

How-To: Data Model Series (Part 3): Attributes and Versioning



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About this series

This series is all about **how to build and use Data Models**. You are in **Part 3**, which provides step-by-step instructions on how to add and manage attributes and Versioning in a Data Model.

This series was designed to be read in order. If you don't have any previous experience with the Data Model tool, we recommend that you follow this approach, starting with Part 1. But if you are already familiar with Vena Data Models and are just looking for a refresher, you can also feel free to dip in anywhere within this series.

Part 1: [Building a Data Model](#)

Part 2: [Hierarchies and Roll-ups](#)

Part 3: Attributes and Versioning - **you are here**

Part 4: [ETL Tool](#)

Before you begin

To follow the instructions in this article, you will need at least **Modeler** access. If Data Permissions are set up in your environment, you will also need the appropriate permissions for the data that you are working with.

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Attributes overview

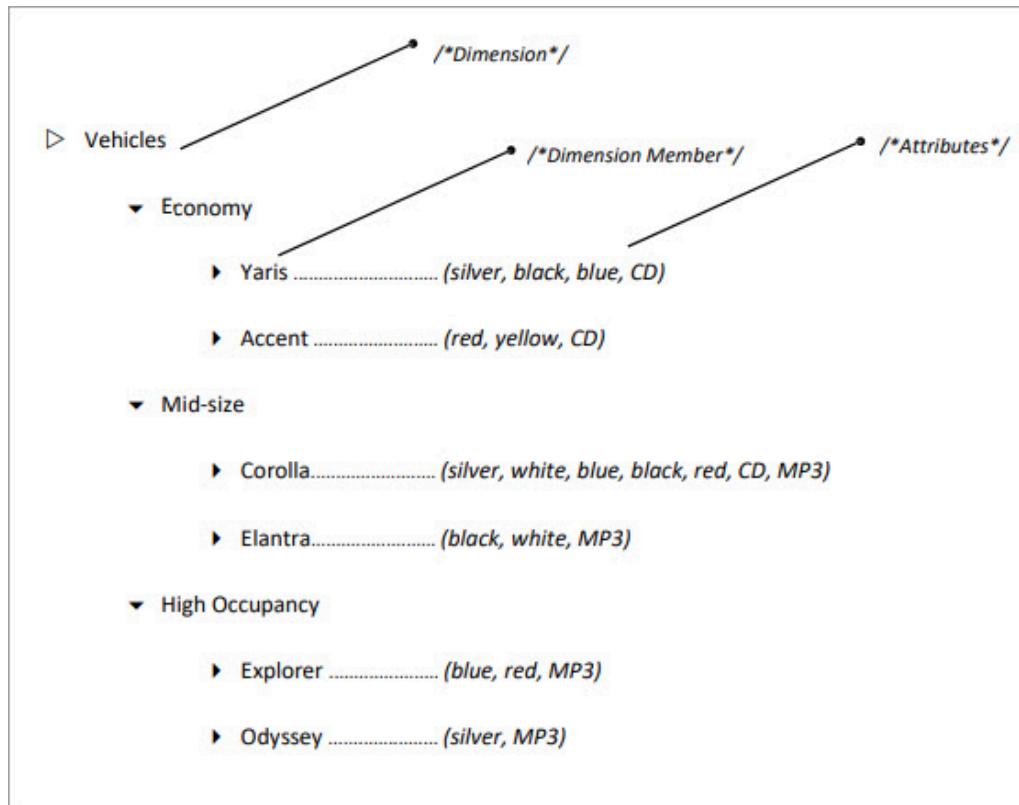
Attributes

Data model members, including bottom-level and parent members, can be labeled with Attributes. Attributes group members with shared properties, even if they are in different parts of the hierarchy. For example, office supplies like pens and markers may share a color attribute, such as blue.

Using attributes allows for the easy retrieval of members with specific characteristics, regardless of their location within the hierarchy.

In Vena templates, attributes can be used with the Expression Editor to dynamically map members based on selected page options. For instance, choosing a page option can filter table rows to show only members with the corresponding attribute.

The following is an example of tagging members with attributes:



As an example, Vena can produce a Dynamic Range based on any of the attributes.

- 'silver' will produce the list of Members: Yaris, Corolla, and Odyssey
- 'silver' UNION 'CD' will produce a list of Members: Yaris, Accent, Corolla, Odyssey

Attribute tools

A Modeler can leverage the Attributes functionality to tag Dimension Members with specific attribute names. For example, a department Dimension Member can be tagged with a location attribute, such as London.

The screenshot shows the Vena Data Modeler interface. The top navigation bar includes tabs for Dev, Manager, Tasks, Modeler (highlighted), Insights, Reports, and Admin. A search bar at the top right says 'Search in Account'. The left sidebar has sections for Data Modeler (selected), Functions, Scripts, Data Transformations, and History. The main area is titled 'Data Model / Model Structure for A. Reporting' and shows a table of attributes for a member named 'Account'. The columns are Member Name, Alias, Attributes (with a dropdown arrow), Operator, and Actions. Attributes listed include Financial, Statistical, Alternate Rollups, Account Dummy (selected), and Undefined. Buttons for Manage and Revisions are visible at the top right of the table area.

A Modeler tab The area of the application where elements such as data models, integrations and the ETL tool reside.

B Data Modeler page This page used to create and manage data models, attributes and versioning.

C Members page The Members page is how you access, create and manage your dimensions and members.

D Choose Data Model Select a data model from the available list.

E Dimensions View, edit or delete dimensions.

F Manage Lists existing attributes, as well as the options to create or delete attributes. **Note:** In Standard Models, you will see a Manage drop-down menu. Under the drop-down menu, you can manage your attributes and range rules. [Visit this article for more information on range rules.](#)

G Attached Members Displays current attributes assigned to members.

How to

Create an attribute

1. Navigate to the **Modeler** tab.
2. Navigate to the appropriate **data model**.
3. Locate the dimension member you want to add an attribute to.

The screenshot shows the Vena Modeler interface. The left sidebar has icons for Dev, Manager, Tasks, Modeler (selected), Insights, Reports, and Admin. Under 'Members', there is a list of dimension members: All Departments, Test, D10, Corporate. The 'D10' row is selected and highlighted with a red box. The top navigation bar shows 'Data Model / Model Structure for C. 1 - Cost - Capital Assets (365C)'. Below the navigation are filters for Metadata, Entity, Department (selected), Measure, Year, Scenario, Asset ID, Account, Period, and a search bar.

4. Right-click on the dimension member and select **Edit** from the menu.

The screenshot shows the 'Edit' context menu for dimension member 'D10'. The menu items are: Edit (selected and highlighted with a red box), Add Sibling, Add Child, Preview Intersections, Share Member, and Cut.

5. Select **+ Add Attribute**. A drawer opens with a list of existing attributes.

The screenshot shows the '+ Add Attribute' drawer. It contains a search bar labeled 'Search Attributes' with a dropdown arrow, a '+' button with a dropdown arrow, and a list item '+ Add Attribute'.

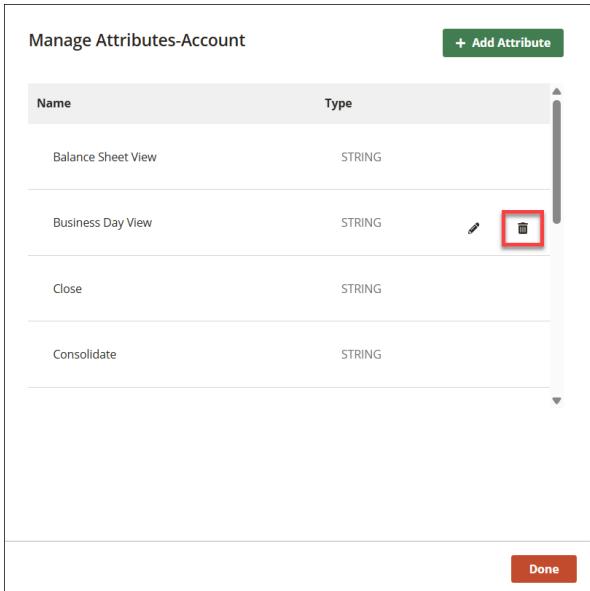
6. Select **+ Add Attribute**.
7. Enter an attribute name.
8. Select **+ Add Attribute** to save the new attribute.

The screenshot shows the 'Manage Attributes-Department' drawer. It has a header '+ Add Attribute'. Below it is a table with columns 'Name' and 'Type'. A row is selected with the value 'Sample Attribute'. At the bottom are buttons '+ Add Attribute' and 'X Cancel'.

9. Select **Done** to close the drawer.

Delete an attribute

1. Navigate to the **Modeler** tab.
2. Navigate to the appropriate **data model**.
3. Select **Manage Attributes**. This opens the attributes drawer.
4. Hover over the attribute you want to delete and select the  (**delete**) icon.



Manage Attributes-Account

+ Add Attribute

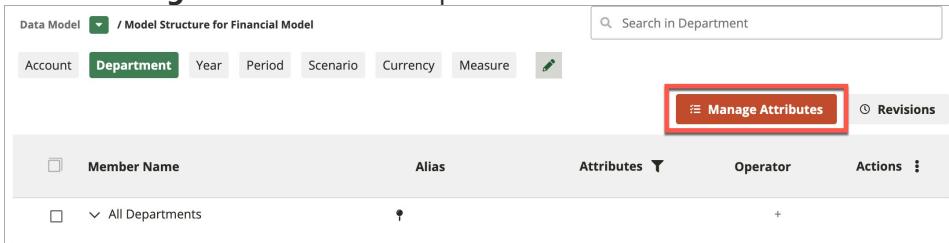
Name	Type
Balance Sheet View	STRING
Business Day View	STRING
Close	STRING
Consolidate	STRING

Done

5. Select **Yes, Delete Attribute** in the pop-up confirmation.

Edit an attribute name

1. Navigate to the **Modeler** tab.
2. Navigate to the appropriate **data model**.
3. Select **Manage Attributes**. This opens the attributes drawer.



Data Model / Model Structure for Financial Model

Search in Department

Account Department Year Period Scenario Currency Measure 

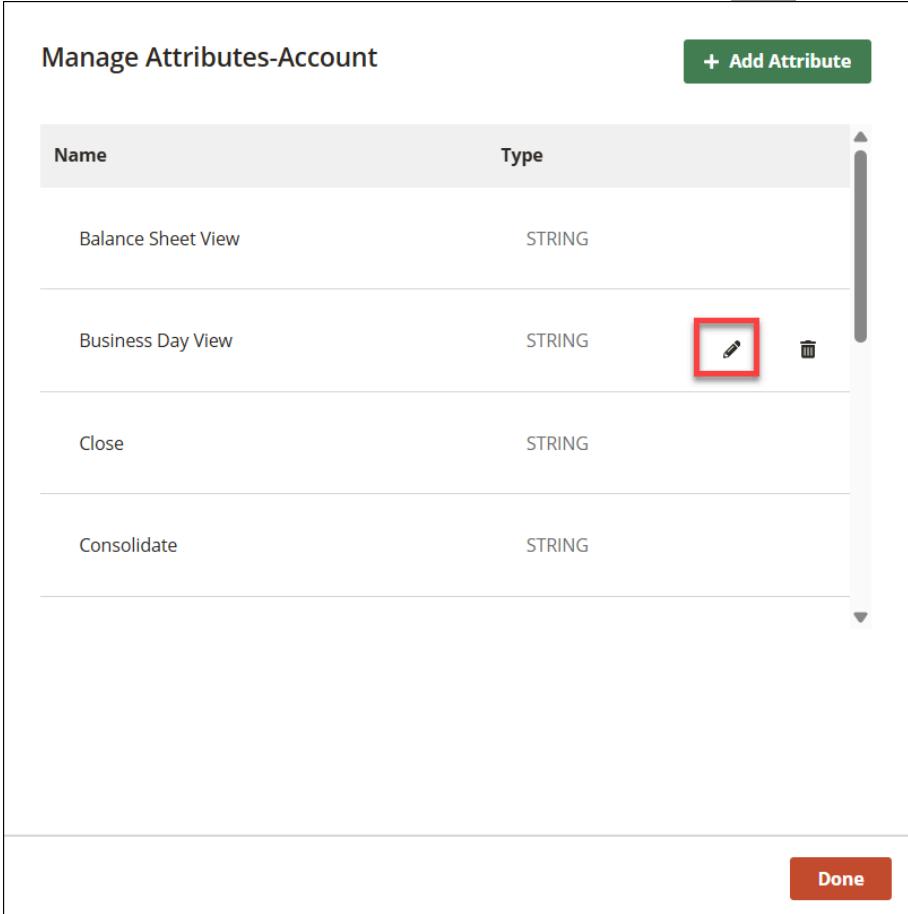
 Revisions

Member Name	Alias	Attributes	Operator	Actions
All Departments				

Note

If you are using a Standard Model, select **Manage > Attributes**.

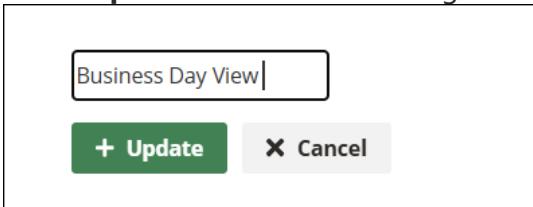
4. Hover over the attribute you want to edit and select the  (pencil) icon.



The screenshot shows a table titled "Manage Attributes-Account". It has two columns: "Name" and "Type". The "Name" column contains "Balance Sheet View", "Business Day View", "Close", and "Consolidate". The "Type" column contains "STRING" repeated four times. To the right of each row is a vertical toolbar with a red-bordered pencil icon and a trash bin icon. A green button at the top right says "+ Add Attribute". At the bottom right is a red "Done" button.

Name	Type
Balance Sheet View	STRING
Business Day View	STRING
Close	STRING
Consolidate	STRING

5. Rename your attribute.
6. Select **Update** to finalize the changes.



A modal dialog box is shown. It contains a text input field with "Business Day View" and a red-bordered "Done" button. Below the input field are two buttons: a green "+ Update" button and a grey "Cancel" button.

7. Select **Done** to close the drawer.

Attach a dimension member to an attribute

1. Navigate to the **Modeler** tab.
2. Navigate to the appropriate **data model**.

3. Locate the dimension member you want to add an attribute to.

Member Name	Alias	Attributes
All Departments		
Test		
D10	Sales	SMB Rollup
Corporate		

4. Right-click on the dimension member and select **Edit** from the menu.

- ⋮
- D10** Sales and Marketing
- Edit**
- Add Sibling
- Add Child
- Preview Intersections
- Share Member
- Cut

5. Select the check-box next to each attribute in the drop-down menu that you want to attach to the dimension member.

6. Select **+ Update** to save your changes.

Sales and Marketing

+ Add Attribute
 Sample Attribute

+ Update
X Cancel

Remove a dimension member from an attribute

1. Navigate to the **Modeler** tab.

2. Navigate to the appropriate **data model**.

3. Locate the dimension member you want to add an attribute to.

The screenshot shows the Vena Data Model interface. The top navigation bar includes Dev, Manager, Tasks, Modeler, Insights, Reports, and Admin. The left sidebar has icons for Members, Versioning, ETL Templates, Export, and Settings. The main area shows a breadcrumb path: Data Model / Model Structure for C. 1 - Cost - Capital Assets (365C). Below this, a filter bar has Department selected. A table lists dimension members: All Departments, Test, D10 (selected and highlighted with a red box), and Corporate. D10 has an alias of Sales and an attribute of SMB Rollup.

4. Right-click on the dimension member and select **Edit** from the menu.

The screenshot shows the 'Edit' context menu for dimension member D10. The menu options are: Edit (highlighted with a red box), Add Sibling, Add Child, Preview Intersections, Share Member, and Cut.

5. Uncheck the check-box next to each attribute in the drop-down menu that you want to remove from the dimension member.

6. Select **+ Update** to save your changes.

The screenshot shows the 'Edit' dialog for dimension member D10. The 'Attributes' section shows 'Sales and Marketing' selected. The 'Actions' section includes '+ Update' and 'Cancel' buttons.

Versioning overview

Versioning allows Modelers to bulk copy data from one group of intersections and write them to another group of intersections within the same data model. The desired data set can be isolated by adding Dimension Members in the Page(s) box. The Page(s) box acts as a list of filters for identifying the data set to copy. For example, a Modeler may want all collected "Plan" data to become the pre-populated "Forecast" data for a particular year.

- A** Versioning Displays utilities used to bulk copy data between dimension members.
-
- B** Dimension Members Navigate and select dimension member.
-
- C** Saved Configurations Existing versioning configurations that you can run and edit.
-
- D** Configuration Name Choose a name for your versioning configuration.
-
- E** Filter Dimensions by Members Use the *Filter* section to narrow down what data you want to copy, i.e., limit copying to data involving your selected members.
-
- F** Copy From Copy from dimension member.
-
- G** Copy To Copy to dimension member.
-
- H** Copy Line Items Choose whether line items are copied; and if so, in which format.
-
- I** Version Parent Members Choose whether parent members will be included or not when defining what to copy.
-
- J** Clear Destination Intersections Before Copy If selected, Vena will clear out all values in the destination ("Copy To") intersections, then copy over the values from the source ("Copy From").

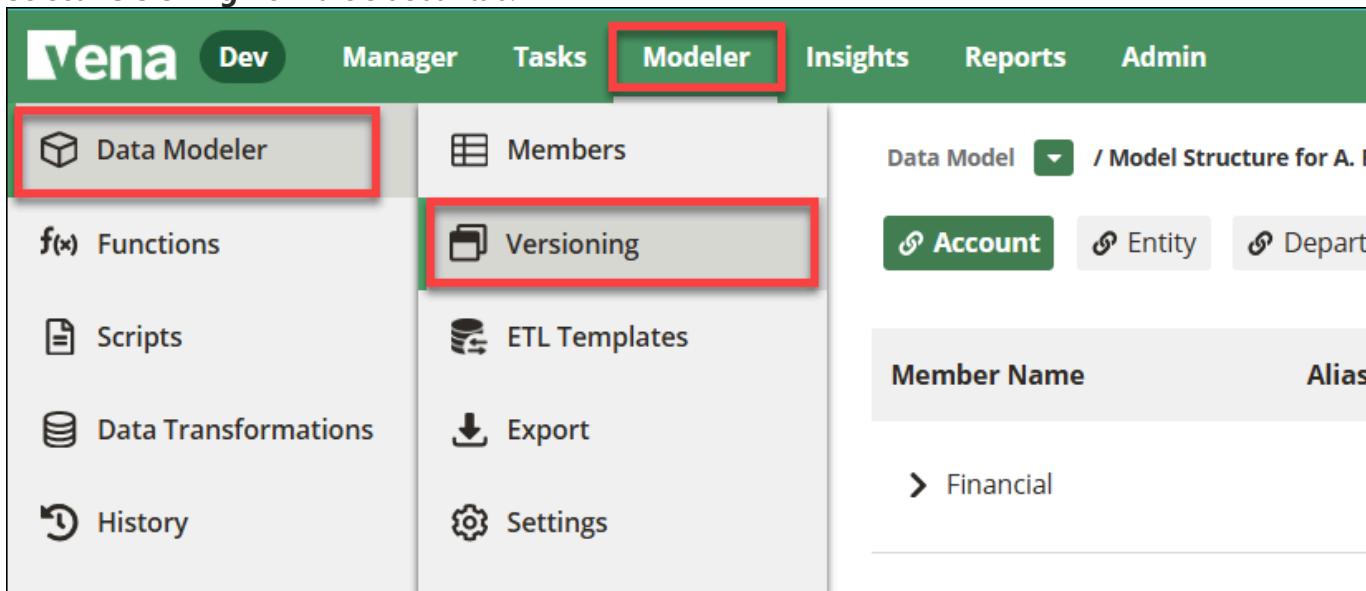
- K Run Calcs** If you have any Vena Calcs set up that include the destination intersections in their scope, this option allows you to specify whether or not those calcs are executed when the data copy is performed.
-
- L Save** Save your versioning configuration.
-
- M Run** Execute copy based on chosen parameters.

Learn more about Versioning in Modeler.

How to

Version data

1. Log in to Vena and navigate to the **Modeler** tab.
2. Select **Data Modeler**.
3. Select **Versioning** from the sidebar tab.



The screenshot shows the Vena Modeler interface. At the top, there is a navigation bar with tabs: Dev, Manager, Tasks, Modeler (which is highlighted with a red box), Insights, Reports, and Admin. Below the navigation bar is a sidebar with several options: Data Modeler (highlighted with a red box), Functions, Scripts, Data Transformations, and History. To the right of the sidebar is a main content area. In the main content area, there is a sub-navigation bar with tabs: Members, Versioning (highlighted with a red box), ETL Templates, Export, and Settings. The main content area displays a table titled "Data Model / Model Structure for A. FCM - Management". The table has columns for "Member Name" and "Alias". One row in the table is expanded, showing a sub-table with a single entry: "Financial".

4. Select the appropriate data model from the data model drop-down list at the top of the page.



5. Input a name for your Versioning Configuration.



A screenshot of a form titled "Versioning Configuration". It has a "Name" field containing the placeholder text "Name your configuration".

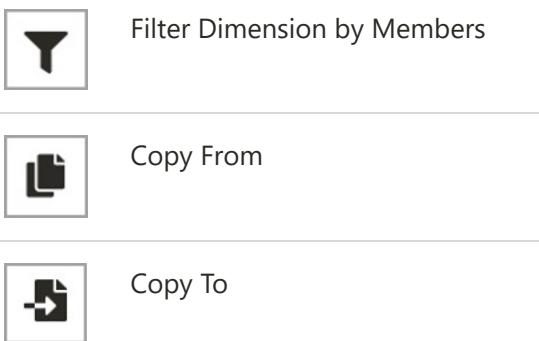
Note

If you choose to run your Versioning configuration immediately, you do not have to input a name. However, if you intend to save the configuration for a later date, you must include a name.

6. Select the dimension that you want to copy.

The screenshot shows the 'Data Model' interface with a dropdown menu open, displaying '/ Model Structure for Financial Model'. Below the dropdown, there are several tabs: 'Account', 'Department', 'Year' (which is highlighted with a red box), 'Period', 'Scenario', 'Currency', and 'Measure'. The 'Year' tab is currently active.

7. Choose a member that describes the type of intersections you would like to bulk copy, then hover over that member row. Three icons should appear:



Select the (**Filter Dimension by Members**) button to add your member to the *Filter Dimension by Members* section under *Versioning Configuration*.

The screenshot shows the 'Versioning Configuration' interface. It includes a tree view with nodes 'US002' and 'Peak Mexico Operations'. To the right of the tree view, there are three icons: a filter icon (with a red border), a clipboard icon, and a folder icon. The filter icon is highlighted with a red box.

8. Use the *Filter* section to narrow down what data you want to copy, i.e., limit copying to data involving your selected members. For example, if you were copying your budget, you would choose the Budget member (or similar).

The screenshot shows the 'Filter Dimension by Members' section. It features a large input field containing the placeholder text 'Filter Dimension by Members' and a small 'X' icon in the top-left corner of the field.

Note

You can add more than one member from unique dimensions. For example, during a cycle rollover, if you want to version last year's December Actuals to January Budget, Copy from:

2020 (Year), Actuals (Scenario), December (Month). Copy to: 2021 (Year), Budget (Scenario), January (Month).

9. Next, choose the member that you would like to copy from and select  **(Copy From)** in the *Member* row to add it to the *Copy From* section. This is where you select the source of the data to be copied.

For example, if it were currently 2020 and you wanted to copy your 2020 budget to 2021, you would choose the Y2020 (or similar) member here. If you leave this section blank, Vena will copy all data for all dimensions in the data model.



10. Now, choose the member that you would like to copy to and select the  **(Copy To)** button to add it to the *Copy To* section. This is where you select the destination of the copied data. For example, if you wanted to copy your 2020 budget to 2021, you would choose the Y2021 (or similar) member here.



Note

The member you choose for *Copy To* and *Copy From* must be the same dimensions.

11. For basic Versioning, do not change the options from their default settings (see a screenshot of default settings, below):

Copy Line Item Details

No Line Item Details

Version Parent Members

Clear all destination intersection values before copying

Run Calcs

Save **Run**

By leaving the default settings unchanged, this means you answer "No" to the following questions:

- Do you want to clear all destination intersection values before copying? No
 - Do you want to copy line items? No
 - Do you want to run calcs? No
 - Do you want to version parent members? No
- See [Advanced Versioning Options](#) below for more information on these functions.

12. Select **Run** to start the Versioning job, which will copy the specified values. You can also select **Save** to save your configuration without running it.
13. If you select the **Run** button, Vena will create and process a new Versioning job, and display a message confirming that your Versioning job has started.
14. Versioning jobs appear with ETL jobs in the *History* section of the Modeler interface, where you can see their status.

For information on Versioning in the Modeler, please refer to **this article**.

Background processing

The Versioning process may take longer depending on the volume of intersections being copied. During this time, the data model remains unlocked, allowing users to use Vena regularly while the data copy processes in the background.

To view the status of your job:

1. Select **Data Modeler**.
2. Select **History** from the sidebar.
3. Your job should be visible on the ETL Jobs page.
4. In the table, you'll see Versioning jobs with Versioning in the *Job Name* column, along with an outline of the configured job.
5. You can check the job status using the indicators on the right side.

Related topics

- Check out this article to learn how to dynamically map tables based on attributes.
- Check out this article to learn how to **copy data in bulk with Versioning**.

Questions? Comments? Reach out to us directly at support@venasolutions.com.
(Please include the link to the article for reference.)