



BettrData.io User Guide

V.1.4.7v1

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Introduction

In today's competitive market, having the right data consistently at your fingertips is one of the most valuable tools a business can take advantage of in order to be competitive, build business and remain successful. However, scrutinizing data to uncover what is most beneficial can be time consuming and costly.

[Bettrdata.io](#) is a highly automated application that easily and aggressively manages data acquisition workflow to produce high quality and standardized data sets from many disparate data files and/or clients.

For organizations depending on high-quality transformed data from multiple sources, our platform is a data acquisition, data cataloging, data mapping, data profiling, data validation, and data conversion engine built for ease of use, agility, time and cost savings and consolidated management.

To access BettrData.io login at `<client>.bettrdata.io`. Your workspace and user logins will be provided to you by your BettrData.io account manager at setup.

Quick Start

Here's a few easy steps to get you quickly acquainted with and able to start using the BettrData.io platform.

1 Begin by creating Output Fields that represent all the shared fields available to the system. Output Fields must be added to a Convert Type in order to be used.

- Go to Administration>Manage Configurations>Output Fields tab.
- Select the **Add** button and enter one or more **New Output Fields**.
- Complete one or all of the Output Field columns on the Output Fields page.

To learn more about creating and managing Output Fields, see [Output Fields](#).

2 Next you'll need to construct Convert Types that enable you to govern just how files flow through the system and also help you address other unique customer needs.

- Go to Administration>Manage Configurations>Convert Types tab.
- Click the **New** button and add one or more **New Convert Types**.
- Next, click on different Convert Types in the list and select the **Add** button to add the desired Output Field(s) to the Convert Type.

To learn more about creating and managing Convert Types, see [Convert Types](#).

3 To begin to pull in data, you'll need to add one or more Source Clients.

- Go to Source Clients>Manage Clients page.
- Click the **New** button to add a new client, add a client name and **Save**.
- To add another client, click the **Close** button to be returned to the **Manage Clients** screen. Select the **New** button and repeat the process.

See [Creating a Client](#) to learn more about Source Clients and adding [Contacts](#), [Attributes](#), [Brands](#) and [Titles](#).

4 To be able to transmit data files for one or more owners, you'll need to create Source Routes.

- Go to Source Routes>Manage Routes page.
- Select an **Owner** from the dropdown, this client will 'own' the route and any data retrieved from the route.
- Click the **New** button to create a **New Route** on the **Edit Route** tab.
- Select a **Protocol** and complete all of the required fields. Select **Save**.
- Enable the route to pull in all data, or click on the **List** tab to select a specific file(s).

To learn more about setting up Source Routes, see [Source Routes](#).



5 Once you've created Source Routes for one or more owners, the system can now begin to access and process data and you can begin to manage files for each owner.

- Go to Files>Manage Files page. Any files that the system is aware of from Owners where you have either Enabled the route or have manually downloaded a file from List Files will be represented on the Files list.
- For any files in **Unidentified**, Select a convert **Type** for the file.
- As the file processes, it will move into the status of **Waiting to Convert**, click on the **Waiting to Convert** link in the Status column.

- The **BettrData.io Builder** will display.

To learn more about Files go to [Manage Files](#).

6 The BettrData.io Builder allows you to map and prepare to transform incoming data from its original format to the selected Convert Type output format.

- From the Builder page, click the **Build New Convert** button. The **BettrData.io Builder** will display.
- Make a selection for each column to identify and confirm the Output Fields.
- Click on any **red** icons that may display in a column once a selection is made to address **Date Format** or **Map Incoming Values** to the output field.
- Check the gray bar for any convert issues that may occur during the build. The red icon   corresponds to errors and the yellow to warnings.
- Click **Save** when you feel the build is accurate and complete.

To learn more about the Builder and creating a New Convert, see [Builder](#) and [Creating a New Convert from Scratch](#).

7 You are now ready to transform the data from its original format into a standardized output.

- From the gray bar on the BettrData.io Builder, select **>>Run**.
- Select **Test** from the **Environment** field on the **Run Convert** screen to run the file for the first time and then select the **Run** button.
- Once the file proceeds through the Run Convert, click on **View Report**.
- The Report page will display enabling you to view Run results and make any needed adjustments and/or corrections before making the final Run for Production.
- Select the **Save & Validate** button as corrections are made, the Save & Validate button will turn green when clicked (also saving thresholds). Click **Close** to return to the Run Convert screen (a green checkmark at the top of the page reflects that the file has been validated).
- You can now run the file in Production. Select **Production** from the Environment field and click **Run**. Once the report has Run again, select **Review Complete** at the top of the screen.

To learn more about transforming the data from its original format into a standardized output, see [Run](#) and [View Report](#).



User Guide

Home

From the Home page, you can easily manage each component of the acquisition and conversion workflow including the ability to add [Source Clients](#), setup [Source Routes](#), manage [Files](#), manage [Converts](#), and perform system [Administration](#). You can also view high level system counts and statistics.

The screenshot shows the BettrData.io Home page. On the left is a dark red sidebar menu with the following items: Home, Source Clients, Source Routes, Files, Converts, Administration, and Jupyter Lab. The main content area is titled 'Getting Started' and features five cards: Source Clients (with a person icon), Source Routes (with a diamond and dollar sign icon), Files (with a '01 10' icon), Converts (with a double arrow icon), and Administration (with a gear icon). Below these cards is a note: 'Add client(s) before adding 'routes' to start pulling in data. Routes and files always belong to a client.' The next section is 'What's Happening Now' with five cards showing counts: Processing (3), Unidentified (3), Waiting to Convert (0), Converting (0), and In Review (2). The final section is 'At a Glance' with a table showing converted and total counts for Today, Yesterday, This Month, Last Month, and All-Time.

Today	Yesterday	This Month	Last Month	All-Time
0 Converted	0 Converted	182 Converted	0 Converted	182 Converted
0 Total	0 Total	191 Total	0 Total	191 Total

To maneuver throughout the application simply click on a card or select an option from the left menu panel. Hovering over a card on the **Home** page will display instructional details about that component. Click on the  icon located at the top right of the page to logout or the **Email Support**  icon to send a **Support Request**. Support request emails will open in your default email client.

Support Request [demo.betrdata.io]:

support@betrdata.io

Support Request [demo.betrdata.io]:

Describe Issue:

Health Status:

```

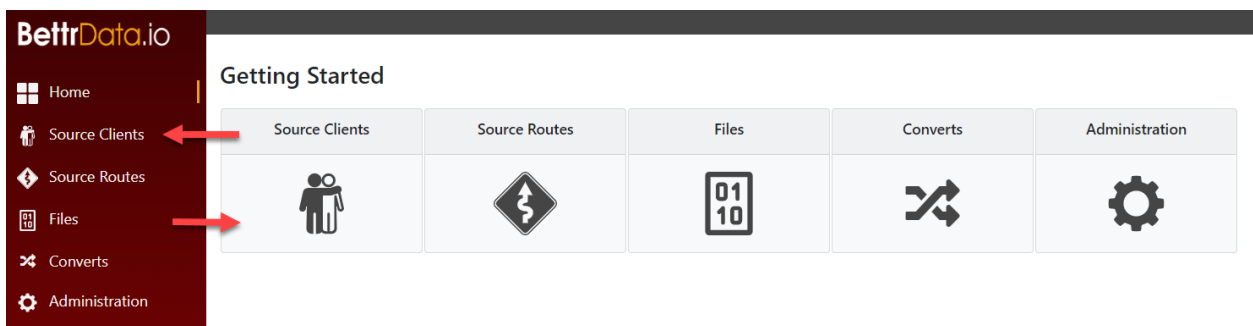
Indexer;1,true;GREEN;2021-01-14T23:52:27.888Z
Processing;2,true;GREEN;2021-01-14T23:52:29.302Z
Conversion;2,true;GREEN;2021-01-14T23:52:25.609Z
Auto Validate;1,true;GREEN;2021-01-14T23:52:21.983Z
Auto Convert;1,true;GREEN;2021-01-14T23:52:21.980Z

```

Be sure to include further information to the Subject Line after the colon (:.) and describe the issue as thoroughly as you can. Then click the **Send** button.


Getting Started


To access the different management options from the **Home** page, select an option from the menu panel or click on a card.



Menu items include:

 **Home** - located on the menu panel, clicking on **Home** will return you to the Home page.

 **Source Clients** - click on this option to get started. You'll need to add client(s) before adding routes to start pulling in data.

 **Source Routes** - Routes will need to be set up and enabled (or downloads triggered manually) to allow data to start to flow in. If enabled, the system then automatically scans Routes for new data.



Files - select Files to watch files flow through the different stages of the workflow, then add a convert type and Open in Builder to standardize and validate the data.



Converts - from here you'll be able to manage convert configurations produced in the Builder.



Administration - You'll start here if you are new or fine tuning. Add fields in the Field Configuration tab, then add those fields to a Convert Type in the next tab. Administration provides multiple options to view, validate and customize output.

What's Happening Now

From the **Home** page you'll also be able to monitor and quickly manage files as they advance through the workflow.

What's Happening Now

Processing	Unidentified	Waiting to Convert	Converting	In Review
5	3	3	0	0

The number of files that are [Processing](#), [Unidentified](#), [Waiting to Convert](#), [Converting](#) or in [Review](#) can be viewed from the different Workflow Count cards. Click on a card to be taken to that segment of the workflow process.


At a Glance

And to keep you updated on conversion trends, the Home page also provides a visual of the number of files that have been converted over time.






At a Glance

Today	Yesterday	This Month	Last Month	All-Time
0 <small>Converted</small> <hr style="width: 50%; margin: 0 auto;"/> 0 <small>Total</small>	0 <small>Converted</small> <hr style="width: 50%; margin: 0 auto;"/> 0 <small>Total</small>	364 <small>Converted</small> <hr style="width: 50%; margin: 0 auto;"/> 563 <small>Total</small>	0 <small>Converted</small> <hr style="width: 50%; margin: 0 auto;"/> 0 <small>Total</small>	364 <small>Converted</small> <hr style="width: 50%; margin: 0 auto;"/> 563 <small>Total</small>

System Status

Located at the lower right of the Home page and all pages of the applications is the **System Status**  icon. Click on the icon to view the status of the application's different services.

System Status for **demo.bettrdata.io** ×

Service	Enabled	Instances	Updated	Status
Indexer	✓	1	01/14/2021 16:24	
Processing	✓	2	01/14/2021 16:24	
Conversion	✓	2	01/14/2021 16:24	
Auto Validate	✓	1	01/14/2021 16:24	
Auto Convert	✓	1	01/14/2021 16:24	

Close

If the service is running without issue, the **Status** icon will be **green**. A **yellow** icon means that the service is disabled but no problem exists and a red status icon reflects that the service is not responding or there is an error. In this circumstance, a system ticket will be automatically generated (if enabled in settings) and sent to the **BettData.io support system**.

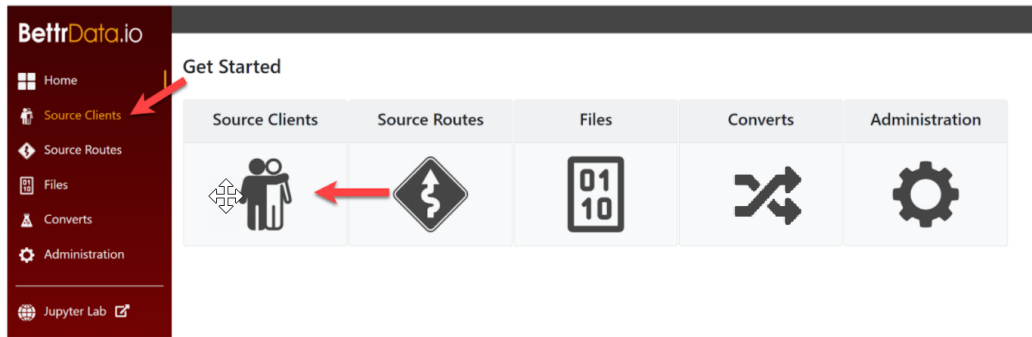
The Instances column displays the count of the services currently running. The number of running instances is part of your original setup and subscription plan, please contact support for more information or requested changes.

Source Clients

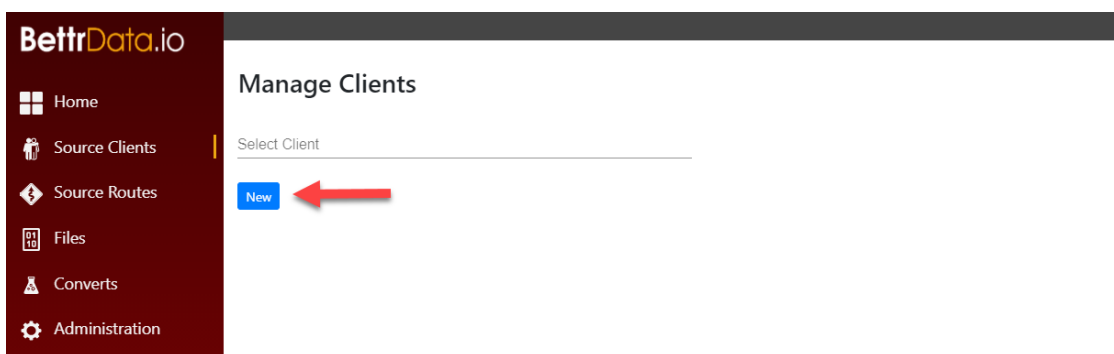
To set up and initiate the necessary acquisition workflow and begin to pull in data, you'll need to start by adding at least one **Source Client**. You can add one or multiple clients. You can also create **Brands** for each client and **Titles** for each brand. Brands and titles provide the ability to organize clients in a hierarchical structure, but is not required to use the platform effectively.

Creating a Client

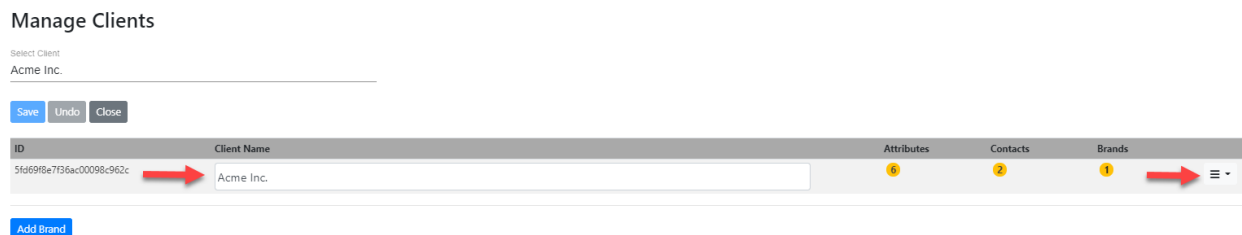
To create a new Client, select **Source Clients** from the menu panel or click on the Source Clients card on the Home page.



The **Manage Clients** page will display. Click on the **New** button.



The **Client Name** field will display. Type in the new client's name.



You can also select the menu icon located to the right of the screen to add additional details to a client such as [Contacts](#) or [Attributes](#) or click on the [Add Brand](#) button located beneath Client Name to include details to the client such as **Brand** and **Title**. Once client details have been completed, click the **Save** button.

If you'd like to revert changes made but would like to stay on the Manage Clients page, click the **Undo** button located to the right of Save.

To add another client, click the **Close** button to be returned to a blank Manage Clients screen. Select the **New** button and repeat the process. There is no limit to the number of new clients that you can add and you can complete all necessary client details prior to selecting Save.

Manage Clients

Select Client
Acme Inc.

Save Undo Close

ID	Client Name	Attributes	Contacts	Brands	
5fd69f8e7f36ac00098c962c	Acme Inc.	6	2	1	⋮

Add Brand

Note: Be sure to click the **Save** button prior to selecting **Close** so that any information entered or edited is not lost. The application provides tooltips letting you know whether an action taken such as Save has been successful.

Searching for a Client

To view a list of existing clients, select **Source Clients** and click on the **Select Client** text, a client menu will display. Click on a client to review its details.

Manage Clients

Select Client

- Acme Inc.
- New Client 2
- New Client 3

The **Manage Clients** page will display allowing you to view or make changes to the source client's information. The **Save** button will become enabled if any changes are made allowing edited information to be saved to the client.

If information is entered in error simply select **Undo** to reset client information to its last saved status.

To select an alternate client, hover on the **Select Client** field, the **X** icon will display. Click on the icon, the client list will display. Select a client.

Select Client
Acme Inc|

X

To delete a client, select the **Delete** option from the client's menu icon. **Note** that for more substantial deletes (deletes that cannot be undone) such as deleting a client, the system will display an 'Are you sure you want to delete' message to confirm that this is the action you intended to take. However, if a client or one of its brands or titles have routes or files associated in the system, a message will display letting you know the client cannot be removed.

Duplicate a Client

To duplicate client information (including contacts and attributes) and/or the client's Routes and Converts to a new client, select a client and click on the **Duplicate** option from the client's menu icon. The **Duplicate Client** screen will display.

Duplicate Client ×

New Client Name ⓘ

Duplicate Routes

Duplicate Converts

Cancel Duplicate

Once a **New Client Name** is entered, the Duplicate button will become enabled. In addition to duplicating any contacts and attributes the client may have, you can also include the client's routes and/or converts. Check one or both checkboxes to **Duplicate Routes** and/or **Duplicate Converts**. Then click the **Duplicate** button. The new client will now display on the Manage Clients page.

Note that while you are able to duplicate a client's converts and routes, **Duplicate will not** carry over the client's brands and titles or their associated converts or routes.

Add/Remove Contacts

You can designate client, brand or title Contacts to receive email notifications throughout the data acquisition process. Select a client, brand or title. Click on the **Contacts** option from the menu icon located to the right of the screen for the client, brand or title you wish to add a contact.

Manage Clients

Select Client
Acme Inc.

Save Undo Close

ID	Client Name	Attributes	Contacts	Brands
5fd698e7f96ac00098c962c	Acme Inc.	6	2	0

Add Brand

View
Contacts
Attributes
Edit Client
Delete
Duplicate

The **Contacts** screen will display. Click the **Add** button, contact information fields will display.

Contacts: Acme Inc.

Add


First Name	Last Name	Company Name	Phone	Email Address
John	Smith	Acme Inc.		jsmith@mail.com

Email File Receipt Email Convert Failure

Trash can icon

Enter pertinent contact information such as First Name, Last Name, Company Name, Phone and Email Address. Then check if the contact should receive email notification of:

- Email File Receipt
- Email Convert Failure

To add additional contacts, click the **Add** button again and repeat the process. If you'd like to remove a contact, click the **trash can**  icon located to the right of the screen.

When add contacts have been completed, **Close** the screen and select the **Save** button on the **Manage Clients** screen. All contact information will be saved to the client and the number of created Contacts will display in the count badge located to the right of the client, brand or title name. You can easily retrieve the Contacts page by clicking on the **Contacts Count** badge.

To edit contact information, simply return to the Contacts screen, make necessary changes, close the screen and click the **Save** button on the Manage Clients screen. All changes will be saved to the selected client, brand or title.

Add/Remove Attributes

You also have the ability to assign one or more **Client Attributes** to a client, brand or title enabling you to define custom properties to augment the client, brand or title with specific business attributes that can tie back to your Customer Relationship Management (CRM) system or other internal systems. In addition, attributes can be used in making data conversion decisions later in the process.

To assign an Attribute to a client, brand or title from customized attributes, select **Attributes** from the client, brand or title menu option or click on the **Attributes Count** badge.

Manage Clients

Select Client
Acme Inc.

Save Undo Close

ID	Client Name	Attributes	Contacts	Brands
5fd69f8e7f36ac00098c962c	Acme Inc.	6	2	0

Add Brand

- View
- Contacts
- Attributes
- Edit Client
- Delete
- Duplicate

The list of client **Attributes** will display.

Attributes: Acme Inc. ×

Attribute Name	Attribute Value
Sales Person	1 Bob
Notes	2
External ID	3 1876554
Email	4 j.smith@acme.com
Purchase	5 < January, 2021 > MO TU WE TH FR SA SU 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
Men's	6 <input checked="" type="checkbox"/>

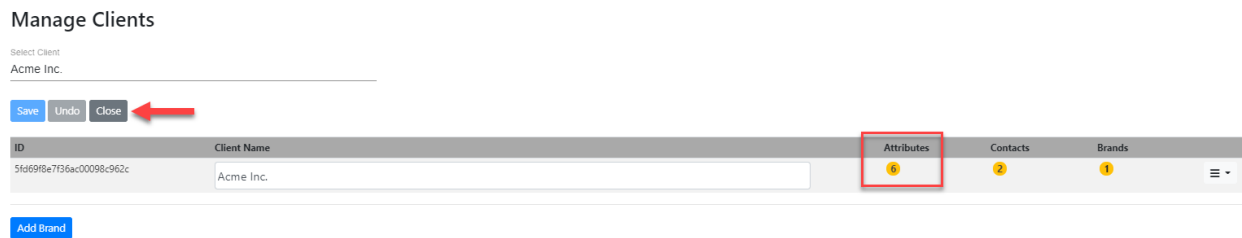
Enter an **Attribute Value** for any attribute in the list that you want assigned to the client, brand or title. You are not required to update all attribute values. When attribute assignment is complete, click on the **Exit (X)** button and then click the **Save** button on the Manage Clients screen.

1 Attributes with a Data Type of **Domain** provide a dropdown menu for Attribute Value selection.

2 For attributes with a Data Type of **Text**, a free form text box is available for Attribute Value entry.

- 3 For attributes with a Data Type of **Number**, you can enter a number or use the arrows to select a number for the Attribute Value.
- 4 Attributes with a Data Type of **String** provide a text box to enter a string of characters for the Attribute Value. One example might be an email address.
- 5 Attributes with a Data Type of **Date** provide a calendar to select a date for the Attribute Value.
- 6 For attributes with a Data Type of **Boolean**, checking the checkbox equals 'true' for the Attribute Value.

To view or make changes to assigned attributes, go to the **Source Clients** screen, select a client, brand or title and then select **Attributes** from the menu icon. Assigned attributes will display. If changes are needed, be sure to click the **Save** button on the Manage Clients screen when finished. The number of assigned Attributes will now display on the Client, Brand or Title **Attribute Count badge** on the bar. Click the badge to open the assigned Attributes screen.



See Administration [Attributes](#) for information on creating Client Attributes.

Add/Remove Brands

Once a client has been created you can add one or multiple **Brands** to the client that identifies and distinguishes the client's product(s) from others in the marketplace. A Brand can consist of a name, term, label or service. Brands can be added prior to saving initial client information or any time after a client has been saved.

Click on the **Add Brand** button located beneath the client name.



The **Brand Name** field will display. Enter a Brand.

Manage Clients

Select Client
Acme Inc.

Save Undo Close

ID	Client Name	Attributes	Contacts	Brands	
5fd69f8e7f36ac00098c962c	Acme Inc.	6	2	1	⋮

Add Brand

ID	Brand Name	Attributes	Contacts	Titles	
6035946ad01096000906fcb1	Women's Sportswear	0	0	0	⋮

If you'd like to enter more than one brand, click on **Add Brand** again and complete the **Brand Name** field for each additional brand. When finished, click the **Save** button. You have the ability to add or remove client brands at any time.

To delete a brand, select the **Delete** option from the client's menu icon. **Note** that if a brand or title have routes or files associated in the system, a message will display letting you know that the brand cannot be removed.

Add/Remove Titles

Once you've created a new brand, you can further differentiate the brand by assigning one or more titles to the brand. Click on a brand and then select **Titles** from the menu icon located to the right of the screen. The **Add Title** button will display. Click the **Add Title** button.

Add Brand

ID	Brand Name	Attributes	Contacts	Titles	
6035946ad01096000906fcb1	Women's Sportswear	0	0	0	⋮

Add Title

- View
- Titles
- Contacts
- Attributes
- Edit Brand
- Delete

The **Title field** will display. Enter a title.

Add Title

ID	Title Name (under Women's Sportswear)	Attributes	Contacts	
60359529d01096000906fcb2	Women's	0	0	⋮

If you'd like to enter more than one title for the selected brand, just click the **Add Title** button again and complete the **Title Name** field for each additional title. You can repeat this process for any brand assigned to the client. Once you've completed title entry, click the **Save** button.

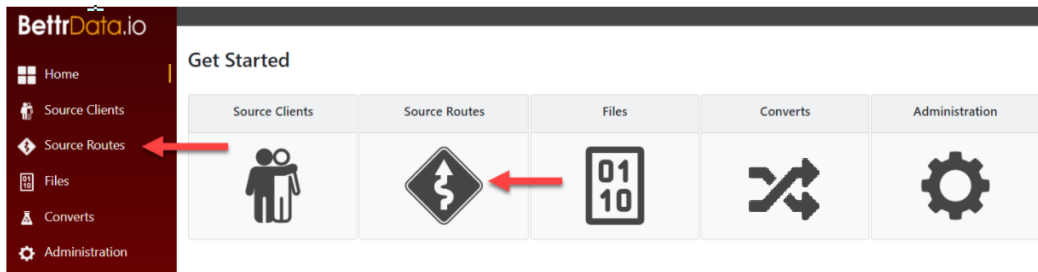
To delete a Title, select the **Delete** option from the client's menu icon. **Note** that if a title has routes or files associated in the system, a message will display letting you know that the title cannot be removed.

Source Routes

The next step in the setup process is to specify the routes for transmitting one or multiple data files for an owner or owners. Clients, brands or titles can be selected as an Owner.

Create a Route

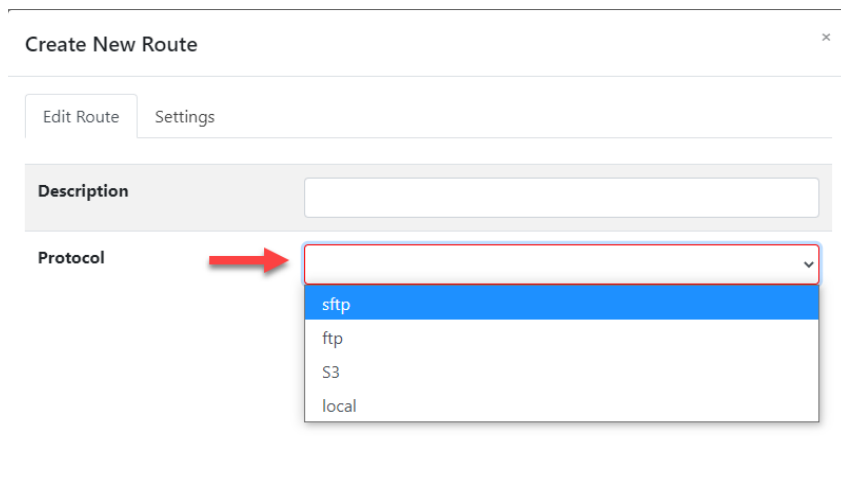
To create a New Route, select **Source Routes** from the menu panel or click the Source Routes card on the **Home** page.



The **Manage Routes** page will display. Click the **New** button.



The **Create New Route**, **Edit Route** tab will display.



Select a **Protocol** for how the information will be structured for transmission, either sftp (secure file transfer protocol), ftp (file transfer protocol), AWS S3, or local (load data from a

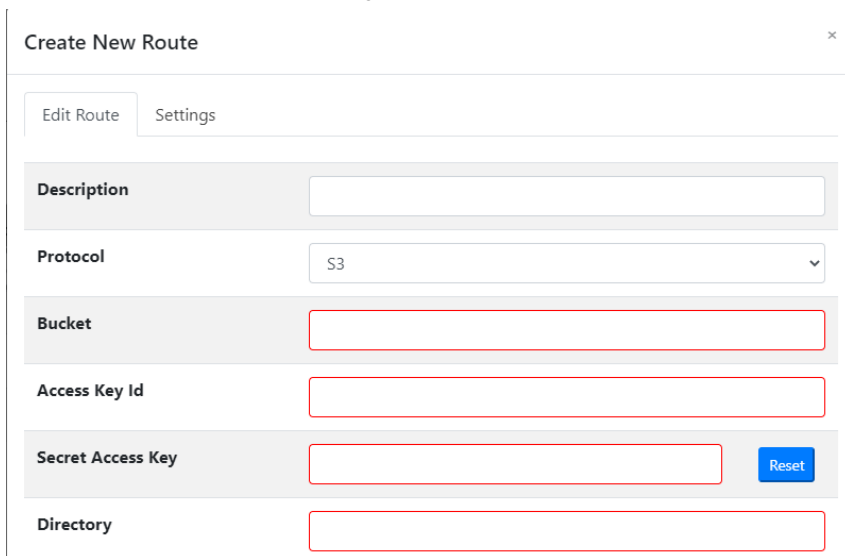
preconfigured local file system directory). **Note** that the **local** route type maps to a local sftp server. While it is not required to get data into the system using a local server, this option is provided to you automatically by BettrData.io. Please request credentials from your account manager.

The screenshot shows a 'Create New Route' dialog box. At the top left is an 'Edit Route' button with a red arrow pointing to it. Below this are several form fields, each with a red circle containing a number from 1 to 7. Field 1 is 'Description'. Field 2 is 'Host'. Field 3 is 'Port', which is a dropdown menu currently showing 'sftp'. Field 4 is 'Username'. Field 5 is 'Password', with a blue 'Reset' button to its right. Field 6 is 'Directory'. Field 7 is 'Enabled', which is a checkbox. Below these are three more checkboxes: 'No Fail' and 'No Delete'. At the bottom right are 'Save' and 'Close' buttons.

If sftp, ftp, or local is selected as the protocol, all required fields highlighted in red must be completed.

- 1 Feel free to add a **Description** to the route (this is an optional feature).
- 2 Enter a Host server.
- 3 Select a Port number.
- 4 Enter a Username.
- 5 Enter a connection **Password**. **Note** that you have the ability to update the password at any time. Just click the **Reset** button to enter a new password and then select **Save**.
- 6 Identify the **Directory** where the file(s) can be located. **Note** that when 'local' is selected as the Protocol, `/load/<owne_namer>` is automatically updated for you in the Directory field and that directory is created on the local server.

If **S3** is selected as the Protocol, required entry fields for **Bucket**, **Access Key ID**, **Secret Access Key** and **Directory** must be completed. Notice that just like Password, you have the ability to **Reset** the Secret Access Key.



The screenshot shows a web form titled "Create New Route" with a close button (x) in the top right corner. Below the title are two tabs: "Edit Route" and "Settings". The form contains several input fields and a dropdown menu:

- Description:** A text input field.
- Protocol:** A dropdown menu with "S3" selected.
- Bucket:** A text input field with a red border.
- Access Key Id:** A text input field with a red border.
- Secret Access Key:** A text input field with a red border and a blue "Reset" button to its right.
- Directory:** A text input field with a red border.

8 If you'd like to enable automatic download of the data, check the **Enabled** checkbox. **Note** that unless the **No Delete** checkbox is checked, data will be deleted once it is transmitted in order to reduce the risk of duplication.

If you are unsure and would like to confirm that all files from a particular source should be enabled for automatic download, take these steps before selecting the Enabled checkbox. Leave the **Enabled** checkbox unchecked and be sure that Protocol, Host, Port, User Name, Password and Directory have been completed and that you have **Saved** the route. The List Files tab will display at the top of the page. Select the **List Files** tab.

Edit Route Settings **List Files** ←

Description

Protocol

Host

Port

Username

Password

Directory

Enabled



No Fail









No Delete

The **List Files** page will display. Click the **List Files on Route** button. All files included in the route will display.

Manage Route: sftp://sftpuser@sftp.phase3.io

Edit Route Settings List Files

List Files on Route  

Filename	ByteSize	Mapped Type	Passed Filter	Load
customer.0.csv	2097659	customer	✗	
customer.100.csv	3981336	customer	✗	
customer.101.csv	2393914	customer	✗	
customer.102.csv	262144	customer	✗	
customer.zip	196266815	customer	✓	
file.bad.gpg	911272		✗	
order-header.zip	2484718	order-header	✓	
suppression.zip	58193828	suppression	✓	

Close

From here you can review each file and confirm whether you'd like all files in the route to be Enabled for automatic transmission. If you determine that all files on the route should be enabled, simply return to the Edit Routes page and check the **Enabled** checkbox. Files that are enabled for automatic conversion will display on the [Manage Files](#) page located on the Home page [Files](#) tab to begin processing.

Enabled

No Fail

No Delete

Notice that when the Enabled checkbox is checked, the **No Fail** checkbox will default to checked which prompts the system to continue to try to pull in data if initially unsuccessful. Uncheck the **No Fail** checkbox to turn off this feature. Also, checking the Enabled checkbox will disable the **No Delete** checkbox to avoid downloading the same file multiple times.

Enabled

No Fail

No Delete

Checking the **No Delete** checkbox will prevent downloaded data from being deleted. For example, you may not have access rights to delete the data or the site owner may not want the data removed. To enable the No Delete feature, the **Enabled** checkbox must be unchecked.

Click **Save** when all the routing information has been completed. Notice that all required fields highlighted in red must be completed before the **Save** button will become enabled.


To create additional routes for the owner, click the **New** button on the Manage Routes page again and repeat the process. A single owner can include one or more routes.

Note that the system maintains **Edit Route versioning** so if there is more than one user making changes at the same time, or you have multiple windows open working on the same routing information, the system will alert you on **Save**. A message will display letting you know that Save has failed due to a version conflict and that the page has been refreshed with the newest changes. Make your changes again and select Save.



Search for a Route

To search for a **Route**, select **Source Routes** from the menu panel, the **Manage Routes** page will display. From here you can select a filter(s) from the gray bar including Protocol, Host, Username or Directory to view routes across owners that contain the selected filter(s).

Manage Routes


Select Owner 

New



Owner/Desc	Protocol	Host/Bucket	Port	Username	Directory	Enabled	No Delete	No Fail	Bulk	
	Select 	Host/Bucket		Username	Directory	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	


To search for a particular owner's routes, click on the **Select Owner** field and select an owner. Routes created for this owner will display. Notice that if available, the route's Description will display under Owner/Desc. Otherwise, the owner will display. You have the ability to refine this list as well using the different filters in the gray bar.

Manage Routes

Select Owner
Acme Inc. 

[New](#)

Owner/Desc	Protocol	Host/Bucket	Port	Username	Directory	Enabled	No Delete	No Fail	Bulk	
Acme Inc. 	Select	Host/Bucket		Username	Directory					Filter
Acme Inc with customer filter 	sftp	sftp.phase3.io	222	sftpuser	/upload/mockData/	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Filter
Reset
Bulk Actions
Manage

To remove an owner from the screen, click the **X** located next to the blue highlighted owner name or select **Reset** from the gray bar menu. To select an alternate owner, hover on the **Select Owner** field, an **X** icon will display. Click the **X** to view the list of owners, make a selection.



Manage by Bulk


Using the gray bar menu on the Manage Routes page you have the ability to update route passwords in bulk. In the **Bulk** column check the routes that you would like to include in the bulk update. Then select **Manage** on the gray bar menu.

Manage Routes

Select Owner
Acme Inc.

[New](#)

Owner	Protocol	Host	Port	Username	Directory	Enabled	No Delete	No Fail	Bulk	
Acme Inc. 	Select	Host		Username	Directory					Filter
Acme Inc. 	sftp	sftp.phase3.io	222	sftpuser	/upload/mockData/	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Acme Inc.	sftp	bettrdata.local	22	sftpuser	/	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>





Filter
Reset
Bulk Actions
Manage

The **Bulk Updates** screen will display. Enter a new password and select the blue **Update Routes** button. The selected routes will be updated with the new password.

Bulk Updates

Update Password(s)





Managing a Route

From the Manage Routes page, you have the ability to manage an existing route. Just select the **Manage** option from a route menu icon. Route information will display. From here you can view or make changes to routing information, create or update different settings, or go to the **List Files** tab to view and manage files on the route.

Manage Routes

Select Owner
Acme Inc.

New

Owner	Protocol	Host	Port	Username	Directory	Enabled	No Delete	No Fail	Bulk
Acme Inc.	Select	Host		Username	Directory				
Acme Inc. <small>Acme Inc with customer filter</small>	sftp	sftp.phase3.io	222	sftpuser	/upload/mockData/	✓	✓	✓	□
Acme Inc.	sftp	bettrdata.local	22	sftpuser	/				□

- Manage
- Duplicate
- Delete

Edit Route

Go to [Create a Route](#) for information on how to create or edit a route.

Settings

If you'd like to further distinguish files in an owner's route click on the **Settings** tab at the top of the **Create or Manage Route** screen. From here, [Mappings](#), [Filters](#) and [Archive Passwords](#) can be assigned to a client route.

Manage Route: sftp://sftpuser@sftp.phase3.io

Edit Route Settings

- Mappings (3) Add patterns to automatically match a Convert Type
- Filters (2) Add patterns to filter which files are indexed from an enabled route
- Archive Passwords (0) Add passwords to automatically extract protected zip or pgp files

Save Close

Mappings

The Mappings setting is used to create matching patterns to automatically assign a convert type based on filename. To create a **Mapping**, enter a **Pattern** (valid regular expressions are supported) and select a **Type** to automatically match a filename to a selected type. One example of a Pattern might be 'Customer' to map customer related data to a the convert type of customer.

Pattern	Type	Qualifier	Action
Customer	customer		Add

While the system provides the ability to create custom Types using [Convert Types](#), the default list of selectable Types include:

Layout- this type is usually informational in nature and if assigned, will not proceed through the conversion workflow

Ignore- Files marked as Ignore are removed from the workflow and are marked as Will not Convert

Duplicate- this type is byte for byte exactly the same as a file that already exists and will be treated as Ignore

Document- this type will be treated as Ignore

Parent- an archive that has produced at least one other file (EG. a zip file); this type will not proceed through the conversion workflow

You can also enter a **Qualifier** in order to assign a more specific differentiator to the convert type. This is an optional feature. An example of a Qualifier for the Convert Type of customer might be 'Colorado' or 'Utah'.

Once Mapping information has been entered, click the **Add** button. Mapping details will display on the **Settings** screen and will also be included in the count located next to the Mappings text. You can enter and map multiple Patterns to different data Types.

To remove a Mapping, simply click on the **Delete** icon for the selected item.

Filters

Filters provide the ability to limit the files that are downloaded from a route. Adding patterns enable you to filter which files are indexed from an enabled route. If a pattern is matched, the

file will be downloaded. From the **Settings** page, click on **Filters** and enter a **Filter Pattern** (valid regular expressions are supported). Then click the **Add** button. The added filter will display beneath the Filter Pattern field and the filter pattern count will display next to the Filter text. You can enter multiple Filters to a Route.

Filters (2) Add patterns to filter which files are indexed from an enabled route

Filter Pattern	Action
<input type="text" value="RegEx"/>	<input type="button" value="Add"/>
.*\zip\$	<input type="button" value="Delete"/>
house	<input type="button" value="Delete"/>

To remove a Filter, click on the **Delete** icon for the selected item and save the route.

Archive Passwords

From the Settings page you can also add **Passwords** to automatically extract protected zip or pgp files. For example you may require a password to open an individual file. Select a **Type**, enter a **Description** and **Password**.

Archive Passwords (0) Add passwords to automatically extract protected zip or pgp files

Type	Description	Password	
<input type="text" value="Select"/>	<input type="text" value="Description"/>	<input type="text" value="Password"/>	<input type="button" value="Add"/>

After completing Settings, click **Save**.

You can now select the List Files tab and click the **List Files on Route** button to see the Mapped Types and Passed Filters for the route's list of files. Files that pass the created filters will display with a checkmark, those outside of the filters will display with an **X**.

Note that filters are not respected when manually downloading data by clicking the **Load** icon.

Manage Route: sftp://sftpuser@sftp.phase3.io

Edit Route Settings List Files

List Files on Route

Filename	ByteSize	Mapped Type	Passed Filter	Load
customer.0.csv	2097659	customer	×	↓
customer.100.csv	3981336	customer	×	↓
customer.101.csv	2393914	customer	×	↓
customer.102.csv	262144	customer	×	↓
customer.zip	196266815	customer	✓	↓
file.bad.gpg	911272		×	↓
order-header.zip	2484718	order-header	✓	↓
suppression.zip	58193828	suppression	✓	↓

Close

Be sure to click the **Save** button once all the owner's routing information has been completed. Click **Close** to return to the Manage Routes page where the Owner's routing information will now display.

Duplicate Routes

From the Manage Routes page, you can duplicate routes. Select the **Duplicate** option from the menu of the route that you wish to duplicate. The **Duplicate Route** screen will display providing further options to **Change Owner**, **Keep Type Mappings**, **Keep Route Filters** and/or **Keep Archive Passwords**.

Manage Route Duplicate Route

Owner

- Change Owner
- Keep Type Mappings
- Keep Route Filters
- Keep Archive Passwords

Acme Inc

Acme Inc with customer filter

Acme Inc with order filter

Cancel Duplicate

No Delete No Fail Bulk

✓ □

Manage Duplicate Delete

Select the **Duplicate** button to create the update or click **Cancel** to return to the Manage Routes

screen. Duplicated routes will display on the Manage Routes list.

Delete a Route

To delete an owner's route, select an **Owner** on the Manage Routes page and then select a route that you wish to delete. Click the **Delete** option from the menu icon of the route that you have selected.

Manage Routes

Select Owner
Acme Inc.

[New](#)

Owner	Protocol	Host	Port	Username	Directory	Enabled	No Delete	No Fail	Bulk	
Acme Inc. <small>Acme Inc. with customer filter</small>	Select	Host		Username	Directory					
Acme Inc.	sftp	sftp.phase3.io	222	sftpuser	/upload/mockData/	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	☰
Acme Inc.	sftp	bettrdata.local	22	sftpuser	/	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	☰

☰

- Manage
- Duplicate
- Delete

An acknowledgement will display confirming that Delete is the action you wish to take. Click **Ok** to delete. The route will no longer be available to take in new data sources. Or click **Cancel** to annul the action and return to the Manage Routes page.

List Files

The **List Files** page enables you to view and manage a list of all files available on a route. Go to [Create a Route](#) or [Manage Route](#) to review details on the use of List Files for Enabling automatic file download.

If you choose not to Enable auto-download for all the files on a route, you have the ability to transmit one or more files on the List Files page manually. From the Manage Route page, select the **Manage** option from the route's menu icon. Route information will display. Select the **List Files** tab.

sftp://sftpuser@sftp.phase3.io

Edit Route Settings **List Files**

Description Acme Inc

Protocol sftp

Host sftp.phase3.io

The **List Files** page will display. Click on the green **List Files on Route** button.

Manage Route: sftp://sftpuser@sftp.phase3.io


Edit Route Settings List Files

List Files on Route

Filename	ByteSize	Mapped Type	Passed Filter	Load
customer.0.csv	2097659	customer	×	↓
customer.100.csv	3981336	customer	×	↓
customer.101.csv	2393914	customer	×	↓
customer.102.csv	262144	customer	×	↓
customer.zip	196266815	customer	✓	↓
file.bad.gpg	911272		×	↓
order-header.zip	2484718	order-header	✓	↓
suppression.zip	58193828	suppression	✓	↓

Close

The list of files included on the route will display along with the Filename, ByteSize, any created Mapped Types or Filters and the Load column.

Select the **download**  icon from the **Load** column for any files that you wish to download manually.

Edit Route Settings List Files

[order-header.zip] has been queued for processing, see Files::Processing for status.

Filename	ByteSize	Mapped Type	Passed Filter	Load
customer.zip	196266815	customer	✓	↓
order-header.zip	2484718	order-header	✓	↓

Notice that once the Load icon is selected, it will no longer display indicating that the file has been initiated for manual download. An alert will also display at the top of the page. Any files listed including those that did or did not pass a filter are eligible to be manually downloaded.

Click **Close** when download selection is complete (saving is not required after initiating a download). The new file entry will now display on the [Manage Files](#) page located on the Home

page [Files](#) tab to begin processing.

Note that if a route has been enabled and a given file passes the filter, the file will be automatically downloaded and therefore the download icon will not be available. Disable the route or change the filter in order to download the file manually.

Filename	ByteSize	Mapped Type	Passed Filter	Load
customer.100.csv	3981336	customer	✗	⬇️
customer.101.csv	2393914	customer	✗	⬇️
customer.102.csv	262144	customer	✗	⬇️
customer.zip	196266815	customer	✓	⬇️

Files

Once Source Routes have been assigned to Owners for the system to access its data, you can now begin to manage and process different files for the various owners. This is where you'll experience even more of the power of the product with benefits such as:

- File type automation, providing hints or just allowing the system to assign types for you as it learns
- Automatic download, detection, processing and out of the box support for multiple formats
- Ability to filter fields and organize data by client or in ways most beneficial
- Field mapping auto assignments that get better as the system learns
- Automatic processing end-to-end when new data is located and made available to downstream systems
- System continually learns and becomes smarter so you work less and benefit more

Select **Files** from the menu panel or click the Files card on the Home page.

The **Manage Files** page will display. Any files that the system is aware of from Owners where you have either Enabled the route from the [Edit Routes](#) tab or have manually downloaded a file from the [List Files](#) tab will be represented on the **Files list**.

Manage Files

Owned By	Create Date	Filename	ID	MDS	Attributes	External ID	Notes	Email	Record #	Format	Length	Types	Status	Bulk
Acme Inc.	01/21/2021 16:02	order-header.9.csv										duplicate	Processing	<input type="checkbox"/>
Acme Inc.	01/21/2021 16:02	order-header.89.csv							24,082	comma	8	order-header	Convert Complete	<input type="checkbox"/>
Acme Inc.	01/21/2021 16:02	order-header.88.csv							12,030	comma	8	order-header	Convert Complete	<input type="checkbox"/>
Acme Inc.	01/21/2021 16:02	order-header.87.csv							27,820	comma	8	order-header	Convert Complete	<input type="checkbox"/>
Acme Inc.	01/21/2021 16:02	order-header.86.csv							32,652	comma	8	order-header	Convert Complete	<input type="checkbox"/>
Acme Inc.	01/21/2021 16:02	order-header.85.csv							15,698	comma	8	order-header	Convert Complete	<input type="checkbox"/>
Acme Inc.	01/21/2021 16:02	order-header.84.csv							9,575	comma	8	order-header	Convert Complete	<input type="checkbox"/>
Acme Inc.	01/21/2021 16:02	order-header.83.csv							4,935	comma	8	order-header	Convert Complete	<input type="checkbox"/>
Acme Inc.	01/21/2021 16:02	order-header.82.csv							29,939	comma	8	order-header	Convert Complete	<input type="checkbox"/>
Acme Inc.	01/21/2021 16:02	order-header.81.csv							20,449	comma	8	order-header	Convert Complete	<input type="checkbox"/>

You can manage the number of files that you see on the Files page by clicking on the row count located at the bottom left of the page. Additional files in the list can be viewed by selecting **Next>>** or **<< Last** located to the bottom right of the page.

Workflow Tabs

The Workflow Tabs located across the top of the Manage Files page provide the ability to easily follow and manage the file processing workflow. You can click on each tab to view and manage files that fall into that particular segment of the workflow.

Tabs include:

- Search** - default view displaying all owners and files with the ability to search.
- My Files** - files with a status of **Lock** can be found on this tab.
- On Hold** - files with a status of **Hold** can be found on this tab.

The remaining processing tabs include a count of the number of files that fall into that segment of the workflow (for example, Processing **6**) and include statuses for:

Processing

Before processing actually begins, the system places each file in the Status of **Waiting to Process** as it pauses to assure that the file is not still growing. If the file remains static (with the same byte count) for two minutes, it is moved onto **Processing**. However if during the two minute pause the file size does change, the two minute count will restart and continue until the file size remains static. The count for the number of files Waiting to Process will appear on the Processing tab in the workflow. These statuses (and others) are also available in the Status column menu on the Manage Files gray bar.

Once a file begins Processing, the system will begin to analyze the data, map the file to a [Type](#) if known and prepare the data for conversion. During Processing a file can be placed in different statuses or receive various alerts if problems arise during processing.

Note that these file types are currently supported: ASCII or UTF-8 fixed or delimited, zip, Excel (xls, xlsx), rar, gzip, json (depth=1), pgp/gpg and dbf. If a file does not meet its given specification or is invalid, the file type may not be supported.

Unidentified

This status is assigned to any file that is missing Type, Format, or Length. Format and Length are rarely not detected by the system and if missing is an indicator that there is an oddity with the data. See [Types](#) and [Convert Types](#) for more information on Types.

Waiting for Convert

At this status the file has everything it needs to be converted using the [BettrData.io 'Builder'](#). Files stay in Waiting to Convert for 1 of 2 reasons. Either there is no convert setup or **Auto Convert** is not enabled.

For files in the status of 'Waiting to Convert', the system provides a **quick link** to the next step in the process using the [BetterData.io Builder](#) to build a new convert. The **Open in Builder** option is also available on the files' menu icon. See [Builder](#) for more information on building a new convert.

Owned By	Create Date	Filename	ID	MD5	Attributes	Record #	Format	Length	Types	Status	Bulk
		Filename or Regular Expression					Any		Any	Any	
Acme Inc.	02/23/2021 18:42	customer0.csv				14,862	comma	16	customer	» Waiting For Review	<input type="checkbox"/>
Acme Inc.	02/18/2021 12:33	jesse_test_virtual_file				99	fixed	259	customer	» Waiting To Convert	<input type="checkbox"/>

Converting

In this status, the data is being actively transformed. There are no user actions required when files are in this state.

Waiting for Review

A file is assigned the status of **Waiting to Review** if:

- A threshold configuration has not been created for the given convert
- A threshold validation has failed
- Or **Auto Validate** is turned off. When Auto Validate is turned on, the file will bypass the status of Waiting for Review automatically moving it onto Convert Complete if all validations have passed.

For files in the status of 'Waiting to Review', the system provides a **quick link** to the next step in the process, **Run Convert**. The **>>Run** option is also available on the files' menu icon. See [Run](#) for more information on Run Convert.

Owned By	Create Date	Filename	ID	MD5	Attributes	Record #	Format	Length	Types	Status	Bulk
Acme Inc.	02/23/2021 18:42	customer.D.csv				14,862	comma	16	customer	Waiting For Review	

Convert Complete

The Convert process has been completed and standardized output data is ready for downstream processing.

Search Bar & Columns


The Files list gray bar provides further options to filter the list including filter by:

Manage Files

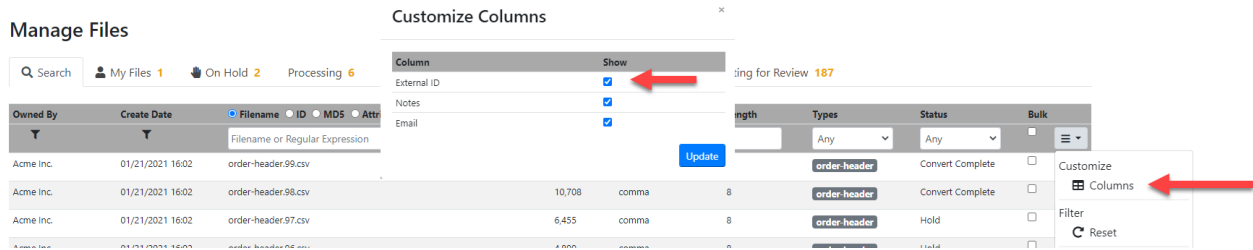
Search My Files 1 On Hold 2 Processing 6 Unidentified 3 Waiting to Convert 0 Converting 0 Waiting for Review 187

Owned By	Create Date	Filename	ID	MD5	Attributes	External ID	Notes	Email	Record #	Format	Length	Types	Status	Bulk
Acme Inc.	01/21/2021 16:02	order-header.99.csv							17,430	comma	8	order-header	Convert Complete	
Acme Inc.	01/21/2021 16:02	order-header.98.csv							10,708	comma	8	order-header	Convert Complete	
Acme Inc.	01/21/2021 16:02	order-header.97.csv							6,455	comma	8	order-header	Hold	

Customize Columns Filter Reset

- **Owned by** - click the filter  icon to filter by owner. The selected owner's name will be highlighted in blue. Click the **X** located to the right of the highlighted name to remove the filter.
- **Create Date** - click the filter icon to filter by a date or time frame. The selected date(s) will be highlighted in blue. Click the **X** located to the right of the highlighted date to remove the filter.
- **Filename, ID, MD5, Attributes** - click a radio button and use the entry field to further specify these filters.
- **Format** - make a selection from the dropdown menu.
- **Length** - specify length in the entry field. This is either the number of columns for a delimited file or the line length of a fixed width file.
- **Types** - make a selection from the dropdown menu. **Note** that if Type is missing from the file, the **Types** column will read **Select Type** requiring the user to select a Type before the file can continue processing. While the system provides a set of default Types, you also have the ability to customize [Convert Types](#).
- **Status** - make a selection from the dropdown menu. In addition to the statuses listed above, the Status menu includes other filter options including **Today, Yesterday, This Month, Last Month, This Year** and **Last Year**.


You also have the ability to add customized columns to better suit your needs. Select the **Customize** option from the gray bar menu. The **Customize Columns** screen will display.



Check any [File Attributes](#) that you want included as columns and click the **Update** button. The Files list will update immediately. To make further changes to the columns, return to the Customize Columns screen and check or uncheck the different options. **Note** that this is user specific and changing this setting only affects your user account.

To remove all of the filters and return the files list to its original state, select the **Reset** option from the gray bar menu. **Note** that Reset will remove all filters with the exception of the selected owner. Click the **X** next to the highlighted owner's name to remove the owner.

File Menu

By clicking the menu icon  to the far right of the file's table, you are able to access the following operations:

Manage

File information, its attributes and historical record counts can be viewed and managed from the Manage Files page.

Edit File

After choosing a file, click the menu icon and select **Manage**. File information will display on the **Edit File** tab .

Manage File: order-header.99.csv

Edit File **Comments** Attributes Historical

ID version: 3	6089f17ef6695f000820bc04
Belongs To	Acme Inc.
Route	Acme Inc with customer filter sftp://sftpuser@sftp.phase3.io/upload/mockData/
Parent Id	6089f0e2f6695f000820ba8f
Filename	order-header.99.csv
Alias	Show this alias rather than filename
MD5	dbd0798c88687e546f74a4667542e213
Byte Size	1,112,736
Record Count	17,430
Format	comma <input type="text" value="8"/>
Types	order-header <input type="text" value="Qualifier"/>
Status	Convert Complete

File information including the Filename, ID, who the file belongs to, the Route (including route description if available and username), Parent ID, MD5, Alias, Byte Size, Format, Record Count, Version, Types and Status is available to view and/or edit. From the Edit File tab you can also **Add** or **Delete** the files' **Types**. If changes are made, click the **Save** button. **Note** that files in a status of Convert Complete are not available to edit.

Note that the system maintains **Edit File versioning** so if there is more than one user (or system) making changes at the same time, or you have multiple windows open working on the same file information, the system will alert you on **Save**. A message will display letting you know that Save has failed due to a version conflict and that the page has been refreshed with the newest changes. Make your changes again and select Save.

Comments

Click on the **Comments** tab to add comments associated with the file.

Manage File: order-header.99.csv

Edit File Comments **Historical** Historical

Comment:

This file has been ignored because sender said that it was an invalid extraction.

Add

User	Comment	Date
055da35e-84c1-40b2-8b8e-b1eb7bcada4f	This file data for January 2021 but will be replaced in February, 2021.	2/1/21, 12:56 PM

Then click the **Add** button. When Comments have been completed, click the **Save** button.

Attributes

From the **Attributes** tab, you can enter **Attribute Values** to different attributes.

Manage File: order-header.99.csv

Edit File Comments Attributes **Historical**

Attribute Name	Attribute Value
list_id	0054
keycode	FALL2020

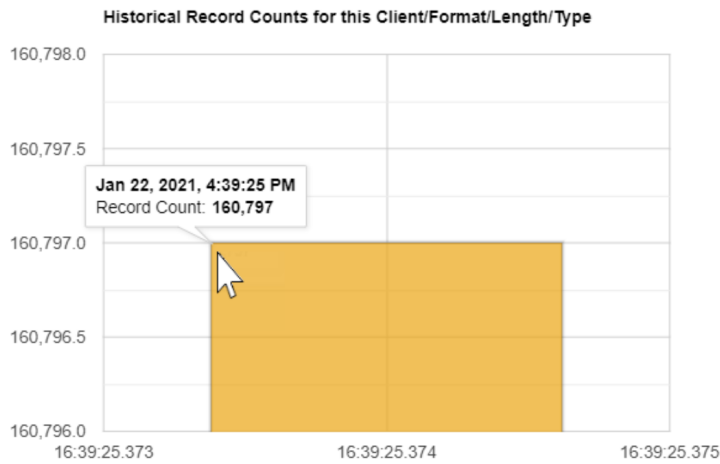
Once values have been entered in the Attribute Value fields, click the **Save** button. See Administration [Attributes](#) for information on File Attributes.

Historical

The **Historical** tab shows historical record counts for the **Client/Format/Length/Type** enabling you to keep an eye on record counts over time. The file you are currently viewing is in yellow, others in gray.

Manage File: order-header.99.csv

Edit File Comments Attributes **Historical**



🔍 View Sample

If unsure of a file Type, you can click on the **View Sample** option located on the file's menu where a sample of the file will display the top 100 lines of data to help in determining the file type.

Sample of order-header.98.csv

```
"orderDate","orderChannel","customerId","orderId","total","tax","discount","quantity"
"01/06/2017","p","31533","15010","$12.79","$28.89","$22.64","2"
"12/26/2019","u","13094","13405","$366.69","$45.31","$22.32","1"
"10/18/2017","p","11068","33756","$48.36","$34.66","$26.23","4"
"10/16/2015","u","22236","18267","$356.34","$35.25","$31.35","1"
"12/28/2018","w","34097","28202","-$75.39","$45.90","$29.10","2"
"01/25/2017","p","35937","35901","$70.69","$23.13","$27.41","4"
"12/18/2018","p","16701","18045","$177.41","$24.11","$41.21","1"
"04/28/2016","w","19004","22091","$18.56","$15.04","$41.85","4"
"09/15/2019","u","31144","11946","$21.36","$16.09","$16.39","4"
"07/14/2016","u","35671","19351","$101.47","$33.43","$5.24","2"
"06/20/2017","w","24044","10276","$194.83","$25.57","$44.68","3"
"11/28/2018","u","35060","32252","-$57.00","$13.40","$25.05","5"
"10/25/2017","u","15417","27164","$55.08","$7.09","$35.33","1"
"05/13/2019","w","39229","25861","-$56.50","$43.15","$5.40","1"
```

Close

📄 Copy Input Path

This option located on the file's menu is used to copy the files' **Input Path** to your operating system clipboard.

Copy Output Path

Once a file has been converted, this option located on the file's menu can be used to copy the files' **Output Path** to your operating system clipboard.

Allow Auto Convert

Located in the file's menu this option provides the ability to Auto Convert a deleted file. Deleted files can be easily located from the Waiting to Convert tab. Select the **Allow Auto Convert** option from the deleted file's menu. The delete flag will be removed from the selected file and the file will move onto the status of Converting if there is an enabled convert. This menu option is also available on the Manage Files list for deleted files. See [Delete](#) for further information on deleting files.

Open in Builder

Located in the file's menu, this option opens the selected file in the [BettrData Builder](#)

View Summary

Located in the file's menu, this option opens the selected file in the **Summary** view if a Convert exists.

Run

Located in the file's menu, this option opens the selected file in the [Run](#) view if a Convert exists.

Hold

This option provides the user the ability to **Hold** files for processing if needed. When a Hold is set, it will override any workflow status. For example, before processing files you may want to clarify information with a client or you may have questions about certain fields so the file is placed on Hold. To remove a hold, select **Remove Hold** from the selected files' menu.

Lock

This option enables a file(s) to be **Locked** from processing by others. Different individuals assigned to manage certain owners is one example of how this option may be beneficial. Locked files will display on the **My Files** tab of the individual who placed the lock. To unlock a file, select **Unlock** from the selected files' menu.

Replace

This option can be used when you would like to replace files in the **Convert Complete** state that are found to be unacceptable or no longer valid with improved replacement files. This option deletes the output file and adds an Ignore tag to the file.

Delete

There may be occasions when you might want to delete the converted output of a file. The **Delete** option is available for output files only and the files are marked as deleted. **Note** that selecting this option **does not change or delete the input** and that deleted files will not automatically convert.

Examples of when deleting a file may be appropriate:

- ❖ A client decides to switch assigned columns such as city and state after a file has been logged into the system. The columns for city and state are corrected in Open in Builder. The old file can now be deleted and replaced with the corrected file that can be run through the conversion workflow.
- ❖ A file that may make it to the status of Waiting to Review but then is determined unsatisfactory can be deleted. The file can then be cleaned up and resubmitted to run through the process again. On subsequent processing, new files will then convert automatically.

An example of when deleting a file may not be the best solution:

- ❖ A client file that includes a column called 'Company Name' with a minimum threshold for missing data of 20% is logged into the system. Company Name can be found on 25% of the records, however the next file that comes in is smaller with Company Name present on only 18% of the records. In this circumstance, rather than deleting the file, the threshold can simply be adjusted and the file can run once again through the conversion process.

Note that deleted files will not automatically convert and the **Delete** option affects output files only.


Done Processing

When a file is in the Processing state and an error occurs, it will not automatically move to the next stage in the workflow. Examples of this would be if a file has been identified as a duplicate file or a corrupted zip file. In order to move the file along, select **Done Processing**. Either Reprocess the file if the error is recoverable or has been fixed, or add an Ignore type to the file to change the status to Will Not Convert.

Reprocess





If there was a processing issue and the issue has been resolved by changing the underlying file or by updating a setting, **Reprocess** the file to retry processing. An example would be if a zip file has a password but that password was not present in the route's [Archive Passwords](#). You would add the password to the route and Reprocess the file to retry unzipping and continue further analysis.






Force Duplicate File Process

Files marked as 'duplicate' whose content is duplicate to another file regardless of owner do not process and will remain in the Status of **Processing** with a red  alert attached. If you would still like to process the duplicate file, select **Done Processing** and then **Reprocess** from the file's menu icon.

Manage Files

Search My Files 3 On Hold 0 Processing 5 Unidentified 3 Waiting to Convert 5 Converting 0 Waiting for Review 1





Owned By	Create Date	Filename	ID	MDS	Attributes	Record #	Format	Length	Types	Status	Bulk
Acme Inc.	01/21/2021 1602	order-header.9.csv					Any		duplicate	Will Not Convert 	
Acme Inc.	01/21/2021 1602	order-header.44.csv							duplicate	Processing 	







- Done Processing
-  Manage
-  View Sample
-  Copy Input Path
-  Hold
-  Lock

The file will be moved to a status of Will Not Convert. Return to the menu and select **Reprocess**.

Manage Files

Search My Files 3 On Hold 0 Processing 4 Unidentified 3 Waiting to Convert 5 Converting 0 Waiting for Review 1

Owned By	Create Date	Filename	ID	MDS	Attributes	Record #	Format	Length	Types	Status	Bulk
Acme Inc.	01/21/2021 1602	order-header.9.csv					Any		duplicate	Will Not Convert 	
Acme Inc.	01/21/2021 1602	order-header.44.csv							duplicate	Will Not Convert 	

-  Reprocess
-  Manage
-  View Sample
-  Copy Input Path
-  Hold
-  Lock

A warning message will display confirming that the file is a duplicate and that selecting **Reprocess** will force the duplicate file to process. To continue, select the **OK** button. The file will now reprocess and move onto the next Status in the process.

Review Complete

The **Review Complete** option provides the ability to confirm that a file that has **Run Convert** in a production environment has been reviewed. **Note** that if Review Complete has been selected on the Run Convert screen, the Review Complete option will not be available on the menu. See [Run](#) for further information on Review Complete.

Bulk Options

The **Manage Files** page provides the ability to implement bulk actions across files by clicking the checkbox in the **Bulk** column for any files you'd like to include in the action and then selecting one of the following options from the gray bar menu:

Customize

View

Selecting this menu option enables you to customize your **View** to include whether you'd like to **hide** files with a convert type of **ignore** or **parent** or customize which custom attributes to show. Make your selections and click the Update button.

Customize View ×

Customize Types to Hide

Type	Hide
ignore	<input type="checkbox"/>
parent	<input type="checkbox"/>

Customize Attributes to Show

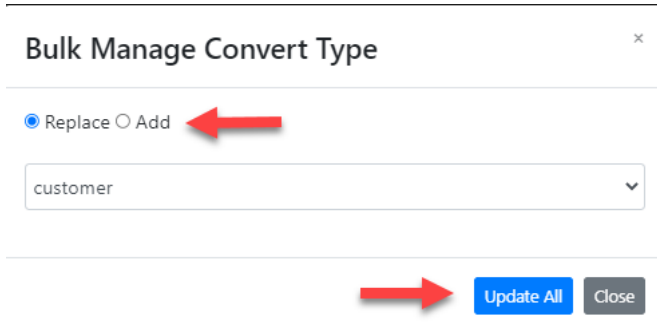
Column	Show
list_id	<input type="checkbox"/>
keycode	<input type="checkbox"/>

[Update](#)

Bulk Actions

Adjust Type

Selecting this menu option enables you to select multiple files (with a status other than Convert Complete or Waiting for Review) to add or replace the Convert Type. Select one or more files and then click on the **Adjust Type** option from the Bulk menu. The **Bulk Manage Convert Type** screen will display.



Select whether you'd like to **Replace** or **Add** the bulk convert type, select a convert type and then click the **Update All** button. Click the **Close** button to return to the Manage Files screen. The selected files will be updated with the adjusted Convert Type and proceed onto the next step in the process.

Virtual File

Selecting this bulk menu option provides the ability to copy or combine files into one without physically copying the data. For example, files can be copied and converted to a different Type without copying the input files. If selecting multiple files for this action, you must select files with the same owner, format and length.

Toggle Hold

This option can be used to set the **Hold** flag on multiple files at one time. See File [Hold](#).

Toggle Lock

This option can be used to set the **Lock** flag on multiple files at one time. See File [Lock](#).

Done Processing

This option can be used to set multiple files at one time to **Done Processing**. See File [Done Processing](#).

Reprocess

This option can be used to queue multiple files at time to **Reprocess**. See File [Reprocess](#).

Delete

This option can be used to **Delete** multiple files at one time. See File [Delete](#).

Replace

This option can be used to mark multiple files at one time as **Replaced**. See File [Replace](#).

Review Complete

This option can be used to mark multiple files at one time as **Review Complete**. See File [Review Complete](#).

Builder

Overview

The BettrData.io **Builder** is the application that allows you to map and transform the incoming data from its original format to the selected **Convert Type** output format. Mapping fields, dropping records and normalizing data values are some of the common operations that can be performed in the **Builder**.

Create a New Convert from Scratch

As a file begins to process it is first placed in the status of Unidentified, requiring a Type to be selected on the Manage Files page to move the file onto the Status of Waiting to Convert. You can now click on the files' menu and select **Open in Builder** or select the **Waiting to Convert** link to create a new convert.

Manage Files

Manage Files

Search My Files 0 On Hold 0 Processing 0 Unidentified 0 Waiting to Convert 4 Converting 0 Waiting for Review 0

Owned By	Create Date	Filename	ID	MDS	Attributes	Record #	Format	Length	Types	Status	Bulk
Acme Direct	03/14/2021 12:01	fixed.layout.csv				16	comma	3	address	Waiting To Convert	
Acme Direct	03/14/2021 12:01	fixed.txt				99	fixed	259	suppression	Waiting To Convert	
Acme Direct	03/10/2021 17:11	order-header99.csv				17,430	comma	8	order-header	Waiting To Convert	
Acme Direct	03/10/2021 17:11	order-header98.csv				10,708	comma	8	order-header 1	Waiting To Convert	
Acme Direct	03/10/2021 17:11	order-header97.csv				6,455	comma	8	order-header	Convert Complete	
Acme Direct	03/10/2021 17:11	order-header96.csv				4,899	comma	8	order-header	Convert Complete	
Acme Direct	03/10/2021 17:11	order-header95.csv				19,027	comma	8	order-header	Convert Complete	
Acme Direct	03/10/2021 17:11	order-header94.csv				8,080	comma	8	order-header	Convert Complete	
Acme Direct	03/10/2021 17:11	order-header93.csv				2,349	comma	8	order-header	Convert Complete	
Acme Direct	03/10/2021 17:11	order-header92.csv				12,943	comma	8	order-header	Convert Complete	
Acme Direct	03/10/2021 17:11	order-header91.csv				22,985	comma	8	order-header	Convert Complete	
Acme Direct	03/10/2021 17:11	order-header90.csv				1,313	comma	8	order-header	Convert Complete	

Menu options: Reprocess, Manage, View Sample, Copy Input Path, Open in Builder, View Summary, Run, Hold, Lock

Fixed Width Files

While the system recognizes line length for fixed format files that are being converted, headers and their width counts must be identified and correctly matched for first-time converts. The objective for the Fixed Length Options is to:

- Create Headers and have the sum of the Width counts equal line length, and
- Have Header and Width counts equal one another.

Note that matching all criteria is crucial for accuracy and not having fields correctly matched can result in unintended results.

When **Open in Builder** is selected for a fixed format file, the **Fixed Length Options** will display.

Owned By	Format	Length	Type	Qualifier	Profiler State
Acme Direct	fixed	259	suppression		●

Fixed Length Options Always **Build** after changing Fixed Length Options

customerNumber, isActive, age, gender, firstName, lastName, companyName, emailAddress, phone, address, city, state, zip, lastOrderDate, lifeTimeOrderAmount, lifeTimeOrderCount

Line Length	Sum of Widths	Sum of Widths = Line Length	Header Count	Widths Count	Header Count Equals Width Count
259	259	✓	16	16	✓

Build New Convert

Start by entering the different Headers for the file in the **Comma Separated: Field Headers** field, each header separated by a comma. Next, enter a number count for each of the header's field Width in the **Comma Separated: Field Widths** field, each number separated by a comma. **Note** that instead of using commas, you can copy and paste the list of headers and width numbers in each field as long as there is only one header or number per row.

- 1 The Line Length displays the total count of line length.
- 2 Once field Headers and header Widths have been entered, the **Sum of Widths** column will display the total of all the header widths.
- 3 If the **Sum of Width = Line Length** a green ✓ checkmark will display in this column; otherwise a red ✖ X will display.
- 4 **Header Count** displays the total number of Headers (columns).
- 5 **Width Count** displays the total number of width counts (column widths) entered.
- 6 If the **Header Count Equals Width Count** a green ✓ checkmark will display in this column; otherwise a red ✖ X will display.

If the **Sum of Widths = Line Length** column and the **Header Count Equals Width Count** column both display a green ✓ checkmark, no further action is needed and you can now click the **Build New Convert** button.

If a red ✖ X displays in either column, it will be necessary to correct the discrepancies.

Click the **Build** link or select the **Build** option from the **Parse** menu. The file Headers, field Widths and data will display in the **BettrData.io Builder** along with the Fixed Length Options enabling you to check each header and column against the Fixed Length Options for accuracy. Make corrections to the Fixed Length Option fields. Be sure to select Build each time you make

changes to any of the Fixed Length Options. If discrepancies remain, a message will display letting you know that the Fixed Length Options still contain errors, correct and build again.

Once the Sum of Widths = Line Length and the Header Count Equals Width Count both display the green ✓ checkmark you can proceed with building the new convert in the BettrData.io Builder. Select the Build New Convert button. You can now click on the Fixed Length Options text to close the option fields.

Owned By	Format	Length	Type	Qualifier	Profiler State
Acme Direct	fixed	259	suppression		●

Fixed Length Options Always **Build** after changing Fixed Length Options

customerNumber, isActive, age, gender, firstName, lastName, companyName, emailAddress, phone, address, city, state, zip, lastOrderDate, lifeTimeOrderAmount, lifeTimeOrderCount

Line Length	Sum of Widths	Sum of Widths = Line Length	Header Count	Widths Count	Header Count Equals Width Count
259	257	✗	16	16	✓

Build New Convert

When Open in Builder is selected for a file other than a fixed format file, the Build New Convert screen will display. The file's Owner, Format, Length, Type and Qualifier is visible on the screen confirming file selection. Click on the Build New Convert button.

Owned By	Format	Length	Type	Qualifier	Profiler State
Acme Inc.	comma	8	order-header	test1	●

Build New Convert

OR

Copy From Existing

Owner	Updated	Format	Length	Type	Qualifier
Acme Inc.	01/25/2021 12:24	comma	8	order-header	●

The BettrData.io Builder will display.

BettrData.io

Save Undo View Parse Profile Defaults Code Header Convert Run

Owned By: Acme Inc. Format: comma Length: 8 Type: order-header Qualifier: test1 Profiler State:

orderDate	orderChannel	customerid	orderid	total	tax	discount
date	Select	Select	Select	Select	Select	Select
#						
1 01/06/2017	p	31533	15010	\$12.79	\$28.89	\$22.64
2 12/26/2019	u	13094	13405	\$366.69	\$45.31	\$22.32
3 10/18/2017	p	11068	33756	\$48.36	\$34.66	\$26.23
4 10/16/2015	u	22236	18267	\$356.34	\$35.25	\$31.35
5 12/28/2018	w	34097	28202	-\$75.39	\$45.90	\$29.10
6 01/25/2017	p	35937	35901	\$70.69	\$23.13	\$27.41
7 12/18/2018	p	16701	18045	\$177.41	\$24.11	\$41.21
8 04/28/2016	w	19004	22091	\$18.56	\$15.04	\$41.85
9 09/15/2019	u	31144	11946	\$21.36	\$16.09	\$16.39
10 07/14/2016	u	35671	19351	\$101.47	\$33.43	\$5.24

Columns for the file's output fields display across the screen along with different action buttons and features that can help you complete an accurate build. To identify and confirm each output field, make a selection for each column. Notice that the columns will turn yellow as selections are made. Each column also houses icons including a **Field Toggle** and a **Show Field Comments** icon. Go to [Profile](#) for more information on using the Field Toggle and profiling data.

Click on the **Show Field Comments** icon to display a Comment field that displays at the top of the column. Click the icon again to close the field.

Take note of any **red** icons including **Set Date Format** or **Map Values** that may display in a column once a selection is made. Click on the icon to **Set Date Format** or **Map Incoming Values** to the output field.

When addressing map values, you have the ability to map values individually by selecting **Single** or selecting **Auto** to display both the value to be mapped and a list of possible mapping options.

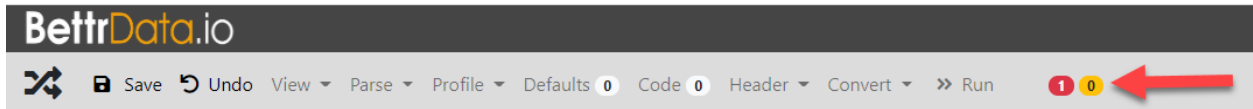
Transformation to channel ×

From	To	Add
p	Select	Single
u	Select	Auto
w	Select	

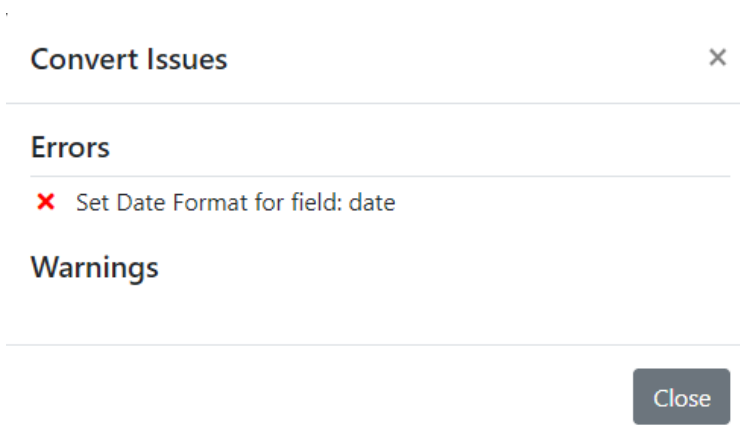
Close

Once formatting and/or mappings have been completed, the associated icon will turn from red to white.

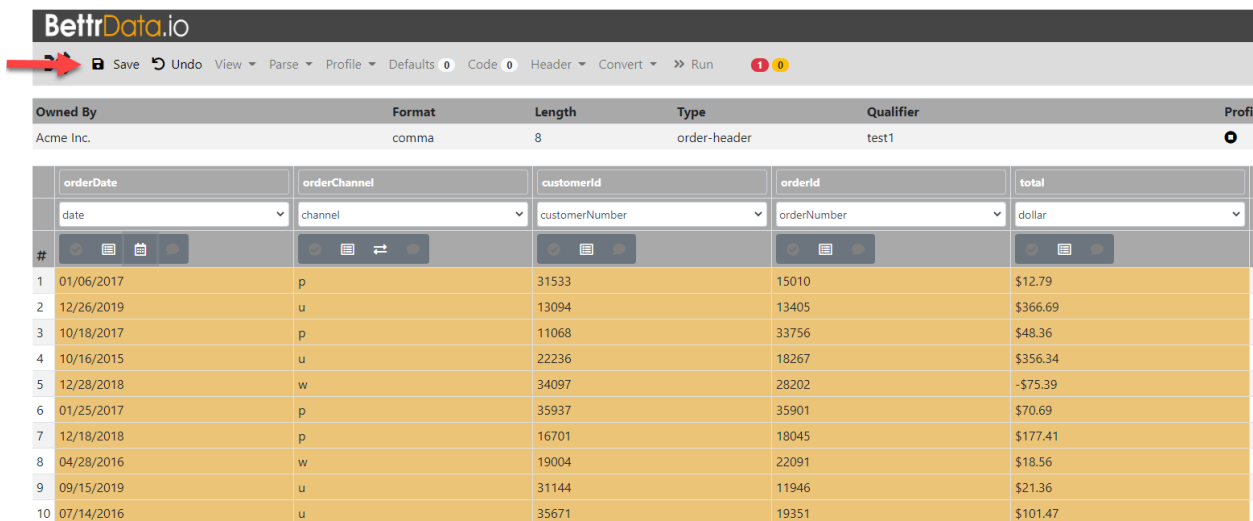
After making a selection for each column and addressing any red icons, check the gray bar for any convert issues that may have occurred during the build. Convert issue counts will display in **red** and **yellow** icons. Click on the icons.



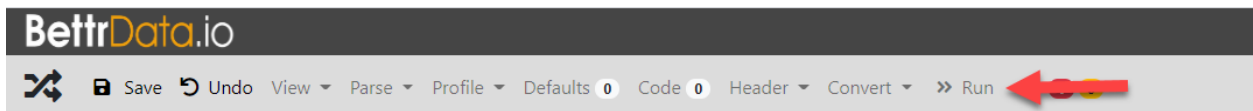
The **Convert Issues** screen will display. **Red** corresponds to Errors and **yellow** equals Warnings.



When you feel the build is accurate and complete, click **Save** located in the gray bar. Be sure to select Save whenever changes are made.



When you are ready, you can **Run** (transform the data from its original format to a standardized output) right from the build screen. Click on **>>Run** located on the gray bar to initiate file conversion.

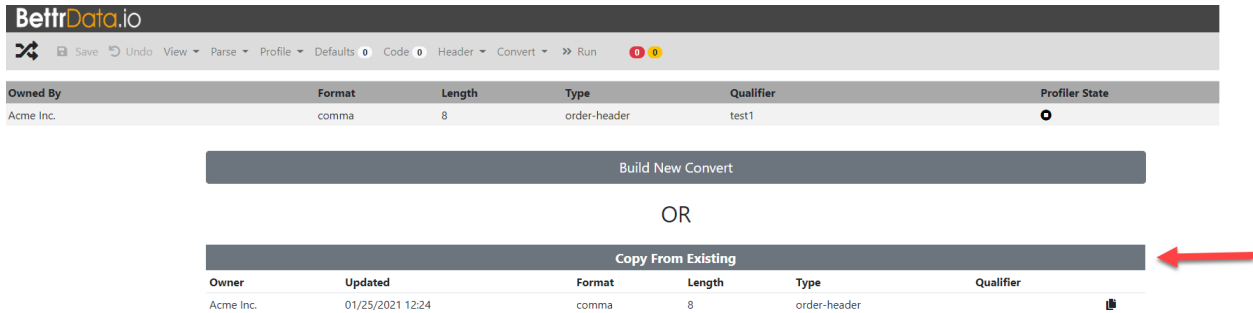


Go to [Run](#) for further information on Run Convert.

Create a new Convert from a copy

As a file begins to process it is first placed in the status of Unidentified, requiring a Type to be selected on the Manage Files page to move the file onto the Status of Waiting to Convert. You can now click on the files' menu and select **Open in Builder** to create a new convert.

The **Build New Convert** screen will display.



To help expedite the build process, the system will display any previous builds where the Convert contains the same format, length and type of the selected file regardless of owner. Select the copy icon to the right of the convert you would like to copy from.

The **BettrData.io Builder** will display the data from the selected file and the configuration of the new convert copied from the existing one.

Owned By	Format	Length	Type	Qualifier	Profi
Acme Inc.	comma	8	order-header	test1	

#	orderDate	orderChannel	customerId	orderId	total
1	01/06/2017	p	31533	15010	\$12.79
2	12/26/2019	u	13094	13405	\$366.69
3	10/18/2017	p	11068	33756	\$48.36
4	10/16/2015	u	22236	18267	\$356.34
5	12/28/2018	w	34097	28202	-\$75.39
6	01/25/2017	p	35937	35901	\$70.69
7	12/18/2018	p	16701	18045	\$177.41
8	04/28/2016	w	19004	22091	\$18.56
9	09/15/2019	u	31144	11946	\$21.36
10	07/14/2016	u	35671	19351	\$101.47

From here you can make any changes that may be needed or **Save** the Convert as is. See [Create a New Convert from Scratch](#) for more information on creating a new convert in the Builder.

Once the build has been saved and you are ready, you can **Run** right from the build screen. Click on **>>Run** located on the gray bar to initiate file conversion. Go to [Run](#) for further information on Run Convert.


Menu Bar Options

In addition to making it a painless process to create a New Convert, the **BettrData.io Builder** also offers several features that can help complete an accurate build.

Save

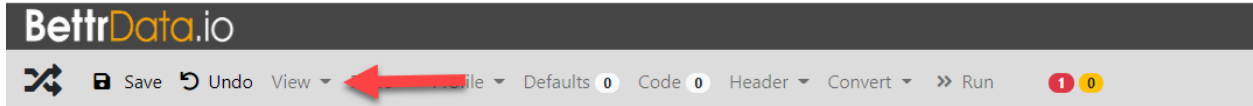
Save will be enabled anytime there are unsaved changes. Click **Save** to save the current convert configuration.

Undo

Located on the gray bar, the  **Undo** option is enabled whenever changes to the builder have been made and when selected will remove the changes and return the builder to its previous state.

View

From the **View** menu located on the builder gray bar, you can review **Profile Data**, **View Mode** or select the number of **Samples** to show.



General

File Info

Select this option to view **Current File Information** including Filename, Byte Size and Record Count.

Hide/Show Spaces

This option provides the ability to view available character spacing for each of the columns' output fields enabling better management of character width, reducing the likelihood of truncation. Click the option again to hide the spaces. Notice that the fixed length mono font makes it easy to view evenly defined characters and spaces.

	customerNumber	isActive	age	gender	firstName
	customerNumber	Select	Select	gender	firstName
#	Width:11	Width:6	Width:3	Width:2	Width:16
1	27307	False	47	u	Mark
2	21151	False	35	m	Joe
3	15355	False	66	u	Bob

Profile Data

Show/Hide

Select this option to display parse text. To close the parse text, click the **Show/Hide** menu option again.

View Mode

From the View menu you can change the **Main** column presentation to review **Code**, look at a **Summary** or view the **JSON** for this **Builder**. To return to column presentation, select Main from under the View Mode menu.

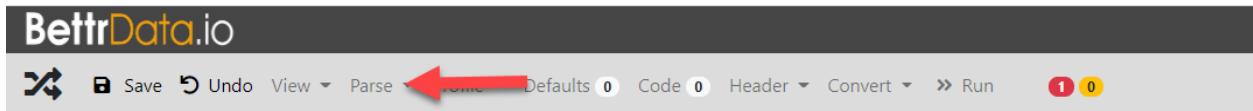
- Main
- Code
- Summary
- JSON

Show Samples

And if you'd like to change the number of sample rows that display on the page, select a number count from **Show Samples** on the View menu.

Parse

Under the **Parse** menu, **Build** and **Safe** are available options.





Build

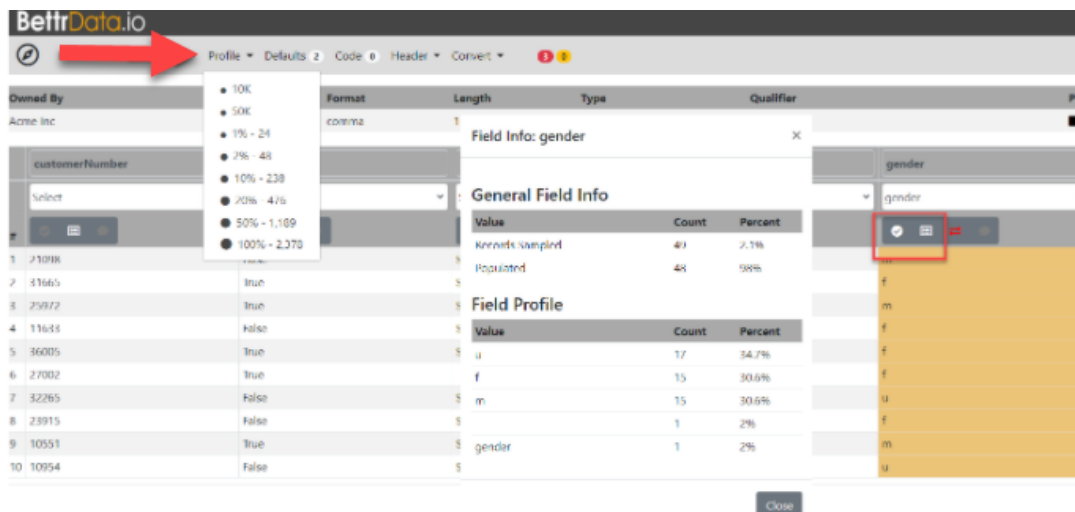
Selecting this option will take header data from the input file and wipe out an existing convert if there is one including all settings so that you can begin a build fresh.

Safe

When Safe is selected, the data in the table will re-display but existing settings and the convert configuration itself will not be touched.

Profile

To produce a field distribution report, click on the **Profile Field Toggle**  icon located on the column that you would like to profile. Then select the percentage of records that you'd like to review from the Profile menu. Now click on the information  icon located at the top of the column. **Field profile information** will display including the Value, Count and Percent for General Field Info and for Field Profile. **Note**, the maximum number of records you can profile is 2 million.



Default

(Field Profile Toggle not Selected)

Field Info: gender

×

General Field Info

Value	Count	Percent
Records Sampled	28208	100%
Populated	28167	99.9%

Close

Field Profile

(Toggle selected)

Field Info: gender

×

General Field Info

Value	Count	Percent
Records Sampled	28208	100%
Populated	28167	99.9%

Field Profile

Value	Count	Percent
u	9,559	33.9%
m	9,352	33.2%
f	9,158	32.5%
gender	98	0.3%
	41	0.1%

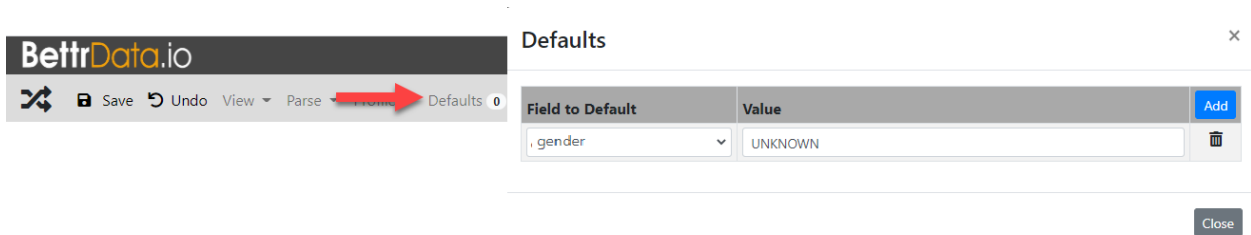
Close

Defaults

If you want to create a new field on the output file that is not included in the input file or you want to default a field's value on output when the input is empty, you can use the **Defaults** feature. For example, if you have an input field called gender, some values are blank but you desire no

empty values on output, you could select the **Default** field of gender and assign a value of Unknown. Now Unknown will plug into every row where the gender field is blank.

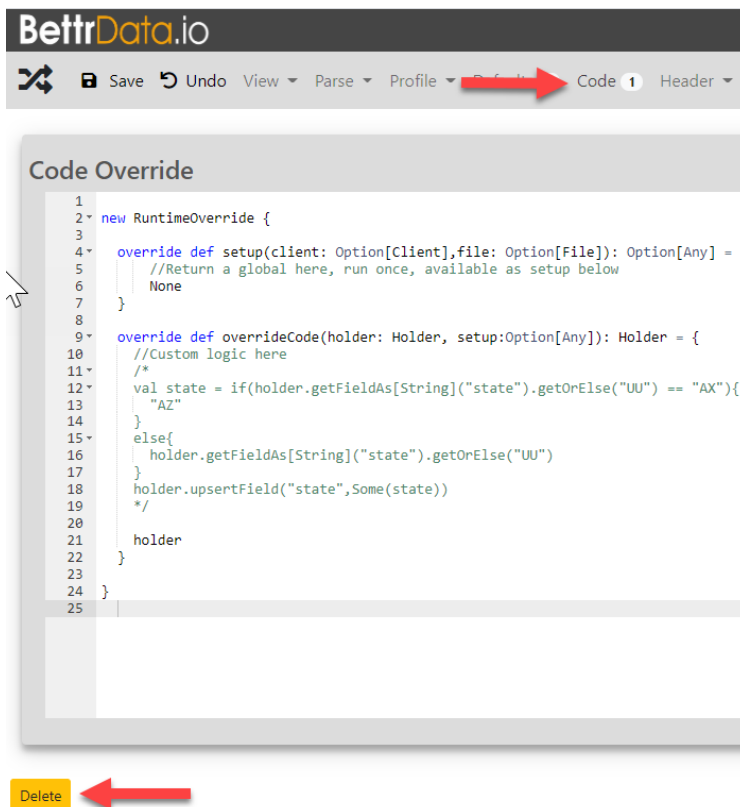
Click on **Defaults** in the menu bar. The Defaults screen will display.



Click the **Add** button. Then select a Field to Default and enter a Value. To enter additional defaults, click the **Add** button again. Then click **Close**. The number of created defaults will now display next to the Defaults menu.

Code

Selecting Code from the menu bar will display the **Code Override** screen enabling custom logic such as 'if' statements or lookup tables. If you choose not to use Code Override, click the **Delete** button so as not to impact performance.



Header

Drop

Selecting the **Drop** Option from the **Header** menu will cause the first row of the Header to drop on output. Once enabled, you will see a '1' in the menu. If a file happens to have multiple header lines, increase the number to the desired count. Change it to zero to revert to not dropping any header records.

Convert

The Convert menu includes options for **Enabled**, **MultiLine**, **Drop Empty Records**, **Duplicate** and **Run** options.

Enabled

Selecting this Convert menu option will activate automatic file conversion. **Note** that if **Enabled** is turned off the file will stay in Waiting to Convert status until the switch is turned on or the file is manually converted. There are instances where you may wish to keep **Auto Convert (Enabled)** turned off. For example, you may want to continue working on the configuration or validation and do not want the file to convert yet. Turning on Enabled Auto Convert prompts the system to bypass the status of Waiting to Convert and will move to the Converting stage in the workflow.

MultiLine

This feature is beneficial when converted records present with multiple embedded end-of-line characters. For example, a convert containing 7 total lines (however there should only be 5) receives the error 'Maximum threshold not met for Error: PARSE FIELDS LESS THAN EXPECTED' on 4 records and 7 records output.

```
jane, smith, "123
main street", denver, co, 80566
jane, smith, 123 main street, denver, co, 80566
jane, smith, 123 main street, denver, co, 80566
jane, smith, 123 main street, denver, co, 80566
bob, jones, "4455
river blvd", Denver, co 80454
```

When the MultiLine feature is then turned on for the convert, the system will read byte by byte to identify and resolve the errors and now 5 records output. **Note** that when this feature is turned on performance can be impacted. The MultiLine feature is not available for fixed files.

Drop Empty Records

This menu selection will drop rows if there is **NO** data in the entire column and every cell is **BLANK**.

Duplicate

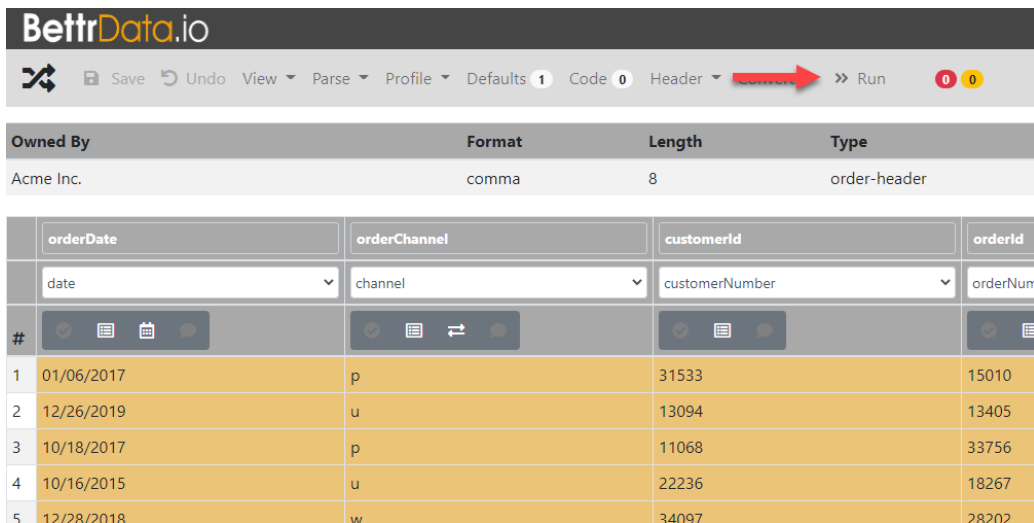
This menu option will duplicate the file and allow you to **Change Owner** or **Change Qualifier**.

» Run

Selecting Run from the Convert menu will display the **Run Convert** screen so that you can initiate Convert Complete for the file.

Run

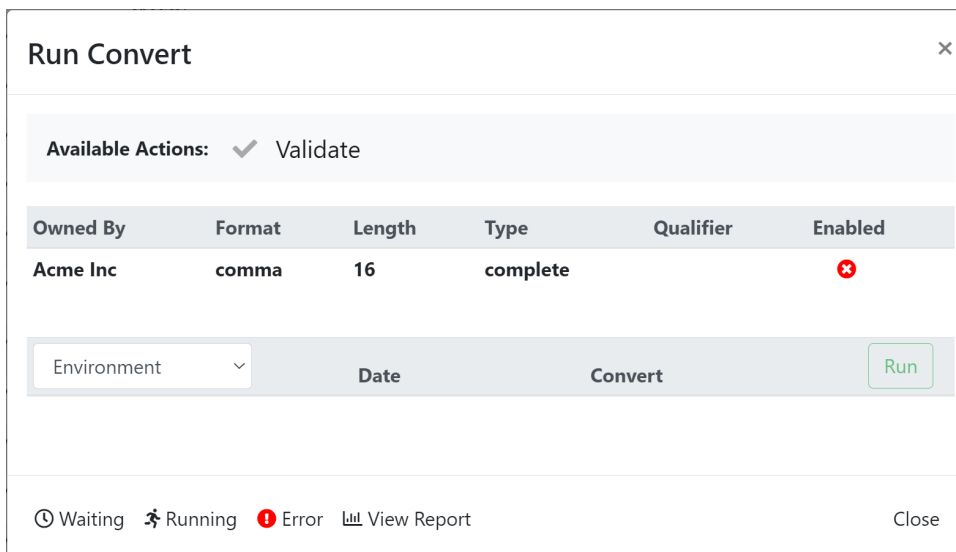
The **Run Convert** screen allows you to use the selected **Convert** to transform the selected file to it's desired **Convert Type** format.



The screenshot shows the BettrData.io interface. At the top, there is a navigation bar with 'Save', 'Undo', 'View', 'Parse', 'Profile', 'Defaults 1', 'Code 0', and 'Header'. A red arrow points to the 'Run' option in the 'Header' dropdown menu. Below the navigation bar is a table with columns: 'Owned By', 'Format', 'Length', and 'Type'. The data row shows 'Acme Inc.', 'comma', '8', and 'order-header'. Below this is another table with columns: 'orderDate', 'orderChannel', 'customerId', and 'orderId'. The data rows are:

#	orderDate	orderChannel	customerId	orderId
1	01/06/2017	p	31533	15010
2	12/26/2019	u	13094	13405
3	10/18/2017	p	11068	33756
4	10/16/2015	u	22236	18267
5	12/28/2018	w	34097	28202

The **Run Convert** screen will display.



The 'Run Convert' dialog box shows the following information:

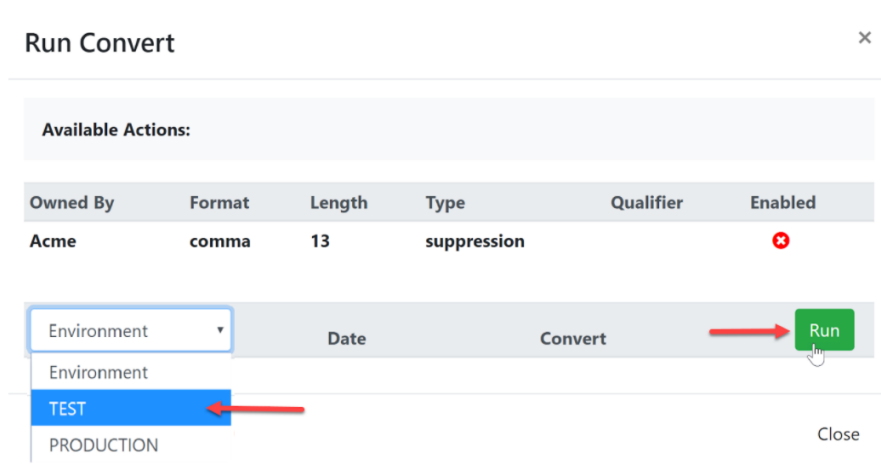
- Available Actions: Validate
- Owned By: Acme Inc
- Format: comma
- Length: 16
- Type: complete
- Qualifier: (empty)
- Enabled:
- Environment: (dropdown)
- Date: (input)
- Convert: (input)
- Run: (button)

At the bottom, there are status indicators: Waiting, Running, Error, and View Report. A 'Close' button is also present.

From this screen you can view file information including Owned By, Format, Length, Type,

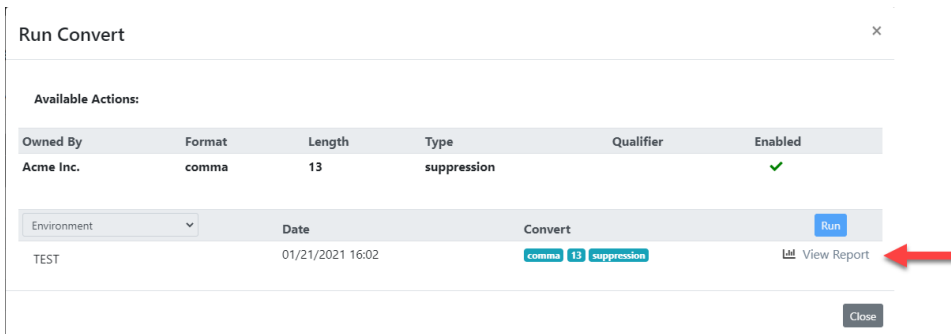
whether there is a Qualifier and whether the file has been Enabled for Auto Convert.

Select **Test** from the **Environment** menu to run the file for the first time. Click **Run**.



As the file proceeds through Run Convert, an icon and text will display on the lower right letting you know the current state the file is in including **⌚ Waiting**, **🔄 Running**, **🚫 Error** and **📄 View Report**. The selected Environment, Date, and Convert (format, length, type) will also display.

When Run is complete, the **View Report** **📄** icon and text will display. Click on the icon.



View Report

The **View Report** page will display.

View Report ×

Save & Validate ▾

Report Overview

Owned By	Acme Inc.
Create Date	02/01/2021 11:15
File	order-header.99.csv
Environment	PRODUCTION
Convert	comma 8 order-header test1
Auto Validate	<input type="checkbox"/>

General Counts

Input Count	17,430
Output Count	17,430

Validations

Error


- Required Field Missing : date
- Required Field Missing : dollar
- Required Field Missing : orderNumber

The Report page enables you to view Run results and make any needed adjustments and/or corrections before making the final Run for Production. You'll also have the ability to view the report following the Run in Production.

The Report page provides information including:

- **Report Overview** - conveys the Owner, Create Date, File, the Run Environment, and Convert fields. The **Report Overview** is where you have the ability to check **Auto Validate** allowing any future Run of the file to automatically validate bypassing the status of **Waiting for Review** and moving it onto the status of **Convert Complete**. Be sure to review the report for accuracy and complete all validations and missing values before checking the **Auto Validate** checkbox.

Report Overview

Owned By	Acme
Create Date	03/16/2020 14:51
File	customer.6.csv
Environment	TEST
Convert	comma 16 customer
Auto Validate	<input type="checkbox"/> 

- **General Counts** - display File Row Count and both **Input** and **Output** counts. Input Count consists of the raw data prior to conversion and the Output Count represents the transformed data including conversions, mappings and filters.

General Counts

File Row Count	8,080
Empty Record Drops	0
Input Count	8,080
Convert Drops	1
Output Count	8,079

In addition, the number of **Empty Record Drops** will display if enabled under [Convert](#) on the [BettrData.io builder](#) and the number of Convert Drops will display if enabled under [Header](#) in the builder or records are explicitly dropped directly from your **Code** section.

■ **Validations** - Any **Errors** that need to be considered will display here. As Errors are addressed throughout the report, they are removed from the Validations Error list.

Validations

Error
Maximum threshold not met for Missing Value : do_not_mail
Enter threshold(s) for profile: do_not_rent -> N
Enter threshold(s) for profile: do_not_rent -> Y
Enter threshold(s) for profile: do_not_mail -> N
Enter threshold(s) for profile: do_not_mail -> Y

■ **Name Validations** - number of issues surrounding **First** and **Last Name** verifications. If the number of occurrences of bad exceeds the count of good, this will cause validation to fail.

Name Validations

	Good	Bad
First	222	0
Last	253	48

■ **Errors** - This is where report Errors can be viewed and the thresholds can be adjusted when the errors are within tolerable limits. The display includes an **Error** description, the **Count** and **Percent** of the error found in the file and **Max %** allotted. Adjust the Max % for any Errors highlighted in red, then click the **Save & Validate** button to save and validate.

Save & Validate

Errors

Error	Count	Percent	Max %
Parse Failure:Parse-Line-Failed	6	2.02%	3 %
Phone Parse Cast Failed:Phone	2	0.67%	1 %
Tranform No Match:Do Not Mail	138	46.46%	1 %


Note that when an error percent is less than the chosen max threshold percent, the errors are cleared from the **Validations list**. If the value is greater than the threshold, the field remains highlighted in **red** and the errors will continue to display on the Validations list until corrected.

■ **Missing Values** - provides the Count, Percent and Max % of any **Missing Values** found in the file. Adjust any Max % values that are highlighted in **red** and click the **Validate** button.

Missing Values

Field	Count	Percent	Max %
city	6	2.02%	3 %
zipcode	6	2.02%	3 %
address01	6	2.02%	3 %
company_name	6	2.02%	3 %
email	6	2.02%	3 %
state	6	2.02%	3 %
do_not_mail	144	48.48%	1 %

■ **Samples** - provides a view of results for a sample of output rows. To see additional samples, click the forward button. This provides the user the ability to visually verify that transformations were performed as expected.



Field	Value
lineNumber	4
city	Edenburg
zipcode	18598
name	first: MARK last: WOLFE gender: M
convertType	customer
address01	588 FERRIS STREET
company_name	TROLLERY
email	marks.wolfe@trollery.us
state	Hawaii

■ **Profile Validations** - When configured in the Convert Type settings, if a field is configured to perform a Profile Validation, the user is able to enter boundaries for each value encountered within the field. Enter a **Min %** and/or a **Max %** for each item in the **Profile Validations** list, then click the **Save & Validate** button. If the given frequency percent is within the threshold, the Errors will be removed from the Validations list.

Note that while the system utilizes default thresholds for **Errors**, you have the ability to customize missing Max % for different Convert Types. See [Convert Types](#) for information on customizing Max Missing.

View Report

Save & Validate

Profile Validations

Gender

Field	Count	Percent	Min %	Max %
UNKNOWN	99	33.45%	<input style="border: 1px solid red;" type="text" value="%"/>	<input style="border: 1px solid red;" type="text" value="%"/>
FEMALE	96	32.43%	<input style="border: 1px solid red;" type="text" value="%"/>	<input style="border: 1px solid red;" type="text" value="%"/>
MALE	98	33.11%	<input style="border: 1px solid red;" type="text" value="%"/>	<input style="border: 1px solid red;" type="text" value="%"/>


■ **Data Profiles** - provides information on Field, Count and Percent.

Data Profiles



State

Field	Count	Percent
American Samoa	5	1.69%
Tennessee	3	1.01%
Minnesota	6	2.03%
New Hampshire	6	2.03%
Kansas	4	1.35%
New Jersey	3	1.01%


Once the report has been reviewed and all necessary adjustments made, the **Save & Validate** button will turn **green** when clicked (this also saves the threshold). Click **Close**. You will be returned to the Run Convert screen. Notice that a **green** checkmark at the top of the page reflects that the file has been validated. You can now Run the file in Production. Select **Production** from the **Environment** menu and click **Run** once again. **Note** you are not required to do a TEST run prior to a PRODUCTION run but it is recommended.





When Run is complete, the View Report  icon will display and you will now be able to click on the **Review Complete** icon located at the top of the screen. Click **Close** to be returned to the Manage Files screen where the status for the file will now display **Convert Complete**. **Note** that if you do not select Review Complete on the Run Convert screen, the Review Complete option will be available from the file menu. The Run option is also available from the file menu.




Run Convert

Available Actions:  Validate  Delete Review Complete

true

Owned By	Format	Length	Type	Qualifier	Enabled
Acme Parent Co 1	comma	26	vehicle		

Environment	Date	Convert	Run
TEST	09/02/2019 17:10	comma 26 vehicle	
TEST	09/02/2019 17:12	comma 26 vehicle	
TEST	09/02/2019 17:13	comma 26 vehicle	
PRODUCTION	09/02/2019 17:15	comma 26 vehicle	

 Waiting  Running  Error  View Report Close

Notice that from the Run Convert screen you also have the ability to **Delete** the file and iterate on this flow. See [Manage Delete](#) for more information on deleting files.

Other Builder Features

Label Line

The **Label Line** consists of the header of the first incoming CSV file or the provided headers in the case of fixed length data. If needed, labels can be changed in the Builder for greater clarity. Label changes will not affect the data.

Owned By	Format	Length	Type	Qualifier
Acme Inc.	comma	8	order-header	test1

orderDate	orderChannel	customerid	orderid
-----------	--------------	------------	---------

Field Select Line

Click on the **Select** field to choose a standardized field name. By not selecting a field to map to, the incoming column will not be written to the output.


Owned By	Format	Length	Type
Acme Inc.	comma	8	order-header

orderDate	orderChannel	customerid
date	Select	Select
#		
1	channel	p
2	customerNumber	31533
3	dollar	u
4	orderNumber	13094
5	transactionType	p
		11068
		u
		22236
		w
		34097

Column Options

Field Profile

Click the **Profile Field Toggle** to view profile field information.

orderChannel
Select


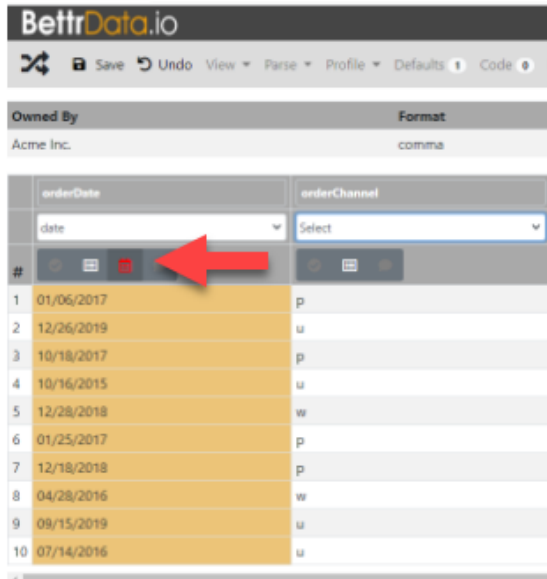
Comments

Click on the **Show Field Comments** icon to display a Comment field that will present at the top of each column. Click the icon again to close the Comment field. The icon will remain highlighted where comments are present.




Date Format

The **Date Format** icon will display for field selection of Date. Click the icon to define the format for date. See the included date format options and link for additional or advanced information.



Transformation Mapping

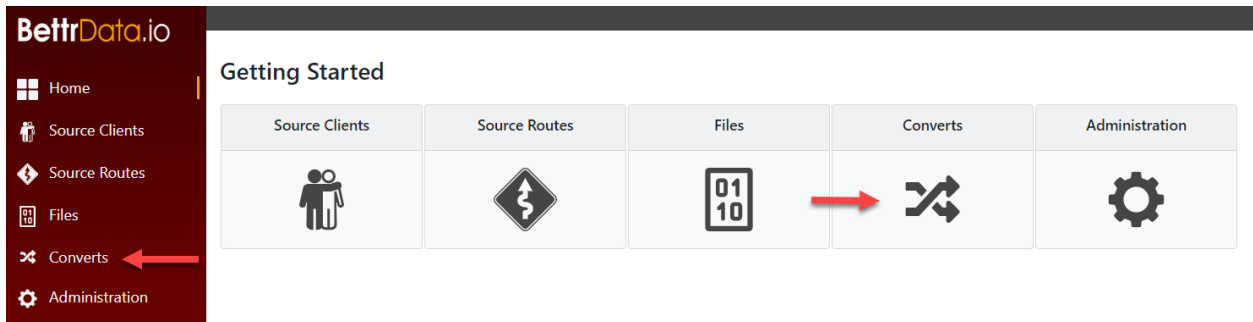
The **Mapping**  icon may display in a column once a field selection is made. Click on the icon to **Map Incoming Values** to the output field.

Go to [Create a New Convert from Scratch](#) to see more information about Options.

Converts

From the **Converts** page you can manage convert configurations produced in the Builder. By Owner, you can view, duplicate or delete files as needed.

Select **Converts** from the menu panel or click on the Administration card on the Home page. The **Manage Converts** page will display.



Manage Converts

Select an Owner to view their file conversions.

Manage Converts

Select Owner
Acme Inc.

ID	Create Date	Enabled	CodeOverride	Type	Format	Length	
5fd6a4b37f36ac00098c9630	12/13/2020 16:32	✓		address	comma	16	⋮
5fd94693e6ee80000814a3b4	12/15/2020 16:28			complete bak1	comma	16	⋮
5fd95722e6ee80000814a3b7	12/15/2020 17:34	✓	</>	complete	comma	16	⋮
5fe2c49d4d514e000876882c	12/22/2020 21:16			address	comma	5	⋮

The **Manage Converts** list includes information for File ID, Create Date, whether the file was Enabled for Auto Convert, whether CodeOverride occurred (represented by an override `</>` icon), Type, Format and Length. From the file menu you can **Delete** or **Duplicated** files or **Open Builder**.

5fefb1127899de0008c2fb77	01/01/2021 16:32	✓		customer	comma	16	⋮
600f6ce8737bf9000838072d	01/25/2021 18:13			order-header test1	comma	8	⋮
6011cf4b54be4d0008f45385	01/27/2021 13:34			customer v1	comma	16	⋮

- 🗑 Delete 1
- 📄 Duplicate 2
- Open Builder with → 3
- 📄 customer.9.csv
- 📄 customer.0.csv
- 📄 customer.1.csv
- 📄 customer.10.csv
- 📄 customer.100.csv

1 Delete - select this option from the files' menu to Delete a converted file. A confirmation message will display asking 'Are you sure you want to delete this convert?'. If yes, click **OK** or click **Cancel** to return to Manage Converts.

2 Duplicate - to duplicate a convert configuration, select the option from the files' menu. The **Duplicate Convert** screen will display.

Duplicate Convert
×

Change Owner

Change Qualifier

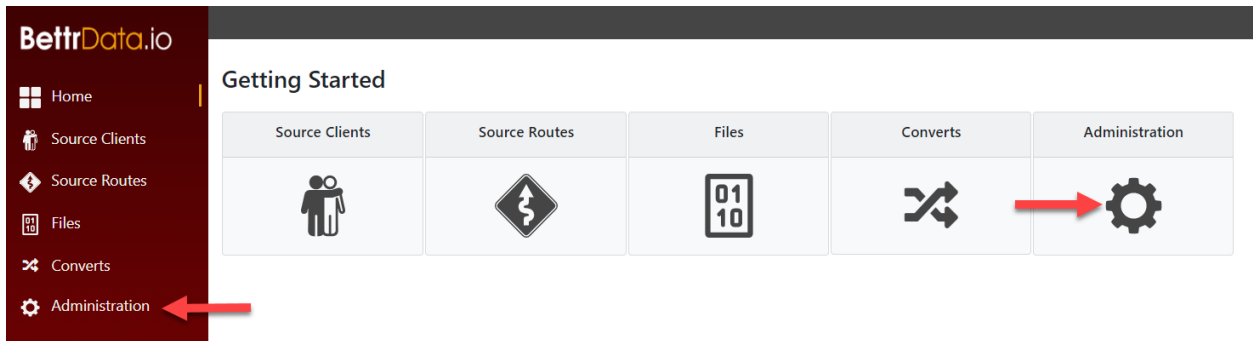
Cancel Duplicate

Click the **Change Owner** checkbox to select another owner and/or select the **Change Qualifier** checkbox and enter an alternate qualifier. You must change one or the other. Click the **Duplicate** button. For Change Owner duplications, the duplicated file will now display on the new owners Convert List. For Change Qualifier duplications, the duplicated file will display on the current owners Convert List.

3 Open Builder - you also have the ability to select a file from the files' menu that has the same owner, type, format and length to Open in Builder using the same code as the convert file. See [Open in Builder](#) for more information on the Builder.

Administration

Administration features enable you to Manage Configurations including **Output Fields**, **Convert Types**, **Attributes**, **Code Snippets**, and **System Setting** and provides information on the **Current Build Version**.

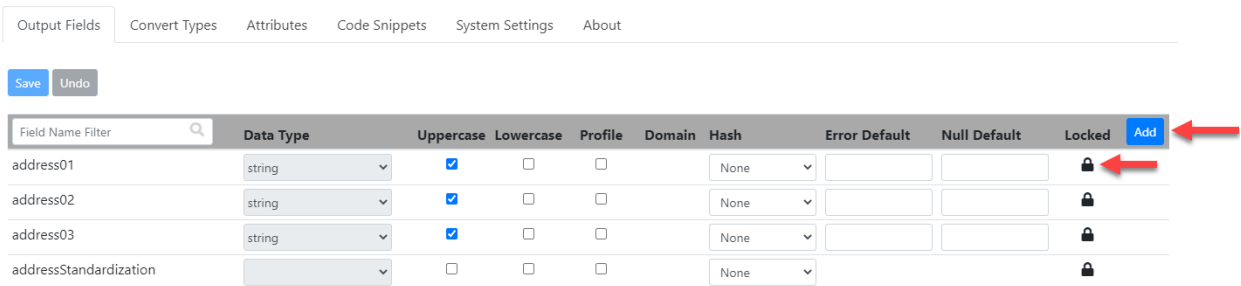


Output Fields

Select **Administration** from the menu panel or click on the Administration card on the Home page. The **Manage Configurations** page will display defaulted to the **Output Fields** tab. Fields added here represent all the shared fields that are available to the system. They must be added to a **Convert Type** to be used.

The **Output Fields** page enables you to create output fields that can be used across Convert Types. Notice that when you land on the Outputs Fields page for the first time, a set of locked default Field Names and their associated Data Types are represented on the list. These fields have been created by the system and cannot be deleted.

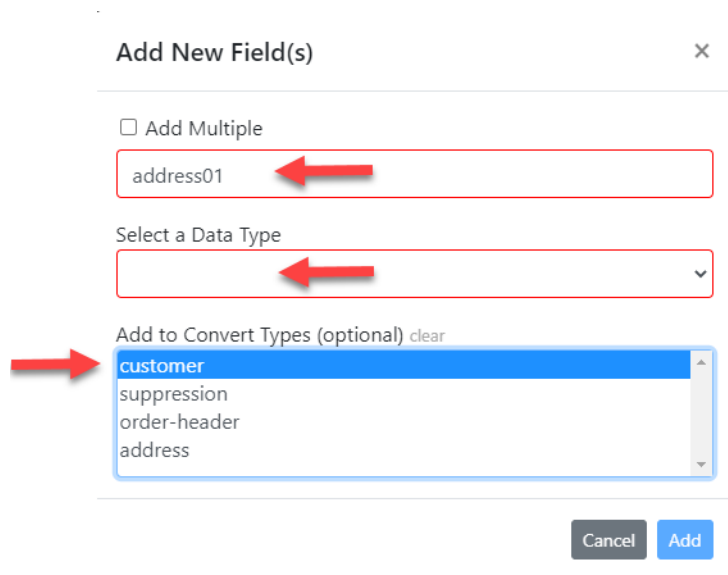
To create additional **Output Fields**, click the **Add** button.



The screenshot shows the 'Output Fields' page with a navigation bar at the top containing 'Output Fields', 'Convert Types', 'Attributes', 'Code Snippets', 'System Settings', and 'About'. Below the navigation bar are 'Save' and 'Undo' buttons. The main content is a table with the following columns: 'Field Name Filter' (with a search icon), 'Data Type', 'Uppercase', 'Lowercase', 'Profile', 'Domain', 'Hash', 'Error Default', 'Null Default', 'Locked', and 'Add'. The table contains four rows of data:

Field Name Filter	Data Type	Uppercase	Lowercase	Profile	Domain	Hash	Error Default	Null Default	Locked	Add
address01	string	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		None			<input type="lock"/>	<input type="button" value="Add"/>
address02	string	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		None			<input type="lock"/>	
address03	string	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		None			<input type="lock"/>	
addressStandardization		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		None			<input type="lock"/>	

The **Add New Field(s)** screen will display.



The 'Add New Field(s)' dialog box is shown with a close button (X) in the top right corner. It contains the following elements:

- An unchecked checkbox labeled 'Add Multiple'.
- A text input field containing 'address01'.
- A dropdown menu labeled 'Select a Data Type'.
- A dropdown menu labeled 'Add to Convert Types (optional) clear' with a list of options: 'customer', 'suppression', 'order-header', and 'address'. The 'customer' option is highlighted in blue.
- 'Cancel' and 'Add' buttons at the bottom.

Required fields are highlighted in **red**. Enter a **Field Name** and select a **Data Type**. Notice that if a duplicate output field is entered, the field will remain highlighted in red and the **Add** button will not become enabled. From this screen you also have the option to add a Convert Type to the new Output Field. Click the Add button. The name will now display on the **Output Fields** list.

From the **Add New Field(s)** screen, you can also click the **Add Multiple** checkbox to add multiple field names at one time.

Add New Field(s)



Add Multiple

gender.transformation

address01

address02

city

Select a Data Type

string

Add to Convert Types (optional) clear

customer

suppression

order-header

address

Cancel

Add

Be sure to enter each field name on a separate line. For Output Fields that have an alternate Data Type, enter the field,(comma) and the data type on the same line. For fields that have the same data type, simply enter each field on a separate line and select a Data Type. When the **Add** button is selected all the entered field names will now display in the Output Fields list.

Manage Configurations

Output Fields Convert Types Attributes Code Snippets System Settings About

Save Undo

Field Name Filter	Data Type	Uppercase	Lowercase	Profile	Domain	Hash	Error Default	Null Default	Locked	Add
address01	string	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		None			<input type="checkbox"/>	
address02	string	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		None			<input type="checkbox"/>	
address03	string	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		None			<input type="checkbox"/>	
addressStandardization		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		None			<input type="checkbox"/>	
amount	double	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		None			<input type="checkbox"/>	
channel	transformation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		None			<input type="checkbox"/>	
city	string	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		None			<input type="checkbox"/>	

All Not Used

customer
suppression
order-header
address

Make a selection for one or all of the Output Fields columns. The Field Name will display in the first column.

1 Data Type - allows you to select a different Data Type if needed. The following data types are available:

String- text comprised of a set of characters that can also contain spaces, numbers or special characters. A street address is an example of a string data type.

Double- a number with a decimal

Domain- a limited list of choices such as male, female or unknown. Notice that a menu icon displays in the **Domain** column when Domain is selected as the data type. Click the icon. The **Manage Domain** screen will display. Enter one or more **New Domains** for the selected Data Type; select the **Add** button for each domain entry.

Transformation- from one value to another. Notice that a menu icon displays in the **Domain** column when Transformation is selected as the data type. Click the icon. The **Manage Domain** screen will display. Enter one or more **New Domains** for the Data Type of transformation; select the **Add** button for each domain entry. For example, selecting the data type of transformation for an output field of 'transactionType' may include field domains of purchase, return, inquiry and donation.

Integer- a whole number

Date- a specified date such as a start or end date.

Boolean - one of two possible values denoted as either true or false (check = true, unchecked = false).

Phone- phone number

Email- if the output field does not look like an email, the field will be blank. If you want the email to display regardless, select the data type of string instead.

2 Uppercase - select this checkbox to have the data in the field present as UPPERCASE on output. You can view the output on the [Run View Report](#).

3 Lowercase - select this checkbox to have the data in the field present as lowercase on output. You can view the output on the [Run View Report](#).



4 Profile - make this selection if you would like to have the data on output included in the **Run Report Profile** showing a field distribution including Count and Percent. See [Run View Report](#).

5 Domain - the Domain icon will display in this column if **domain** or **transformation** is selected as a **Data Type**. Click on the icon to view or Manage Domain for the field name.

6 Hash - selecting this feature transitions the field value into one of the selected hash types. This is a one-way algorithm that cannot be undone and currently supports SHA-256 and MD5.

7 Error Default - used to plug a value into a field's value on error. For example, if an integer type field does not parse correctly (contains 'ABC' for instance), you could plug 0 on the output by default. Anything done in the builder takes precedence.

8 Null Default - use this column to create rules that govern the field across convert types when Null occurs in the input. Adding a value here would replace a null value with the provided value. Anything done in the builder takes precedence.

9 The locked  icon reflects that the field name is part of the system's default name set and cannot be deleted. Field names not included in the default set can be deleted. Select the trash can  icon to remove a field. **Note** that if the Output field has been used in any **Convert Type**, a **Warning** message will display.

You have the ability to search or filter the list by using the **Field Name Filter**. Be sure to select **Save** whenever entries or edits are made to the Output Fields page. Select **Undo** to revert the Output Fields page to its previously saved state.

Notice to the right of the screen that you also have the ability to manage and filter Output Fields by **Convert Types**.

Manage Configurations

Output Fields | Convert Types | Attributes | Code Snippets | System Settings | About

Save Undo

Field Name Filter	Data Type	Uppercase	Lowercase	Profile	Domain	Hash	Error Default	Null Default	Locked	Add
address01	string	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		None				
address02	string	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		None				
address03	string	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		None				
addressStandardization		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		None				
amount	double	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		None				
channel	transformation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		None				
city	string	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		None				

All Not Used

customer suppression order-header address

The default is **All**. Select the **Not Used** option to display a list of Output Fields that have not yet been used by any Convert Type. You can also select from a list of created Convert Types to view the fields added to that particular Type.

Manage Configurations

Output Fields | Convert Types | Attributes | Code Snippets | System Settings | About

Save Undo

Field Name Filter	Data Type	Uppercase	Lowercase	Profile	Domain	Hash	Error Default	Null Default	Locked	Add
address01	string	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		None				
address02	string	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		None				
address03	string	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		None				

All Not Used

customer suppression order-header address

From here it's easy to add additional output fields to the selected Convert Type. Simply click the **Add** button on the gray bar, enter the new field, data type and convert type and select **Add**. The new fields will now display on the selected Convert Type list.

Convert Types

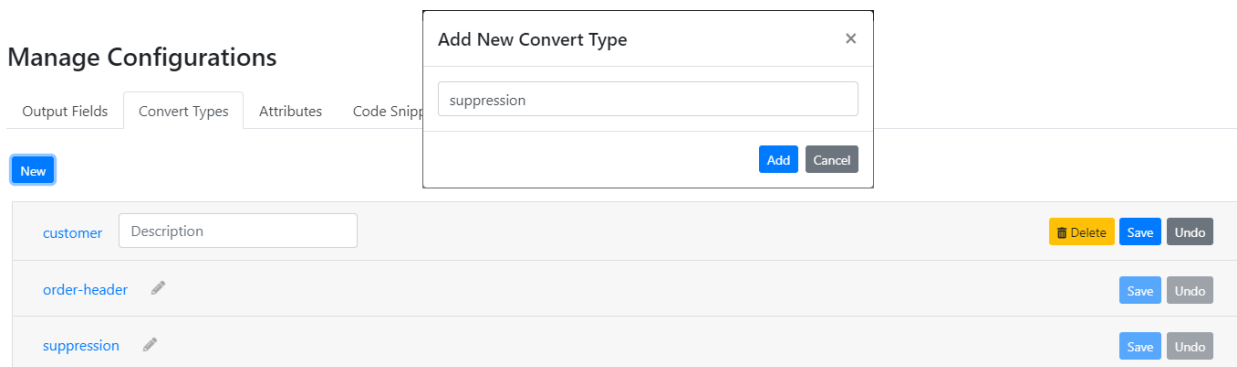
The system enables you to customize **Convert Types** dictating more specifically how you want a file to flow through the system. To customize Convert Types, select **Administration** from the menu panel **or** click the Administration card on the Home page. **Convert Types** must have at least one **Output Field** associated with it in order to be converted. Otherwise the system has no information as to how the file should be converted.

Note that Convert Types that do not have an output field associated with it will be treated as **Ignore** by the system. This might be used strategically to tag files that are not currently needed but might be referenced in the future.


Customized Convert Types are a very dynamic feature of the system. In addition to enabling customers to govern just how files flow through the system, customized types also allow a company to better address other unique needs.

For example, if a file is logged into the system that contains emails, however the company would prefer to deal with the emails at a later time, creating a custom convert type of Email without attaching an output field to the type can readily address this issue. As the file moves through the workflow and is placed in a status of unidentified, the file can easily be flagged for later use by selecting the convert type of Email. Because there is no output field attached to the Email type, the system will not convert the file enabling you to locate and address the file when ready. In addition, if there are no discrepancies in the workflow, the system begins to learn and will automatically assign similar files that come in the convert type of Email. You can also use customized convert types to simply organize data into categories without the intention of always converting.

The **Manage Configurations** page will display. Click on the **Convert Types** tab and select the **New** button. The **Add New Convert Type** screen will display.



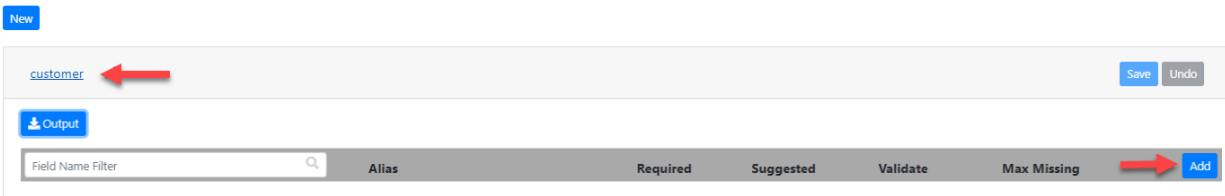
Enter a **New Convert Type** and click on the **Add** button. Notice that if a duplicate name is added as a New Convert Type, the entry field will remain highlighted and the Add button will not become enabled.

The new Convert Type will now display on the Convert Types list. Click the **Save** button or to remove the convert type, click the **Undo** button. Click on the **Edit**  icon to include an optional description of the Convert type, then click **Save**.

From the Edit icon you also have the ability to **Delete** a Convert Type. **Note** that you cannot delete a Convert Type that is in use. The system will display a message letting you know that the convert type has associated files in the system and cannot be removed.

To include additional Convert Types, click the **New** button and repeat the process. Once customized Convert Types have been created and saved, they can be used across files and owners and can be found on the **Manage Files** page in the **Types** menu.

Next, click on the **Convert Type** to open to the **Output Fields** listing. To add output fields to the convert type, click the **Add** button.



The list of output fields will display.



Select the fields you would like to add to the Convert Type. To choose multiple fields at one time, use the 'Ctrl' key on your keyboard. Select the **Add** button. Your selections will now

display on the Output Fields list.

Manage Configurations

Output Fields Convert Types Attributes Code Snippets System Settings About


New

customer Save Undo

Output

Field Name Filter	Required	Suggested	Validate	Max Missing	Add
address01	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3 %	<input type="checkbox"/>
address02	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3 %	<input type="checkbox"/>
address03	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3 %	<input type="checkbox"/>
city	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3 %	<input type="checkbox"/>
customerNumber	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3 %	<input type="checkbox"/>
email	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3 %	<input type="checkbox"/>
firstName	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3 %	<input type="checkbox"/>
gender	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3 %	<input type="checkbox"/>
lastName	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3 %	<input type="checkbox"/>

Make a selection for one or all of the Output Field columns. The Field Name will display in the first column.

- 1 Selecting the **Required** checkbox will prompt an **Error** in the build if the field is missing. See [Create a New Convert from Scratch](#) for more information on Errors.
- 2 Selecting the **Suggested** checkbox will prompt a **Warning** in the build if the field is missing. See [Create a New Convert from Scratch](#) for more information on Warnings.
- 3 To have the output field included as part of **Validation** on the output report, check the **Validation** checkbox. See [View Report](#) for more information on Validation.
- 4 From the **Max Missing** column you can change the output fields' default for percent of **Missing Values**. See [View Report](#) for more information on Missing Values.
- 5 Click the trash can  icon to remove the selected field from being included as part of the Convert Type's output fields. **Note** that if the Output field has been used in a convert of the same convert type, a **Warning** message will display providing details about removing the field.

In addition you can use the **Field Name Filter** to filter or search field names in the list or click the **Add** button to Add fields to the Convert Type.

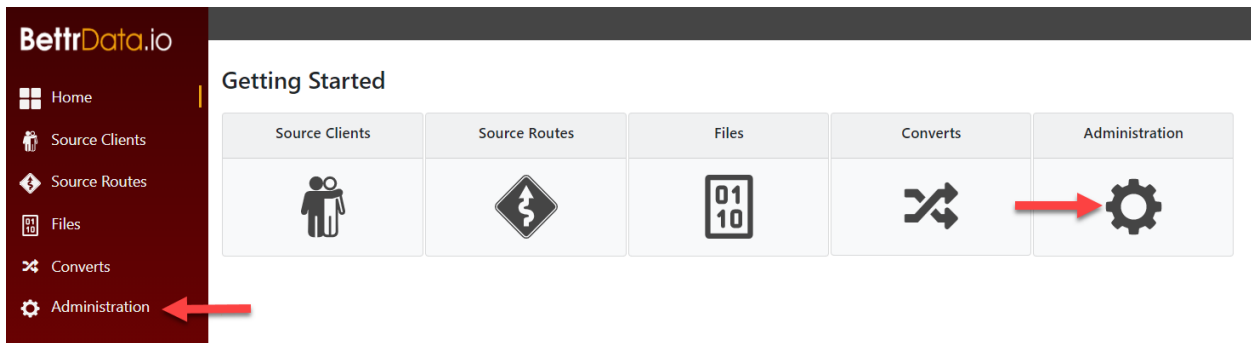


Click the **Output** button to select an Output Format of **JSON**, **DELIMITED** or **FIXED**. If an output format is not selected, **JSON** will be used as the default format. Select **DELIMITED** or **FIXED** if **JSON** is not desired and select the fields (field width for fixed) and field order for output.

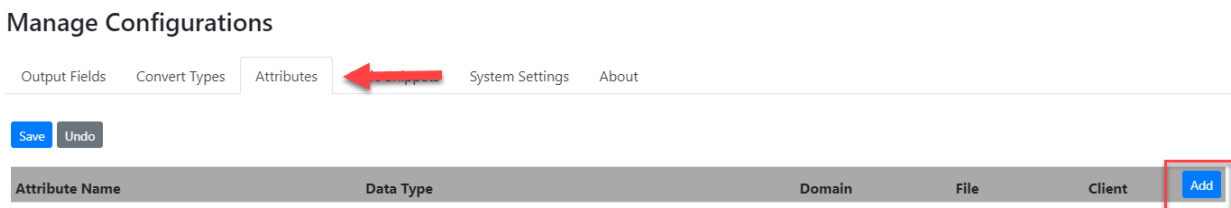
Attributes

One or more **Attributes** can be assigned to a **client**, **brand**, **title** or **file**. Attributes enable you to define custom properties to augment the object with specific business attributes that can tie back to your Customer Relationship Management (CRM) system as an example. In addition, attributes can be used in making data conversion decisions later in the process. In order to add an Attribute to one of these objects, you'll need to begin with creating and defining attributes.

First select **Administration** from the menu panel or click the Administration card on the Home page or select.



The **Manage Configurations** screen will display. Select the **Attributes** tab. The Attributes page will display. Click the **Add** button.



The **Add New Attribute** screen will display.

Add New Attribute



Enter Field Name



Cancel

Add

Enter an **Attribute Name** in the Name field and select the **Add** button. One or more Attributes can be added from the Add New Attribute screen. When finished click the **Close** icon. The new attributes will now display on the **Attributes** page. Next, select the kind of **Data Type** each attribute represents and check whether the attribute is related to **File**, **Client** or both. **Note**, only attributes checked as Client will be available for Client, Brand or Title attribute selection.

Manage Configurations

Output Fields Convert Types **Attributes** Code Snippets System Settings About

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Attribute Name	Data Type	Domain	File	Client	Add
list_id	string		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
keycode	string		<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Data Types are created by the system and include:

String - text comprised of a set of characters that can also contain spaces, numbers or special characters. A street address is an example of a string data type.

Text - free form text such as a notes box

Domain - a limited list of choices such as male, female or unknown. Notice that a menu icon displays in the **Domain** column when Domain is selected as a data type. Click the icon.

Manage Configurations

Output Fields Convert Types **Attributes** Code Snippets System Settings About

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Attribute Name	Data Type	Domain	File	Client	Add
list_id	string		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
keycode	string		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Sales Person	domain		<input type="checkbox"/>	<input type="checkbox"/>	

The **Manage Domain** screen will display. Enter one or more **New Domains** for the selected Attribute, just select the **Add** button for each entry.

Manage Domain for Sales Person

Field Domain

Enter New Domain Add

Bob

Jane

Fred

Close

To remove a Field Domain, click the **Trash** icon. When you've completed the Manage Domain fields, click **Close**.

Number - can contain a whole number or number with a decimal.

Date - a specified date such as a start or end date.

Boolean - one of two possible values denoted as either true or false (check = true, unchecked = false).

Note that each attribute must be fully configured before it can be added to the Client Attributes list.

Once an attribute has been created, a **Trash** icon will be available to the right of the attribute and when selected will remove the attribute from the Attributes list. Once you've created your Attributes, select the **Save** button. **Note** that additional attributes can be added, updated or removed at any time and can be used as client, brand, title or file attributes.

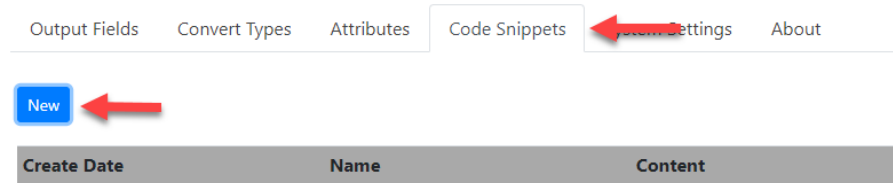
To assign an attribute to a Client, Brand or Title go to [Add/Remove Attributes](#).

Code Snippets

Code Snippets enable you to write code that can be easily copied and used in the Builder. From the Administration Manage Converts page, click on the **Code Snippets** tab.

Click the **New** button.

Manage Configurations



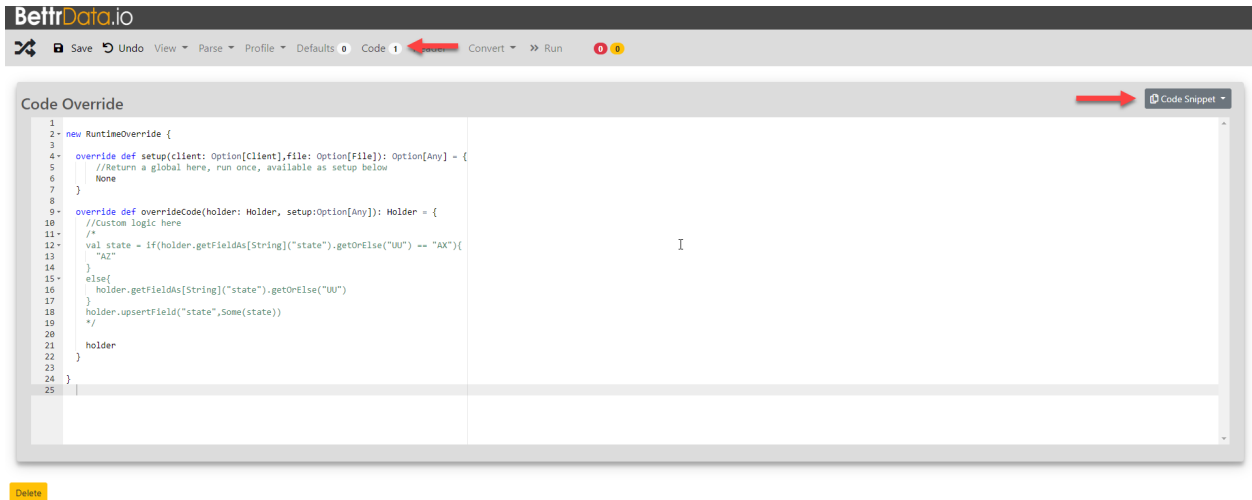
The **Edit Snippet** screen will display.

The screenshot shows the 'Edit Snippet' dialog box. It has a title bar with 'Edit Snippet:' and a close button. Below the title bar, there is a 'Name' field with the placeholder text 'Code Snippet Name'. Below the name field, there is a 'Content' field with the placeholder text '//code'. At the bottom right of the dialog box, there are two buttons: 'Save' and 'Close'.

Enter a **Name** and code **Content**. Be sure that the code is in valid **Scala** language. Click **Save**. The Create Date, Name and Content will now display on the Code Snippets page. From the menu icon you have the ability to **Edit** or **Delete** the code snippet.

To copy the code, go to Files, the Manage Files page will display. Select a file and click the **Open in Builder** menu option. The Builder will display. From the menu bar, select **Code**.

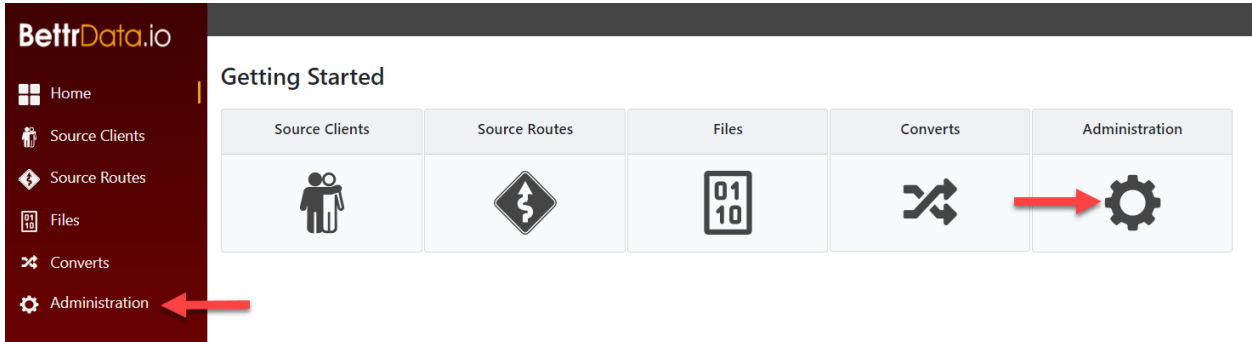
The **Code Override** screen will display.



Remove the code that you would like to replace, then click the **Code Snippet** button. The code snippet will be copied to the user’s clipboard. Click the Code option in the menu bar again to close the Code Override screen. Be sure to select the **Delete** button if you choose not to use the Code Override as it may impact efficiency.

System Settings



System Settings enable you to customize and configure different components of the application. To access System Settings, select **Administration** from the menu panel or click on the Administration card on the Home page.



The Manage Configurations screen will display. Select the **System Settings** tab. The **Global**, **Ingestion** and **Conversion** tabs will display. Select the different tabs to enter or modify various System Settings.

Global

Global Settings address System Health Monitor, Email, Custom Web Links and Webhooks and include the following settings:

System Health Monitor	Description	Default
Enabled	If enabled, a ticket is created for BetrData support if the system goes into RED status. Disable for maintenance, etc.	Enabled
Email		
Enabled	Enable/disable all email with the platform	Disabled
Host	Enter a SMTP host	Blank
Port	Enter a SMTP port	Blank
Secure	Check if Use TLS for SMTP	Blank
User	Enter Username if required	Blank
Password	Enter Password if required. Note must be manually encrypted, please request support for initial setup.	Blank
From	Enter address-Email will be delivered using this address	Blank
Email Template File Recieved	Create a custom email template (Subject and Body) to be used for file receipt. Enter email address to Test. Success or Error messages will display based on Test outcome. Click the info  icon to see PUG Language Guide for syntax info.	Blank
Email Template File Failed	Create a custom email template (Subject and Body) to be used for file failure. Enter email address to Test. Success or Error messages will display based on Test outcome. Click the info  icon to see PUG Language Guide for syntax info.	Blank
Custom Web Links		
Custom Web Links	Enter Description, Url and Type. Can add one or multiple web links. Note that custom web links are made available from the menu panel.	Blank
Webhooks		
File Created	This webhook fires when a new file is received	Blank
File Converted	This webhook fires when a file is converted	Blank

Review Complete	This webhook fires when a converted file is marked as reviewed	Blank
File Deleted	This webhook fires when a converted file is deleted	Blank

Be sure to click the **Save** button for each **Global Setting** where entries or changes have been made.

Ingestion

Data Ingestion is the process of streaming-in massive amounts of data into the system from different external sources for running analytics and other operations required by the business.

Click the **Ingestion** tab to view and manage Data Ingestion Settings including Indexer and Processing.

Indexer	Description	Default
Enabled	Enable/disable new files from being discovered and indexed on the platform	Enabled
Allowed Route Failures	Enter Number of sequential failures a route can have before being disabled	3
Processing		
Enabled	Enable/disable file analysis and processing (files will queue)	Enabled
Enable Smart Types	Enable/disable smart detection of convert types	Disabled
Forgive Non-Zero PGP Exit Enabled	If enabled, PGP decryption will continue on ERROR and if an output is produced. Enable at your own risk.	Empty
Forgive Non-Zero PGP - Whitelist	Click the Clients button to select Whitelist clients that allow a Non-Zero PGP Exit. If none, all will be enabled.	Empty
Enable Pre-Processing Hook	Enable a pre-processing script to customize file formatting, encoding or content	Disabled
Auto Profile Incoming Data	Automatically profile data on receipt. Requires an existing convert and type. If enabled, enter Auto Profile Maximum: the maximum number of records to profile. Enter '0' for no limit. Default: 1M	Disabled

Be sure to click the **Save** button for each **Ingestion Setting** where entries or changes have been made.

Conversion

Click the **Conversion** tab to view and manage Conversion Settings including Conversion Service, Auto Conversion, Auto Validate and Output Settings.

Conversion Service	Description	Default
Enabled	Enable/disable all conversions from running on the platform	Enabled
Auto Conversion		
Enabled	Enable/disable automatic conversion from starting new converts	Enabled
Auto Validate		
Enabled	Enable/disable the automatic validation of conversions	Enabled
Output Settings		
S3 Enabled	Enable/disable outputting conversion data to S3	Disabled
Single File Output	Check to Write output to a single file vs multiple parts (affects performance)	Disabled
Number of Records or Tests	Enter Number of records to convert when using the TEST Environment	50000
Output by Convert Type	If enabled, output path is <code>/DATA_ROOT/CLIENT_ID/TYPE/FILE_ID</code> , type is omitted if disabled	Enabled
User Friendly Output Root	Used for copy to clipboard feature, seat this to the mounted output root	/mnt/data/output/p roduction
User Friendly Input Root	Used for copy to clipboard feature, seat this to the mounted output root	/mt/data/input
User Friendly Input Separator	Used for copy to clipboard feature, seat this to the desired path separator	/
Drop Header Default	Set default for Drop Header (first record) for delimited files in the Builder, can be toggled	Disabled


	on/off in each specific convert	
Drop Empty Records Default	Set default for Drop Empty Records in the Builder, can be toggled on/off in each specific convert	Disabled
Multi-Line Input Default	Set default for Multi-Line Input delimited files (manages quoted embedded EOL) in the Builder, can be toggled on/off in each specific convert (affects performance)	Disabled

Be sure to click the **Save** button for each **Conversion Setting** where entries or changes have been made.

About


About provides you information on the Current Build Version and provides easy access to View Release Notes. To access **About**, select **Administration** from the menu panel or click on the Administration card on the Home page. The **Manage Configurations** screen will display. Select the **About** tab.

Manage Configurations

Output Fields Convert Types Attributes Code Snippets System Settings **About** 

Current Build Version

Tag	Version
BASE_TAG	1.4.1
CRON_TAG	1.0.3
PROXY_TAG	1.0.3
COOKER_TAG	2.6.5
TRANSFORMIO_VERSION	2.6.5

[View Release Notes](#) 

Click on the [View Release Notes](#) link to access the latest release notes. You will be given access during onboarding. **Note** the BettrData.io Release Notes and User Guide are proprietary and only approved for use for BettrData.io customers or approved recipients. Please coordinate with your account manager for our release management process.

API Docs

The API Developer docs can be found at:

https://app.swaggerhub.com/apis-docs/bettrdata/bettr-data_io_api_specification/1.0