Informatica®

Informatica® Cloud Data Integration

Box Connector

Informatica Cloud Data Integration Box Connector
April 2024

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Preface

Use *Box Connector* to learn how to read from or write to Box by using Cloud Data Integration. Learn to create a connection, develop mappings, synchronization tasks, and run synchronization and mapping tasks in Cloud Data Integration.

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CHAPTER 1

Introduction to Box Connector

You can use Box Connector to securely connect to Box from Data Integration.

Box is a cloud-based file storage and content management service for enterprises. You can use Box to securely store, manage, and share files in your enterprise. The users in the enterprise can set access permissions to content in Box and collaborate seamlessly.

You can use Box Connector to upload, download, or delete files and folders in Box. You can read data from or write data to CSV files in Box. You can specify a search string to search Box based on name, description, content, comments, or tags.

When you read data from CSV files or write data to CSV files in Box, you can specify the Hosted Agent or the Secure Agent. The agent connects to Box through OAuth after authenticating user credentials.

You can use Box objects as sources and targets in synchronization tasks, mappings, and mapping tasks. When you run a synchronization task or a mapping task, the agent uses the Box API to perform the specified operation.

Box Connector task and object types

When you use Box Connector, you can include the following Data Integration assets:

- Data transfer task
- Mapping
- Mapping task
- Synchronization task

For more information about configuring assets and transformations, see *Mappings*, *Transformations*, and *Tasks* in the Data Integration documentation.

Operations with Box objects

You can use a Box connection to perform the following operations with Box objects:

Box sources

- Read data from CSV files in Box.
- Search objects in Box.

Box targets

- Delete files and folders in Box.
- Download objects from Box.
- Upload objects to Box.
- Write data to CSV files in Box.

Consider the following guidelines when you configure a write operation:

- If the Box application contains .csv files named upload.csv, download.csv, or delete.csv, rename the upload.csv, download.csv, or delete.csv files in the Box application. Otherwise, the Upload, Download, and Delete APIs fail with a DTM error when you run a task to read these files from Box.
- To perform an upload, download, or delete operation on Box objects, you must create a flat file connection to access the `upload.csv`, `download.csv`, and `delete.csv` files on the machine that hosts the Secure Agent. When you perform an upload, download, or delete operation, the Box objects are the targets of the flat file sources.

Delete Box Objects

You can specify Box targets in synchronization tasks, mappings, and mapping tasks to delete Box objects.

You can delete Box files or folders based on the ID or path that you specify in a file that you must name `delete.csv`. When you specify a file ID or path, the Secure Agent deletes the file. When you specify a folder ID or path, the Secure Agent deletes all the objects in the folder.

The following image shows the contents of the `delete.csv` file:

Delete.csv

```
1  File_or_Folder_ID,File_or_Folder_Path
2  "",Sub/SubSub
3  "",Sub/Account.csv
4  39035967037,""
```

To delete objects from Box, perform the following tasks:

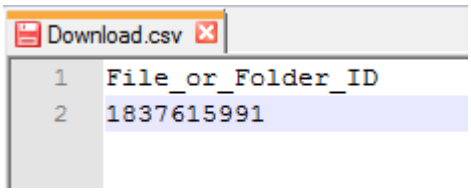
1. Create a `delete.csv` file with the `File_or_Folder_ID` and `File_or_Folder_Path` fields and values.
2. Save the `delete.csv` file to a local directory on the machine that hosts the Secure Agent.
3. Create a flat file connection to the location of the `delete.csv` file.
4. In the synchronization task or mapping you want to create to delete Box objects, configure the following objects:
   a. Specify the flat file connection as the source connection and select `delete.csv` as the source object.
   b. Specify a Box connection as the target connection and select `delete` as the target object.
   c. Select **Delete** as the target task operation.
   d. Map the `File_or_Folder_ID` or `File_or_Folder_Path` fields in the source object with the `File_or_Folder_ID` or `File_or_Folder_Path` fields in the target object.

Download Box Objects

You can specify Box targets in synchronization tasks, mappings, and mapping to download Box objects.

You can download Box files or folders based on the ID that you specify in a file that you must name `download.csv`. When you specify a file ID, the Secure Agent downloads the specified file. When you specify a folder ID, the Secure Agent downloads all the objects in the folder.

The following image shows the contents of the `download.csv` file:



By default, the Secure Agent downloads all the Box objects to the root directory in the Secure Agent machine. However, to download the files to a specific directory, you can specify a path in the **Target File Path** field when you create the Box connection. Verify that you specify a directory that is local to the machine that hosts the Secure Agent.

To download objects from Box, you need to perform the following tasks:

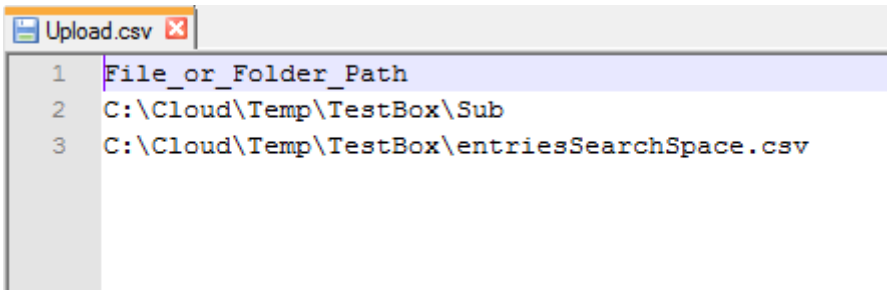
1. Create a `download.csv` file with the `File_or_Folder_ID` field and values.
2. Save the `download.csv` file to a local directory on the machine that hosts the Secure Agent.
3. Create a flat file connection to the location of the `download.csv` file.
4. In the synchronization task or mapping you want to create to download Box objects, perform the following tasks:
    a. Specify the flat file connection as the source connection and `download.csv` as the source object.
    b. Specify a Box connection as the target connection and select `download` as the target object.
    c. Select **Insert** as the target task operation.
    d. Map the `File_or_Folder_ID` field in the source object with the `File_or_Folder_ID` field in the target object.

Upload Box Objects

You can specify Box targets in synchronization tasks, mappings, and mapping tasks to upload Box objects.

You can upload Box files or folders based on the path that you specify in a file that you must name `upload.csv`. When you specify a file name, the Secure Agent uploads the file to Box. When you specify a folder path, the Secure Agent uploads the folder along with all the objects in the folder to Box.

The following image shows the contents of the `upload.csv` file:



By default, the Secure Agent uploads the files to the root directory on the Secure Agent machine. To upload the files to a specific directory, you can specify the folder ID in the **Box File or Folder ID** field when you create the Box connection. If you specify a file ID in the Box connection, the Secure Agent inserts the uploaded data in to the specified file.

To upload objects to Box, you need to perform the following tasks:

1. Create a `upload`.csv file with the `File_or_Folder_Path` field and values.
2. Save the `upload.csv` file to a local directory on the machine that hosts the Secure Agent.
3. Create a flat file connection to the location of the `upload.csv` file.
4. In the synchronization task or mapping you want to create to upload Box objects, configure the following objects:
    a. Specify the flat file connection as the source connection and select `upload.csv` as the source object.
    b. Specify a Box connection as the target connection and select `upload` as the target object.
    c. Select **Insert** as the target task operation.
    d. Map the `File_or_Folder_Path` field in the source object with the `File_or_Folder_Path` field in the target object.

Write Data to CSV Files in Box

You can specify Box targets in synchronization tasks, mappings, and mapping tasks to write data to CSV files in Box.

To configure synchronization tasks or mappings to write data to CSV files in Box, perform the following tasks:

1. Configure a source transformation to the object from which you want to read data.
   You can read data from any source and write data to CSV files in Box. However, when you read from a flat file object, you can write data only to an existing CSV file.
2. Specify a Box connection that connects to the Hosted Agent or the Secure Agent as the target connection and specify the target object.

   Note: You can override the file or folder ID you specify in a Box connection with the value you specify in the **Box Target File ID** advanced target property in synchronization tasks or mappings.
3. Select **Insert** as the target task operation.

Read data from CSV files in Box

You can specify Box sources in synchronization tasks, mappings, and mapping tasks to read data from CSV files in Box.

To configure the synchronization tasks or mappings to read from CSV files in Box, perform the following tasks:

1. Specify a Box connection that connects to the Hosted Agent or the Secure Agent as the source connection and specify the source object.
2. Configure a target transformation to the object to which you want to write the Box data.

Search Box objects

You can specify Box sources in synchronization tasks, mappings, and mapping tasks to search Box objects.

To search objects to Box, perform the following tasks:

1. Specify the search criteria in the **URI Request Parameters** field when you create the Box connection.
2. To configure the synchronization task or mapping to search Box objects, perform the following tasks:
   a. Specify a Box connection as the source connection and enter `Entities` as the source object.
   b. Select **Insert** as the target task operation.
   c. Specify a target transformation to write the search results.

When you specify `Entities` as the source object, the Secure Agent searches all objects in the root folder on the Secure Agent machine based on the URI request parameters you specify in the Box connections.

Specify the search string in the **URI Request Parameters** field using the following syntax:

```
query=search_string;content_types=<name|description|file_content|comments|
tags;limit=<number>;offset=<number>
```

For example, use the following parameters to search a Box object:

```
query="employee";content_types=name;limit=200;offset=0
```

The following table describes the **URI Request Parameters** field options:

Options	Description
Query	Searches the Box objects based on the word or phrase you specify. When you specify a phrase, verify that you enclose the phrase in single quote.
content_types	Specifies the scope of the search. You can use one of the following values: - Name - Searches based on the names of Box objects. - Description - Searches based on the description associated with Box objects. - File_content - Searches based on contents in the Box objects. - Comments - Searches based on comments associated with Box objects. - Tags - Searches based on tags associated with Box objects.
limit	Limits the number of search results that the Secure Agent writes to the target.
offset	Offsets the search results based on the specified offset value. For example, if you specify the offset value as 12, the Secure Agent ignores the first 11 rows in the search results and writes the results from the 12th row.

CHAPTER 2

Connections for Box

Create a Box connection to access Box data from Data Integration.

You can use a Box connection to specify sources and targets in mappings or tasks.

Connect to Box

Let's configure the Box connection properties to connect to Box.

Before you begin

Before you get started, you need to configure OAuth for your Box account.

When you configure OAuth, specify the redirect_URI parameter. Box verifies that the redirect_uri parameter passed in the authorization URL in your Box connection matches with the redirect URI configured for the application.

When you configure a Box connection, you have the option to either autogenerate the access token in the connection, or manually generate the token. If you prefer to handle the token generation process yourself, you can manually generate the access token, along with the grant type, client ID, and client secret when you configure OAuth in Box.

For more information on how to set up OAuth to access Box, see the Box documentation.

The following video shows you how to autogenerate the OAuth access token when you configure a Box connection:



Connection details

The following table describes the basic connection properties:

Property	Description
Connection Name	Name of the connection. Each connection name must be unique within the organization. Connection names can contain alphanumeric characters, spaces, and the following special characters: _ . + -, Maximum length is 255 characters.
Description	Description of the connection. Maximum length is 4000 characters.
Type	Box
Runtime Environment	The name of the runtime environment where you want to run tasks. Select a Secure Agent, Hosted Agent, or serverless runtime environment. Hosted Agent doesn't apply to mappings in advanced mode.
Access Token Type	The access token to authenticate and authorize access to resources in the endpoint server. You can select from the following options: - Auto Generated. Box autogenerates the access token in the connection when you click **Get Token**. - Manual. Get the OAuth details from your Box account and enter the details manually in the connection. Default is **Auto Generated**.

Autogenerate the access token

The connection is by default selected to autogenerate.

The following table describes the property and action required to autogenerate the access token from Box:

Property	Description
OAuth Access Token	Access token generated by Box. Click **Get Token** so that Box generates the access token and populates this field for you. For more information, see "Generate the OAuth access token" on page 15. For a visual presentation, you can check out the Generating the access token video.

Manually generate the access token

To manually enter the OAuth properties, select the **Access Token Type** as **Manual**, and then enter the required properties:

The following table describes the OAuth properties that you need to connect to Box manually:

Property	Description
Access Token	Enter the manually generated OAuth access token value in Box.
Client Id	The client identifier issued to the client during the application registration process in Box.
Client Secret	The client secret key issued to the client during the application registration process in Box.

Property	Description
Grant Type	The grant type to connect to Box. Enter the string **refresh_token**.
Refresh Token	Enter the refresh token value. If the access token expires, you can use the refresh token to generate a new access token. **Note:** When you use the manual access token type and the refresh token expires, you need to re-enter the connection properties.

Advanced settings

The following table describes the advanced connection properties:

Property	Description
URI Request Parameters	Parameters to search for files or folders in Box. Specify the search string in the following format: `query=search_string;content_types=<name|description|file_content|comments|tags;limit=<number>;offset=<number>` For example, to search for objects that contain the word "generate", you can enter the following string: `query=generate;content_types=name;limit=0;offset=0`. You can use wildcard characters and enclose phrases or multiple query strings within double quotes to refine your search criteria. For more information, see "URI request parameters" on page 15.
Source File Path	This property doesn't apply to the Box connection.
Target File Path	Optional. A directory on the Secure Agent machine where you can download objects from Box. Enter a path to download files or folders to a specific directory. By default, the Secure Agent downloads all the Box objects to the root directory in the Secure Agent machine.
Response Folder Path	This property doesn't apply to a Box connection.
Box File or Folder ID	File ID or the folder ID of the file or folder in Box from where you want to read data from or write data to Box. You can get the file ID or folder ID from the Box URL of the file or folder. For example, the Reports folder in Box has the following URL: https://app.box.com/folder/50016834230 In the URL, 50016834230 is the folder ID of Reports. **Note:** You can override this value when you read from or write to CSV files in Box.

Generate the OAuth access token

You need to generate an OAuth access token when you create a Box connection. The Secure Agent uses the token to securely connect to Box.

1. In the **OAuth Access Token** field on the **Connections** page , click **Get Token**.

   The **Log In** page for Box appears.
2. Enter the user credentials. You can choose one of the following options:
   - To use Box user account credentials, enter an email address and password associated with the user.
   - To use the single sign-on option, click **Use Single Sign On (SSO)** and enter the email address associated with the user.
3. Click **Authorize**.
4. Click **Grant access to Box**.

The **OAuth Access Token** field in the **Connection** page is updated with the generated token.

URI request parameters

Use the URI request parameters to search Box objects.

Specify the search string in the **URI Request Parameters** field using the following syntax:

```
query=search_string;content_types=<name|description|file_content|comments|
tags;limit=<number>;offset=<number>
```

The following table describes the **URI Request Parameters** field options:

Options	Description
Query	Searches the Box objects based on the word or phrase you specify. When you specify a phrase, verify that you enclose the phrase in single quote.
content_types	Specifies the scope of the search. You can use one of the following values: - Name - Searches based on the names of Box objects. - Description - Searches based on the description associated with Box objects. - File_content - Searches based on contents in the Box objects. - Comments - Searches based on comments associated with Box objects. - Tags - Searches based on tags associated with Box objects.
limit	Limits the number of search results that the Secure Agent writes to the target.
offset	Offsets the search results based on the specified offset value. For example, if you specify the offset value as 12, the Secure Agent ignores the first 11 rows in the search results and writes the results from the 12th row.

CHAPTER 3

Synchronization Tasks with Box Connector

This chapter includes the following topics:

- Box Sources in Synchronization Tasks, 16
- Box Targets in Synchronization Tasks, 17
- Creating a Synchronization Task with Box Sources, 18
- Creating a Synchronization Task with Box Targets, 19

Box Sources in Synchronization Tasks

When you configure a synchronization task to use a Box source, you can configure the source properties.

The source properties appear on the **Source** page of the Synchronization Task wizard when you specify a Box connection.

The general properties display the name and description of the Box source. Configure the source and advanced properties for the source object.

The following table describes the Box source properties:

Property	Description
Connection	Name of the source connection.
Source Type	Source type. Select **Single** for a single source object.
Source Object	Source object for the synchronization task. Choose one of the following options: - Enter the name of the CSV file from which you want to read data. - Enter `Entities` to search Box objects based on the search criteria specified in the Box connection.

You can also configure advanced target properties when you schedule the synchronization task. Advanced target properties appear on the **Schedule** page of the Synchronization Task wizard.

The following table describes the Box advanced source properties:

Advanced Property	Description
Source Filter	Not applicable in Box Connector.
Box Source File ID	The file ID or the folder ID that you want to use when you read data from a CSV file in Box. The ID you enter in this property overrides the value specified in the **Box File or Folder ID** field when you create the Box connection. If you do not enter a value, the task uses the **Box File or Folder ID** that is specified in the Box connection.

Box Targets in Synchronization Tasks

When you configure a synchronization task to perform operations on a Box target, you can configure the target properties.

The target properties appear on the **Target** page of the Synchronization Task wizard when you specify a Box connection. The general properties display the name and description of the Box target. Configure the target and advanced properties for the target object.

The following table describes the Box target properties:

Property	Description
Connection	Name of the target connection.
Target Object	Name of the target object. Choose one of the following options: - Enter Upload to upload Box objects. - Enter Download to download Box objects. - Enter Delete to delete Box objects. - To write data to a CSV file in Box, enter the name of the file. If you select an existing file, the source data is inserted in the file.
Target Operation	Target operation. Select one of the following operations: - Insert. Select for download, upload, Box operations except the delete operation. - Delete. Select to delete a file or folder in Box.

You can also configure advanced target properties when you schedule the synchronization task. Advanced target properties appear on the **Schedule** page of the Synchronization Task wizard.

The following table describes the Box advanced target properties:

Advanced Property	Description
Box Target File ID	The ID of the file or folder in Box from which you want to perform Box operations. The ID you enter in this property overrides the value specified in the **Box File or Folder ID** field when you create the Box connection. If you do not enter a value, the task uses the **Box File or Folder ID** that is specified in the Box connection.
Success File Directory	Directory for the success rows file. Specify a directory path that is available on each Secure Agent machine in the runtime environment. By default, Data Integration writes the success rows file to the following directory: `<Secure Agent installation directory>/apps/Data_Integration_Server/data/success`
Error File Directory	Directory for the error rows file. Specify a directory path that is available on each Secure Agent machine in the runtime environment. By default, Data Integration writes the error rows file to the following directory: `<Secure Agent installation directory>/apps/Data_Integration_Server/data/error`

Creating a Synchronization Task with Box Sources

When you want to read data from or search objects in Box, specify a Box connection while configuring the source in a synchronization task.

1. In Data Integration, click **New** > **Tasks**.
2. Select **Synchronization Tasks**, and click **Create** to create a synchronization task.

   The **Definition** tab appears.
3. Configure the following fields on the **Definition** tab:

Field	Description
Task Name	Name of the synchronization task. The name of a synchronization task must be unique within the organization. A synchronization task name can contain alphanumeric characters, spaces, and the following special characters:_ . + -. A synchronization task name is not case sensitive.
Description	Description of the synchronization task. Maximum length is 255 characters.
Task Operation	Select Insert.

4. Click **Next** to enter the source details.
5. Select a Box connection.
6. Select **Single** as the source type.
7. Specify the Box object. You can choose one of the following options:
   - Click **Select** to specify the Box source object from which you want to read data.
   - Enter Entities to search the Box objects based on the URI request parameters you specified in the Box connection.

8. To display technical names instead of business names, select **Display technical field names instead of labels**.
9. To display source fields in alphabetic order, click **Display source fields in alphabetical order**.

   By default, fields appear in the order returned by the source system.
10. Click **Next** to specify the target connection and target objects.
11. Click **Next** to configure the field mappings. Perform any of the following steps based on your requirements.
    a. Click **Edit Types** in the Source column to edit the precision and scale of the source objects.
    b. Click **Automatch** to match source and target fields with similar names.
    c. Click **Edit Types** in the Target column to edit the data type, precision, and scale of the target object. Note that this option is not available for all target types.
    d. Select a source field and drag it to the target field to map the source and target fields. Repeat for all the fields that you want to map.
    e. Click the **Add or Edit Expression** icon to define a field expression to transform data.
    f. Click **Validate Mapping** to validate all the field mappings.
    g. Click **Clear Mapping** to clear all the field mappings.
12. Click **Next** to configure a schedule and advanced options. Perform any of the following steps based on your requirements.
    a. Click **Run this task on schedule** and specify the schedule you want to use.
    b. Configure the email notification options.
    c. Configure advanced options for the task.
    d. Configure the advanced source properties for Box and any advanced target properties.
    e. Specify the execution mode.
13. Click **Save** and then **Finish**.
14. From the **Explore** page, select the task, and click **Actions** > **Run**.

    In Monitor, you can monitor the status of the logs after you run the task.

Creating a Synchronization Task with Box Targets

When you want to upload, download, or delete objects in Box or write data to CSV files in Box, specify a Box connection while configuring the target in a synchronization task.

1. In Data Integration, click **New** > **Tasks**.
2. Select **Synchronization Tasks**, and click **Create** to create a synchronization task.

   The **Definition** tab appears.

3. Configure the following fields on the **Definition** tab:

Field	Description
Task Name	Name of the synchronization task. The name of a synchronization task must be unique within the organization. A synchronization task name can contain alphanumeric characters, spaces, and the following special characters:_ . + -. A synchronization task name is not case sensitive.
Description	Description of the synchronization task. Maximum length is 255 characters.
Task Operation	Specify the target task operation. Choose one of the following options: - Insert for the upload, download, and write data to CSV file Box object operations. - Delete to delete Box objects.

4. Click **Next** to specify the source connection. Choose one of the following options:
   - Select a flat file connection that points to the location of the `upload.csv`, `download.csv`, or `delete.csv` files.
   - Select a source connection that connects to the source from which you want to read data from.
5. Select **Single** as the source type.
6. Specify the Box source object. Specify one of the following options:
   - The `upload.csv` file to upload Box objects.
   - The `download.csv` file to download Box objects.
   - The `delete.csv` file to delete Box objects.
   - The name of the source object that you want to read data from and write data to a CSV file in Box.
7. Click **Next** to specify the target connection and target object.
8. Select a Box connection.
9. Specify the Box object. Specify one of the following options:
   - Upload to upload Box objects.
   - Download to download Box objects.
   - Delete to delete Box objects.
   - The name of the CSV file to which you want to write the source data.
10. Click **Next** to configure the field mappings. Perform any of the following steps based on your requirements.
    a. Click **Edit Types** in the Source column to edit the precision and scale of the source objects. Note that this option is not available for all source types.
    b. Click **Automatch** to match source and target fields with similar names.
    c. Click **Edit Types** in the Target column to edit the data type, precision, and scale of the target object.
    d. Select a source field and drag it to the target field to map the source and target fields. Repeat for all the fields that you want to map.
    e. Click the **Add or Edit Expression** icon to define a field expression to transform data.
    f. Click **Validate Mapping** to validate all the field mappings.
    g. Click **Clear Mapping** to clear all the field mappings.

11. Click **Next** to configure a schedule and advanced options. Perform any of the following steps based on your requirements.
    a. Click **Run this task on schedule** and specify the schedule you want to use.
    b. Configure the email notification options.
    c. Configure advanced options for the task.
    d. Configure the advanced source and target properties.
    e. Specify the execution mode.
12. Click **Save** and then **Finish**.
13. From the **Explore** page, select the task, and click **Actions** > **Run**.

    In Monitor, you can monitor the status of the logs after you run the task.

CHAPTER 4

Mappings and mapping tasks with Box

You can configure a Source transformation in a mapping to represent a file or folder in Box. When you want to read data from CSV files or search objects in Box, you can specify a Box connection in the Source transformation.

Box sources in mappings

The general properties display the name and description of the Box source. Configure the source and advanced properties for the source object.

The following table describes the source properties that you can configure in a Source transformation:

Property	Description
Connection	Name of the source connection.
Source Type	Source type. Select **Single** for a single source object.
Source Object	Source object for the mapping. Choose one of the following options: - Enter the name of the CSV file from which you want to read data. - Enter `Entities` to search Box objects based on the search criteria specified in the Box connection.

Configure the advanced properties on the Source tab of the Properties panel.

The following table describes the advanced properties of Box sources that you can configure in a Source transformation:

Advanced Property	Description
Source Filter	Not applicable in Box Connector.
Box Source File ID	The file ID or the folder ID that you want to use when you read data from a CSV file in Box. The ID you enter in this property overrides the value specified in the **Box File or Folder ID** field when you create the Box connection. If you do not enter a value, the mapping uses the **Box File or Folder ID** that is specified in the Box connection.
Tracing Level	Sets the amount of detail that appears in the log file. You can choose terse, normal, verbose initialization or verbose data. Default is normal.

Box Targets in Mappings

You can configure a Target transformation in a mapping to represent a single Box target.

The general properties display the name and description of the Box target. Configure the target and advanced properties for the target object.

The following table describes the Box target properties that you can configure in a Target transformation:

Property	Description
Connection	Name of the target connection.
Target Type	Target type. Select Single Object. Box Connector supports only single object.
Target Object	Name of the target object. Choose one of the following options: - Enter Upload to upload Box objects. - Enter Download to download Box objects. - Enter Delete to delete Box objects. - To write data to a CSV file in Box, enter the name of the file. If you select an existing file, the source data is inserted in the file.
Target Operation	Target operation. Select one of the following operations: - Insert. Select for all Box operations except the delete operation. - Delete. Select to delete a file or folder in Box.

The following table describes the advanced properties for Box targets that you can configure in a Target transformation:

Advanced Property	Description
Box Target File ID	The ID of the file or folder in Box from which you want to perform Box operations. The ID you enter in this property overrides the value specified in the **Box File or Folder ID** field when you create the Box connection. If you do not enter a value, the mapping uses the **Box File or Folder ID** that is specified in the Box connection.
Success File Directory	Directory for the success rows file. Specify a directory path that is available on each Secure Agent machine in the runtime environment. By default, Data Integration writes the success rows file to the following directory: `<Secure Agent installation directory>/apps/Data_Integration_Server/data/success`
Error File Directory	Directory for the error rows file. Specify a directory path that is available on each Secure Agent machine in the runtime environment. By default, Data Integration writes the error rows file to the following directory: `<Secure Agent installation directory>/apps/Data_Integration_Server/data/error`
Forward Rejected Rows	Not supported.

Creating a Mapping with Box Sources

1. In Data Integration, click **New** > **Mapping**, and then click **Create**.
2. Specify the name, location, and description. Click **Ok**

   You can use alphanumeric characters and underscores (_) in the mapping name.
3. Click **Source** to configure the source properties.
4. In the **Properties** panel, on the **General** tab, enter a name and description.
5. Click the **Source** tab and configure source details.
6. Specify the source type as a **Single Object**.
7. You can choose one of the following options:
   - Enter the name of the CSV file in Box from which you want to read data.
   - Enter `Entities` to search Box objects based on the URI request parameters you specified in the Box connection.
8. Click **Advanced** to specify the advanced source properties.
9. To add a transformation, on the **Transformation palette**, click the transformation name. Or, drag the transformation onto the mapping canvas.
   a. On the **General** tab, you can enter a name and description for the transformation.
   b. Draw a link to connect the previous transformation to the transformation.

      When you link transformations, the downstream transformation inherits the incoming fields from the previous transformation.
      For a Joiner transformation, draw a master link and a detail link.

c. To preview fields, configure the field rules, or rename fields, click **Incoming Fields**.

d. Configure additional transformation properties, as needed.

   The properties that you configure depend on the type of transformation you create. For more information, see *Transformations*.

e. To add another transformation, repeat these steps.

10. To add a Target transformation, on the **Transformation palette**, click **Target**.

    a. On the **General** tab, you can enter a name and description.

    b. Draw a link to connect the previous transformation to the Target transformation.

    c. Click the **Target** tab and configure target details. If necessary, configure the advanced target properties.

       Target details and advanced target properties appear based on the connection type. For more information, see *Transformations*.

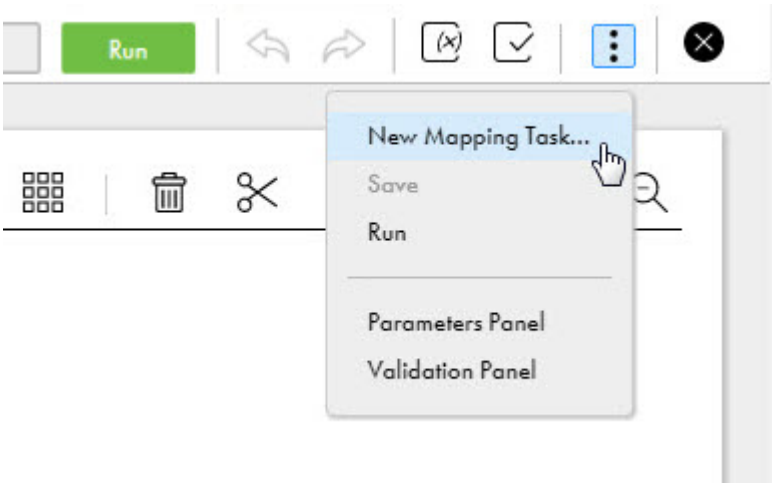
    d. To preview fields, configure the field rules, or rename fields, click **Incoming Fields**.

    e. Click **Field Mapping** and map the fields that you want to write to the target.

    f. To add another Target transformation, repeat these steps.

11. Click **Save** and then click **Run** to run the mapping.

12. To create a mapping task based on the mapping, while still in the Mapping Designer, click **Actions** and select **New Mapping Task**, as shown in the following image:



    The Mapping Task wizard appears.

13. In the **Definition** tab specify the task name, description, runtime environment, select task based on mapping, and import the mapping.

14. Click **Finish** to save the mapping task.

15. From the **Explore** page, select the task, and click **Actions** > **Run**.

    In Monitor, you can monitor the status of the logs after you run the task.

Creating a Mapping with Box Targets

When you want to write data to CSV files, upload, download, or delete objects in Box, you can specify a Box connection in the Target transformation.

1. In Data Integration, click **New** > **Mapping**, and then click **Create**.
2. Specify the name, location, and description. Click **Ok**

   You can use alphanumeric characters and underscores (_) in the mapping name.
3. Click **Source** to configure the source properties.
4. In the **Properties** panel, on the **General** tab, enter a name and description.
5. Click the **Source** tab and configure source details. If necessary, configure the advanced source properties.

   Source details and advanced source properties appear based on the connection type.
   For more information, see *Transformations*.

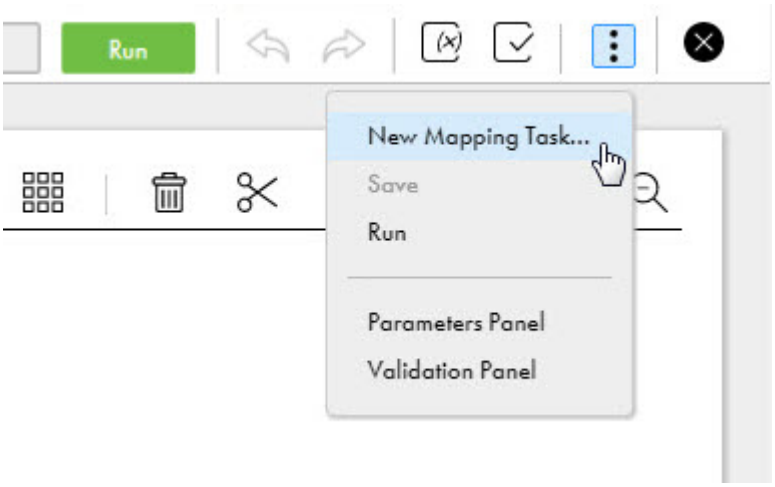
   Note: For the delete, download, and upload Box operations, you must configure a flat file source.
6. To add a transformation, on the **Transformation palette**, click the transformation name. Or, drag the transformation onto the mapping canvas.
   a. On the **General** tab, you can enter a name and description for the transformation.
   b. Draw a link to connect the previous transformation to the transformation.

      When you link transformations, the downstream transformation inherits the incoming fields from the previous transformation.
      For a Joiner transformation, draw a master link and a detail link.
   c. To preview fields, configure the field rules, or rename fields, click **Incoming Fields**.
   d. Configure additional transformation properties, as needed.

      The properties that you configure depend on the type of transformation you create.
      For more information, see *Transformations*.
   e. To add another transformation, repeat these steps.
7. To add a Box Target transformation, on the **Transformation palette**, click **Target**.
   a. On the **General** tab, you can enter a name and description.
   b. Draw a link to connect the previous transformation to the Target transformation.
   c. Click the **Target** tab and configure target details. If necessary, configure the advanced target properties.

      Target details and advanced target properties appear based on the connection type.
      For more information, see *Transformations*.
   d. To preview fields, configure the field rules, or rename fields, click **Incoming Fields**.
   e. Click **Field Mapping** and map the fields that you want to write to the target.
   f. To add another Target transformation, repeat these steps.
8. Click **Save** and then click **Run** to run the mapping.

9. To create a mapping task based on the mapping, while still in the Mapping Designer, click **Actions** and select **New Mapping Task**, as shown in the following image:



The Mapping Task wizard appears.

10. In the **Definition** tab specify the task name, description, runtime environment, select task based on mapping, and import the mapping.
11. Click **Finish** to save the mapping task.
12. From the **Explore** page, select the task, and click **Actions** > **Run**.

    In Monitor, you can monitor the status of the logs after you run the task.

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