	<Password>
➔	Folder	Mandatory input. Name of the folder to be created, e. g., Repository:/root/<new folder>/ .	<Folder>
➞	Folder	Returns the newly created folder.	<Folder>

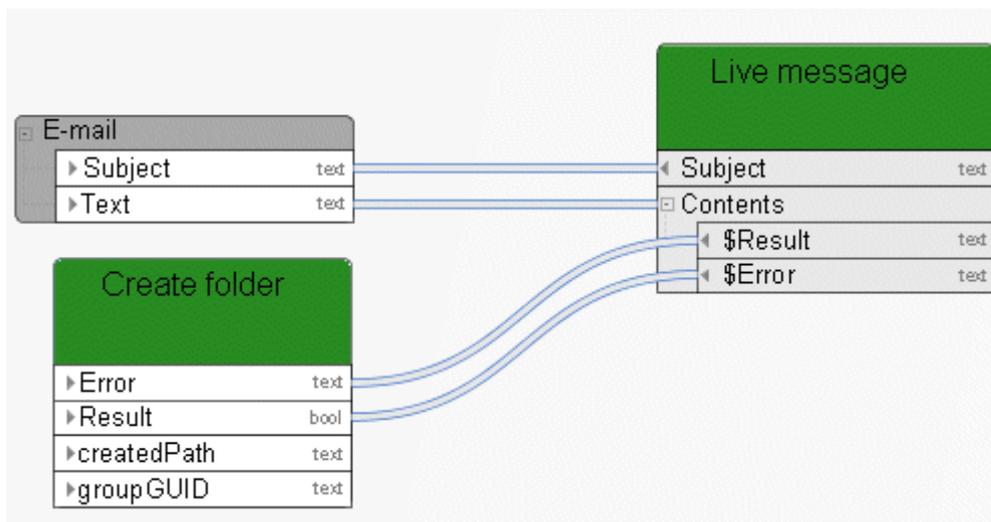


Figure 66: Create folder



8 Local services

8.1 Retrieve - Process instance ID

This service retrieves the ID of the process instance of the running process.

In/Out	Name	Details	Data type
	Instance ID	ID of the process instance of the running process.	<Text>

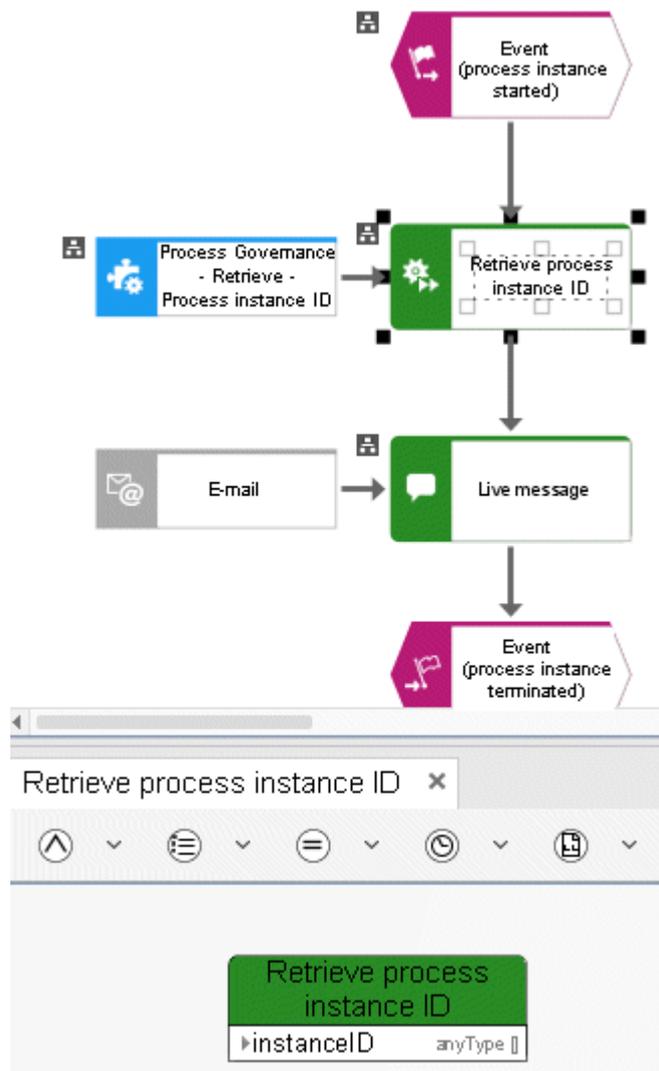


Figure 67: Process Governance - Retrieve - Process instance ID



8.2 Retrieve - Link (design)

The service provides a list of model links. These links may be used as input data for a dialog to enable the user to access the ARIS modeling database. The linked model opens and can be edited.

In/Out	Name	Details	Data type
	Database name	Connect the database where your models are stored. To do this, connect an object of type Event (process instance started) , Human task , or Automated task .	<Any>
	Language	Language an object of type Automated task uses to log into the database, e. g., en for English.	<Any>
	Server	Connect the server on which the database is stored. To do this, use the object of type Event (process instance started) .	<Any>
	Selected models	Select the models you want to find. Connect models from the preselection of another object of type Human task , Automated task , or Event (process instance started) .	<Any>
	Link list	A link list is provided for all relevant models. The links may be used as input data for a dialog to enable the user to access the ARIS modeling database. Please note: Exactly one link is allowed for each link field in a dialog. The service provides a list of links if more than one link is specified for accessing a model. In the data flow of a dialog, model every single link by using an operator determining the selection.	<Any>

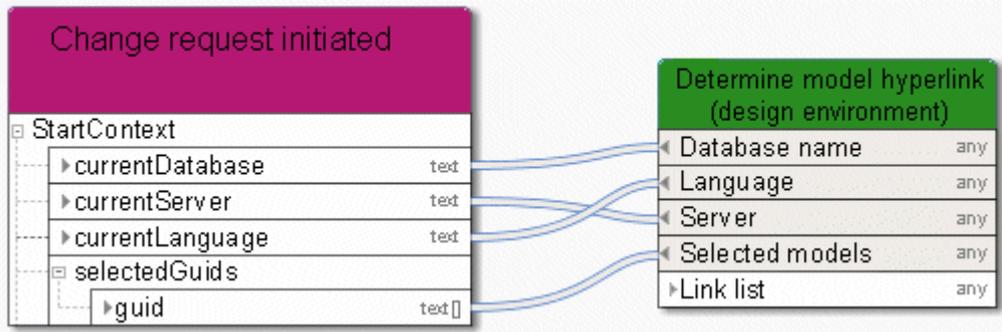


Figure 68: Output link to model (design)

8.3 Retrieve - Number (highest/lowest)

The service compares given numbers and returns the highest or lowest number.

In/Out	Name	Details	Data type
➡	List of numbers	The service compares a list of numbers. Either connect the numbers of another object of type Human task, Automated task, or Event (process instance started) , or define constants. Always use the Create collection operator.	<Any>
➡	Required selection	The service outputs the highest or lowest number from a given list. Enter TRUE (Boolean) if the service is to return the highest number from a given list. Enter FALSE (Boolean) if the service is to return the lowest number from a given list. FALSE (Boolean) is used as the default value if no value is specified.	<Any>
⬅	Result	The result is the highest or lowest number from a list of numbers.	<Any>



Figure 69: Select highest/lowest number

8.4 Create - Human task log

The service returns the input a person enters in the dialog when carrying out a function of type **Human task**. The result delivered by the service can, for example, be entered in the **Change list** attribute of a model or object to ensure detailed documentation.

In/Out	Name	Details	Data type
➡	Dialog elements	Copy the function of type Human task as a recurring task and connect the recurring task with a dialog element, e. g., a comment. To log more than one dialog element use the Concatenate operator. Please use constants for structuring the connected dialog element input, e. g., model a constant with the dialog element name before connecting the dialog element itself. You may also use constants as separators, e. g., spaces and semicolons.	<Any>
➡	Executor IDs	Copy the Human task function you want to log as a recurring task and connect it to the field containing the IDs of the executors. Logging is done for each executor.	<Any>



	<p>Result</p>	<p>Entries by an executor of the connected Human task function that was copied as a recurring task are logged for the selected dialog elements per executor and entry. The result delivered by the service can, for example, be entered for the Change list attribute of a model or object to ensure detailed documentation of what input executors specified for the dialog of the Human task function type.</p>	<p><Any></p>
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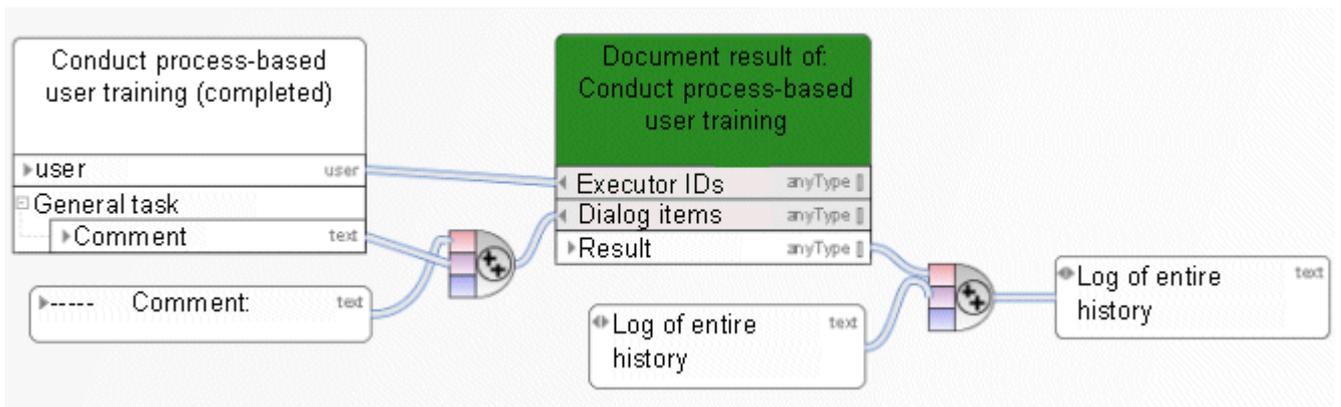


Figure 70: Log user input

8.5 Create - Change number(s)

The service increments the version number by a predefined value.

In/Out	Name	Details	Data type
	<p>Selected values</p>	<p>You can enter a list of numbers to be checked, e. g., the list of the Version number attribute from all models. To do so, connect the numbers of another object of type Human task, Automated task, or Event (process instance started), or define constants. Then use the Create collection operator.</p>	<p><Any></p>



➡	Increment by number	Enter the number by which a predefined value is to be incremented. To do so, connect a number of another object of type Human task , Automated task , or Event (process instance started) , or define a constant of the type Decimal .	<Any>
⬅	Selected values	The service returns a list of the changed values.	<Any>

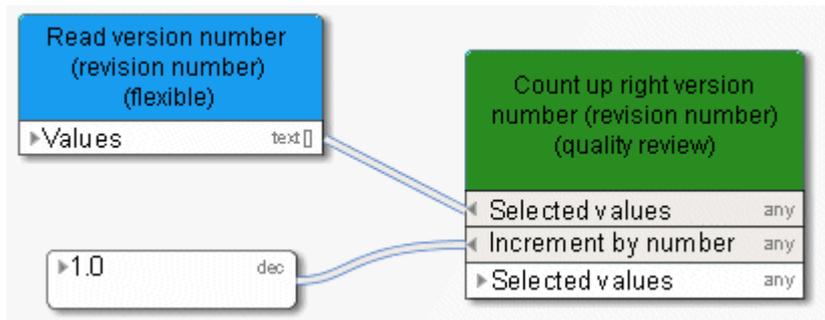


Figure 71: Create or change number(s)

8.6 Compare - Boolean values

Compare Boolean attribute.

In/Out	Name	Details	Data type
➡	Attribute type	Define the Boolean attribute for which you want to know whether the value is set to TRUE or FALSE, or whether it is not specified (EMPTY). To do this, connect the result delivered by the service retrieving the Boolean attribute with this service as input data. Multiple items can be interpreted for the same attribute, e. g., a model attribute Semantic check successful for multiple EPCs.	<Any>
⬅	Result	The service returns TRUE if the Boolean attribute was set to TRUE for all items. The service returns EMPTY if the Boolean attribute is not specified for at least one item. The service returns FALSE if the attribute is specified for all items and is set to FALSE for at least one item. The service also returns FALSE if less than two items can be compared.	<Any>

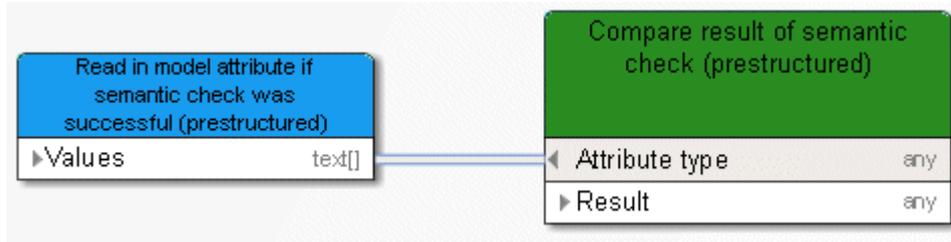


Figure 72: Compare Boolean

8.7 Compare - Value empty

The service checks whether or not predefined values (e. g., attributes) are specified.

In/Out	Name	Details	Data type
➔	Values to be checked	Enter the values to be checked. To do this, connect the service to retrieve an attribute from multiple models, for example.	<Any>
⬅	At least one value not specified	The service returns TRUE (Boolean) if at least one value is not specified in the list. Otherwise the service returns FALSE (Boolean).	<Any>
⬅	No values specified	The service returns TRUE (Boolean) if no values are specified in the list. Otherwise the service returns FALSE (Boolean).	<Any>

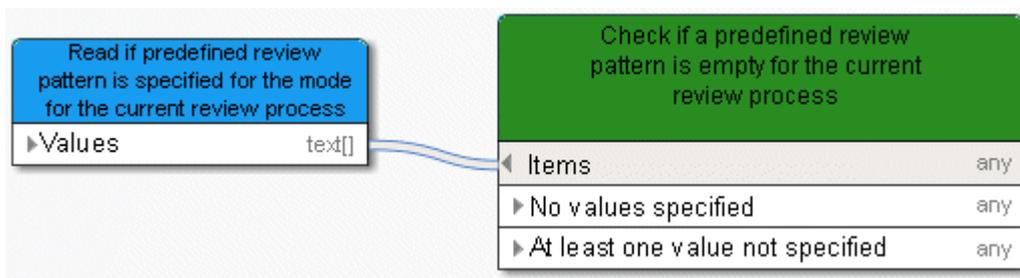


Figure 73: Compare whether values are specified



8.8 Compare - String

The service checks whether a text attribute is set to the same value for multiple terms, e. g., the attribute 'Status' for multiple models.

In/Out	Name	Details	Data type
➔	Attribute type	Specify the text attribute for which you want to know whether its value is the same for multiple terms. To do this, connect the result delivered by the service retrieving the text attribute with this service as input data. Multiple items may be interpreted, e. g., a text attribute for multiple models of type EPC.	<Any>
➔	Result	The service returns TRUE if the text attribute was set to the same value for all items, e. g., Released for a model status attribute. The service returns FALSE if a different value was found in at least one item, e. g., if the model status attribute was set to Released for model 1, but to Rejected for model 2.	<Any>



Figure 74: Compare text attributes (strings)



8.9 Compare - Time attributes

The service compares two time attributes of models or objects and checks whether one timestamp is more recent than the other. In addition, a list of models or objects is output whose time attribute is more recent than the one compared.

In/Out	Name	Details	Data type
	Time attributes (older)	Define the attribute values that are to be older. To do this, connect output data of Automated task objects having retrieved the required time attributes. Example: the latest change attribute of predefined models.	<Any>
	Time attributes (more recent)	Define the attribute values that are to be more recent. To do this, connect output data of Automated task objects having retrieved the required time attributes. Example: the time when the semantic check was performed for predefined models.	<Any>
	Selected items	Select the models or objects you want to find. To do this, connect models, objects, or groups from the preselection of another object of type Human task, Automated task, or Event (process instance started) , or enter the GUIDs and use the Create collection operator.	<Any>
	List of items for TRUE and EMPTY	The service lists all models or objects meeting one of the following check criteria: Time attribute (more recent) is more recent than Time attribute (older), or Time attribute (more recent) is not specified.	<Any>
	Result	The service returns TRUE (Boolean) if the time attribute (more recent) is more recent than the time attribute (older) for at least one of the compared models or objects. The service returns EMPTY if the time attribute (more recent) is not specified for at least one of the compared models or objects. Otherwise the service returns FALSE (Boolean).	<Any>

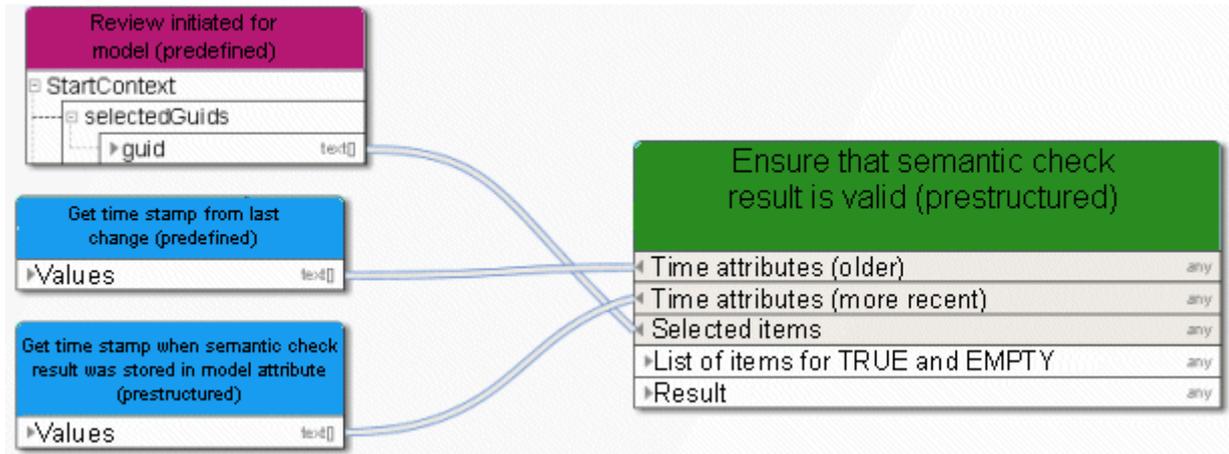


Figure 75: Compare time attributes

8.10 Compare - Future timestamps

The service compares a timestamp that was entered with the current timestamp.

In/Out	Name	Details	Data type
➔	Timestamp to be compared	Connect the timestamp of another object of type Human task or Automated task . This timestamp is compared with the current timestamp.	<Any>
➔	Result	The service returns TRUE if the timestamp that was checked is in the future. Otherwise, FALSE is returned.	<Any>

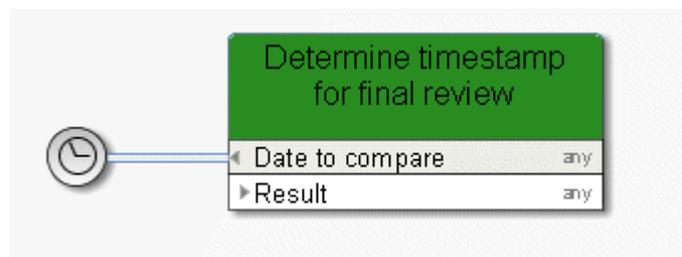


Figure 76: Check whether date is in the future



9 Operators in the data flow

9.1 Numerical operators

9.1.1 Add



Addition of numbers or a date with a time span, e. g., May 11 + 10 days results in May 21.

The following combinations are possible:

First slot	Second slot	Result
Date	Duration	Date
Date and time	Duration	Date and time

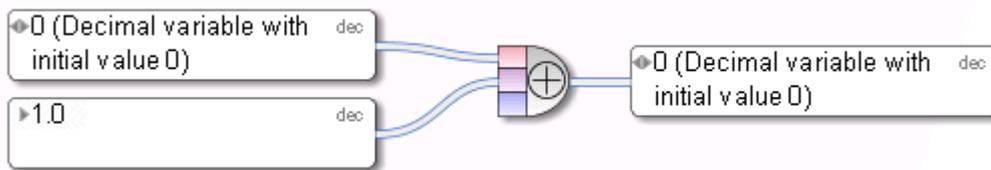


Figure 77: Add

9.1.2 Subtract



Subtraction of numbers or a date with a time span - the second entry is subtracted from the first. Example: May 11th - 10 days results in May 1st.

The following combinations are possible:

First slot	Second slot	Result
Date	Date	Duration
Date	Duration	Date
Date and time	Duration	Date and time
Date and time	Date and time	Duration

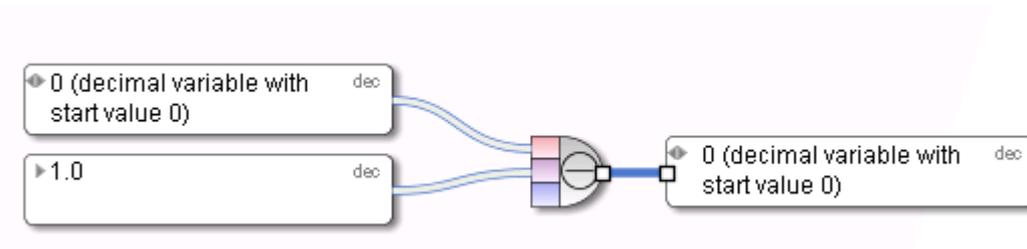


Figure 78: Subtract

9.1.3 Multiply

	Multiply numbers
--	------------------

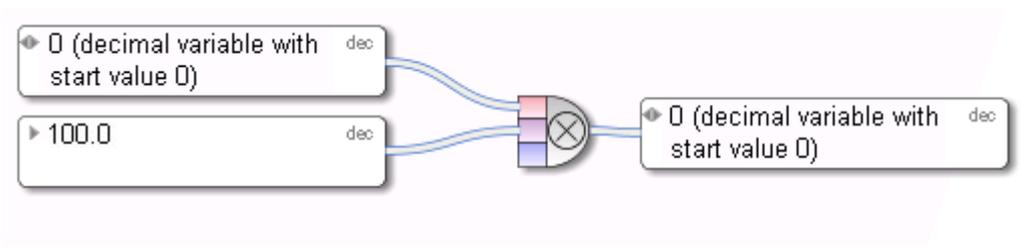


Figure 79: Multiply

9.1.4 Divide

	Divide numbers
--	----------------

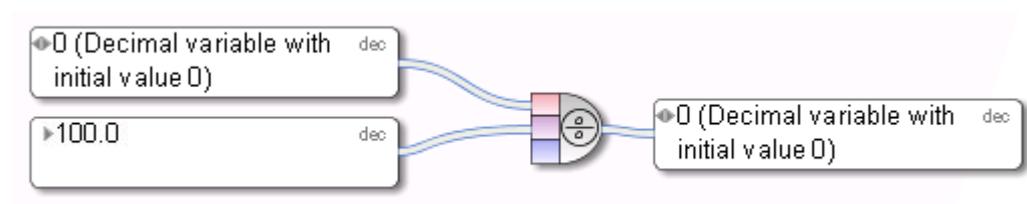


Figure 80: Divide



9.2 Comparison operators

9.2.1 Equal to

 Mathematical operator **Equal to** returns TRUE if both incoming objects are equal.

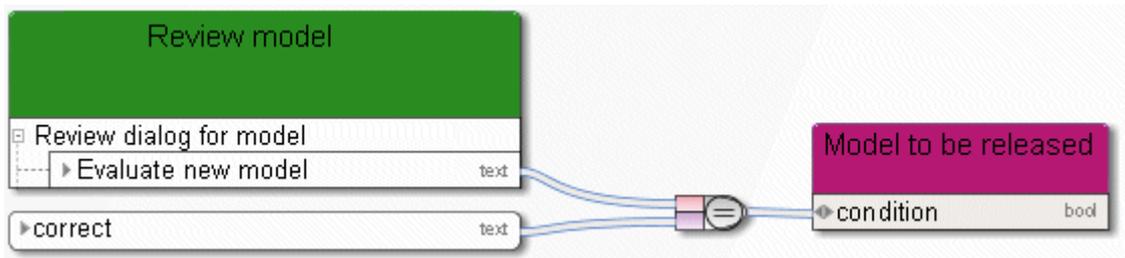


Figure 81: Equal to

9.2.2 Not equal to

 Mathematical operator **Not equal to** returns TRUE if both incoming objects are not equal.

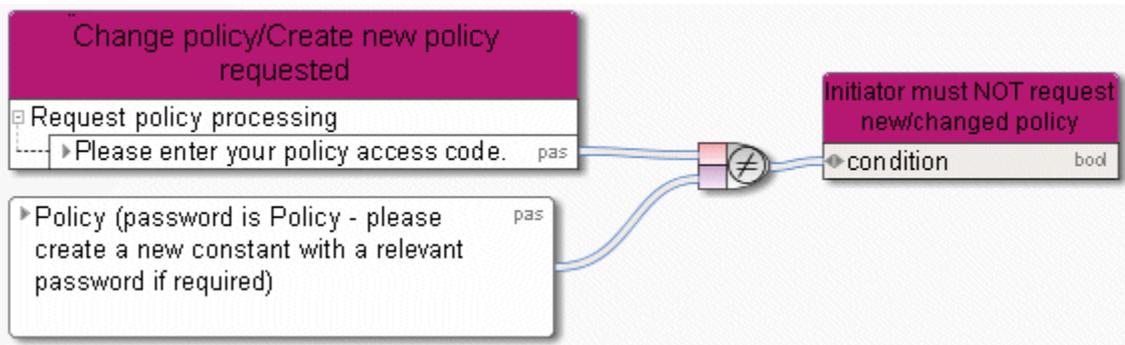


Figure 82: Not equal to



9.2.3 Greater than

>
Mathematical operator **Greater than**

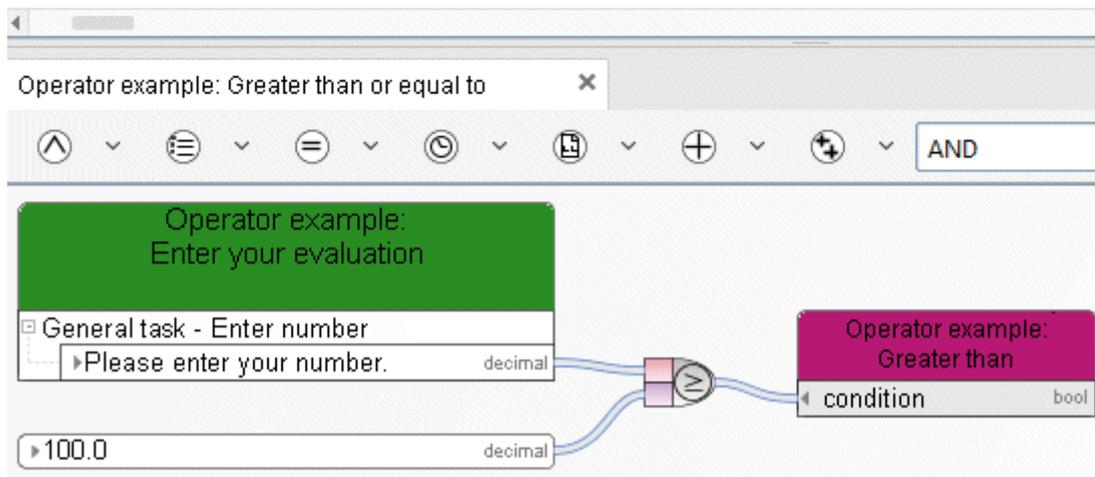
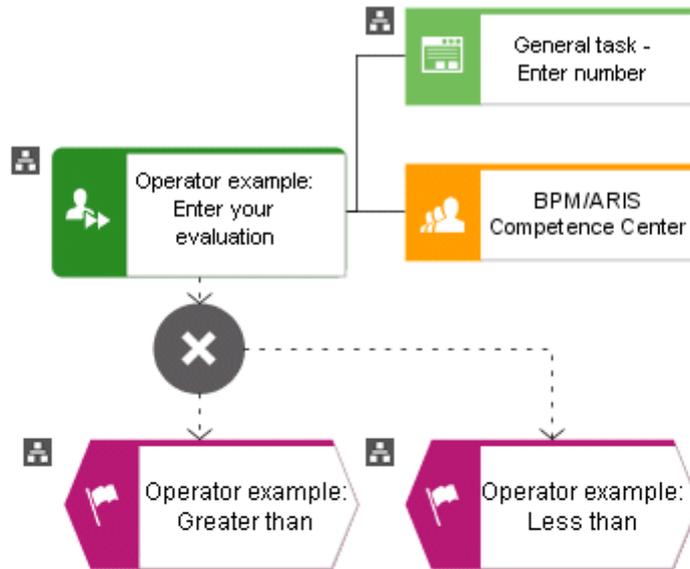


Figure 83: Greater than



9.2.4 Greater than or equal to

 Mathematical operator **Greater than or equal to**

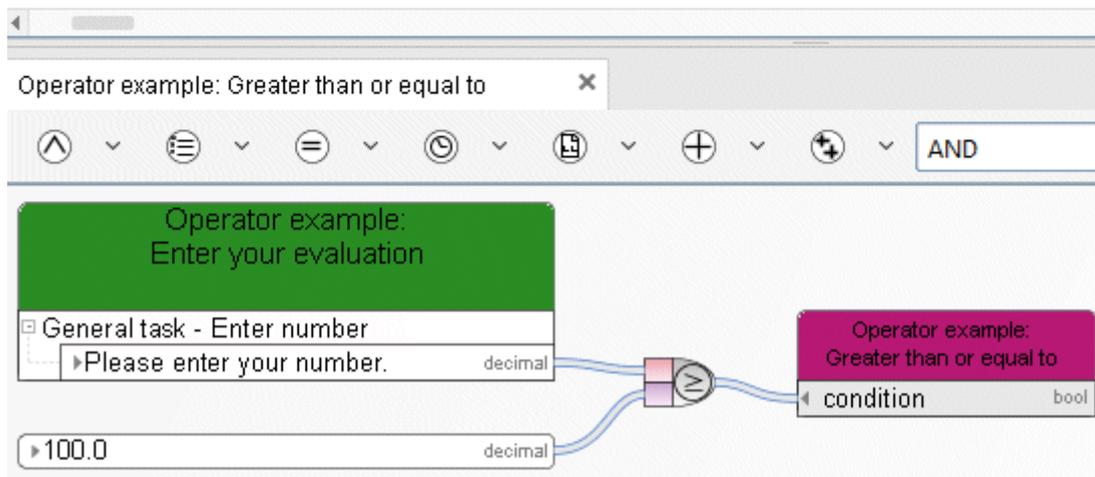
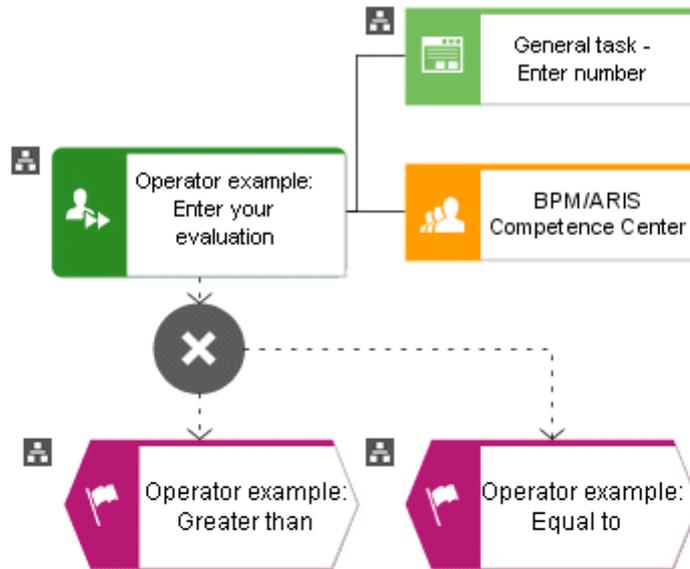


Figure 84: Greater than or equal to



9.2.5 Less than

 Mathematical operator **Less than**

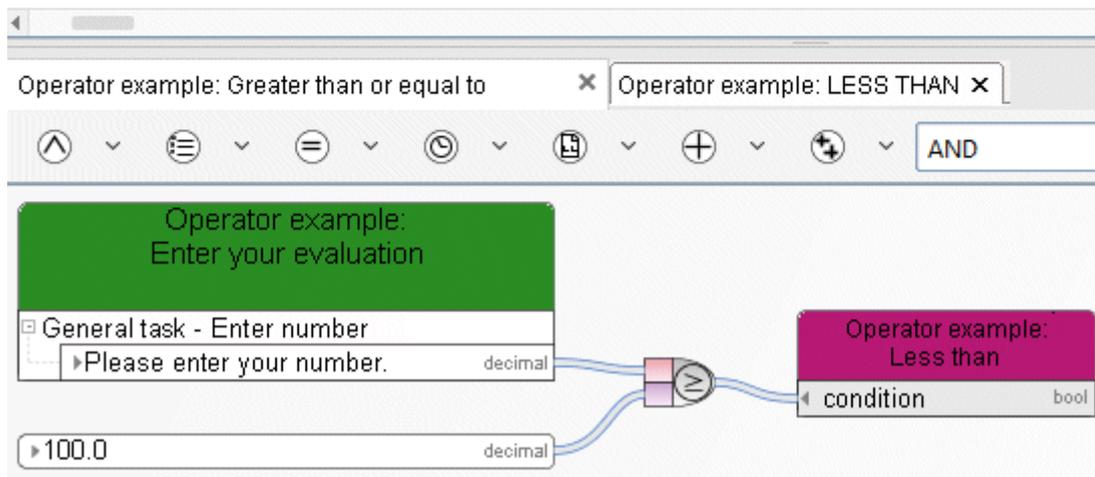
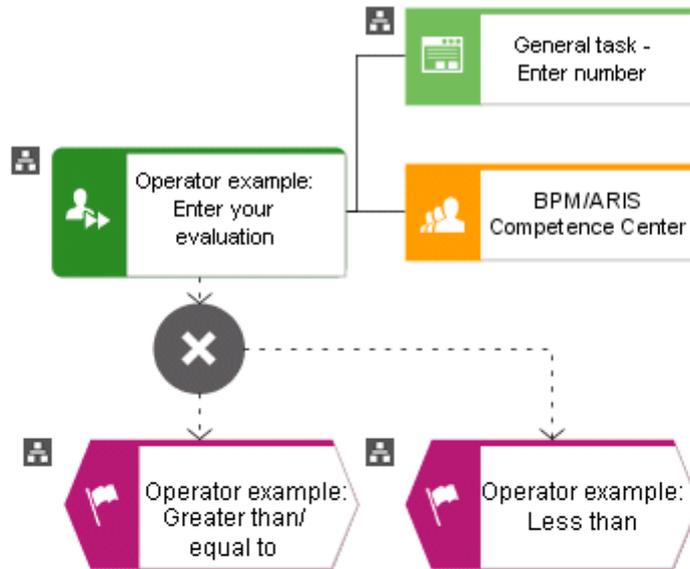


Figure 85: Less than



9.2.6 Less than or equal to

	Mathematical operator Less than or equal to
--	--

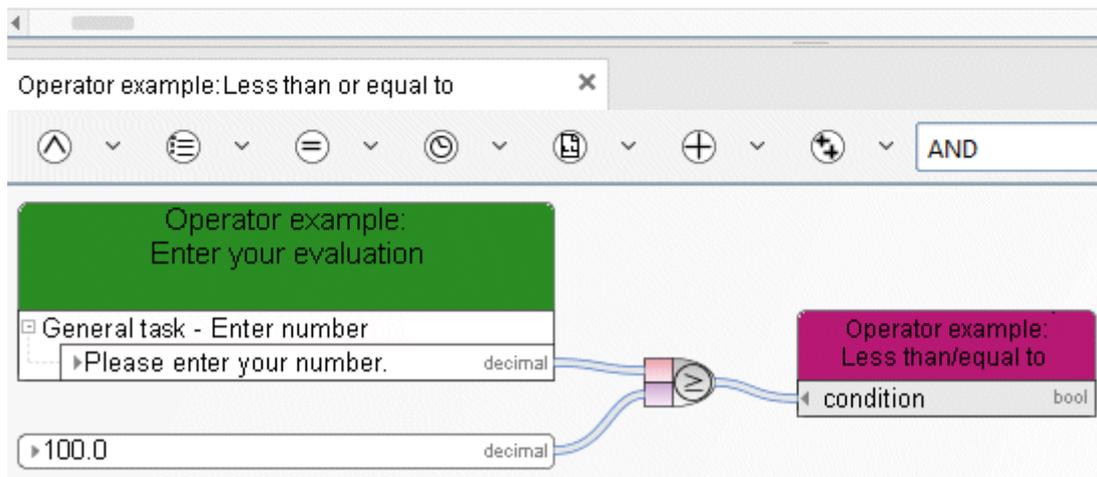
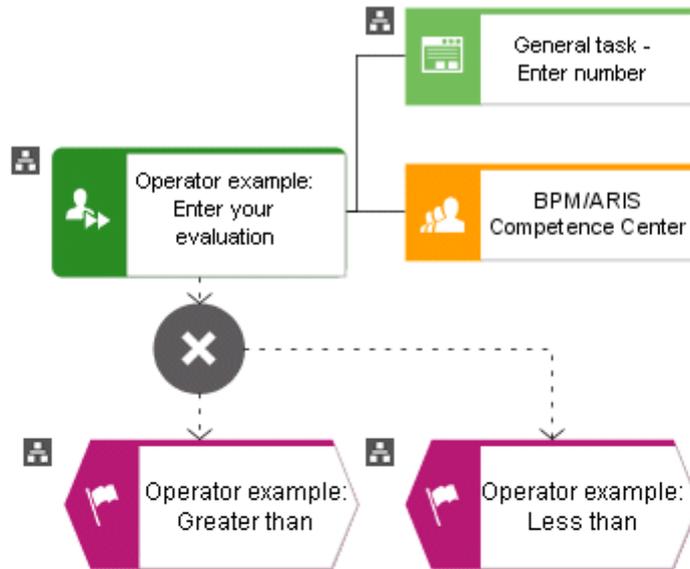


Figure 86: Less than or equal to



9.3 Boolean operators

9.3.1 AND operator

 The operator **AND** is a Boolean operator and represents the condition that all incoming objects exist in the process instance.

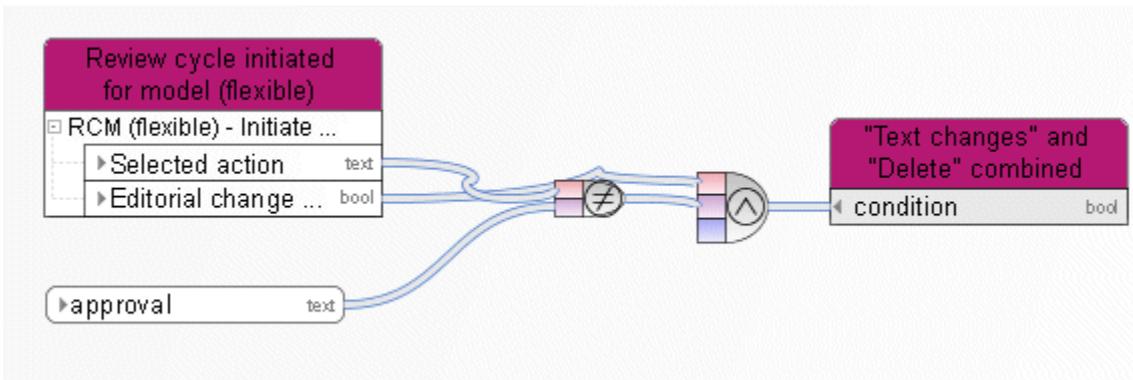


Figure 87: AND

9.3.2 OR operator

 The operator **OR** is a Boolean operator and represents the condition that at least one incoming object exists in the process instance.

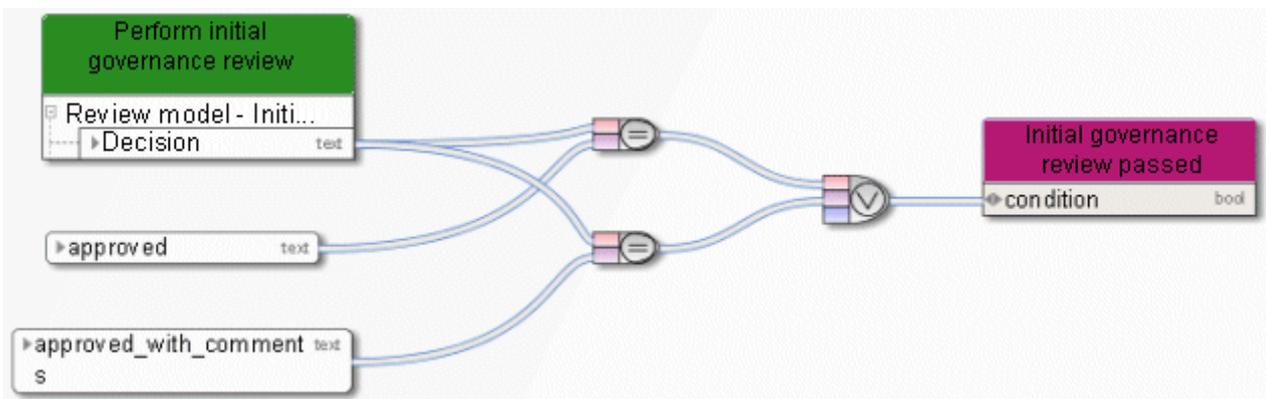


Figure 88: OR



9.3.3 NOT operator



The **NOT** operator is a Boolean operator. This operator inverts the value of a Boolean variable. In the graphic the incoming object is the variable **Temporary files created**. Thus, the operator specifies whether the condition that temporary files are not to be deleted is met.

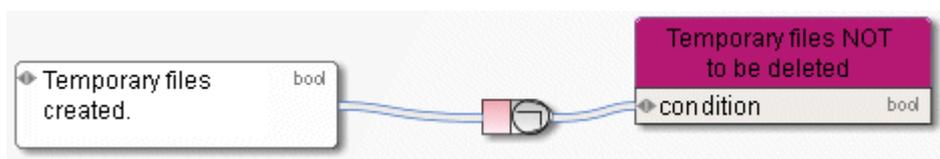


Figure 89: NOT

9.4 What are operators for collections?

9.4.1 Select item by ID



Returns a list item with a specific ID. The first parameter this operator requires is the list from which an item is to be selected. The second parameter of this operator is the ID (key) of the required items.

The corresponding attribute is selected from the list via the API name.

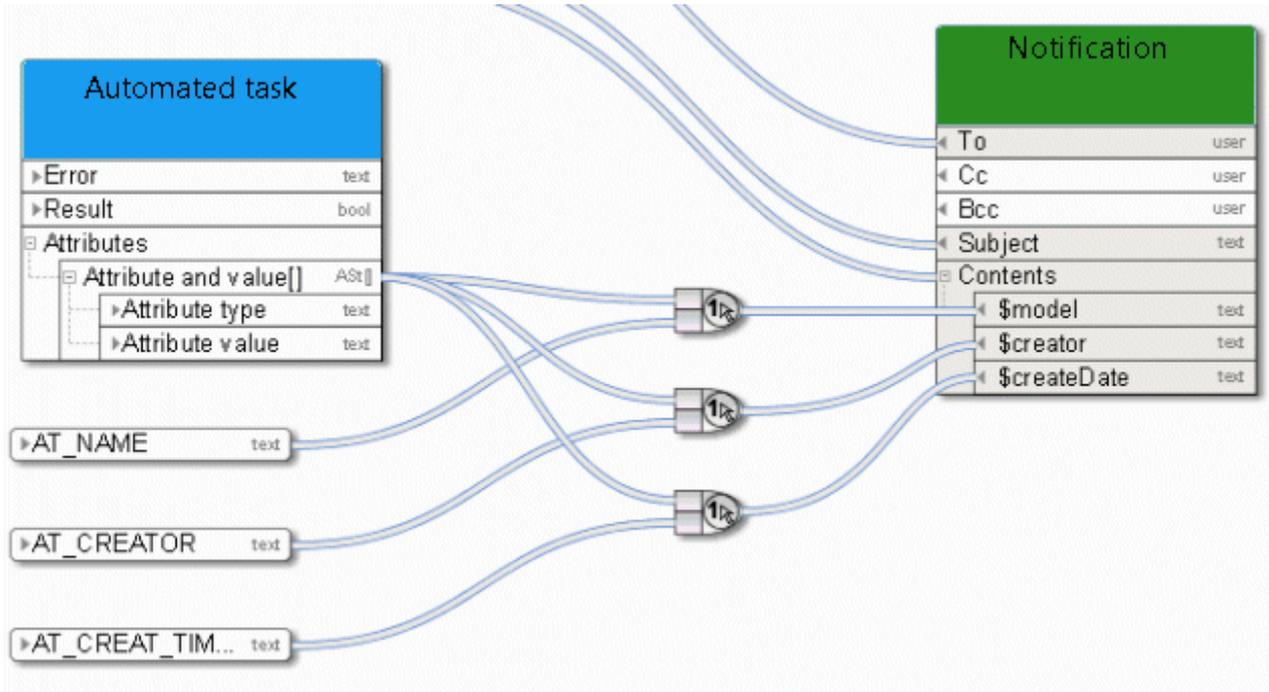


Figure 90: Select item by ID

9.4.2 Select item by position



Returns an item from an indexed list (collection) in accordance with the transferred integer index values. The first parameter is the collection, the second parameter the index.

Here the service provides a list of links from which the first item is selected for further processing.

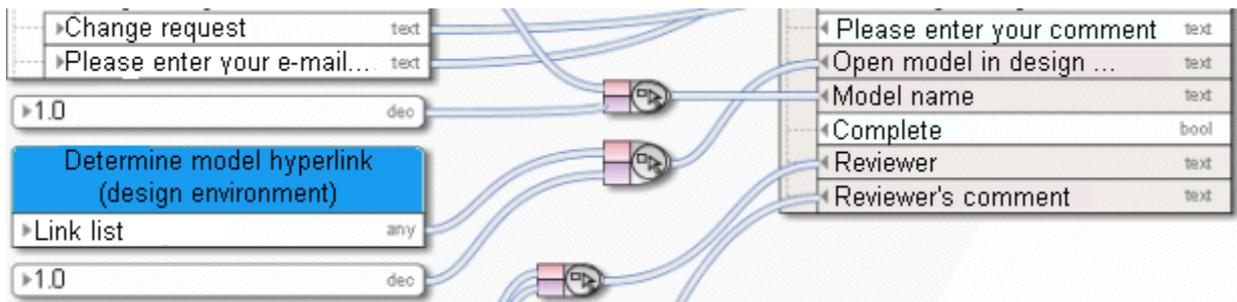


Figure 91: Select item by position



9.4.3 Create collection



Creates a collection (lists, data series) of objects of the same type. The operator is used here to define a list of attribute types that are processed further by a service.

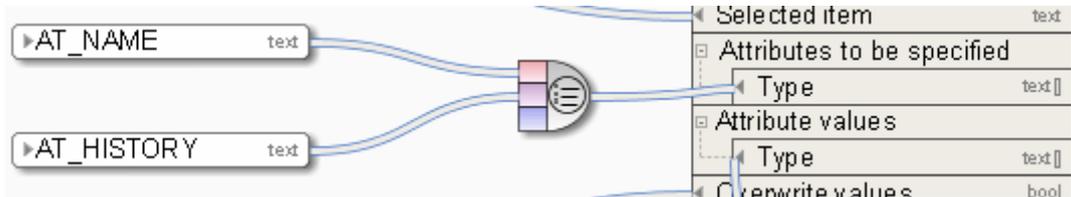


Figure 92: Create collection

9.4.4 Determine size of collection



Determines the number of items in a collection (list, data series) of objects of the same type and outputs them in integers.

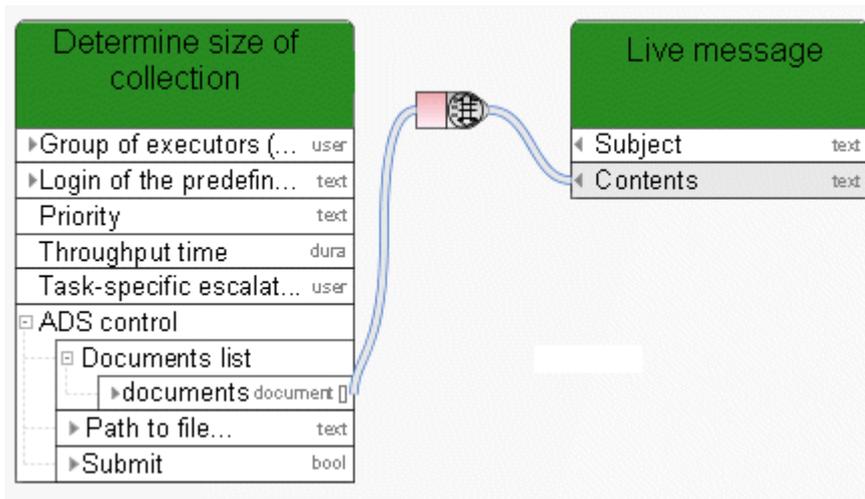


Figure 93: Determine size of collection



9.4.5 Create intersection of collections



Determines the intersection of two lists. For example, if one list contains the numbers **10**, **113**, and **127**, and a second list contains the numbers **1** and **127**, the operator returns the number **127**. The operator can be used for lists of all data types.

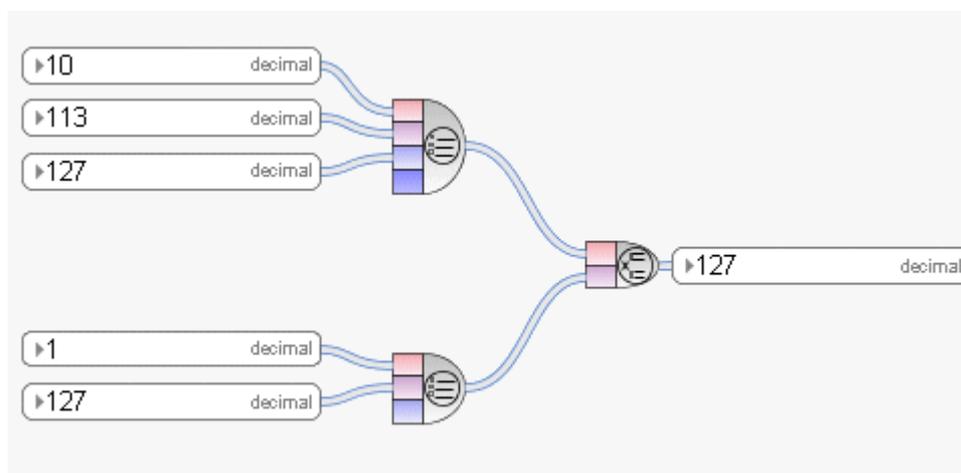


Figure 94: Create intersection of collections

9.4.6 Format lines



Creates a new string from collections. The string contains all objects of the collections separated by commas while maintaining the original order.

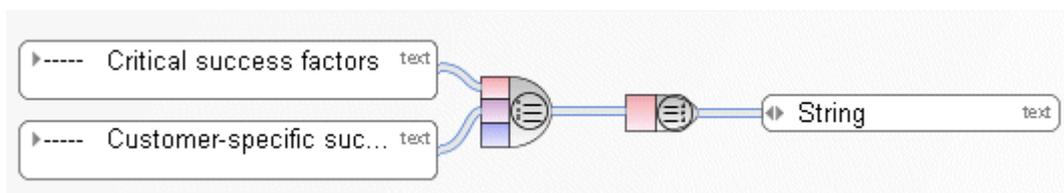


Figure 95: Transform collection into string



9.4.7 Validate collection

The operator checks whether a collection is valid.

 Validates a collection to check whether it is valid.

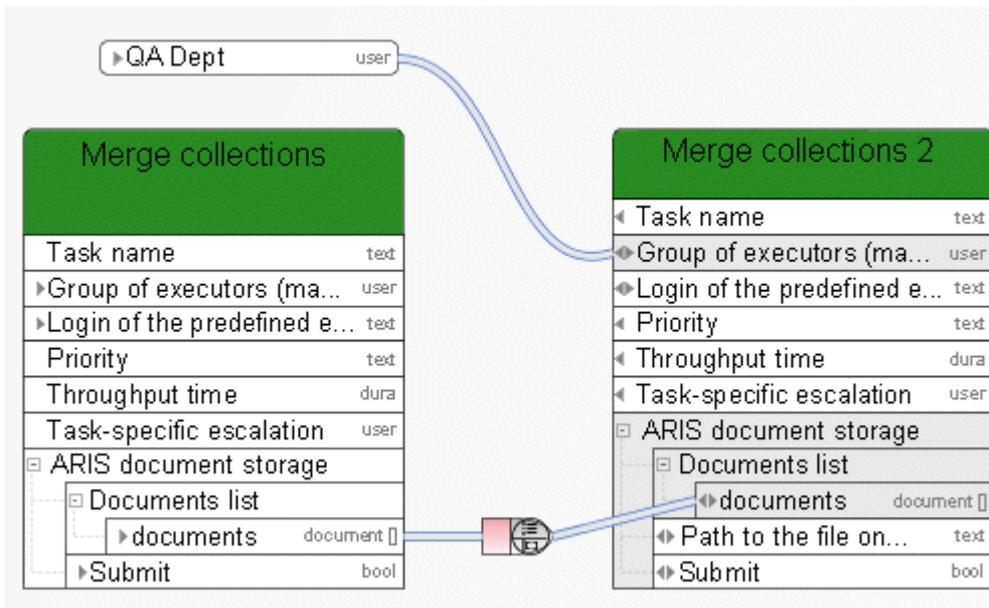


Figure 96: Validate collection

9.4.8 Merge collections

 Creates a new collection (list, data series) of objects of the same type from two individual collections of objects of the same type. The new collection contains all objects while maintaining the original order. The objects of the first collection start the order.

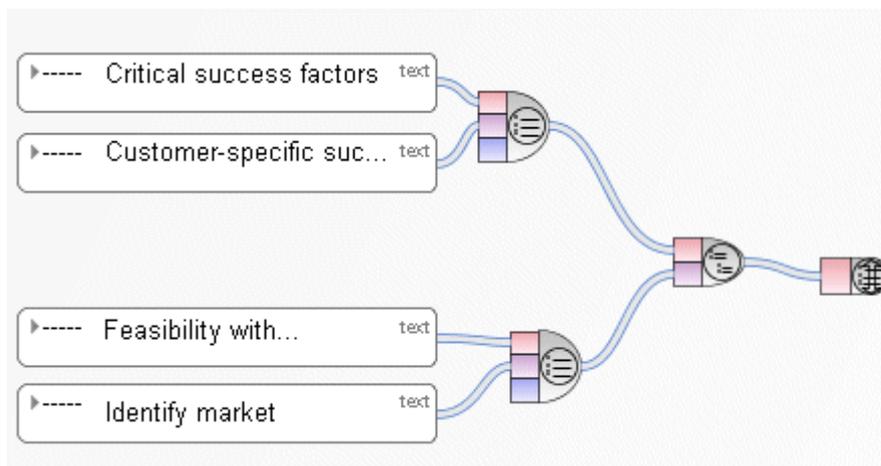


Figure 97: Merge collections



9.5 What are document operators?

9.5.1 Get document by path

The operator offers the option to access a document saved in ARIS document storage via a physical path name. To do this, the user must have been created in Administration with the required privileges. A constant of the **collection of strings** type is used as the input data containing the location of the document in ARIS document storage, while the output data is of the **collection of documents** type.

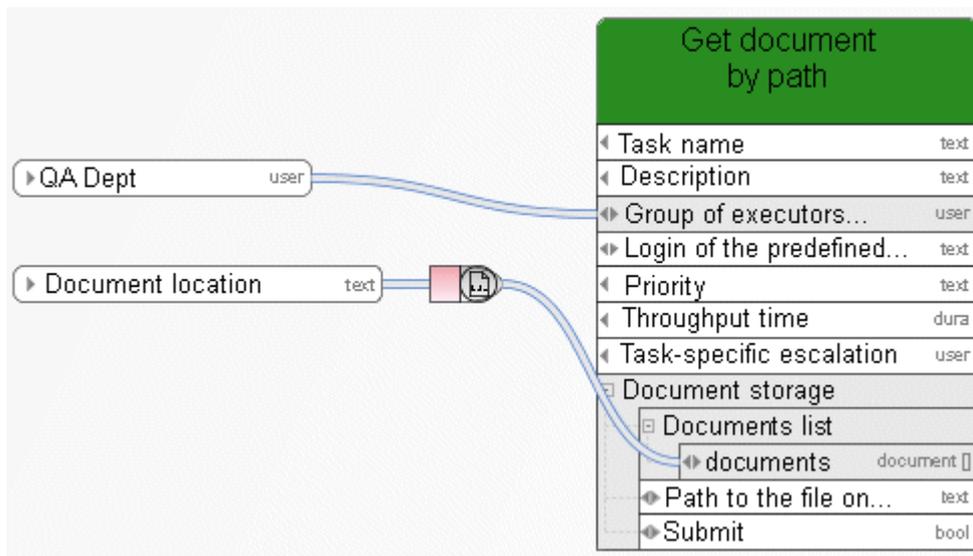


Figure 98: Get document by path

9.5.2 Get document metadata

All metadata is retrieved that can be placed with a constant of the type **Document metadata**, such as file name, title, or version number.

To specify the document, a connection is drawn to the first slot of the operator, and another connection is drawn to the second slot to specify the corresponding field in the document metadata.

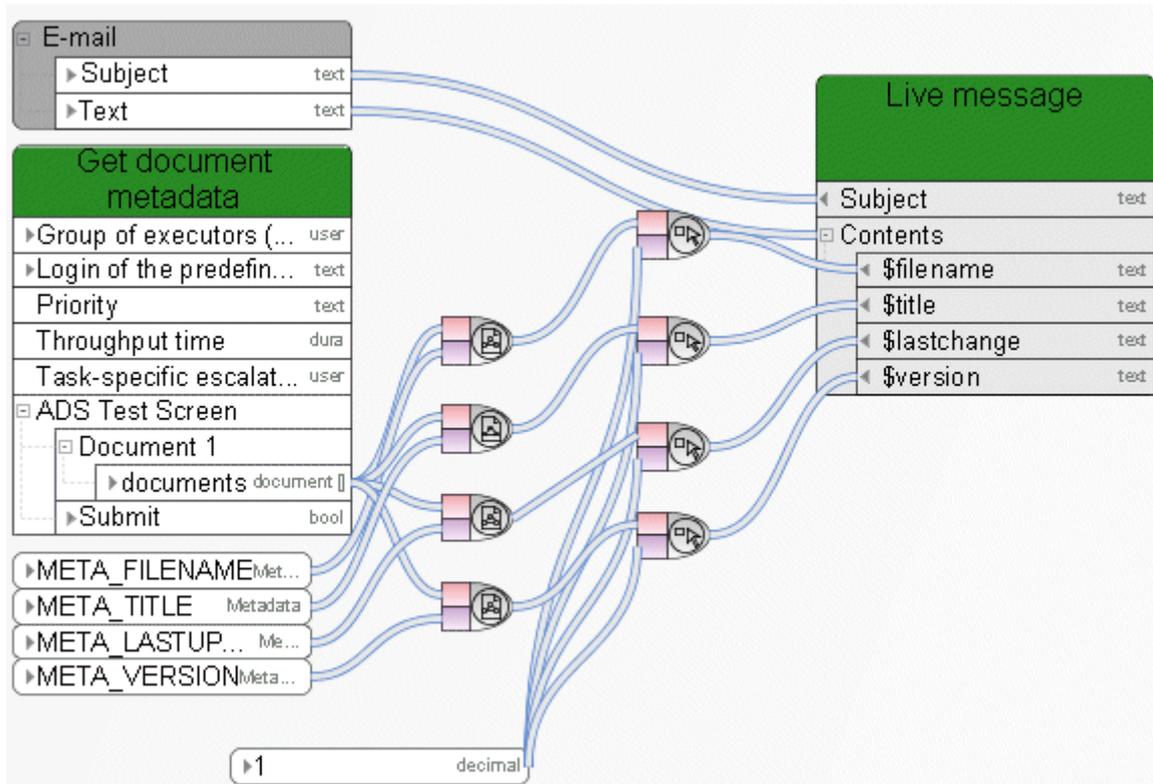


Figure 99: Get document metadata

9.5.3 Filter documents

 You can mark documents in ARIS document storage with tags. With this operator, you can filter a list of documents by name, version, and tag.

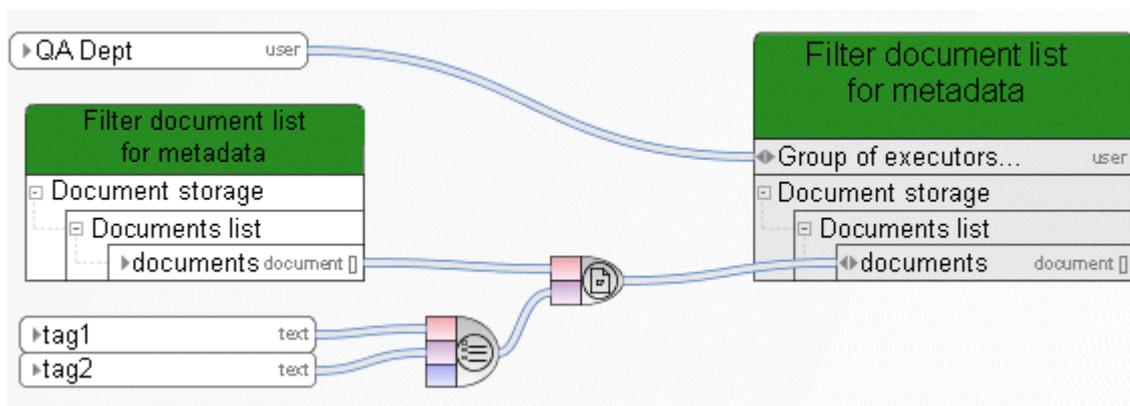


Figure 100: Filter documents



9.5.4 Generate http link for document



Creates an HTTP link for a document or a list of documents saved in ARIS document storage. Input data is a list of documents, output data is a list of hyperlinks.

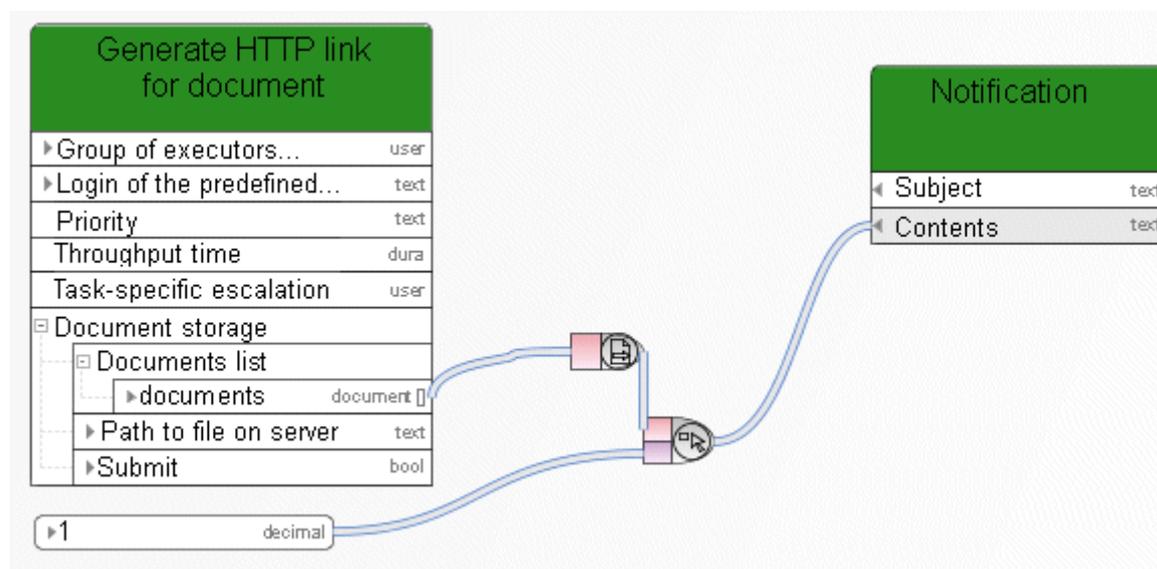


Figure 101: Generate http link for document

9.6 Data elements

9.6.1 Path to Process Board



This operator returns the path to Process Board.

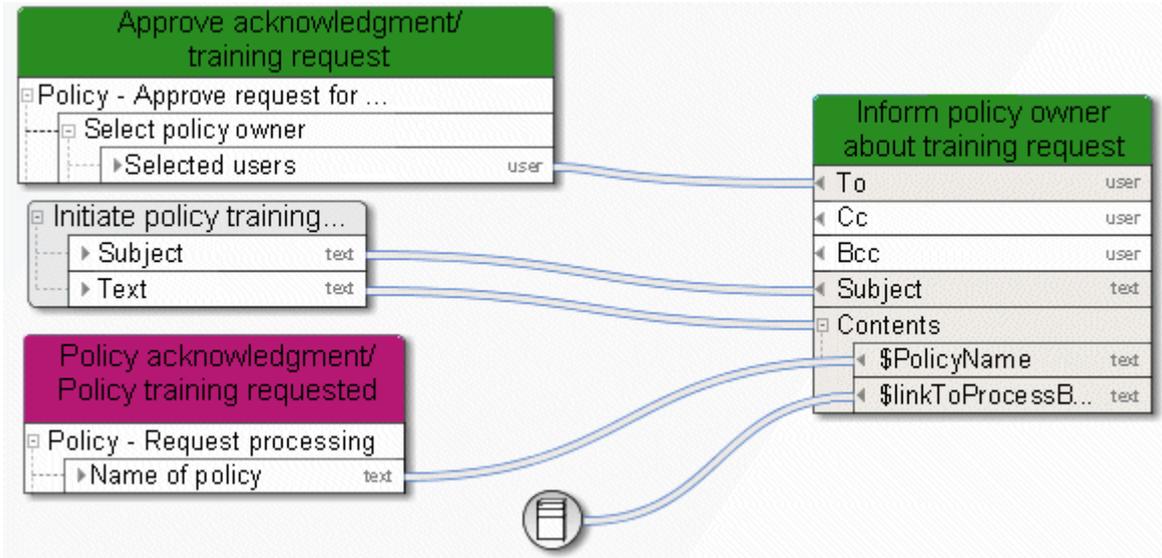


Figure 102: Path to Process Board

9.6.2 Get timestamp



This operator returns the current timestamp of the server (Date - Time) as UTC time. **Coordinated Universal Time**, refers to the coordinated global time.

You can calculate the Central European Time (CET) from the UTC time by adding an hour to it. For the Central European Summer Time (CEST) you must add 2 hours.

The **Convert timestamp or date to human readable text** (Page 153) operator converts a UTC time to the time that corresponds with your time zone.

Please note: The server's timestamp may differ from the client's timestamp.

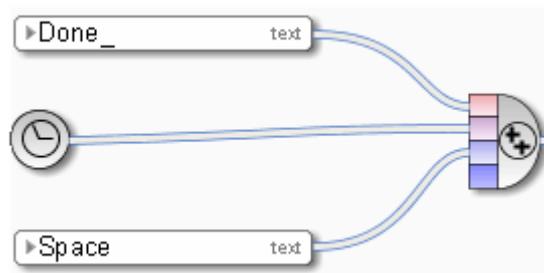


Figure 103: Get timestamp



9.7 Miscellaneous operators

9.7.1 Check existence in Administration



The operator checks whether the user or user group exists in Administration. The input data is a scalar value representing either a user or a user group. If the user or user group exists in Administration, the operator returns **TRUE**. Otherwise, it returns **FALSE**.

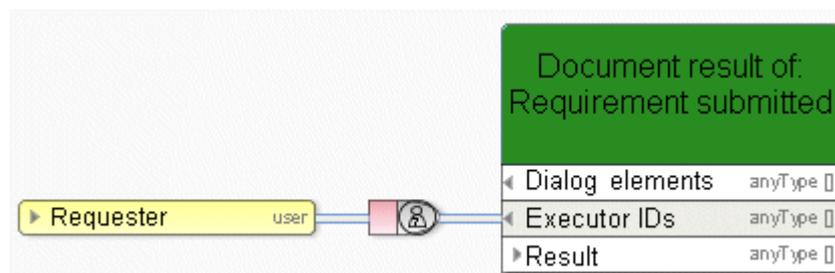


Figure 104: Check existence in Administration

9.7.2 Determine user via e-mail/login name



This operator determines the user with a specific name, user name, or e-mail address (standard SMTP e-mail address of the **text** type, e. g., peter.smith@company.com). The data is searched in this order: user name (person), e-mail address (person), name (role), name (organizational unit). If this input data is unknown, the operator creates a new user. Output of the operator is a reference to this user, which can be used as input for tasks of the type **Notification** (To, Cc, Bcc) or **Human task** (group of executors).

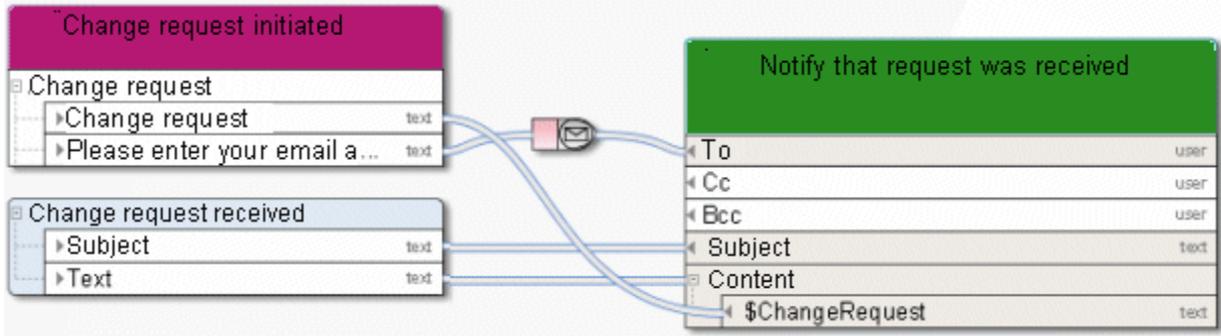


Figure 105: Determine user via e-mail/login name

9.7.3 Get committed resource



This operator accepts automation-relevant organizational elements (e. g., roles) as input and returns the persons who belong to these organizational elements and who participated in the workflow.

Example: The role **Modeler** consists of five members, but only one of these members has processed all of the **Human tasks** assigned to this role. Thus, this user is the only output of the operator **Get committed resource**.

This operator is automatically created when a data flow of a notification function is created and the connected organizational element has the attribute **Only inform people involved** (connection type **Must be informed about**).

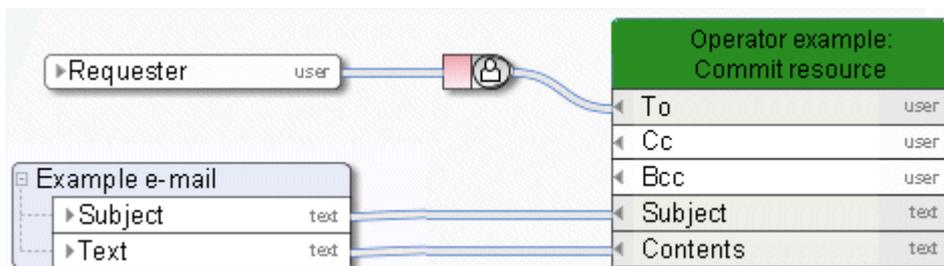


Figure 106: Get committed resource



9.7.4 Get participant name

 This operator converts the technical representation of an executor into their name.

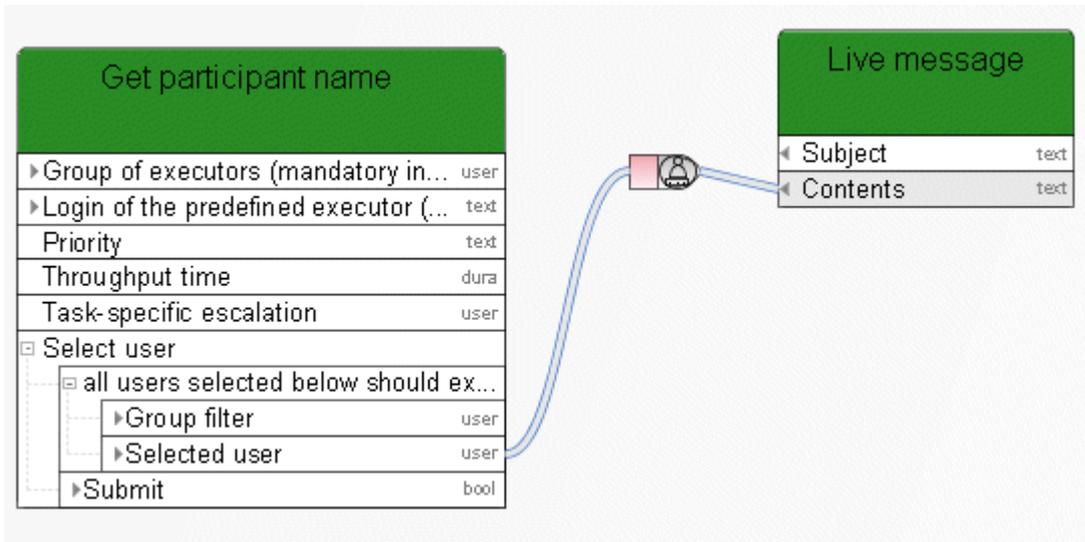


Figure 107: Get participant name

9.7.5 Concatenate

 Textual concatenation of values; here the concatenation between the result from the **Automated** task and the value of the variable **Log of entire history**.

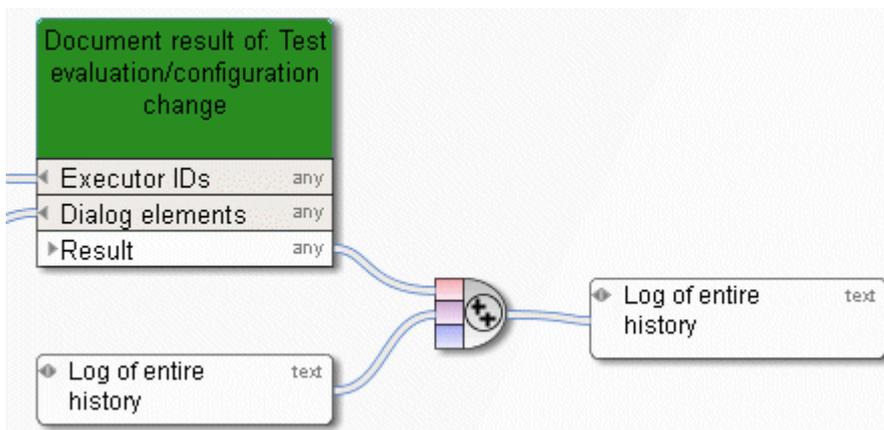


Figure 108: Concatenate



9.7.6 Convert timestamp or date to human readable text



This operator converts a Base64-encoded timestamp or a date into a readable string.

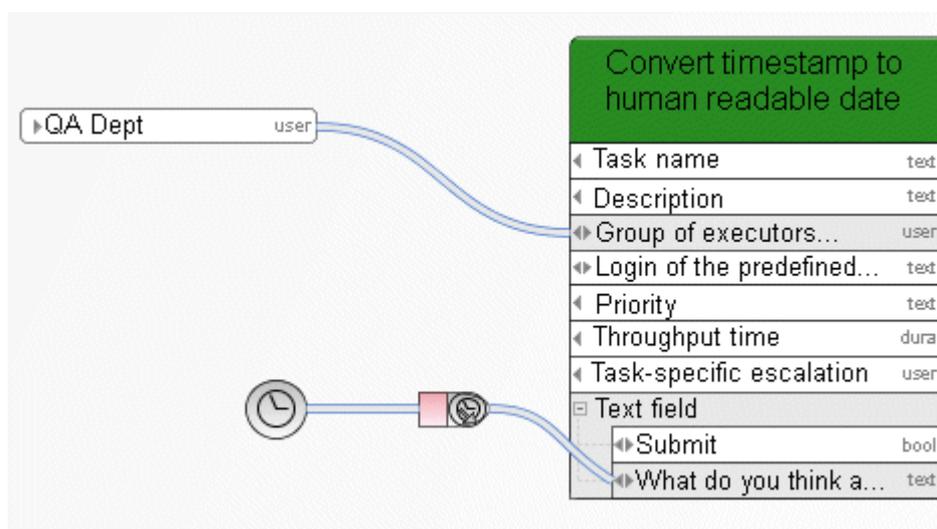
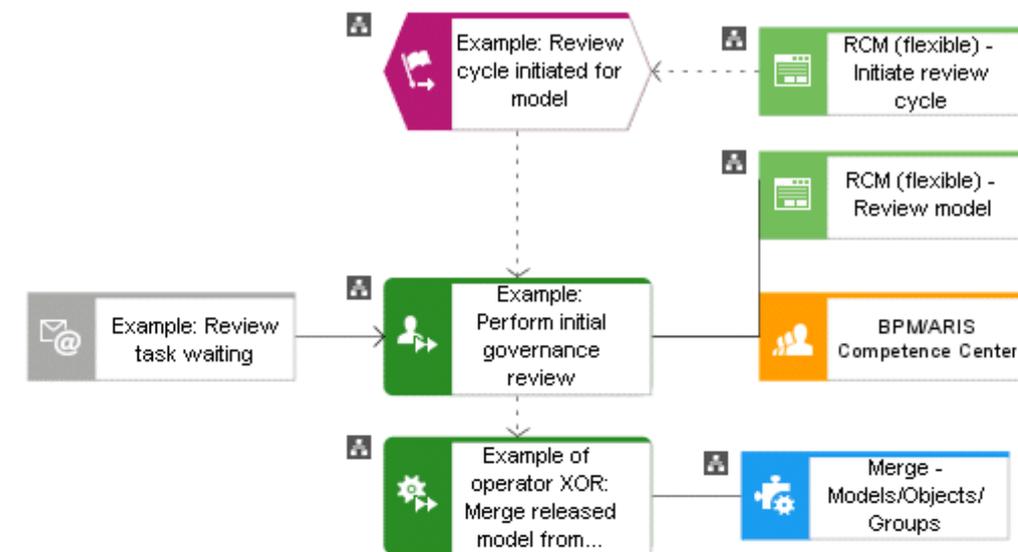


Figure 109: Convert timestamp or date to human readable text



9.7.7 XOR operator

Exclusive OR (XOR): Uses the first available input
 The database name is determined by either the **Human task** (priority 1) or – if this returns no value – by **Event** (process instance started).



Example of XOR operator: Merge released model from review database into release database

released model from Review into Release database	
Database name	text
* Database language	text
User login	text
Password	password
Selected items	
* Identification	text []
* Target database	text
Merge attributes	bool
Assignment level	decimal
Assignment outside...	bool
Connection outside...	bool
Models: Source over...	bool

Figure 110: XOR



9.7.8 Calculate time



This operator calculates an end date based on a start date and a duration.

A **Timer event** is delayed by 18 hours up from the point in time that the process instance reached this event.

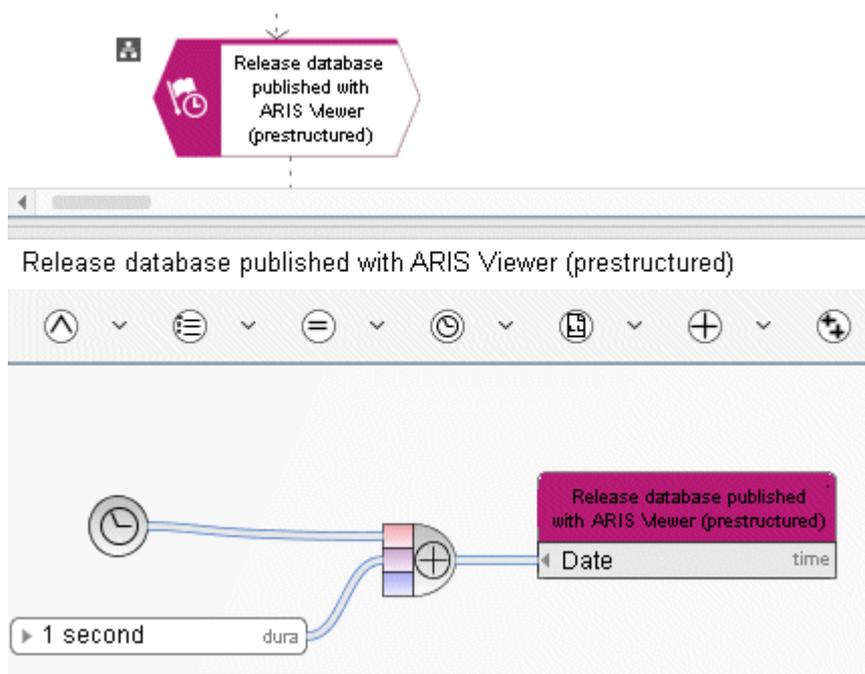


Figure 111: Calculate time



10 Constants

Constants are data sources with a fixed value. The value is not calculated at runtime, but rather at design time when the user models the process. Constants are only evaluated once during the creation of an executable process.

The value of a constant is not language-dependent. If the value of a constant should be language-dependent, please do not enter a value. In this case, the value of the constant is extracted from the name. The name is always language-dependent.

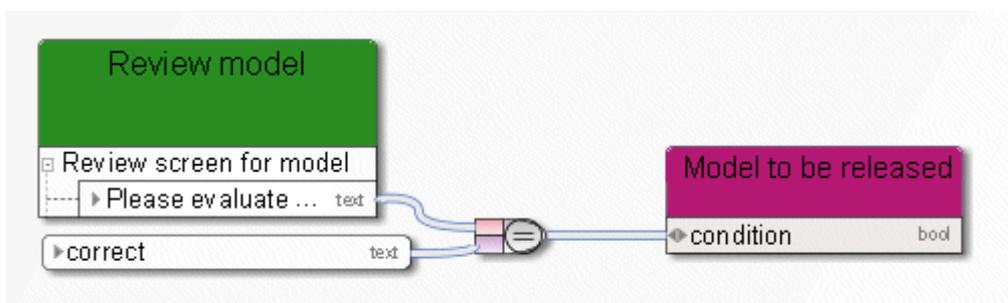


Figure 112: Constants



11 Variables

Variables are task-independent data placeholders. A function or an event can store a value in a variable, and another function or event can extract and use this value in a later process step.

Example:

When a process is started, the executing user enters his e-mail address into the start dialog. The content from the e-mail text field of the variable is assigned in the assigned data flow of **Event (process instance started)**. Later, the e-mail address stored in the variable is used as input for subsequent notification functions, in order to provide the executing user with information about the status of the process.

11.1 Instance variable

This is the most common application of variables. The content (value) of the variables is shared by all activities of the currently active process instance. This variable can have a different value in each running process instance.

Example:

In variables of the **String** type, information on which user entered what comment while editing a task is constantly updated.

11.2 Process variable

All activities in all instances of the currently active executable process share the content (value) of these variables.

Example:

A counter that is incremented by one each time a process instance starts and decremented by one when a process instance terminates. The variable reflects the number of currently active process instances.

11.3 System variable

All functions in all executable processes and all their currently active instances share the content (value) of these variables. All activities can access this value directly.

Example:

Host name or current time.



11.4 Examples

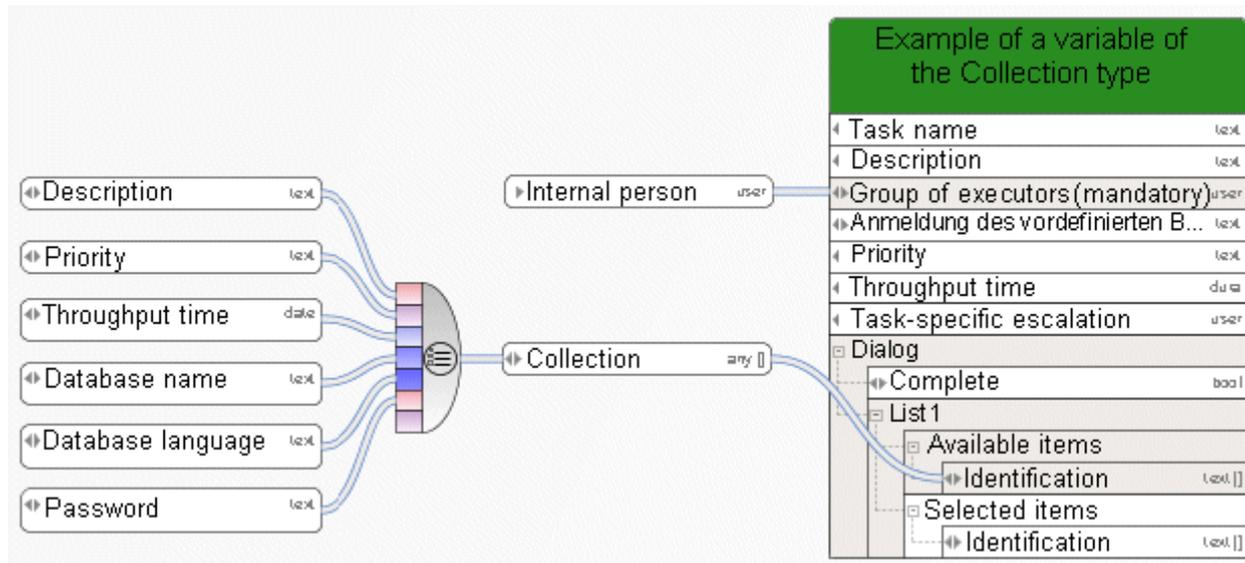


Figure 113: Example of a variable of the Collection type

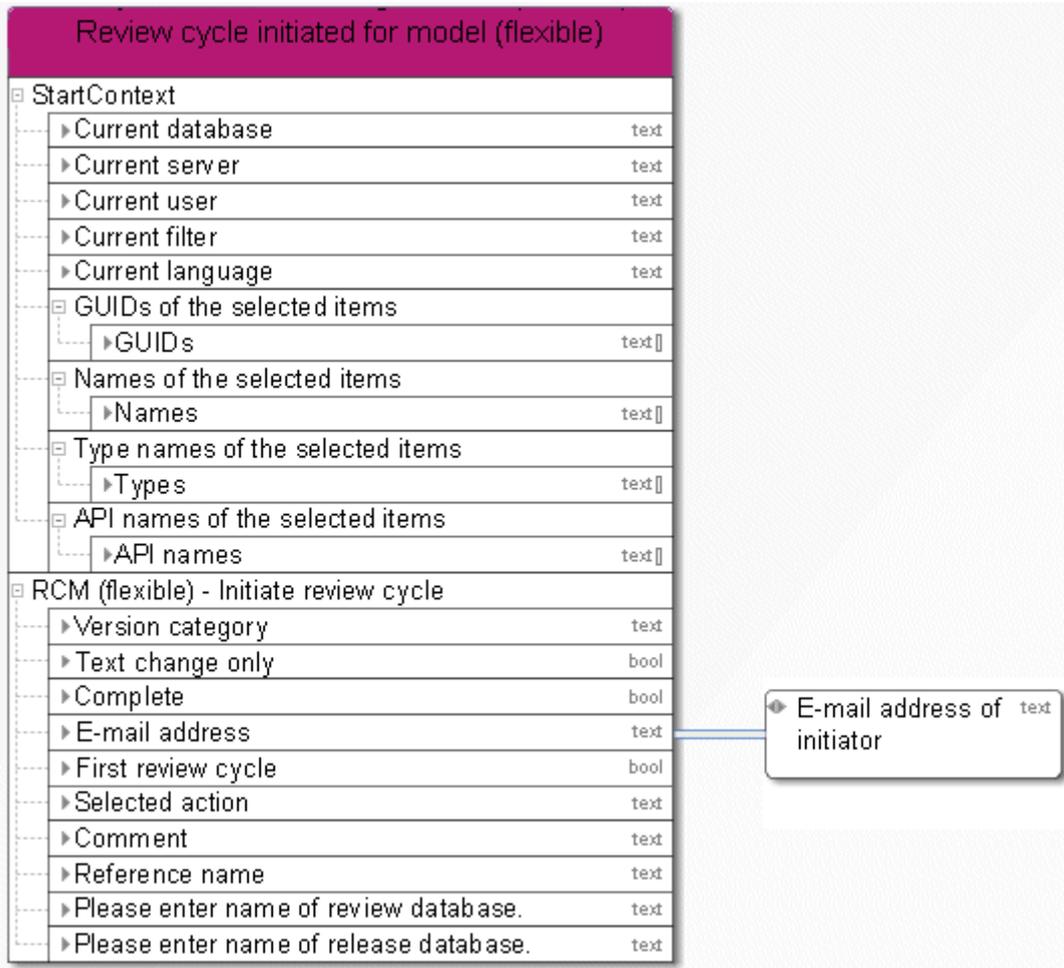


Figure 114: Example 1 - E-mail as output

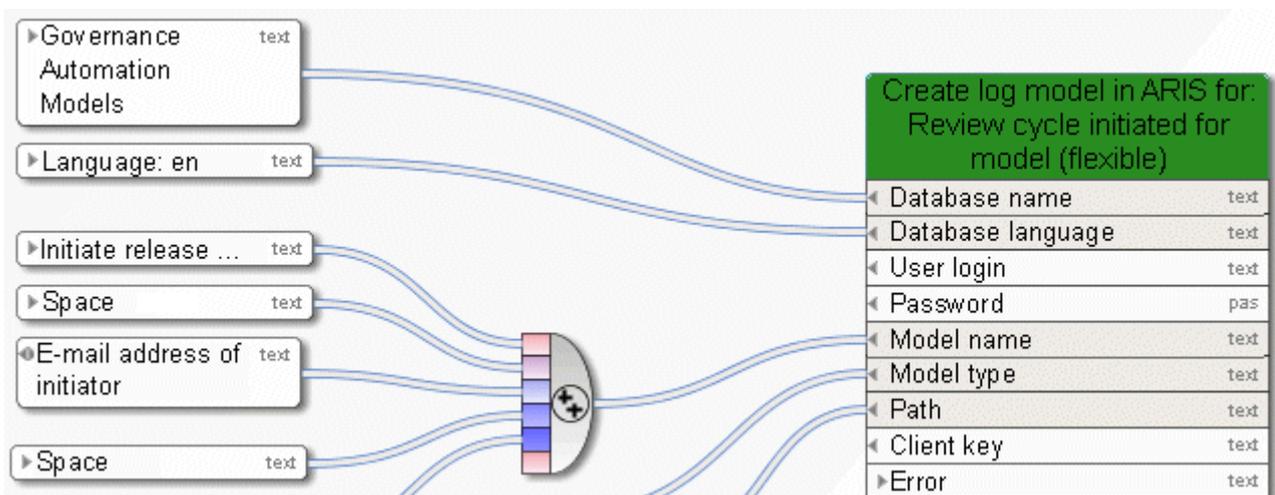


Figure 115: Example 1 - E-mail as input

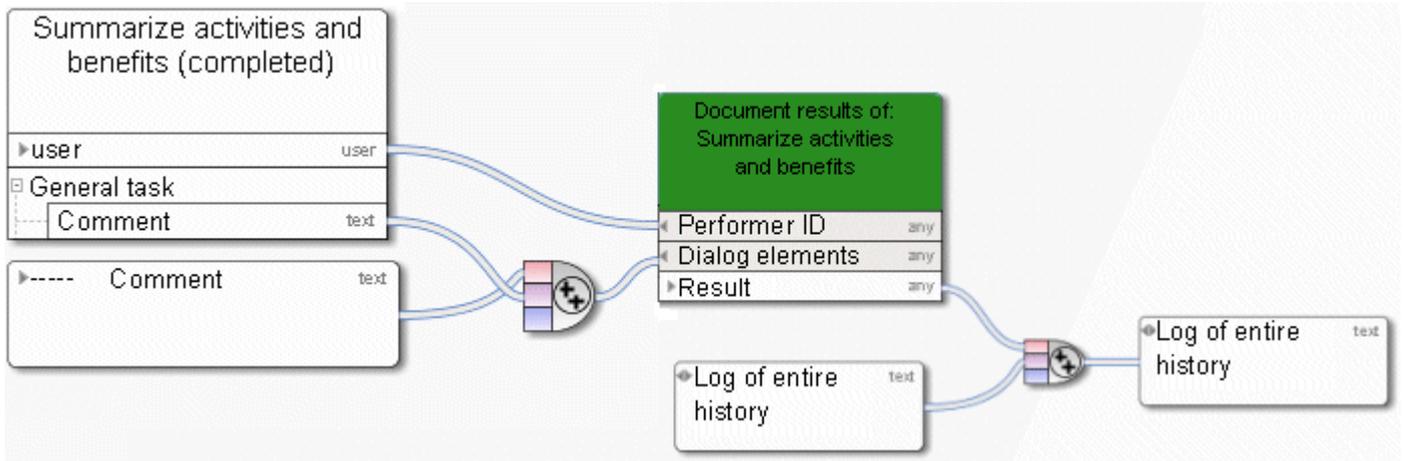


Figure 116: Example 2 – Document results of human task

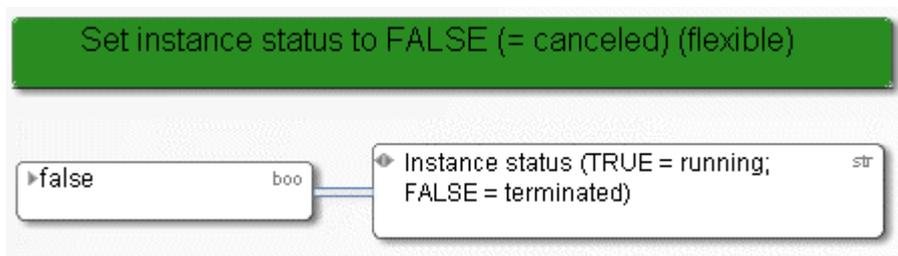


Figure 117: Example 3 – Set variable

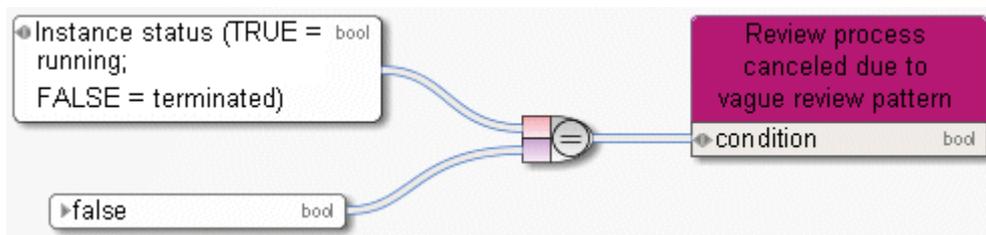


Figure 118: Example 3 – Read variable