



# **TIBCO Flogo<sup>®</sup> Connector for MongoDB**

## **User's Guide**

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# TIBCO Documentation and Support Services

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## How to Access TIBCO Documentation

Documentation for TIBCO products is available on the TIBCO Product Documentation website, mainly in HTML and PDF formats.

The TIBCO Product Documentation website is updated frequently and is more current than any other documentation included with the product. To access the latest documentation, visit <https://docs.tibco.com>.

## Product-Specific Documentation

The following documentation for this product is available on the [TIBCO Flogo® Connector for MongoDB](#) Product Documentation page.

- *TIBCO Flogo® Connector for MongoDB Release Notes*
- *TIBCO Flogo® Connector for MongoDB Installation*
- *TIBCO Flogo® Connector for MongoDB User's Guide*

## How to Contact TIBCO Support

You can contact TIBCO Support in the following ways:

- For an overview of TIBCO Support, visit <http://www.tibco.com/services/support>.
- For accessing the Support Knowledge Base and getting personalized content about products you are interested in, visit the TIBCO Support portal at <https://support.tibco.com>.
- For creating a Support case, you must have a valid maintenance or support contract with TIBCO. You also need a user name and password to log in to <https://support.tibco.com>. If you do not have a user name, you can request one by clicking Register on the website.

## How to Join TIBCO Community

TIBCO Community is the official channel for TIBCO customers, partners, and employee subject matter experts to share and access their collective experience. TIBCO Community offers access to Q&A forums, product wikis, and best practices. It also offers access to extensions, adapters, solution accelerators, and tools that extend and enable customers to gain full value from TIBCO products. In addition, users can submit and vote on feature requests from within the [TIBCO Ideas Portal](#). For a free registration, go to <https://community.tibco.com>.

# Overview

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MongoDB is a NoSQL, document-oriented database that uses JSON-like documents to store, retrieve, and manage the information. TIBCO Flogo<sup>®</sup> Connector for MongoDB is used to insert, query, update and delete documents from a collection in the MongoDB database. It also provides a trigger to listen to the events or actions performed on the MongoDB collections.

You can use the following trigger and activities in your flow:

- MongoDB Trigger
- MongoDB Query Document
- MongoDB Insert Document
- MongoDB Update Document
- MongoDB Remove Document



For information about how to use MongoDB, see the MongoDB documentation.

# Creating a MongoDB Connection

To use TIBCO Flogo® Connector for MongoDB, you must first create a MongoDB connection. The MongoDB connection contains the parameters required to connect to the MongoDB database. The MongoDB connection is used by all the activities and the trigger in the MongoDB category.

## Prerequisites

Before you create a connection, familiarize yourself with MongoDB.

## Procedure

1. In TIBCO Flogo Enterprise, click the **Connections** tab and perform one of the following actions:
  - To add a connection for the first time, click the **MongoDB** Connector tile. You can search for a connector card by typing the connector name in the search field.
  - If you have existing connections and want to add a new connection, click the **Add Connection** link.
2. In the **MongoDB Connector** dialog box, enter the connection details. For field descriptions, see the [MongoDB Connection Details](#) topic.
3. Click **Save**.

## MongoDB Connection Details

To establish the connection successfully, you must configure the TIBCO Flogo Connector for MongoDB instance.

The **MongoDB Connector** dialog box contains the following fields:

| Field                    | Description   |
|--------------------------|---|
| Connection Name          | The unique name for the connection you are creating.  |
| Description              | A short description about the connection.   |
| Connection URL           | URL of the server or host where the MongoDB instance is running.  |
| Credential Type          | Select a credential type.   |
| User Name                | This field is displayed only if you select <b>SCRAM-SHA-1</b> or <b>SCRAM-SHA-256</b> credential type.  |
| Password                 | This field is displayed only if you select <b>SCRAM-SHA-1</b> or <b>SCRAM-SHA-256</b> credential type.  |
| SSL                      | Select to enable the SSL support for the connection.  |
| x-509 Credentials        | Select the x-509 certificate for the connection. This option is displayed only if Credential Type is <b>None</b> and SSL field is enabled.        |
| Trusted Certificate File | Select a trusted certificate file. This field is displayed only if the SSL field is enabled. The supported file types are .pem,.cert, .cer, .crt. |

| Field           | Description   |
|-----------------|---|
| ClientCert File | Select a client certificate file. This is required for two-way SSL authentication. This field is displayed only if the SSL field is enabled. The supported file types are .pem, .cert, .cer, .crt.  |
| ClientKey File  | Select a key file for client certificate for two-way SSL authentication. This field is displayed only if the SSL field is enabled. The supported file types are .pem, .cert, .cer, .der, .crt, .key |
| Key Password    | Enter a password for the key file, if encrypted. This is required for two-way SSL authentication. This field is displayed only if the SSL field is enabled.   |

For details about the fields, see the MongoDB documentation. You can edit a connection by using the **Edit** button displayed on the right side of the connection list.

# MongoDB Trigger

The MongoDB trigger is used to listen on the actions or events (such as insert, update, and remove) performed on the MongoDB collections.



You cannot use this trigger if you connect to Microsoft Azure Cosmos DB using Tibco Flogo MongoDB connection. This trigger uses the ChangeStream APIs to listen to any changes to the documents in a collection in real time. ChangeStream API is supported in MongoDB from 3.6 and higher versions. However Azure Cosmos DB supports MongoDB 3.4 version only.

## Trigger Settings

The **Trigger Settings** section has the following fields:

| Field      | Description                    |
|------------|--------------------------------|
| Connection | Select the MongoDB connection. |

## Handler Settings

The **Handler Settings** section has the following fields:

| Field                   | Description   |
|-------------------------|---|
| Database Name           | Name of the database that you want to connect in the MongoDB instance.  |
| Collection              | Select a collection which you want to listen to. If this field is empty, then the trigger listens to all the collections in the Database. |
| Listen for Insert Event | Select to listen to the insert event.   |
| Listen for Update Event | Select to listen to the update event.   |
| Listen for Remove Event | Select to listen to the remove event.   |

## Output

You must map the input fields of the application flow to the Trigger's output fields in the **Map to Flow Inputs** section. The following table lists the Trigger's output schema fields:

| Field          | Type        | Description   |
|----------------|-------------|---|
| Namespace      | JSON Object | Displays the name of the collection and Database on which the event occurred.   |
| Operation Type | String      | The name of event or operation that triggered the flow.   |
| ResultDocument | JSON Object | Lists the contents of the document on which the event occurred. In case of delete event, only the ID of the document is returned. |



# MongoDB Insert Document

This activity is used to insert one or more documents into a collection in a MongoDB database.

## Settings

On the **Settings** tab, you can define the MongoDB connection, operation, database name, and collection name that must be used.

| Field             | Description  |
|-------------------|--|
| Connection        | Select an existing MongoDB connection from the connection list.  |
| Operation         | Select from the two options: <i>Insert One document</i> or <i>Insert Many documents</i> from the Operation list.   |
| Database Name     | Name of the database that you want to connect in the MongoDB instance.   |
| Collection Name   | Name of the collection in the database.  |
| Timeout           | Timeout in seconds for the activity's operations.  |
| Continue on Error | This field is displayed only if the <b>Insert Many Documents</b> option is selected as the operation. Select this field if you want to continue the insert operation even after an error occurs. |

## Input

The **Input** tab displays the input schema of the activity as a tree structure. You can provide the input values in the Flogo Connector for mapping input fields directly or use Mapper to map the input values to a field from the output of a preceding activity in the flow.

The **Input** tab has the following fields:

| Field | Type        | Description  |
|-------|-------------|--|
| data  | JSON object | A valid JSON that contains the document data to be inserted into the collection.<br><br>For example: {"location": "Palo Alto", "name": "John"}<br><br>To insert more than one document in the collection, pass a valid JSON Array. |

## Output

The **Output** tab displays the schema for the output data of this activity in a tree format. You can map the elements in the schema as input for the subsequent activities in the flow.

| Field      | Type   | Description   |
|------------|--------|---|
| insertedId | String | An unique ID of the inserted document. If you have selected <b>Insert Many operation</b> , then a list of inserted IDs is returned. |

| Field        | Type   | Description  |
|--------------|--------|--|
| totalCount   | number | The total number of documents specified in the activity's input for the insert operation. Shown only if you have selected <b>Insert Many operation</b> . |
| successCount | number | The total number of documents successfully inserted in the collection. Shown only if you have selected <b>Insert Many operation</b> .                    |
| failureCount | number | The number of documents that were not inserted in the collection. Shown only if you have selected <b>Insert Many operation</b> .                         |

## Loop

If you would like this activity to iterate multiple times within the flow, enter an expression that evaluates to the iteration details. Select a type of iteration from the Type menu. The default type is None, which means the activity will not iterate. Refer to the "Using the Loop Feature in an Activity" topic in the TIBCO Flogo® Enterprise.

# MongoDB Query Document

This activity is used to retrieve one or more documents from the MongoDB database using a JSON-like query.

## Settings

| Field           | Description  |
|-----------------|--|
| Connection      | Select an existing MongoDB connection from the connection list.  |
| Operation       | Select from the two options: <i>Find One Document</i> or <i>Find Many Documents</i> from the Operation list. |
| Database Name   | Name of the database that you want to connect in the MongoDB instance.                                       |
| Collection Name | Name of the collection in the database.  |
| Timeout         | Timeout in seconds for the activity's operations.  |

## Input

The **Input** tab displays the input schema of the activity as a tree structure. You can provide the input values in the Flogo Connector for MongoDB mapping input fields directly or use Mapper to map the input values to a field from the output of a preceding activity in the flow.

The **Input** tab has the following fields:

| Field    | Type        | Description  |
|----------|-------------|--|
| criteria | JSON object | <p>A valid JSON that contains one or more fields to match with the documents in a collection.</p> <p>For example: <code>{"_id": {"\$oid": "5d91dd471c9d440000f7aba0"}, "location": "Palo Alto", "name": "John"}</code></p> <p>This activity searches for the documents that match the criteria and returns the output.</p> |

## Output

The **Output** tab displays the schema for the output data of this activity in a tree format. You can map the elements in the schema as input for the subsequent activities in the flow.

| Field    | Description   |
|----------|---|
| response | A JSON object containing the details of those documents that match the criteria in the activity's input. If you have selected the <b>Find Many Documents</b> operation type, then a JSON array of matching documents is returned. |

## Loop

If you would like this activity to iterate multiple times within the flow, enter an expression that evaluates to the iteration details. Select a type of iteration from the Type menu. The default type is

None, which means the activity will not iterate. Refer to the "Using the Loop Feature in an Activity" topic in the TIBCO Flogo<sup>®</sup> Enterprise.

# MongoDB Remove Document

This activity is used to remove one or more documents from a collection in a MongoDB database using a JSON-like query.


## Settings

| Field           | Description  |
|-----------------|--|
| Connection      | Select an existing MongoDB connection from the connection list.  |
| Operation       | Select from the two options: <i>Remove One Document</i> or <i>Remove Many Documents</i> from the Operation list. |
| Database Name   | Name of the database that you want to connect in the MongoDB instance.   |
| Collection Name | Name of the collection in the database.  |
| Timeout         | Timeout in seconds for the activity's operations.  |

## Input

The **Input** tab displays the input schema of the activity as a tree structure. You can provide the input values in the Flogo Connector for MongoDB mapping input fields directly or use Mapper to map the input values to a field from the output of a preceding activity in the flow.

The **Input** tab has the following fields:

| Field    | Type        | Description  |
|----------|-------------|--|
| criteria | JSON object | <p>A valid JSON that contains one or more fields that match the documents in a collection.</p> <p>For example: <code>{"_id": {"\$oid": "5d91dd471c9d440000f7aba0"}, "location": "Palo Alto", "name": "John"}</code></p> <div>  <p>To delete all the documents in a collection, pass an empty JSON object like <code>{}</code> as the value for criteria and select <b>Remove Many Documents</b> as the Operation type in the settings tab.</p> </div> |

## Output

The **Output** tab displays the schema for the output data of this activity in a tree format. You can map the elements in the schema as input for the subsequent activities in the flow.

The **Output** tab has the following fields:

| Field        | Description                                |
|--------------|--|
| deletedCount | The number of documents that were deleted. |

## Loop

If you would like this activity to iterate multiple times within the flow, enter an expression that evaluates to the iteration details. Select a type of iteration from the Type menu. The default type is None, which means the activity will not iterate. Refer to the "Using the Loop Feature in an Activity" topic in the TIBCO Flogo® Enterprise.

# MongoDB Update Document

This activity is used to update one or more documents and replace a particular document in a collection of the MongoDB database using a JSON like query.


## Settings

| Field           | Description  |
|-----------------|--|
| Connection      | Select an existing MongoDB connection from the Connection list.  |
| Operation       | Select from the three options: <i>Update One Document</i> , <i>Update Many Documents</i> or <i>Replace One Document</i> from the Operation list. |
| Database Name   | Name of the database that you want to connect in the MongoDB instance  |
| Collection Name | Name of the collection in the database.  |
| Timeout         | Timeout in seconds for the activity's operations.  |

## Input

The **Input** tab displays the input schema of the activity as a tree structure. You can provide the input values in the Flogo Connector for MongoDB mapping input fields directly or use Mapper to map the input values to a field from the output of a preceding activity in the flow.

The **Input** tab has the following fields:

| Field      | Type        | Description  |
|------------|-------------|--|
| criteria   | JSON object | <p>A valid JSON that contains one or more fields that matches the documents in a collection for update operation.</p> <div>  <p>To update all the documents in a collection, pass an empty JSON object such as {} as the value for criteria and select <b>Update Many Documents</b> as the Operation type in the settings tab.</p> </div> |
| updateData | JSON object | A JSON that contains the data that is used to update the documents identified by the criteria input field.   |

## Output

The **Output** tab displays the schema for the output data of this activity in a tree format. You can map the elements in the schema as input for the subsequent activities in the flow.

The **Output** tab has the following fields:

| Field        | Description   |
|--------------|---|
| matchedCount | Returns the total number of documents that matched the criteria for update. |
| updatedCount | Returns the total number of documents that were updated.                    |

**Loop**

If you would like this activity to iterate multiple times within the flow, enter an expression that evaluates to the iteration details. Select a type of iteration from the Type menu. The default type is None, which means the activity will not iterate. Refer to the "Using the Loop Feature in an Activity" topic in the TIBCO Flogo® Enterprise.