GENESYS

Orchestration Server Developer's Guide

Elasticsearch Connector

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Contents

Elasticsearch Connector

Starting with 8.1.400.58, ORS enhances its Elasticsearch real-time reporting capabilities. Enhancments include a new Orchestration SCXML extension, elasticconnector. The purpose of elasticconnector SCXML extension is to:

- Remove management of connectivity to Elasticsearch cluster from the SCXML strategy.

- Provide simplified access to Elasticsearch APIs.

elasticconnector Action Elements

ORS supports the following new Action elements that can be used with Composer's SCXML State block:

<createindextemplate>

- Execution of this Action results in a request to Elasticsearch only if the current ORS did not execute such action with the same template name and the same or higher order.
- If the pattern in the "index" attribute matches the "performance" daily index (like "perf*", "performance-*", and so on), the Action will fail with the appropriate error and error description.
- If the pattern in the "index" attribute matches the "session" daily index and "order" is defined as 0, the Action will fail with the appropriate error and error description. As a general rule – the template always has order=0 and only one template is created per "session" and "performance" indexes; custom templates always have to have order>0.

[+] createindextemplate

Name	Required	Type	Def. value	Valid values	Description
requestid	False	Location expression	none	Any valid location expression, which represents a string.	This is the location for the request ID that is returned as part of this request. Standard attribute of all Orchestration actions.
name	True	Value expression	none	Any value expression that returns a valid string.	template name
index	True	Value expression	none	Any value expression that returns a valid string.	Elasticsearch index name (pattern).

order	False	Value expression	0	Any value expression that returns a valid integer.	Elasticsearch template order.
type	True	Value expression	none	Any value expression that returns a valid string.	Elasticsearch type name.
mapping	True	Value expression	none	Any valid ECMAScript object.	Object that represents the whole body of Elasticsearch property of `mappings.type` in the mapping request.
timeout	False	Value expression	0	Any value expression that returns a valid integer.	The integer returned must be interpreted as a time interval in milliseconds. This interval begins when action is executed. A failed and timed out fetch returns the `error.elasticconnector.createindex` event.

<createdoc>

Execution of this Action results in an add document request from ORS to Elasticsearch (via the index API).

[+] createdoc

Name	Required	Type	Def. value	Valid values	Description
requestid	false	Location expression	none	Any valid location expression which represents a string.	This is the location for the request ID that is returned as part of this request. Standard attribute of all Orchestration actions.
id	false	Value expression	none	Any value expression that returns a valid string	Elasticsearch document within an index. If not specified, an ID will be automatically generated. Explicit ID assignment and automatic ID generation cannot be mixed within same index.
index	true	Value expression	none	Any value expression that returns a valid string.	Elasticsearch index name

type	true	Value expression	none	Any value expression that returns a valid string.	Elasticsearch type name
request	true	Value expression	none	Any valid ECMAScript object	Object that represents the whole body of an Elasticsearch create document API request.
bulk	false	Boolean expression	false	true,false	If true, Elasticsearch request will be just added to the ORS bulk request buffer and the `elasticconnector.createdoc.done` event will be raised immediately. If false, a request to create document will be sent to Elasticsearch and the corresponding event and `elasticconnector.createdoc.done` or `error.elasticconnector.createdoc` will be raised after a response from Elasticsearch.
timeout	false	Value expression	0	Any value expression that returns a valid integer.	The integer returned must be interpreted as a time interval in milliseconds. This interval begins when action is executed. A failed and timed out fetch returns the `error.elasticconnector.createdoc` event.
settings	false	Value expression	none	Any valid ECMA script object.	Object that represents the body of the Elasticsearch /_settings index API request.

The `settings` attribute has been introduced in version 8.1.400.64. For more information, see ORS Options for Elasticsearch 5.3, Index Settings for Custom Indexes section.

<updatedoc>

Execution of this Action results in an update document request from ORS to Elasticsearch (via update API).

[+] updatedoc

Name	Required	Type	Def. value	Valid values	Description
requestid	false	Location expression	none	Any valid location expression which represents a string.	This is the location for the request ID that is returned as part of this request. Standard attribute of all Orchestration actions.

id	true	Value expression	none	Any value expression that returns a valid string.	Elasticsearch document ID within an index.
index	false	Value expression	Current session daily index.	Any value expression that returns a valid string.	Elasticsearch index name. If not specified, current session daily index will be used. Also, in this case, the type attribute must be not specified, or the action will fail.
type	false	Value expression	"session"	Any value expression that returns a valid string.	Elasticsearch type name. If not specified, the "index" attribute should be not specified as well and "session" type will be used.
request	true	Value expression	none	Any valid ECMAScript object	Object that represents the whole body of an Elasticsearch update document API request.
bulk	false	Boolean expression	true	true,false	If true, Elasticsearch request will be just added to the ORS bulk request buffer and elasticconnector.updatedoc.done event will be raised immediately. If false, a request to update document will be sent to Elasticsearch and corresponding event elasticconnector.updatedoc.done or error.elasticconnector.updatedoc will be raised after response from Elasticsearch.
timeout	false	Value expression	0	Any value expression that returns a valid integer.	The integer returned is interpreted as a time interval in milliseconds. This interval begins when the action is executed. A failed and timed out fetch returns the error.elasticconnector.updatedoc event.
settings	false	Value expression	none	Any valid ECMA script object.	Object that represents the body of the Elasticsearch /_settings index API request.

The settings attribute has been introduced in version 8.1.400.64. For more information, see ORS Options for Elasticsearch 5.3, Index Settings for Custom Indexes section.

<deletedoc>

Execution of this Action results in a delete document request from ORS to Elasticsearch (via delete API).

[+] deletedoc

Name	Required	Type	Def. value	Valid values	Description
requestid	false	Location expression	none	Any valid location expression which represents a string.	This is the location for the request ID that is returned as part of this request. Standard attribute of all Orchestration actions.
id	true	Value expression	none	Any value expression that returns a valid string.	Elasticsearch document ID within an index.
index	true	Value expression	none	Any value expression that returns a valid string.	Elasticsearch index name
type	true	Value expression	none	Any value expression that returns a valid string.	Elasticsearch type name
bulk	true	Boolean expression	true	true,false	If true, Elasticsearch request will be added to ORS bulk request buffer and `elasticconnector.deletedoc.done` will be raised immediately. If false, request to delete document will be sent to Elasticsearch and corresponding `elasticconnector.deletedoc.done` or `error.elasticconnector.deletedoc` event will be raised after a response from Elasticsearch.
timeout	false	Value expression	0	Any value expression that returns a valid integer.	The integer returned is interpreted as a time interval in milliseconds. This interval begins when the action is executed. A failed and timed out fetch returns the `error.elasticconnector.deletedoc` event.

Events

The following Events are supported:

[+] Events

}

Name	Attributes	Description
elasticconnector.createindextemplate.done		This event indicates the success of the request.
	requestid	This is the ID of the request.
error.elasticconnector. createindextemplate		This indicates that an error occurred while trying to perform the createindextemplate request.
	requestid	This is the ID associated with the request.
	error	This is the type of error that occurred. The following is a specific error code: protocol.errorcode - This represents the protocol-specific errors that occur when the attempting the request.
	description	This is a more detailed description of the error
elasticconnector.createdoc.done		This event indicates the success of the request.
	id	This is ID of created document.
	requestid	This is the ID of the request.
error.elasticconnector.createdoc		This indicates that an error occurred while trying to perform the createdoc request.
	requestid	This is the ID associated with the request.
	error	This is the type of error that occurred. The following is a specific error code: protocol.errorcode - This represents the protocol-specific errors that occur when the attempting the request.
	description	This is a more detailed description of the error

elasticconnector.updatedoc.done		This event indicates the success of the request.
	Requestid	This is the ID of the request.
error.elasticconnector.updatedoc		This indicates that an error occurred while trying to perform the updatedoc request.
	Requestid	This is the ID associated with the request.
	Error	This is the type of error that occurred. The following is a specific error code: protocol.errorcode - This represents the protocol-specific errors that occur when the attempting the request.
	Description	This is a more detailed description of the error
elasticconnector.deletedoc.done		This event indicates the success of the request.
	Requestid	This is the ID of the request.
error.elasticconnector.deletedoc		This indicates that an error occurred while trying to perform the deletedoc request.
	Requestid	This is the ID associated with the request.
	Error	This is the type of error that occurred. The following is a specific error code: protocol.errorcode - This represents the protocol-specific errors that occur when the attempting the request.
	Description	This is a more detailed description of the error