



regoUniversity

SAN DIEGO • 2023

# Data Management in Apptio Best Practices

Your Guides:

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# Agenda

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- Naming Conventions
- Source Data
- Data Transformation
- DataLink / Automation
- Modeled Tables for Reporting

# Introductions

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- Take 5 Minutes
- Turn to a Person Near You
- Introduce Yourself
- Business Cards

# Discussion

- Does your company have processes or procedures in place for data management in Apptio?





# Folder Naming convention

- Applying a consistent method of categorization structure helps end users (TBMsAs, Support, Customer Success) more easily find the data they need and understand where it is being used.

010 - Finance Inputs

020 - Finance Transforms

030 - Finance Mapping Inputs

040 - Finance Mapping Transforms

050 - Infrastructure Inputs

060 - Infrastructure Transforms

070 - Infrastructure Mapping Inputs

080 - Infrastructure Mapping Transforms

# Table Naming Convention

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- Initial Data Load:
  - Name the table in a way that is meaningful. Actuals, Budget, and Forecast files should all use the Suffix “Actuals”, “Budget”, and “Forecast” respectively. For example: SAP OpEx Actuals
- Transforms:
  - Use names to more easily understand how a table has been used and transformed, making for easier troubleshooting.

# Source Data





# Discussion

- How are you receiving new data today?
- How are you ensuring that you receive the data in a timely manner?



# Source Table Documentation

- Source table documentation is a short exercise that can greatly benefit users in understanding who to contact, purpose of the table, and where the data is coming from.

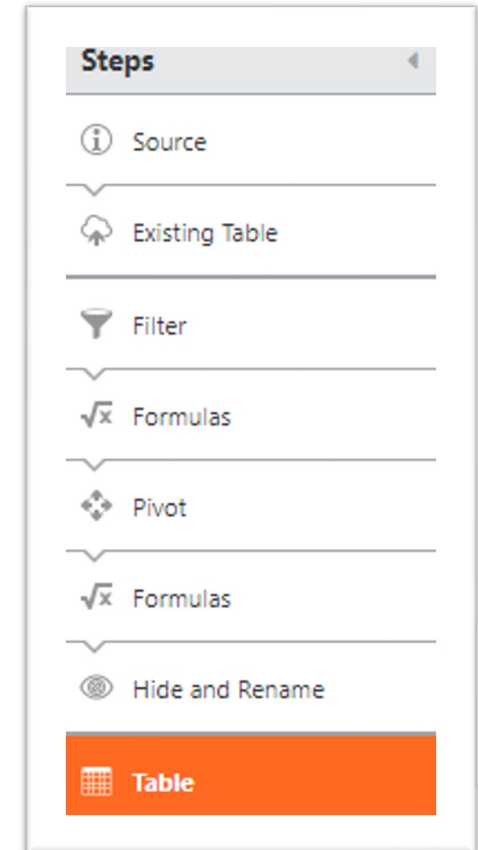
The screenshot shows the 'Source' configuration page in Rego. The left sidebar contains a 'Steps' menu with options: Source (selected), Upload, Import, Formulas, Map Columns (with a red '1' notification), and Table. The main area is titled 'Source' and includes a warning: 'This document has unsaved changes.' Below this are three options: 'File Upload' (highlighted in blue), 'Editable Table', and 'Existing Table'. A 'Table description' box contains the following text:

**Table description:**  
Source System: Workday  
Data Owner: Steven Mickels  
File Location: Labor workday team uploads data on the last day of each month to Labor folder of TBM Office Shared sharepoint site. <https://example.sharepoint.com/sites/TBMO/DataShared/LaborFiles.aspx>  
Upload Method: Automated Datalink  
Refresh Frequency: Monthly on BD 1



# Data Transformation Guide

- Filter rows early
- Date partition the data early
- Use Hide and Rename early
- Separate column overrides from other formulas
- Avoid multiple tablematch, splitex, lookupex within the same formula step
- Leverage pre-master tables or template tables for appended data
- Limit the amount of column overrides within your transform tables



# Raw Table Data Transformations

- Keep the raw data as true to the source as possible
- Separate your column overrides from your data transformations

Changes | Uploads | Updates | Versions

**Steps** < **Formulas** ⓘ Create or change columns

Column Name ▲	Description	Type	Formula
Account Description		A	=trim(Upper(\$_))
Account Group		A	=trim(Upper(\$_))
Account Subgroup		A	=trim(Upper(\$_))
Cost Pool		A	=trim(Upper(\$_))
Cost Sub Pool		A	=trim(Upper(\$_))

+ Add a new column

-- Select column to edit --

Steps < **Formulas** ⓘ Create or change columns

Column Name ▲	Description	Type	Formula
COA String		A	=Account&"   "&Account Group&"   "&Account Subgroup&"   "&Account Description&"   "&(Discretionary/Non-Discretionary)&"   "&Region&"

+ Add a new column

-- Select column to edit --

# Discussion

- Do you utilize Pre-Master tables to Map Columns to your Master tables or do you Append directly to your Master tables?



# Creating Pre-Master Tables

- Use a pre-master dataset when you need to append multiple tables together and apply common logic, before it populates the OOTB Master Data set using mapped columns.
  - This prevents you from customizing the OOTB Master Data set with any additional formulas or transform steps in the OOTB Master Data set.
- Pre-master data sets should share the same column names as the OOTB Master Data set.
  - In this instance, upload the column headers of the OOTB Master Data set (pulled from the mapped tables or upload steps, with no row data) as the base file, and then append in the other data sets.

# Pre-Master Tables

Steps	Append <span>ⓘ Add rows from other tables</span>
Source	Append Table
Upload	
Import	
Append	
Formulas	
Flatten Hierarchy	
Formulas	
Map Columns	
Table	

Name	Row Count	Type	Last Updated	Actions
General Ledger	443	API Data	December 01, 2022	Edit / Remove
General Ledger Budget	411	API Data	September 15, 2023	Edit / Remove

Journal ID	Journal Line ID	Account Group	Account Subgroup	Account	Department Code	Department Description
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⚠ This document is read only - check it out to make changes.

Steps	Mapped Tables <span>ⓘ Tables mapped to this destination</span>
Overview	
Mapped Tables	
Append	
Formulas <span>⚠</span>	
Table	

Name	Last Updated	Row Count	Mapped Required Columns	Mapped Columns	Mapped Added Columns
Cost Source PreMaster	June 22, 2022	854	15 of 15	49 of 49	2 of 2





# Datalink with SFTP

- Benefits
  - Automate data upload process
  - Automate loading data to proper time period
  - Create seamless transition from when data owner uploads file to data being upload into Apptio

**Filename/Pattern**

Filename/Pattern

General\_Ledger\_Actuals\_{MMM}\_{FYYY}.csv

Process all matching files

**Source Directory**

/TBMO/GeneralLedger

**Notify & Archive**

**SMTP Settings Not Configured**

In order to send email notifications of your connector's status, you must set SMTP settings for your instance. Visit the [Settings page](#) to configure this information. Be sure to refresh this page after submitting your changes.

Archive data file after successful upload

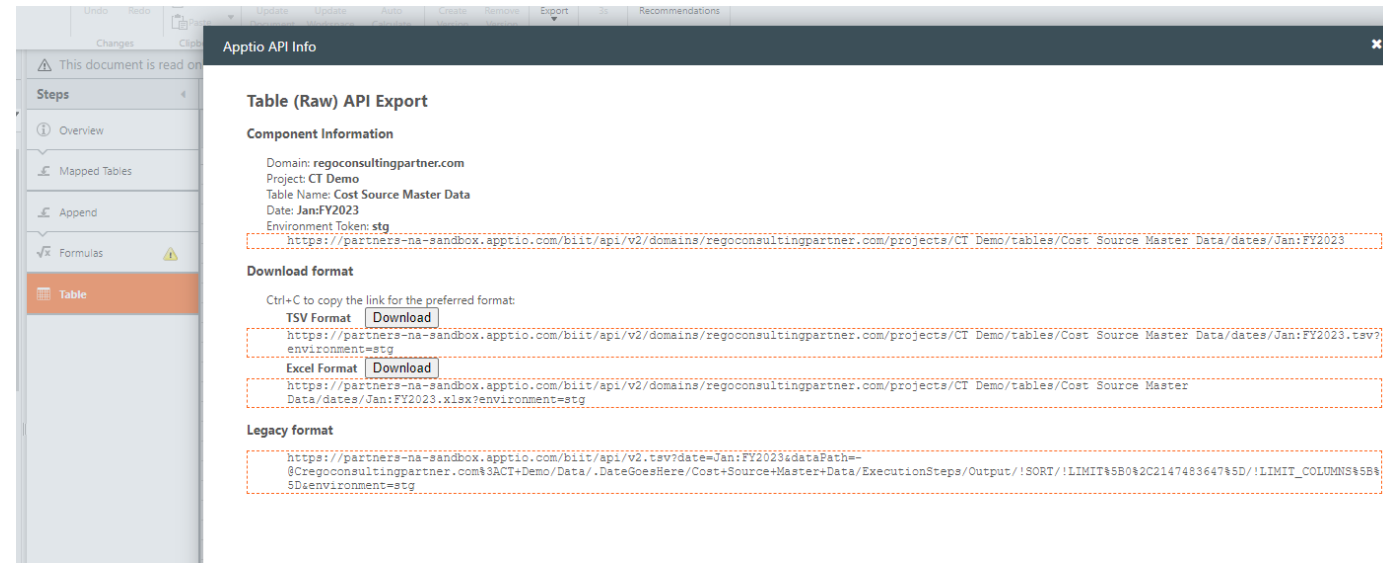
Archive data file even if validation fails.

**Archive Directory:**

/TBMO/GeneralLedger/Archive

# Datalink Options Within Apptio

- Report to Table
- Project to Project
- Users Project to Cost Transparency Project
- Cost Transparency Project to Row Level Security
- Table in Cost Transparency Project to a Table in another Project



# Apptio API

- Use TSV Download format when possible
- TSV Download format takes the report component
- Legacy API re-creates the report component with any filtering or columns added to the component

or change the URL to:

TSV Format

```
https://partners-na-sandbox.apptio.com/biit/api/v2/report.tsv?reportPath=@Cregoconsultingpartner.com%3ACT+Demo/Reports/.DateGoesHere/CostModels/Default/.View%3Aatab%3AService+Costing/.View%3AFinancial+Analysis&date=Jan:FY2023&componentId=3386&environment=stg&userLanguage=en-US
```

## Legacy API

The above URLs do not include the effects of interactive modifications to the report that were not saved at the time of report authoring. This includes the effect of features such as slicers selections, column pickers, etc.

If you need to download data including the effects of these features with the above APIs you can author a static report with the same view. Alternately you can do so with the below legacy API URL, which includes the interactive modifications to the report that are currently selected.

TSV Format

```
https://partners-na-sandbox.apptio.com/biit/api/v2.tsv?date=Jan:FY2023&dataPath=@Cregoconsultingpartner.com%3ACT+Demo/Reports/.DateGoesHere/CostModels/Default/.View%3Aatab%3AService+Costing/.View%3AFinancial+Analysis/Cost+Source/!FILTER%5B%7BCost+Source+Master+Data.Expense+Type%7D+IN+ (%22OpEx%22%2C%22OpEx+Budget%22%2C%22OpEx+Forecast%22)%5D/!GROUPBY%5B%7BCost+Source+Master+Data.Account+Group%7D%5D/.Summary/!ALL_ROWS%5BJan%3AFY2023-%3EDec%3AFY2023%5D/!NEWCOLUMN%5B%7BTrend%7D%3DIcons%3Aicondisplay%5Bid%3D%22trend%22%5D%5B%3D%22%3Cdiv+align%3D'center'%3E%22%26%24_%5D%5Blabel%5D/!NEWCOLUMN%5B%7BOPEx%7D%3DCost%5D%5BFORMAT%3DCost%5D/!NEWCOLUMN%5B%7BPrevious+Period+OpEx%7D%3DTimePeriod (Cost%2C-1)%5D%5B%3DCurrency (%7B%24_%7D%2C%22%23%2C%23%230%22)%5D/!NEWCOLUMN%5B%7BChange%7D%3DCost-TimePeriod (Cost%2C-1)%5D%5B%3DCurrency (%7B%24_%7D%2C%22%23%2C%23%230%22)%5D/!NEWCOLUMN%5B%7B%25+Change%7D%3D (Cost-TimePeriod (Cost%2C-1))%2FTimePeriod (Cost%2C-1)%5D%5B%3DNumberFormat (%24_%2C%22%23%23.%23%25%3B%3Cfont+color%3D' red' %3E-%23%23.%23%25%3C%2Ffont%3E%22)%5D/!NEWCOLUMN%5B%7BOPEx+YTD%7D%3DYearToDate (Cost)%5D%5B%3DCurrency (%7B%24_%7D%2C%22%23%2C%23%230%22)%5D/!NEWCOLUMN%5B%7BOPEx+Budget+YTD%7D%3DYearToDate (Budget)%5D%5B%3DCurrency (%7B%24_%7D%2C%22%23%2C%23%230%22)%5D/!NEWCOLUMN%5B%7BOPEx+Budget+Variance++F%2F (U)%7D%3DYearToDate (Budget)-YearToDate (Cost)%5D%5B%3DCurrency (%7B%24_%7D%2C%22%23%2C%23%23%23%22)%5D/!NEWCOLUMN%5B%7BOPEx+Budget+Variance+%25++F%2F (U)%7D%3D (OpEx+Budget+YTD-OpEx+YTD)%2FOpEx+Budget+YTD%5D%5B%3DNumberFormat (%24_%2C%22%23%23.%23%25%3B%3Cfont+color%3D' red' %3E-%23%23.%23%25%3C%2Ffont%3E%22)%5D%5Bnumeric%5D/!NEWCOLUMN%5B%7BOPEx+Forecast+YTD%7D%3DYearToDate (Forecast)%5D%5B%3DCurrency (%7B%24_%7D%2C%22%23%2C%23%230%22)%5D/!NEWCOLUMN%5B%7BOPEx+Forecast+Variance+YTD%7D%3DYearToDate (Forecast)-YearToDate (Cost)%5D%5B%3DCurrency (%7B%24_%7D%2C%22%23%2C%23%230%22)%5D/!NEWCOLUMN%5B%7BOPEx+Forecast+Variance+%25+YTD%7D%3D (YearToDate (Forecast)-YearToDate (Cost))%2FYearToDate (Forecast)%5D%5B%3DNumberFormat (%24_%2C%22%23%23.%23%25%3B%3Cfont+color%3D' red' %3E-%23%23.%23%25%3C%2Ffont%3E%22)%5D/!NEWCOLUMN%5B%7BRemaining+OpEx+Budget%7D%3DAnnual (Budget)-YearToDate (Cost)%5D%5B%3DCurrency (%7B%24_%7D%2C%22%23%2C%23%230%22)%5D/!NEWCOLUMN%5B%7BRemaining+OpEx+Forecast%7D%3DAnnual (Forecast)-YearToDate (Cost)%5D%5B%3DCurrency (%7B%24_%7D%2C%22%23%2C%23%230%22)%5D/!FILTER_ZERO%5B%7BCost%7D%2C%7BPrevious+Period+OpEx%7D%2C%7BChange%7D%2C%7B%25+Change%7D%2C%7BOPEx+YTD%7D%2C%7BOPEx+Budget+YTD%7D%2C%7BOPEx+Budget+Variance++F%2F (U)%7D%2C%7BOPEx+Budget+Variance+%25++F%2F (U)%7D%2C%7BOPEx+Forecast+YTD%7D%2C%7BOPEx+Forecast+Variance+YTD%7D%2C%7BOPEx+Forecast+Variance+%25+YTD%7D%2C%7BRemaining+OpEx+Budget%7D%2C%7BRemaining+OpEx+Forecast%7D%5D/!SORT%5
```



# Modeled Tables for Reporting

- Set object identifier
- For complex reports, use a report identifier
- Avoid formulas within reports when possible

The screenshot shows a software interface for configuring a model. On the left, a 'Steps' sidebar has 'Model' selected. The main area is titled 'Model' with a subtitle 'Allocate costs and other values.' Below this, there's a 'Select a metric:' dropdown set to 'Cost' and a '> Cost Source' link. The 'OBJECT:' is 'Cost Source'. Under 'Object: Cost Source', there's a 'Rows' section with a 'Complete' status. A text block explains 'Tier for System Generated Overviews' and provides a 'Financial' dropdown and a 'New' button. A checked checkbox 'Use object identifier' is followed by an explanatory text and a 'Unique Identifier' dropdown. At the bottom, there is an 'Add row filter' button.

# Questions?



# Surveys

Please take a few moments to fill out the class survey.  
Your feedback is extremely important for future events.





# Thank You For Attending Rego University

## Instructions for PMI credits

- Access your account at [pmi.org](https://pmi.org)
- Click on **Certifications**
- Click on **Maintain My Certification**
- Click on **Visit CCR's** button under the **Report PDU's**
- Click on **Report PDU's**
- Click on **Course or Training**
- Class Provider = **Rego Consulting**
- Class Name = **regoUniversity**
- Course **Description**
- Date Started = **Today's Date**
- Date Completed = **Today's Date**
- Hours Completed = **1 PDU per hour of class time**
- Training classes = **Technical**
- Click on **I agree** and **Submit**



Let us know how we can improve!  
Don't forget to fill out the class survey.



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