

# Task Factory Google

Last Modified on 03 February 2022

🔔 Task Factory users running version 2020.1.4 or older (released prior to May 27, 2020): **There's an important Task Factory update.** Please visit [here](#) for more details.

## Google Cloud OAuth2 Connection Manager

This [connection manager](#) is used with the **Google Cloud Source** and **Google Cloud Rest Destination**. Before connecting, users must obtain a **Client ID**, **Client Secret**, a **Storage Project Id**, and a **Redirect URL** from Google's APIs & Services Credentials dashboard.

Google Cloud OAuth2 Connection - 2021.18.1.29783

Connection Settings Headers Refresh Token Client Certificate Proxy Advanced Options

Client Id

Client Secret

Access Token

Is Bearer Token

Access Token Expiration Date

Security Protocol Default

Storage Project Id

### Connection Settings

Option	Description
<b>Client Id</b>	The Client ID is found in Google's APIs & Services - Credentials console.
<b>Client Secret</b>	The Client Secret is found in Google's APIs & Services - Credentials console.

<b>Access Token Option</b>	Select <b>Get Token</b> to open the <b>Token Getter</b> window. <b>Description</b>										
<b>Is Bearer Token?</b>	Select this option if the Access Token is a bearer token.										
<b>Access Token Expiration Date</b>	The expiration date of the access token.  <b>Note:</b> This settings is optional.										
<b>Security Protocol</b>	<p>The Security Protocol used by the API. The <b>Default</b> option uses the TLS version used by your .NET version by default. See the following chart for more information:</p> <table border="1"> <thead> <tr> <th>.NET Version</th> <th>TLS Support Information</th> </tr> </thead> <tbody> <tr> <td><b>.NET 4.6 and above</b></td> <td>Supports TLS 1.2 by default.</td> </tr> <tr> <td><b>.NET 4.5</b></td> <td> <p>TLS 1.2 is supported, but you need to opt-in to use it. Execute the following code before making a connection to a secured resource to make TLS 1.2 the default:</p> <ul style="list-style-type: none"> <li><b>ServicePointManager.SecurityProtocol = SecurityProtocolType.Tls12</b></li> </ul> </td> </tr> <tr> <td><b>.NET 4.0</b></td> <td> <p>TLS 1.2 is not supported. If you have .NET 4.5 (or above) installed on the system, you can opt in for TLS 1.2 even if your application framework doesn't support it. SecurityProtocolType in .NET 4.0 doesn't have an entry for TLS1.2, so you need to use a numerical representation of this enum value:</p> <ul style="list-style-type: none"> <li><b>ServicePointManager.SecurityProtocol = (SecurityProtocolType)3072;</b></li> </ul> </td> </tr> <tr> <td><b>.NET 3.5 or below</b></td> <td>TLS 1.2 is not supported, and there is no workaround. Upgrade your application to a more recent version of the framework.</td> </tr> </tbody> </table>	.NET Version	TLS Support Information	<b>.NET 4.6 and above</b>	Supports TLS 1.2 by default.	<b>.NET 4.5</b>	<p>TLS 1.2 is supported, but you need to opt-in to use it. Execute the following code before making a connection to a secured resource to make TLS 1.2 the default:</p> <ul style="list-style-type: none"> <li><b>ServicePointManager.SecurityProtocol = SecurityProtocolType.Tls12</b></li> </ul>	<b>.NET 4.0</b>	<p>TLS 1.2 is not supported. If you have .NET 4.5 (or above) installed on the system, you can opt in for TLS 1.2 even if your application framework doesn't support it. SecurityProtocolType in .NET 4.0 doesn't have an entry for TLS1.2, so you need to use a numerical representation of this enum value:</p> <ul style="list-style-type: none"> <li><b>ServicePointManager.SecurityProtocol = (SecurityProtocolType)3072;</b></li> </ul>	<b>.NET 3.5 or below</b>	TLS 1.2 is not supported, and there is no workaround. Upgrade your application to a more recent version of the framework.
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<b>.NET 3.5 or below</b>	TLS 1.2 is not supported, and there is no workaround. Upgrade your application to a more recent version of the framework.										
<b>Storage Project Id</b>	The storage project Id for your connection.										

## Token Getter

Task Factory OAuth2 Token Getter

Access Token Configuration Parameters ⓘ

**Client Id**

The client id of the key you're using from the developer console URL Encode Parameter

**Client Secret**

The client secret of the key you're using from the developer console URL Encode Parameter

Scopes

Full Control https://www.googleapis.com/auth/devstorage.full\_control

Read Write https://www.googleapis.com/auth/devstorage.read\_write

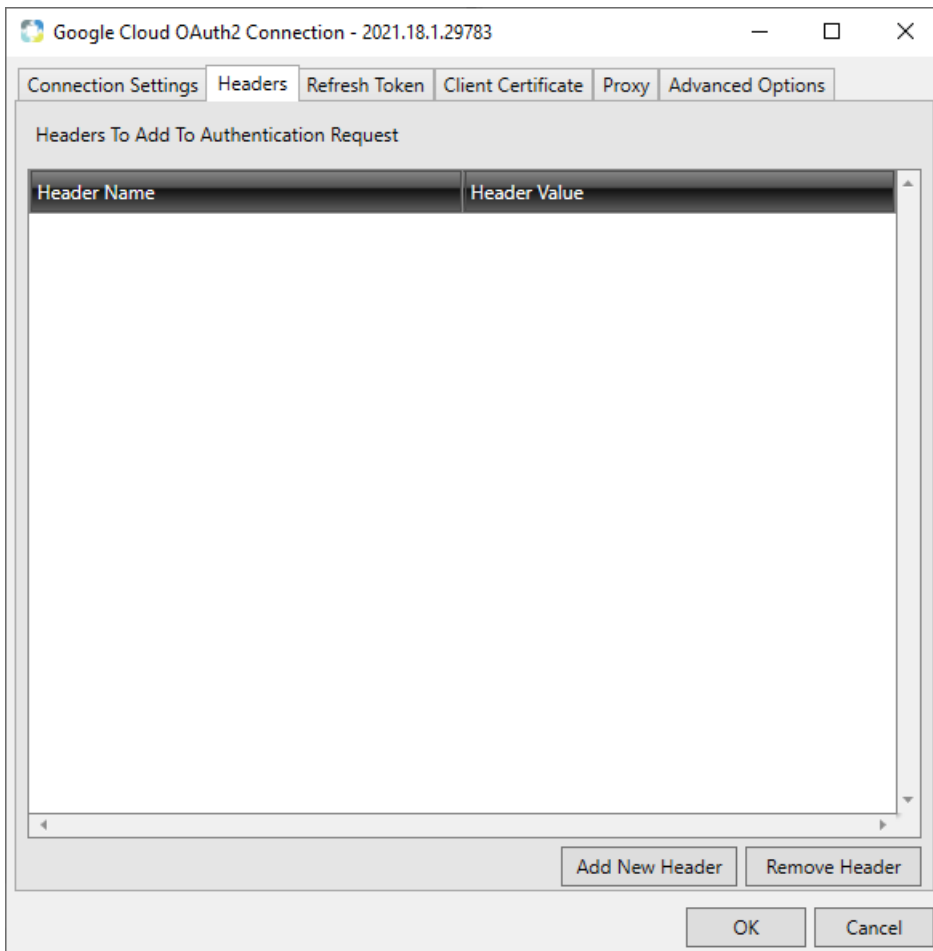
Read Only https://www.googleapis.com/auth/devstorage.read\_only

Port for response  ⓘ Set your Redirect Uri to:  ⓘ

**Get Access Token**

Option	Description
<b>Client Id</b>	This field should be auto-completed from the previous window with your Client ID.
<b>Client Secret</b>	This field should be auto-completed from the previous window with your Client Secret.
<b>Scopes</b>	<p>Selects which permission to be used in the call:</p> <ul style="list-style-type: none"> <li>• <b>Full Control</b></li> <li>• <b>Read Write</b></li> <li>• <b>Read Only</b></li> </ul> <p>🔗 <b>Additional Information:</b> For more information about Scopes, see Google's <a href="#">Cloud Storage Authentication</a>.</p>
<b>Port for response</b>	The port on your local machine where you want to send the token request response.
<b>Set your Redirect Uri to</b>	Use this as your Redirect Uri in your OAuth2 App settings.
<b>Get Access Token</b>	Opens a browser window to login to your Google account and grant access.

## Headers



You can create header names and values by entering the information in their corresponding windows.

Option	Description
<b>Add New Header</b>	Select to add a new header name and value. Once added, you can select within the column and configure the name and the value.
<b>Remove Header</b>	Remove the selected header to be included in the component's output.

## Refresh Token

Option	Description
<b>Refresh Token</b>	Authentication information provided to you at the application's developer site.  <b>Note:</b> This should match the API Key from the Connection Settings window.
<b>Token Request Url</b>	The URL that returns a refresh token. Example: <b>https://api.citrixonline.com/oauth/access_token</b>
<b>Headers</b>	Allows you to add headers within the refresh token. Select <b>Add New Header</b> to add a header. Select <b>Remove header</b> to remove a header.
<b>Results Returned In</b>	Specifies how results are returned from the application (JSON, XML, or String.)
<b>Access Token Path</b>	The token path for the access token. Example: <b>access_token</b>
<b>Refresh Token Path</b>	The token path for the refresh token. Example: <b>refresh_token</b>
<b>Use Token Store</b>	This option creates a file on your machine that saves the access token, and refresh token in an encrypted format.
<b>Token Store Id</b>	Identifies the Token Store Id.

**Token Store Path (Optional)**  
Option

Identifies the Token Store path.  
Description

## Client Certificate

The screenshot shows a window titled "Google Cloud OAuth2 Connection - 2021.18.1.29783" with several tabs: "Connection Settings", "Headers", "Refresh Token", "Client Certificate", "Proxy", and "Advanced Options". The "Client Certificate" tab is active. It contains the following fields and controls:

- Use Client Certificate:** A checkbox that is currently unchecked.
- Certificate Store Location:** A dropdown menu.
- Certificate Store Location:** A second dropdown menu.
- Search For Certificate:** A text input field with a "Find" button to its right.
- Leave blank to view all certificates:** A note below the search field.
- Certificate Thumbprint:** A text input field.

At the bottom right of the window are "OK" and "Cancel" buttons.

Option	Description
<b>Use Client Certificate</b>	Select this option if you want to use the client certificate.
<b>Certificate Store Location</b>	The client store location.
<b>Search For Certificate</b>	Enter a certificate that you want to search for and then select <b>Find</b> . <b>Note:</b> Leave this section blank and select <b>Find</b> to view all certificates.
<b>Certificate Thumbprint</b>	The identifier thumbprint of the selected certificate.

## Proxy

Google Cloud OAuth2 Connection - 2021.18.1.29783

Connection Settings Headers Refresh Token Client Certificate Proxy Advanced Options

Proxy Host

Proxy Port

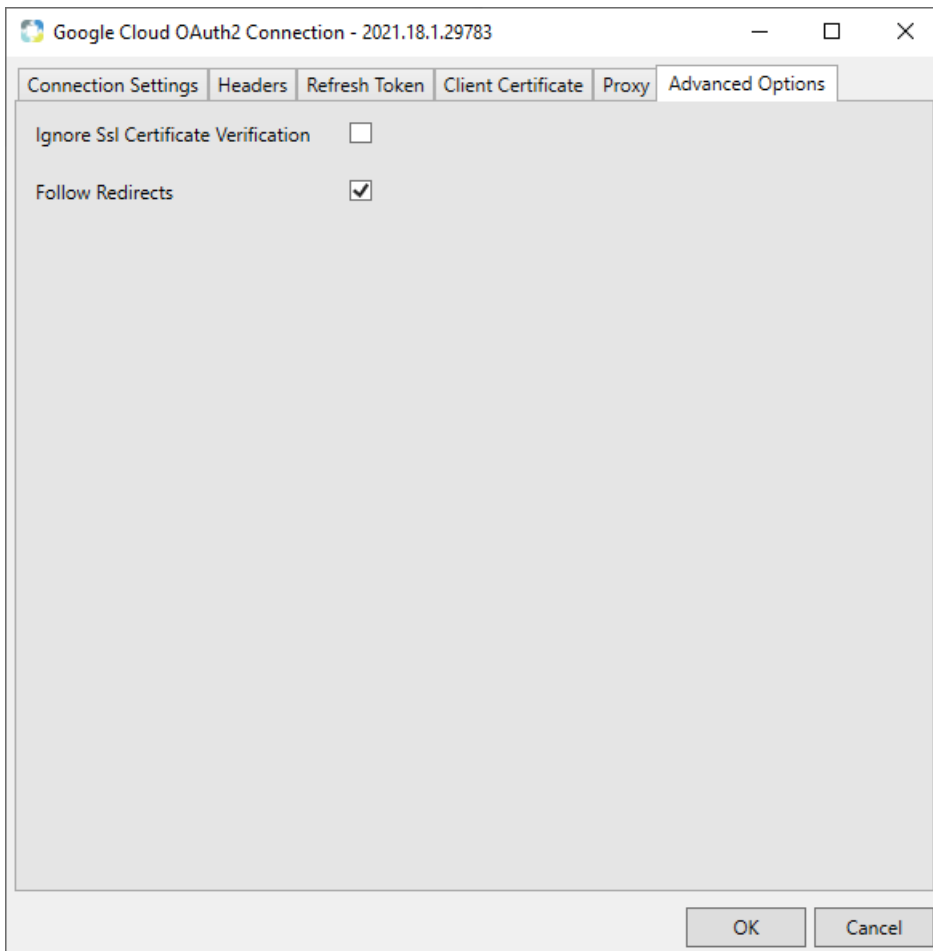
Proxy User Name

Proxy Password

OK Cancel

Option	Description
<b>Proxy Host</b>	When connecting to an endpoint using a proxy, you should enter the proxy URL in this field.
<b>Proxy Port</b>	The port number that corresponds to the URL proxy host.
<b>Proxy User Name</b>	The username needed to authenticate to the proxy.
<b>Proxy Password</b>	The password that allows you to authenticate to the proxy.

## Advanced Options



Option	Description
<b>Ignore Ssl Certificate Verification</b>	<p>Selecting this option ignores the SSL Certificate notification from the API during the connection.</p> <p><b>Note:</b> This option applies to APIs that require you to have an SSL Certificate. Select this option if the SSL Certificate is not needed.</p>
<b>Follow Redirects</b>	<p>Selecting this option implements a 301 redirect on configured endpoints. For example, this option would automatically send your request to an HTTPS redirect once the request has reached the http version of the site.</p>

## Google Drive Oauth2 Connection Manager

Used with the Google Drive [Source](#) and Google Drive [Destination](#). Before connecting, users must obtain a **Client ID**, **Client Secret**, and **Redirect URL** from Google's APIs & Services Credentials dashboard.

### Connection Settings

To connect to Google Drive, complete the following:



Google Drive OAuth2 Connection - 2021.18.1.29783

Connection Settings Headers Refresh Token Client Certificate Proxy Advanced Options

Client Id

Client Secret

Access Token

Is Bearer Token

Access Token Expiration Date

Security Protocol

Use Team Drive

Option	Description				
<b>Client Id</b>	The <b>Client ID</b> is found in Google's APIs & Services - Credentials console.				
<b>Client Secret</b>	The <b>Client Secret</b> is found in Google's APIs & Services - Credentials console.				
<b>Access Token</b>	Select <b>Get Token</b> to open the <b>Token Getter</b> window.				
<b>Is Bearer Token?</b>	Select this option if the Access Token is a bearer token.				
<b>Access Token Expiration Date</b>	The expiration date of the access token. <b>Note:</b> This settings is optional.				
	The Security Protocol used by the API. The <b>Default</b> option uses the TLS version used by your .NET version by default. See the following chart for more information: <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>.NET Version</th> <th>TLS Support Information</th> </tr> </thead> <tbody> <tr> <td>.NET 4.6 and above</td> <td>Supports TLS 1.2 by default.</td> </tr> </tbody> </table>	.NET Version	TLS Support Information	.NET 4.6 and above	Supports TLS 1.2 by default.
.NET Version	TLS Support Information				
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Option	Description	TLS Support Information
Security Protocol	.NET 4.5	<p>TLS 1.2 is supported, but you need to opt-in to use it. Execute the following code before making a connection to a secured resource to make TLS 1.2 the default:</p> <ul style="list-style-type: none"> <li><b>ServicePointManager.SecurityProtocol = SecurityProtocolType.Tls12</b></li> </ul>
	.NET 4.0	<p>TLS 1.2 is not supported. If you have .NET 4.5 (or above) installed on the system, you can opt in for TLS 1.2 even if your application framework doesn't support it. SecurityProtocolType in .NET 4.0 doesn't have an entry for TLS1.2, so you need to use a numerical representation of this enum value:</p> <ul style="list-style-type: none"> <li><b>ServicePointManager.SecurityProtocol = (SecurityProtocolType)3072;</b></li> </ul>
	.NET 3.5 or below	<p>TLS 1.2 is not supported, and there is no workaround. Upgrade your application to a more recent version of the framework.</p>
Use Team Drive	Select this option if your application uses a Team Drive to share documents with other users.	

## Token Getter

Task Factory OAuth2 Token Getter

Access Token Configuration Parameters ⓘ

Client Id

The client id of the key you're using from the developer console URL Encode Parameter

Client Secret

The client secret of the key you're using from the developer console URL Encode Parameter

Scopes

Full Permission (Excluding App Data Folder) <https://www.googleapis.com/auth/drive>

Read Only <https://www.googleapis.com/auth/drive.readonly>

Access to only files created by this authorization <https://www.googleapis.com/auth/drive.file>

Port for response  ⓘ Set your Redirect Uri to:  ⓘ

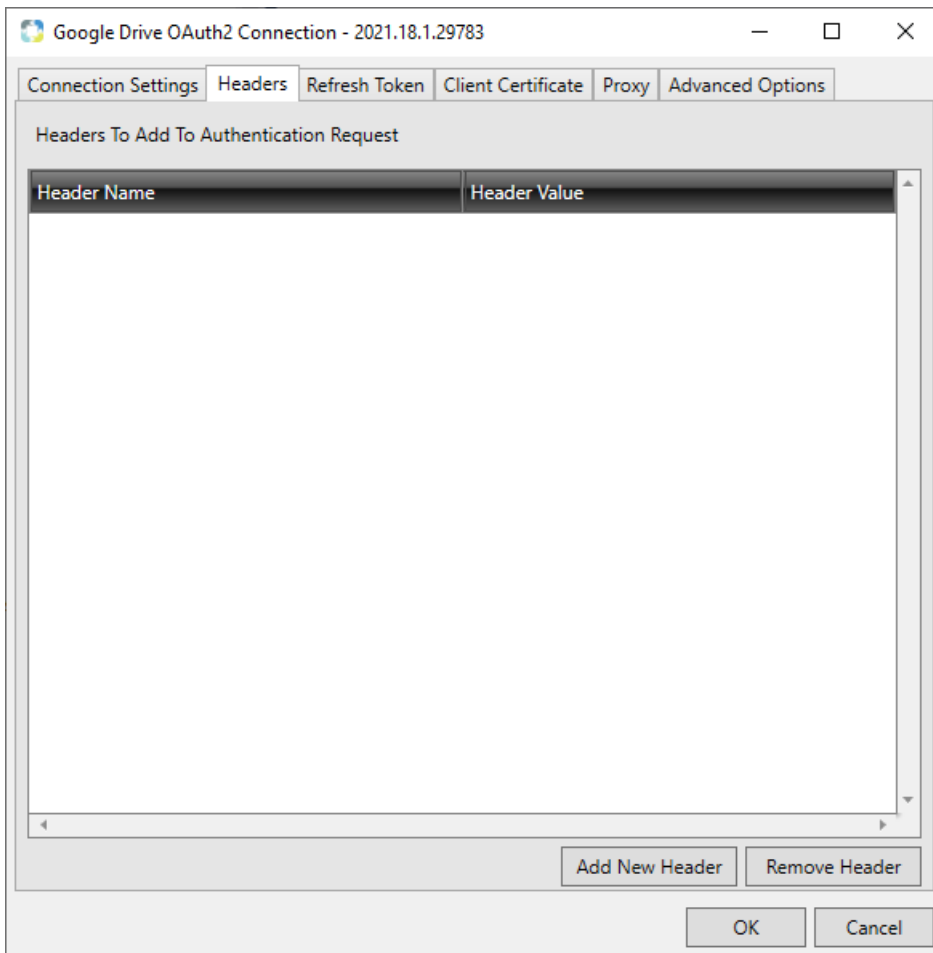
Option	Description
Client Id	This field should be auto-completed from the previous window with your Client ID.
	This field should be auto-completed from the previous window with your Client

Client Secret Option	Secret. Description
Scopes	<p>Selects which permission to be used in the call:</p> <ul style="list-style-type: none"> <li>• <b>Full Control</b></li> <li>• <b>Read Write</b></li> <li>• <b>Read Only</b></li> </ul> <p><a href="#">↗Additional Information:</a> For more information about Scopes, see Google's <a href="#">Cloud Storage Authentication</a>.</p>
Port for response	The port on your local machine where you want to send the token request response.
Set your Redirect Uri to	Use this as your Redirect Uri in your OAuth2 App settings.
Get Access Token	Opens a browser window to login to your Google account and grant access.

The Token Getter window automatically closes and the rest of the connection manager automatically completes. A browser window opens to your google account. Log in to your Google Drive application's account and select **Allow** to grant access.

## Headers

You can create header names and values by entering the information in their corresponding windows.



Option	Description
<b>Add New Header</b>	Select to add a new header name and value. Once added, you can select within the column and configure the name and the value.
<b>Remove Header</b>	Remove the selected header to be included in the component's output.

## Refresh Token

Option	Description
<b>Refresh Token</b>	Authentication information provided to you at the application's developer site.  <b>Note:</b> This should match the API Key from the Connection Settings window.
<b>Token Request Url</b>	The URL that returns a refresh token. Example: <a href="https://api.citrixonline.com/oauth/access_token">https://api.citrixonline.com/oauth/access_token</a>
<b>Headers</b>	Allows you to add headers within the refresh token. Select <b>Add New Header</b> to add a header. Select <b>Remove header</b> to remove a header.
<b>Results Returned In</b>	Specifies how results are returned from the application (JSON, XML, or String.)
<b>Access Token Path</b>	The token path for the access token. Example: <b>access_token</b>
<b>Refresh Token Path</b>	The token path for the refresh token. Example: <b>refresh_token</b>
<b>Use Token Store</b>	This option creates a file on your machine that saves the access token, and refresh token in an encrypted format.
<b>Token Store Id</b>	Identifies the Token Store Id.

**Token Store Path (Optional)**  
Option

Identifies the Token Store path.  
Description

## Client Certificate

Google Drive OAuth2 Connection - 2021.18.1.29783

Connection Settings Headers Refresh Token Client Certificate Proxy Advanced Options

Use Client Certificate

Certificate Store Location

Certificate Store Location

Search For Certificate  Find

Leave blank to view all certificates

Certificate Thumbprint

OK Cancel

Option	Description
<b>Use Client Certificate</b>	Select this option if you want to use the client certificate.
<b>Certificate Store Location</b>	The client store location.
<b>Search For Certificate</b>	Enter a certificate that you want to search for and then select <b>Find</b> . <b>Note:</b> Leave this section blank and select <b>Find</b> to view all certificates.
<b>Certificate Thumbprint</b>	The identifier thumbprint of the selected certificate.

## Proxy Configuration

Select the Proxy tab to connect to your Google Drive via a proxy connection.

Google Drive OAuth2 Connection - 2021.18.1.29783

Connection Settings Headers Refresh Token Client Certificate Proxy Advanced Options

Proxy Host

Proxy Port

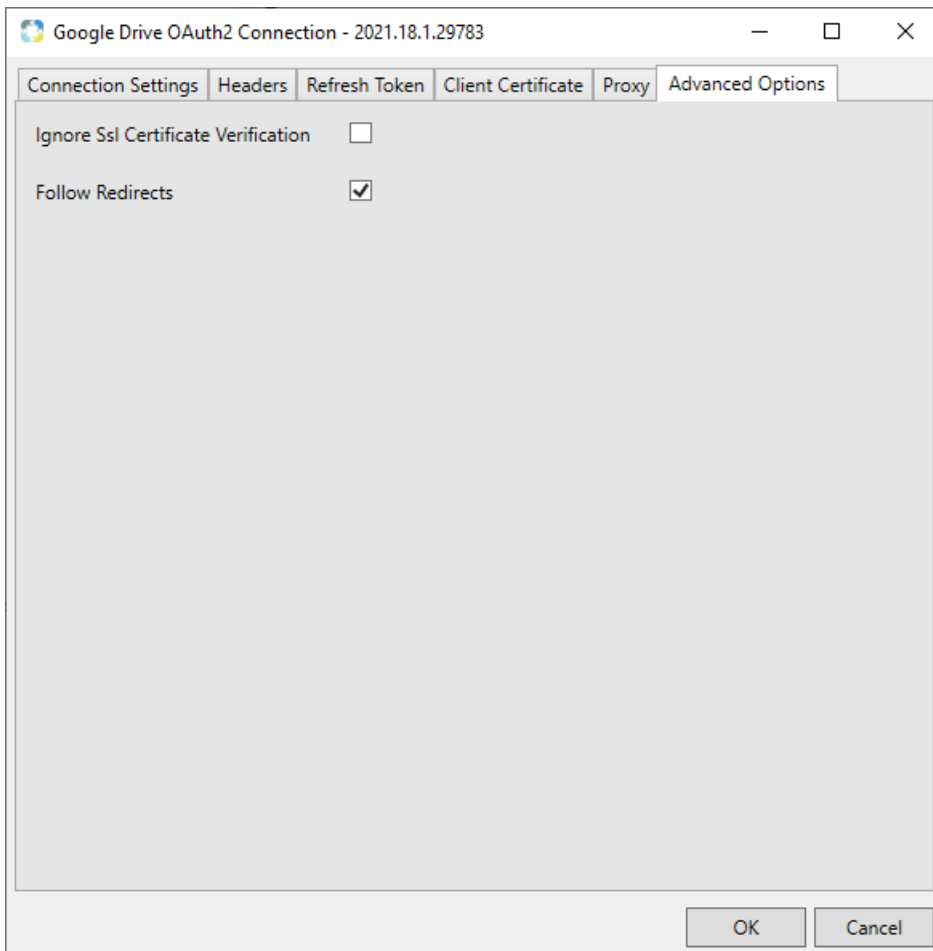
Proxy User Name

Proxy Password

OK Cancel

Option	Description
<b>Proxy Host</b>	Identifies the proxy address.
<b>Proxy Port</b>	Identifies the port used by the proxy.
<b>Proxy User Name</b>	Enter the user name for proxies that require user authentication.
<b>Proxy Password</b>	Enter the password for proxies that require user authentication.

## Advanced Options



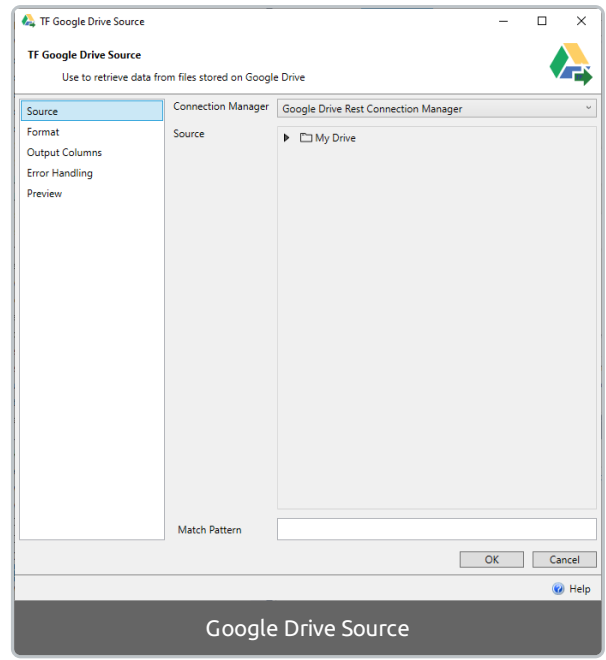
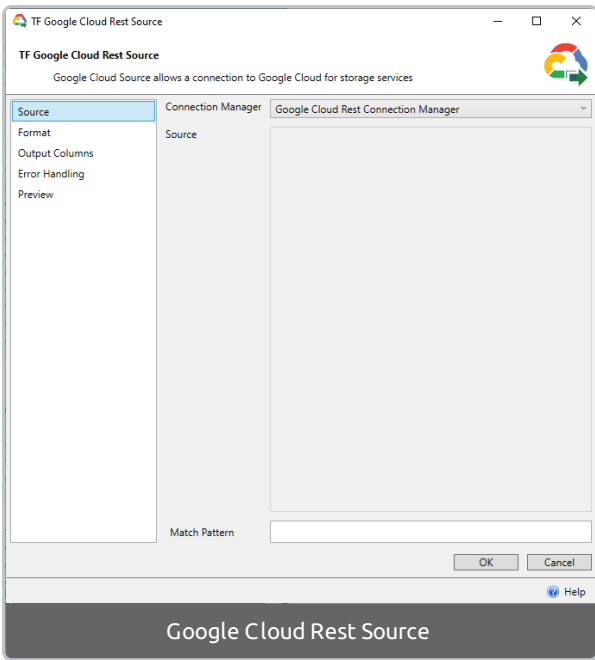
Option	Description
<b>Ignore Ssl Certificate Verification</b>	<p>Selecting this option ignores the SSL Certificate notification from the API during the connection.</p> <p><b>Note:</b> This option applies to APIs that require you to have an SSL Certificate. Select this option if the SSL Certificate is not needed.</p>
<b>Follow Redirects</b>	<p>Selecting this option implements a 301 redirect on configured endpoints. For example, this option would automatically send your request to an HTTPS redirect once the request has reached the http version of the site.</p>

## Google Cloud Rest Source and Google Drive Rest Source

### Source

Begin by creating a connection manager that connects to the service's storage container.



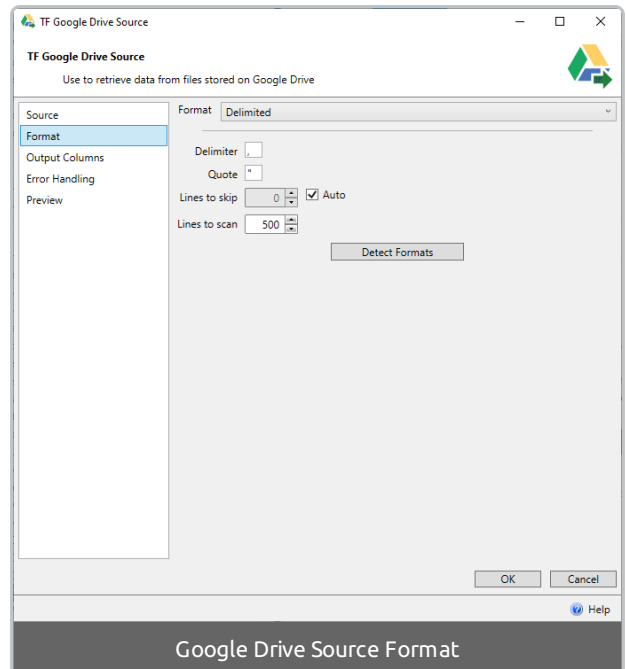
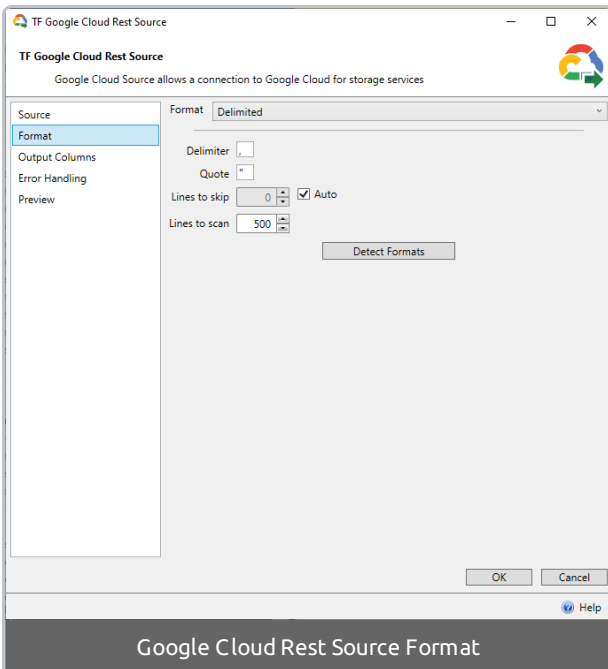


## Format

The following formats are available:

### Delimited Format

Users can manually configure the delimiter, quote identifiers, the lines to skip, and lines to scan. Select **Detect Formats** to configure these fields automatically.

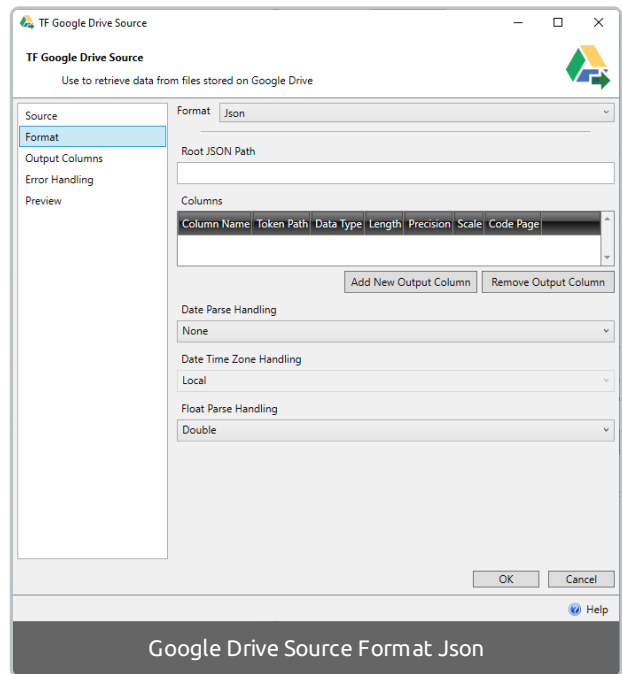
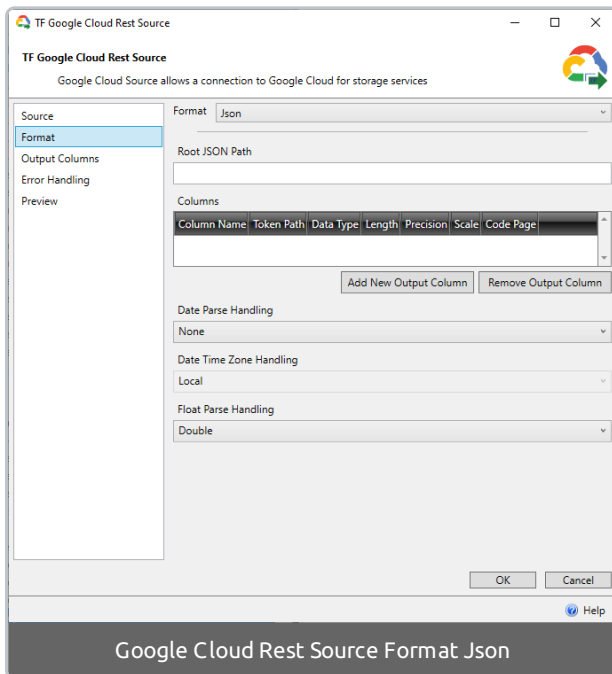


Option	Description
Delimiter	Identifies the character that separates columns. The default value is the comma (,).

Option	Description
<b>Lines To Skip</b>	Users can designate the number of lines to skip at the beginning of the delimited file.
<b>Auto</b>	Automatically detects which lines to skip.
<b>Lines To Scan</b>	Determines the number of lines to scan when detecting the file.
<b>Detect Formats</b>	Select this button to begin scanning the chosen file.

**Detected Delimited View** - After the format is detected, a new view appears that allows users to configure or change different properties of the file.

### Json Format



Option	Description
<b>Root Json Path</b>	JSON queries can return multiple levels, therefore, this field identifies the root to be used.
<b>Output Columns</b>	In this window, users can add and remove columns, define their name, token path (defined within the raw data), data type, length, precision, scale, and code page.
<b>Date Parse Handling</b>	Specifies how date formatted strings are parsed when reading JSON text. <ul style="list-style-type: none"> <li>• <b>None</b> - Strings are not parsed as a date type and are read as strings.</li> <li>• <b>DateTime</b> - Date formatted strings are parsed as DateTime.</li> <li>• <b>DateTime Offset</b> - Date formatted strings are parsed as DateTimeOffset.</li> </ul>

<p><b>Option</b></p> <p><b>Date Time Zone Handling</b></p>	<p><b>Description</b></p> <p>Specifies how to treat time values converted between string and DateTime.</p> <ul style="list-style-type: none"> <li>• <b>Local</b> - Treats the time as local (UTC times will be converted to local times.)</li> <li>• <b>Utc</b> - Treats the time as UTC. This will convert local time to UTC.</li> <li>• <b>Unspecified</b> - Treats the time as local time if a DateTime is being converted to a string. If a string is being converted to DateTime, convert to a local time if a time zone is specified.</li> <li>• <b>RoundtripKind</b> - Time zone is preserved when converting.</li> </ul>
<p><b>Float Parse Handling</b></p>	<p>Specifies how floating point numbers are parsed.</p> <ul style="list-style-type: none"> <li>• <b>Double</b> - Floating point numbers are parsed as a double datatype.</li> <li>• <b>Decimal</b> - Floating point numbers are parsed as a decimal datatype.</li> </ul>

## XML Format

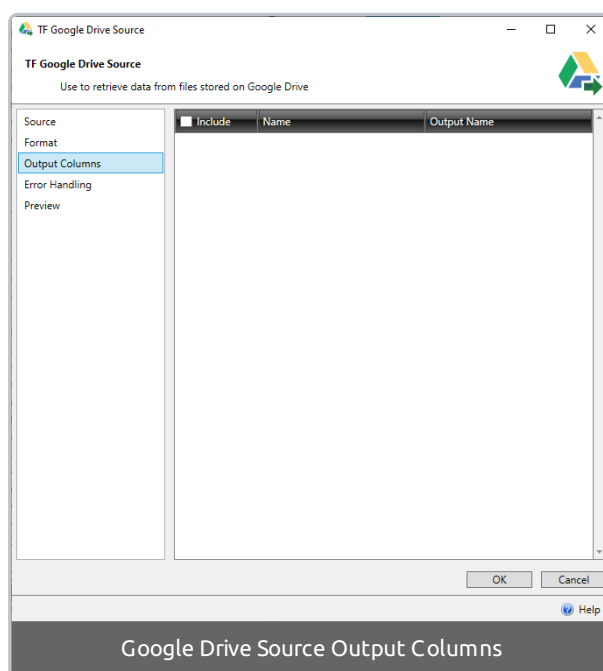
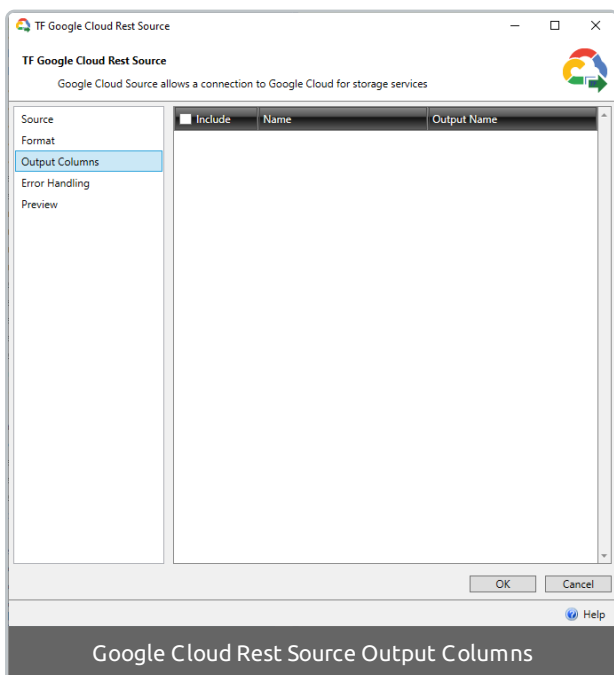
The screenshot shows the configuration window for the TF Google Cloud Rest Source. The 'Format' tab is selected, showing options for 'Format' (set to 'Xml'), 'Root XPath Query', 'Namespaces' (with 'Prefix' and 'Uri' fields), and a 'Columns' table with headers: 'Column Name', 'XPath', 'Data Type', 'Length', 'Precision', 'Scale', and 'Code Page'. There are 'Add New Output Column' and 'Remove Output Column' buttons below the table. The window title is 'TF Google Cloud Rest Source' and the footer text is 'Google Cloud Rest Source Format Xml'.

The screenshot shows the configuration window for the TF Google Drive Source. The 'Format' tab is selected, showing options for 'Format' (set to 'Xml'), 'Root XPath Query', 'Namespaces' (with 'Prefix' and 'Uri' fields), and a 'Columns' table with headers: 'Column Name', 'XPath', 'Data Type', 'Length', 'Precision', 'Scale', and 'Code Page'. There are 'Add New Output Column' and 'Remove Output Column' buttons below the table. The window title is 'TF Google Drive Source' and the footer text is 'Google Drive Source Format Xml'.

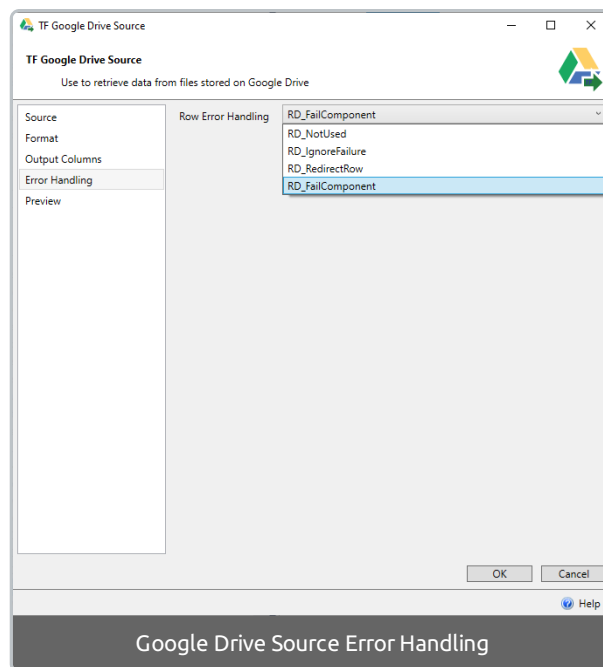
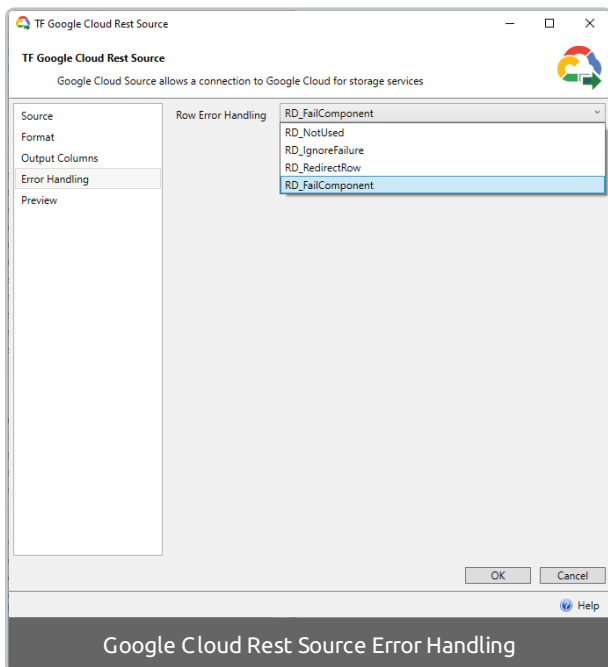
Option	Description
<p><b>Root XPath Query</b></p>	<p>XML queries can return multiple levels, therefore, this field identifies the root to be used.</p>
<p><b>Namespaces:</b></p>	<ul style="list-style-type: none"> <li>• <b>Prefix</b> - Identifies the prefix used in an xml namespace. Example: In the element \ the prefix is url.</li> <li>• <b>Uri</b> - The url or address identified in the namespace.</li> </ul>
<p><b>Columns</b></p>	<p>Users can create, remove, and configure the name, index (zero-based), data type, length, precision, and scale of the columns being extracted from the file.</p>

## Output Columns

Users can select which columns to include/exclude in the output. Additionally, users can rename the columns by selecting into its corresponding output name.



## Error Handling

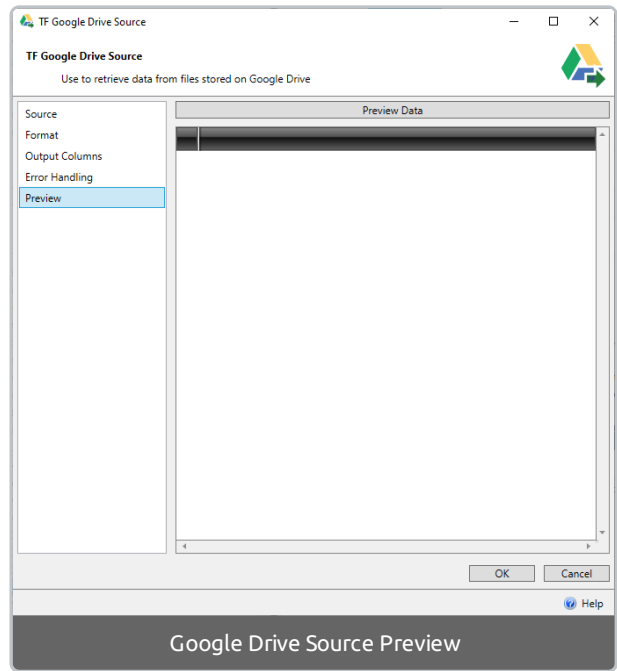
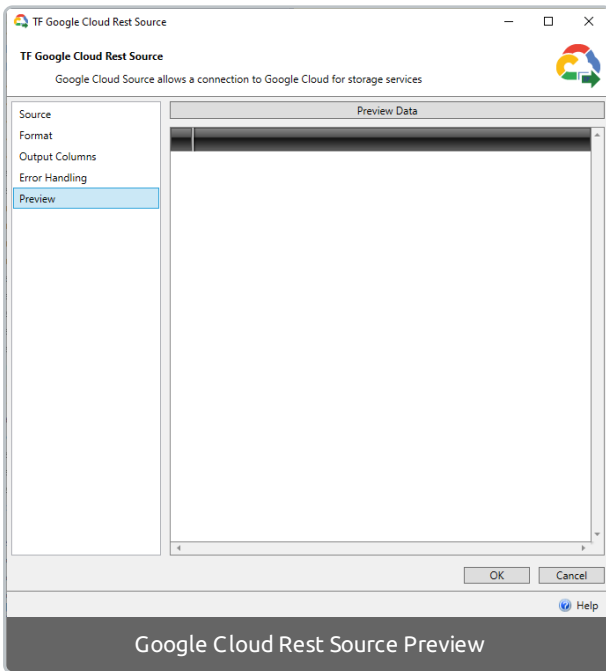


Option	Description
<b>Not Used</b>	Error handling is not used and no error constraint is available.
<b>Ignore Failure</b>	All errors are ignored and the package continues to execute.

<b>Option Redirect Row</b>	<b>Description</b> All error rows are directed to an error output.
<b>Fail Component</b>	(Default selection) On error, the component fails and the package execution stops.

## Preview

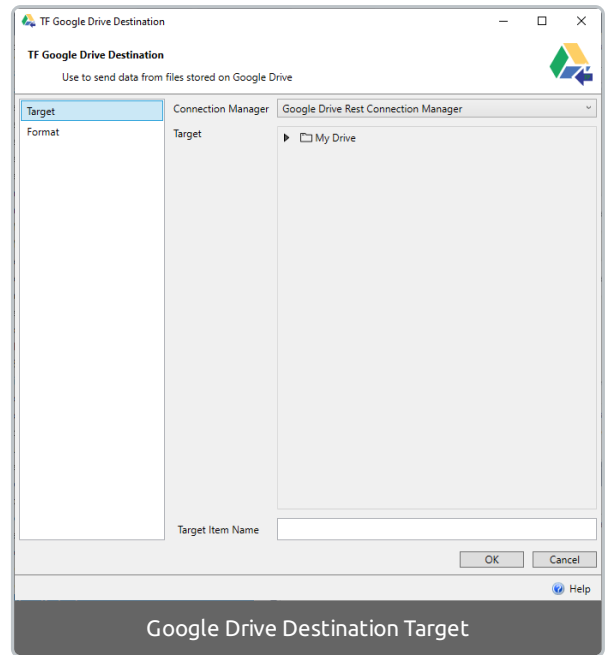
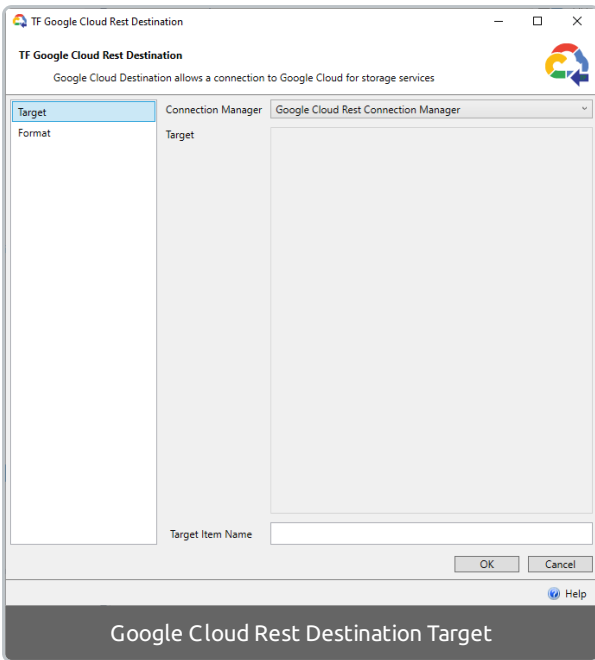
Select **Preview Data** after configuring the previous tabs to view an output sample.



## Google Cloud Destination and Google Drive Destination

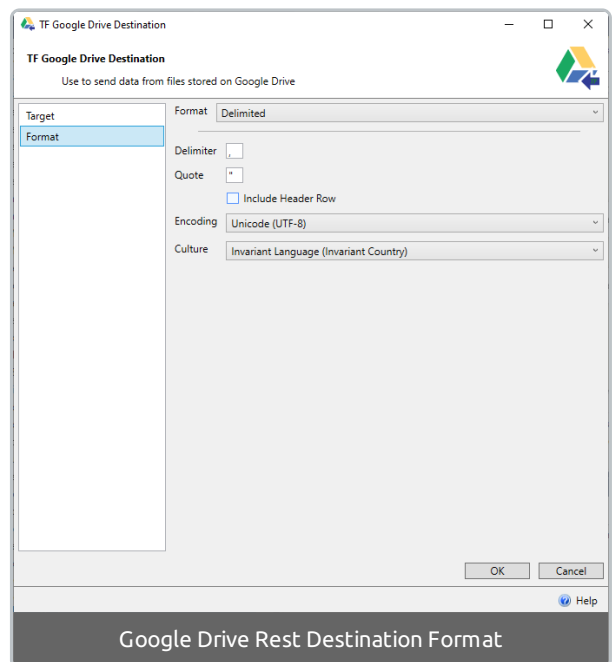
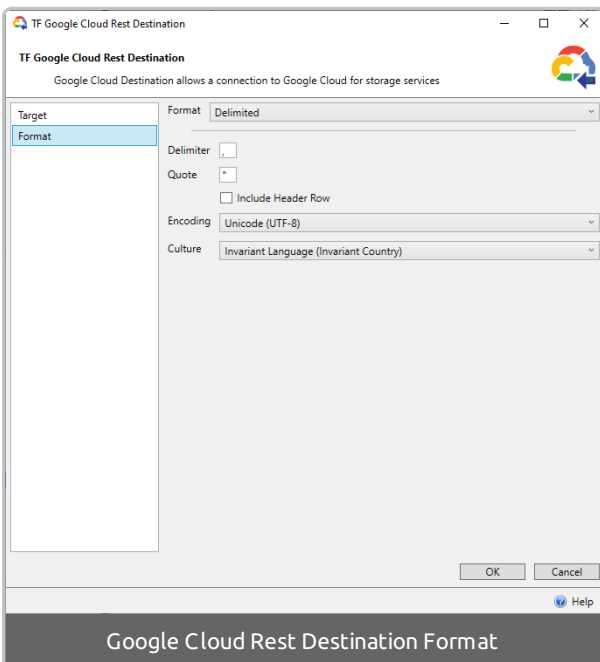
### Target

Begin by creating a connection manager that connects to a Google Storage container. After a connection manager is created, the source window populates with files and folders. Select the desired file to continue configuration.



Option	Description
<b>Target Item Name</b>	Defines the name and extension of the file you would like to create when the component is executed. (For example: <b>MyNewXmlList.xml</b> )

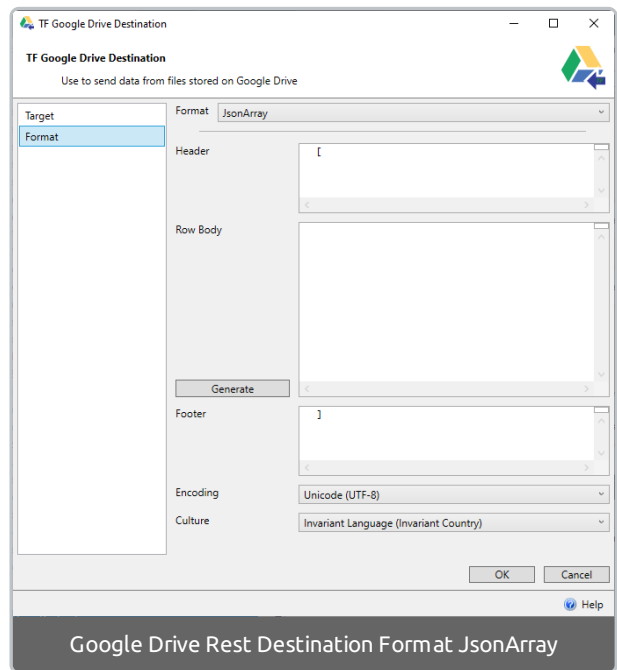
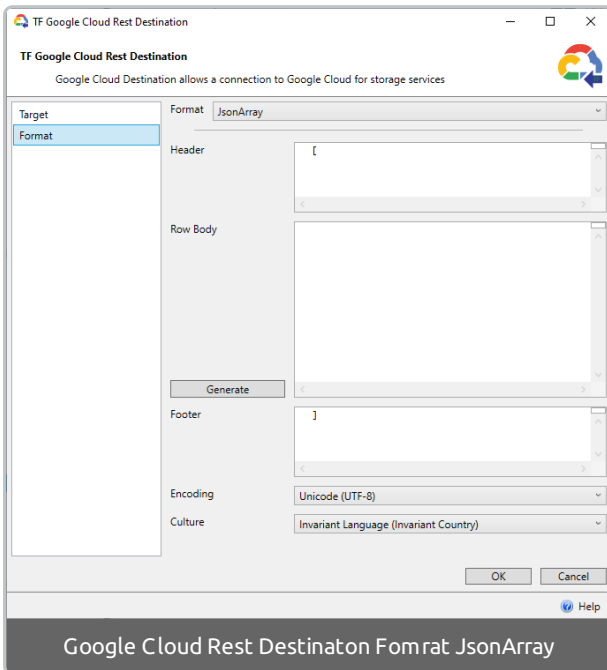
## Delimited Format



Option	Description
<b>Delimiter</b>	Identifies the character that separates text.

<b>Quote Option</b>	Identifies the character (single or double quote) that indicates value. <b>Description</b>
<b>Include Header Row</b>	Writes the column headers at the beginning of the document.
<b>Encoding</b>	Selects which encoding is used to create the document.
<b>Culture</b>	Used to identify the document's language culture.

## Json Array Format



Option	Description
<b>Generate</b>	Select to automatically generate the Row Body metadata. (Users can also add custom header and footer data.)
<b>Encoding</b>	Select which encoding is used to create the document.
<b>Culture</b>	Used to identify the document's language culture.

## XML Array Format

Google Cloud Rest Destination Form at XmlArray

Google Drive Destination XmlArray

Option	Description
<b>Generate</b>	Select to automatically generate the Row Body metadata. Users can also add custom header and footer data.
<b>Encoding</b>	Select which encoding is used to create the document.
<b>Culture</b>	Used to identify the document's language culture.