



# Performance Analyzer User Guide

Version 2019.2



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## Preface

Welcome to Acorn Performance Analyzer 5G. This reporting solution provides quick, dynamic, customizable reports on multi-faceted aspects of your business. It provides a powerful analysis and communication tool, providing dramatic insight into your organization's costs and profits.

Use Performance Analyzer to analyze the current environment in your organization. The reports help to identify the following:

- Specific customers and products that require attention.
- Accuracy of the current segmentation approach.
- Effect of internal and external costs on the price a customer ultimately pays for a product or service.

## In This Document

- **Screen Navigation.** This section describes the basic user graphic interface of the application, including the samples of screen shots and details of each screen's function. See [Chapter 1 Navigating the Application](#) for more details.
- **Working with Data.** This section provides information regarding data upload, management, and deletion, including how to work the tables and filter options to view specific data. See [Chapter 2 Working with Data](#) for more details.
- **Managing Model and User Properties.** This section offers details regarding model set-up, including adding users, managing scenarios, and uploading new attributes of various data components. See [Chapter 3 Model Set-Up and User Management](#) for more details.
- **Business Rules: Building Blocks for Basic Modeling.** This section details the steps needed to create business rules, including business dimensions, resources and their pools, general ledger accounts and assignments, and support resources. See [Chapter 4 Creating Business Rules](#) for more details.
- **Advanced Modeling.** This section describes advanced model actions, including adding exchange rates, sessions, process rates, general ledger amounts, and using the Universal Connector. See [Chapter 5 Advanced Modeling](#) on for more details.
- **Creating Statements.** This section describes the steps to create financial statements using model data, and how to alter or delete preexisting statements. See [Chapter 6 Creating Statements](#) for more details.
- **Reports.** This section describes the two standard reports located under the Reports screen, as well as the custom reports designed by users, and how to view them. See [Chapter 7 Reports](#) for more details.
- **Validation and Calculation.** This section describes how to validate the data before calculation, and describes the scenario messages that occur after the calculation has completed. See [Chapter 8 Validation and Calculation](#) for more details.

- **Appendix A: Screen Shots.** This section depicts the various screens that can be found in the application. See [Appendix A: Screen Shots](#) for more details.
- **Appendix B: Troubleshooting.** This section contains valuable information regarding several limitations within the release, and steps to work around the limitations in order to have an optimal user experience. See [Appendix B: Troubleshooting](#) for more details.
- **Appendix C: Intellisense Usage.** This section lists the various character types used to determine automatic suggestions during data creation. See [Appendix C: Intellisense Usage](#) for more details.
- **Appendix D: Character Limitations.** This section contains the rules regarding character input for different entities in the application. See [Appendix D: Character Limitations](#) for more details.
- **Glossary.** Lists key terms and functions for easy document navigation. See [Glossary](#).

## Online Help

The Acorn Performance Analyzer 5G application includes online assistance. To open the web help, simply select the “?” icon located at the top right of most PA5G screens. A browser will open on a different screen or tab, depending on your Internet settings. After you have reviewed your topic of interest, you can navigate to other topics using the Table of Contents located on the left panel.

## Online Release Notes

The PA5G Web Help contains the release notes related to the most recent version of PA5G. You can learn about PA5G's exciting, new features and the issues resolved from previous releases. To view any limitations that may be present in the release, navigate to the [Welcome topic of the Web Help](#). This screen contains a link that allows you to download a pdf version of the “Acorn Performance Analyzer Release Notes v. 2019.2”.

## About Acorn Systems

Acorn Systems provides profit improvement solutions that enable clients to maximize revenue, minimize cost, and improve operational efficiencies. Acorn reveals profit improvement opportunities across the enterprise — customers, channels, segments, products, vendors and processes — enabling clients to make continuous, fact-based decisions to improve their bottom line and Earnings per Share (EPS). Acorn's unique and proven approach to profit improvement is used by leaders in Financial Services, Retail, Consumer Products, Manufacturing, Distribution and Logistics, who have realized over \$1B in annual profit improvements and created over \$9B in new shareholder value.

## Feedback

Acorn Systems always welcomes feedback about its products. If you would like to provide feedback about this application or document, please contact your Acorn Systems representative.

## Chapter 1 Navigating the Application

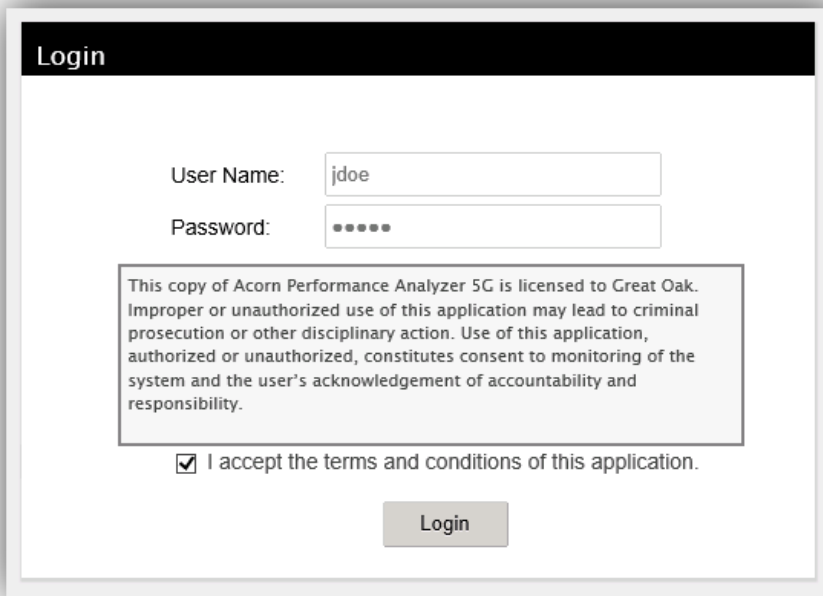
The Acorn Performance Analyzer 5G is designed to offer a simple, intuitive guide through your company's financial components. Configuring your model to the correct database will pre-populate most, if not all, of the data. In fact, much of your usage will be contained to the Start screen. Just as the name suggests, this is the first screen you will see upon opening the application. From the Start screen, you will have the ability to navigate to data, model and user management, and business rules screens. Details of these screens and how to navigate to each one will be discussed in the next pages.

Topics in this Section:

- **Login Screen.** This screen will only appear if you have configured PA5G to use Login/Log- out authentication. See [Login Screen](#) for more details.
- **Start screen.** This screen, also referred to as the **Home** screen, acts as the portal to all other screens in the application. Use this screen to access the **Data, Model, Statement, and Business Rules** screens. You will also use this screen to calculate your model. See [Start Screen](#) for more details.
- **Model Screens.** These screens contain functionalities that will allow you manage your model settings and user privileges. On the **Version** screen, you can create a new model version from scratch or using previous model data. The **Lookup Tables** screen allows you to create tables that will significantly improve your experience when searching for specific data. The **Attributes** screen allows you to create attributes for different data that is specific to your company's needs. The **Facilities** screen allows you manage facilities that act as a point of operation in your company, thereby responsible for at least one variable of the model. See [Model Screens](#) for more details.
- **Business Rule screens.** The **Business Rules** screens contain the basic modeling functionality needed to successfully calculate a model. In many cases, these screens will be the first step in preparing your model. They contain the different assignments (resource pool, general ledger), as well as the list of general ledger accounts and resource pools. These screens also contain the Business Dimensions, where you will set the equations used to calculate your model. See [Business Rules Screens](#) for more details.
- **Data Screens.** These screens contain advanced modeling functionalities that you may not have to use during a basic model calculation. The screens allow you to manage, add, or remove data such as exchange rates, process rates, general ledger amounts, and transactions. See [Data Screens](#) for more details
- **Universal Connector** screens, you can share data between PA5G and a different application. See [Data Screens](#) for more details.
- **Statement Screen.** The **Statement** screen allows you create custom-constructed statements. These reflect different variables of data in your model. See [Statements Screens](#) for more details.

## Login Screen

If you have enabled login verification on the Configuration Tool, the first screen you will see upon opening the application will be the Login screen. It is here where you will add your username and password to sign into the application.



**Login**

User Name:

Password:

This copy of Acorn Performance Analyzer 5G is licensed to Great Oak. Improper or unauthorized use of this application may lead to criminal prosecution or other disciplinary action. Use of this application, authorized or unauthorized, constitutes consent to monitoring of the system and the user's acknowledgement of accountability and responsibility.

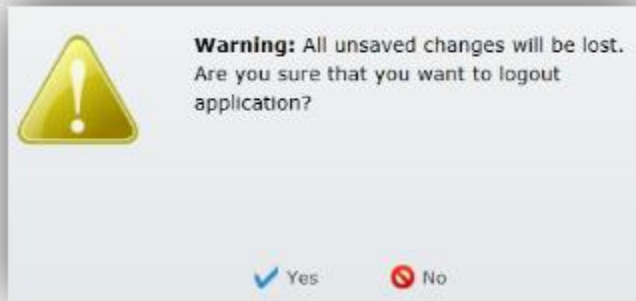
I accept the terms and conditions of this application.

Login

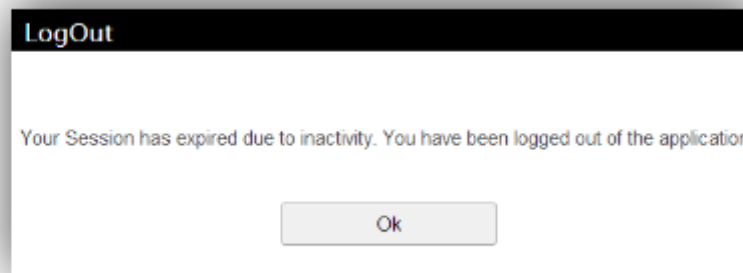
Once you have logged into the application using login authentication, you'll see a logout option available on the top right of every screen in the application.



Select this option at any time to log out of PA5G. Once you have selected "LogOut", a new message will appear, confirming the end of your session.



If your session becomes inactive and stays inactive throughout the duration of time specified in the **Configuration Tool**, you will be automatically logged out of the application.



The login authentication does not have multi-session support. In an exact moment, you can only be logged-in from one computer. If you log onto a different computer while your session is still active, you will receive a warning message.



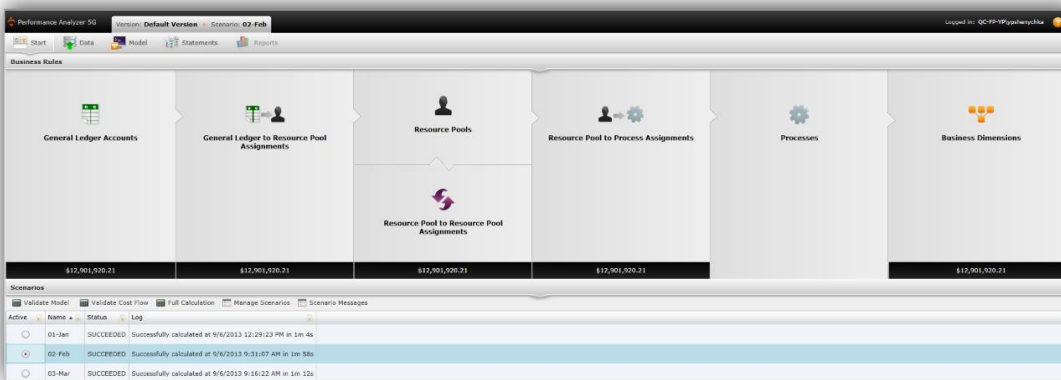
**Tip:** Only users that belong to the application domain and PA5G database will be able to log on to the application. PA5G does not support classic Forms authentication.

## Start Screen

The PA5G Start screen:

- Provides access to all areas of the model.
- Outlines the flow of the model from GL to Business Dimensions.
- Provides access to Scenario Management.
- Provides the ability to calculate the model.

The image below is an example of the **Start** screen:



**Note:** For a clearer view of the start screen, see a cascaded view in the Appendix

## Version Tabs

On the top of the screen, notice the version tabs. As you create and work with different versions of the model, you will use these tabs to jump from one version to another.

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## Model Screens

Tabs located under Model vary in function, but each serves a common purpose: maintaining the dignity of your model by contributing to its upkeep and structure, and offering different options to further customize your PA5G experience.

- **Model Settings.** Opens the **Model Settings** screen, where you can name your model, add a description, choose your base currency and select if your model supports processes. See [Model Settings](#) for more details.
- **Facilities.** Opens the **Facilities** screen, which lists all physical environments whose processes somehow contribute to your company's cost flow. For example, a corporate building where the HR department resides and a downtown warehouse where finished products are shipped are both considered "facilities". See [Facilities](#) for more details.
- **Versions.** Opens the **Versions** screen, which enables you to create new versions of the model, either by adding entirely new data, or copying from another version. See [Adding Versions](#) for more details.
- **Users.** The **Users** tab consists of three screens: **Manage Users, Manage Groups, and User Preferences.** Use these screens to add/delete users and groups, and to create or reassign privileges. See [Managing Users and Groups](#) for more details.
- **Attributes.** The **Attributes** screen consists of three screens: Entity, Process, and Facility. Each screen allows you to add, delete, or upload columns of data you want added to that particular item to further be used as a driver or value. See [Creating Attributes](#) for more details.
- **Lookup Table.** Opens the **Lookup Tables** screen, where you can create tables that will help you with searching through pages of data. See [Designing Lookup Tables](#) for more details.
- **Change Log.** Opens the **Change Log** screen, which allows you to view the data changes made by application users, as well as the date and time the changes occurred. You can also download previously archived files, or archive active logs. See [Change Logs](#) for more details.

## Business Rules Screens

Under the Main Menu is a row of panels that make up the Business Rules. These rules define aspects of the business, and are intended to assert structure, or influence the behavior of the business, and thereby, the model. Each Business Rule panel has a distinct function that, when combined altogether, develop the operations, definitions, and constraints to the calculation of your model.

- **General Ledger Accounts.** Opens the **General Ledger Accounts** screen. The amount reflected on its panel refers to the total sum of all general ledger amounts imported into the model for the scenario. Unlike the other panels, the total displayed will change in real-time, as the amounts change, without the need for calculation. See [General Ledger Accounts](#) for more details.

- **General Ledger to Resource Pool Assignments.** Opens the **General Ledger Assignments** screen, which allows you to allocate general ledger items to a resource by an assignment type of your choice. The amount reflected on the panel refers the total sum of allocated costs. See [General Ledger to Resource Pool Assignments](#) for more details.
- **Resource Pools.** Opens the **Resource Pools** screen, which allows you to manage your resources, or add/upload new ones. See [Resource Pools](#) for more details.
- **Support Resource Pool to Resource Pool Assignments.** Opens the **Support Resource Pools** screen, where you can allocate support resources to resources by an assignment type of your choice. The amount reflected on the panel refers to the total sum of costs assigned to a functional resource pool (as opposed to costs that remain at the support resource pool level). See [Support Resource Pool to Resource Pool Assignments](#) for more details.
- **Resource Pool to Process Assignments.** Opens the **Resource Pool Assignments** screen, where you can allocate resources to processes by an assignment type of your choice. The amount reflected on the panel refers to the total sum of allocated costs that have been assigned to all processes. See [Resource Pool to Process Assignments](#) for more details.
- **Processes.** Opens the **Processes** screen, where you can view processes, edit process equations, and add/upload new processes. See [Processes](#) for more details.
- **Business Dimensions.** Opens by default the **Objects** screen, where you can add/delete and arrange model objects. Other business dimensions found under this panel include: drivers, metrics, weight equations, global drivers, and global metrics. The amount on the panel reflects the sum that has been calculated for rate-based processes. This sum includes any cost that does not get pushed to the final level—either due to weight equations or an absence of child objects. See [Business Dimensions](#) for more details.

## Cost Flow

On the bottom of each Business Rule panel (with the exception of “Processes”), a black ribbon displays the total of the cost flow as it pertains to its related business rule. Note that these amounts will change accordingly with each calculation.



**Note:** The total amount displayed in the Business Dimension panel cannot be used to identify potentially incorrect weight equations between the business dimensions.

## Data Screens

Under the Data tab on the Main Menu, you'll find a plethora of different tabs that perform a variety of functions—anything from viewing general ledger amounts and assigning exchange rates, to adding data to lookup tables and executing the Acorn Universal Connector (AUC). As diverse as these screens are, however, they all serve one common purpose: maintaining the dynamic data elements of your model.

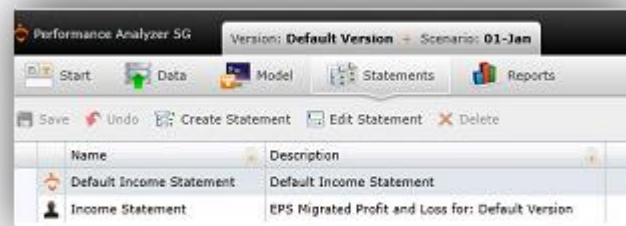
- **General Ledger Amounts.** Opens the **GL Amounts** screen, which allows you to add, edit, or remove amounts which have been generated from your general ledger items. Each amount represents one financial item. See [General Ledger Amounts](#) for more details.
- **Process Rates.** Opens the **Process Rates** screen, where you can modify rates given to static or dynamic activities and costs. See [Assigning Process Rates](#) for more details.
- **Exchange Rates.** Opens the **Exchange Rates** screen, which allows you to add, delete, or update the rates at which one country's currency will be exchanged for another (also regarded as the value of one country's currency in terms of another currency). See [Adding and Managing Model Exchange Rates](#) for more details.
- **Transactions.** Opens the **Transactions** screen, where you can work with one or more statements that comprise a logical unit of your company's work or product. See [Transactions](#) for more details.
- **Lookup Tables.** Opens the **Lookup Tables** screen, where you can add data to tables previously created on the **Lookup Tables** screen located under the **Model** tab. See [Adding Data to Lookup Tables](#) for more details.
- **Universal Connector.** Opens the **Acorn Universal Connector**, a tool to import and validate data from staging tables into the actual application. See [Using the Universal Connector for Uploading Data](#) for more details.

## Statements Screens

Use the Statements screen to add, modify, and delete statements created from PA5G data.

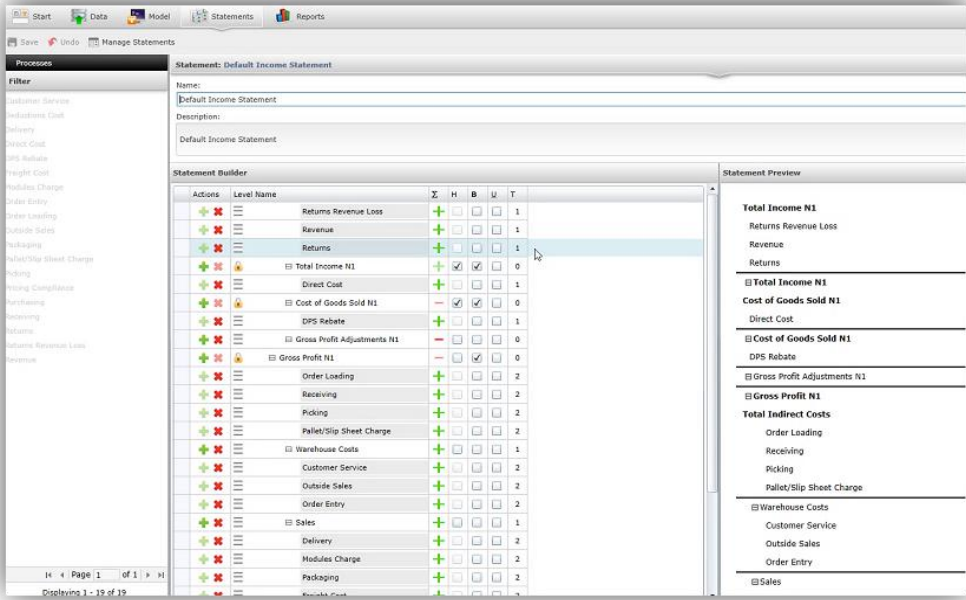
### Manage Statements Screen

This screen appears when you first click on the **Statements** tab. It contains a list of statements previously created by you or other users.



## Edit Statement Screen

The screen below depicts a user creating a statement. You can navigate to this screen by selecting “Create Statement” on the **Manage Statements** screen. The same screen appears if you edit an existing statement by selecting “Edit Statement”.




## Chapter 2 Working with Data

Now that you're familiar with the PA5G site map, you'll need to know how to work with PA5G's most important feature: the data. The PA5G screens are designed with identical functionality across the application, increasing your ability to operate a screen even if you are encountering it for the first time. This section teaches you how to operate these functions.

- **View Options.** For selected screens, two viewing options are available: "Data View" and "Grid View". See [View Options](#) for more details.
- **Page Scrolling.** Flip through data by using the scrolling tools. See [Page Scrolling](#) for more details.
- **Unlocking Columns.** The ability to unlock a column in order to have it move with the data as you are scrolling through pages. See [Unlocking Columns](#) for more details.
- **Sortable Columns.** You can sort through columns by selecting columns to move to the right or the left of the window. See [Sortable Columns](#) for more details.
- **Filtering Data.** You can filter the data using drop-downs in order to view only the data you would like view. See [Filtering Data](#) for more details.
- **Action Functions.** Action functions are used to create, add, delete, or modify data in a specific instance. See [Action Functions](#) for more details.
- **Download Template.** You have the ability to add data by downloading a spreadsheet (blank or pre-filled with data) that will help you add data in mass quantities. See [Import Data Using Templates](#) for more details.
- **Uploading Data.** Once you have created records using the downloaded template, you can access the "Upload" function and migrate the records into the database. See [Uploading Data](#) for more details.
- **Edit Failed Records.** If your records cannot be added to PA5G due a conflict, you can further edit these files using the Edit Failed Records screen. See [Failed Records](#) for more details.

### View Options

Many screens contain two different viewing options: the grid view, and the data view.

The grid view will be the default view when you first navigate to a screen. As its name suggests, this screen contains a grid of the items and their different attributes. Using the grid view, you will be able to add a new item and upload files. On selected screens, you will be able to add a new item on the grid screen, then select the "Data View" icon () to finish adding additional information.

### Example of a screen in grid view.

| Name                   | Data Type | Data Size | Description | Data Base Name         |
|------------------------|-----------|-----------|-------------|------------------------|
| G_CM_Paper_Statement_  | Float     |           |             | G_CM_Paper_Statement_  |
| G_CM>Returns_Cost_Per_ | Float     |           |             | G_CM>Returns_Cost_Per_ |
| G_CM_Separate_Pallets_ | Float     |           |             | G_CM_Separate_Pallets_ |
| G_CM_Special_Labeling_ | Float     |           |             | G_CM_Special_Labeling_ |

The data view focuses on an item that was specified from the grid view. From the data view, you will be able to drill down into the specific components of the item, and have the opportunity to analyze and edit its attributes and in some cases, their equations. To return to the grid view, select the "Grid View" icon (📄).

### Example of a screen in data view.

**Process Details**

Name: Customer Calls - East

Description:

Equation Description:

Sales representatives spend approximately 5 hours with Tier 1 customers, 2 hours with Tier 2 customers and 1 hour with Tier 3 customers on a monthly basis. In addition, 20 minutes are spent on discussions and negotiations for each order placed by the customer. For general product support, 15 minutes are spent on each product bought by the customer and 30 minutes are spent with each new product brought by the customer.

Equation Editor:

$$\text{if}(\text{Territory}=="\text{East}",1,0) * (\text{Lookup}(\text{Customer\_Tier}, "1", 300, "2", 120, 60) + 20 * C$$

Page 1 of 2  
Displaying 1 - 20 of 29

## Page Scrolling

To review records under one screen, use the buttons at the bottom right. Use the double arrows to move to the first and last pages of the records. Use the single arrows to jump page to page.



## Unlocking Columns

The columns in the data tables can be unlocked at any time by clicking on the lock icon in the header row. This will allow you to scroll through rows of data on the unlocked column while the other columns remain locked.

## Sortable Columns

Columns can be moved to different position by selecting a column and moving it to a different place on the table.

| GL Name         | GL Description               | Currency Symbol | Action          |
|-----------------|------------------------------|-----------------|-----------------|
| 5000 - 100 - 01 | Lease Expense - East         | MXN             |                 |
| 5000 - 100 - 02 | Lease Expense - West         | MXN             |                 |
| 5000 - 100 - 03 | Lease Expense - East         | BRL             |                 |
| 5000 - 100 - 04 | Lease Expense - West         | GBP             |                 |
| 5100 - 100 - 01 | Hardware Storage Deprec: GBP |                 |                 |
| 5100 - 100 - 02 | Hardware Storage Deprec: GBP |                 |                 |
| 5100 - 100 - 03 | Hardware Storage Deprec: MXN |                 |                 |
| 5100 - 100 - 04 | Hardware Storage Deprec: BRL |                 |                 |
| 5200 - 100 - 01 | Network Charges - East       | BRL             |                 |
| 5200 - 100 - 02 | Network Charges - West       | BRL             |                 |
| 5200 - 100 - 03 | Network Charges - East       | GBP             |                 |
| 5200 - 100 - 04 | Network Charges - West       | MXN             |                 |
| 5300 - 100 - 01 | Hardware Mainframe Dep       | MXN             | GL Name         |
| 5300 - 100 - 02 | Hardware Mainframe Dep       | MXN             | 5000 - 100 - 01 |
| 5300 - 100 - 03 | Hardware Mainframe Dep       | MXN             | 5000 - 100 - 02 |
| 5300 - 100 - 04 | Hardware Mainframe Dep       | BRL             | 5000 - 100 - 03 |
| 5400 - 100 - 01 | Hardware Mainframe Dep       | GBP             | 5000 - 100 - 04 |
|                 | Hardware Storage Deprec: GBP |                 | 5100 - 100 - 01 |
|                 | Hardware Storage Deprec: GBP |                 | 5100 - 100 - 02 |
|                 | Hardware Storage Deprec: MXN |                 | 5100 - 100 - 03 |
|                 | Hardware Storage Deprec: BRL |                 | 5100 - 100 - 04 |
|                 | Network Charges - East       | BRL             | 5200 - 100 - 01 |
|                 | Network Charges - West       | BRL             | 5200 - 100 - 02 |
|                 | Network Charges - East       | GBP             | 5200 - 100 - 03 |
|                 | Network Charges - West       | MXN             | 5200 - 100 - 04 |
|                 | Hardware Mainframe Dep       | MXN             | 5300 - 100 - 01 |
|                 | Hardware Mainframe Dep       | MXN             | 5300 - 100 - 02 |
|                 | Hardware Mainframe Dep       | BRL             | 5300 - 100 - 03 |

## Filtering Data

Many screens will allow you to filter data by using the drop-down arrow located on the action ribbons. Using the drop-down, select the option that will define the records you want to see, then select "Search".

The screenshot shows a data table with a search bar and a dropdown menu. The search bar contains the text "Search". The dropdown menu is open, showing a list of options: "Show All", "GL Name", "GL Description", "Currency Symbol", "Amount", and "Show All". The table below has columns for "GL Name", "Last Updated Time", and "Amount". The "Show All" row is highlighted in blue.

| GL Name | Last Updated Time     | Amount |
|---------|-----------------------|--------|
| 77.93   | 1/16/2012 10:58:58 PM |        |
| 56.33   | 1/16/2012 10:58:58 PM |        |
| 66.37   | 1/16/2012 10:58:58 PM |        |









**Tip:** To filter results using different data, write the word or term in the empty field beside the drop-down, and select "Search".

## Action Functions

Every screen will have its own action ribbon located above the data table and below the Main Menu.

The actions on this ribbon will differ from dimension to dimension, but most screens will enable you to:

- Add data 
- Upload data 
- Save data 
- Undo changes 
- Download template 
- Delete data 

## Import Data Using Templates

Many data screens have a "Download Template" option that allows you to download a template for adding data. Once you've completed adding data to the template, you can then use the "Upload Template" option to upload the data-filled template back to the application. If any of the records fail to upload, you will have the opportunity to edit the failed files.

### Available Model Elements for Upload

- Facilities
- Entity Attributes
- Process Attributes
- Facility Attributes
- General Ledger Accounts
- General Ledger Assignments
- Weight Equations

- Global Drivers
- Resource Pools
- Support Resource Pools
- Resource Pool Assignments
- Processes
- Business Dimension Drivers
- Metrics
- Global Metrics

#### Available Scenario Data for Upload:

- GL Amounts
- Process Rates
- Exchange Rates
- Transaction Data
- Lookup Tables

## Download Template

The “Download Template” function will be available on most **Data** screens, and many **Business Rules** screens. When you select this action, a pop-up screen will appear. There are two options to consider

#### Select a Template with Example Data or a Blank Template

- **Data Template.** Select this option if you want to view an example of different data stored in the columns. This is a good choice if you are new to uploading data and need data examples.
- **Blank Template.** Select this option if your data is already defined, and you are simply interested in viewing the order for which the data should be placed.

#### Select Template Format

- **Excel Format.** Select this option if you are downloading the template to a computer that has Excel 2007 or later.
- **CSV Format.** Select this option if you are downloading the template to a computer that has an earlier version of Excel, or different spreadsheet software altogether.

## Uploading Data

You can add multiple records at one time by selecting the “Upload” action located on many of the data screens.

### To upload data:

1. After selecting “Upload”, the Upload window will appear.



2. Drag and drop files onto the grayed area, or select “Browse Upload”, which will allow you to search through your files on a separate window.
3. On the far right of the screen, choose the option to merge uploaded files with existing files, or replace existing files altogether. The option will be selected on “Append/Merge” by default.
4. Select “Collapse Upload” to close window for the upload.



**Note:** If your file upload failed for some reason, you can edit this file on the application, or download them for editing in Excel. See [Failed Records](#) for more details.

**Note:** Select “Undo” to revert back from unsaved changes. Select “Delete” to delete an item.

**Note:** You can cancel the upload at any time by selecting “Cancel Upload”.

## Append/Merge vs. Replace

You can add the uploaded data in one of two ways:

- Append/Merge. Choosing this option will add the uploaded data to pre-existing data in the application.
- Replace. This option will replace all data currently residing in the application with the data uploaded during the current operation.

## Failed Records

If you've gone through the trouble of downloading a template, checking every p and q on your spreadsheet, only to have some or all of your records fail, you have the option to edit these records before attempting to upload them again.

## One Error for all Records

If your records evoked one error for all, the link "Error" will appear beside the status bar. Click on it. An error message will appear, notifying you of the issue. Once you've processed the message, select "Collapse Upload" and edit your spreadsheet accordingly.



## Multiple Errors for One or Multiple Records

If you have multiple files with individual errors, you have two options if you want to adjust them for successful uploading: edit the failed records within the application, or download the failed records and make changes in Excel.



## Edit Failed Records

Selecting the option will allow you to edit the files within PA5G. Errors appear in red. You can delete individual files, or select "Clear All" to remove the incorrect data in its entirety. When you have made corrections, select "Save" and "Back".

| Process Name    | Source Dimension | Destination Dimension | Equation                   | Equation Description | File Importing Error         |
|-----------------|------------------|-----------------------|----------------------------|----------------------|------------------------------|
|                 | Customer         | Order                 | 210 * [Customer].[C_Direc  |                      | All fields must contain data |
|                 | Customer         | Order                 | 210 * [Customer].[C_Direc  |                      | All fields must contain data |
|                 | Order            | Line_Item             | {Lookup([Customer].[C_Cu   |                      | All fields must contain data |
|                 | Order            | Line_Item             | {Lookup([Customer].[C_Cu   |                      | All fields must contain data |
| Deductions Cost |                  | Order                 | {Customer].[C_Order_Dedi1  |                      | All fields must contain data |
| Deductions Cost |                  | Order                 | [Customer].[C_Order_Dedi   |                      | All fields must contain data |
| Delivery        | Order            |                       | {if([Location].[Name]="E   |                      | All fields must contain data |
| Delivery        | Order            |                       | {if([Location].[Name]="E   |                      | All fields must contain data |
| Freight Cost    |                  | Line_Item             | [Order].[O_Freight_Expens  |                      | All fields must contain data |
| Freight Cost    |                  | Line_Item             | [Order].[O_Freight_Expens3 |                      | All fields must contain data |
| Modules Charge  | Customer         |                       | 50 * [Customer].[C_Club_   |                      | All fields must contain data |
| Modules Charge  | Customer         |                       | 50 * [Customer].[C_Club_   |                      | All fields must contain data |

### Download Failed Records

Selecting this option will allow you to make corrections using Excel. The data with errors are outlined in red. Once you have completed editing, save the file and retry to upload. The application will fail the same error multiple times if the error is not corrected.

|    | A                   | B                       | C                            |
|----|---------------------|-------------------------|------------------------------|
| 1  | <b>Process Name</b> | <b>Source Dimension</b> | <b>Destination Dimension</b> |
| 2  |                     | Customer                | Order                        |
| 3  |                     | Customer                | Order                        |
| 4  |                     | Order                   | Line_Item                    |
| 5  |                     | Order                   | Line_Item                    |
| 6  | Deductions Cost     |                         | Order                        |
| 7  | Deductions Cost     |                         | Order                        |
| 8  | Delivery            | Order                   |                              |
| 9  | Delivery            | Order                   |                              |
| 10 | Freight Cost        |                         | Line_Item                    |



**Note:** If you don't want to edit your failed records, select "Collapse Upload", and the failed records will disappear.



## Chapter 3 Model Set-Up and User Management

Keeping your model and user settings in check is essential to the health and well-being of your model. From the Main Menu, selecting the Model tab will open a collection of screens that can help you perform any number of tasks varying from adding a model version, reviewing company facilities, controlling user privileges, and much more.

This chapter contains the following topics:

- **Model Settings.** Use the Model Settings screen to name your model and set the base currency. See [Model Settings](#) for more details.
- **Facilities.** View facilities on the Facilities screen. Each facility is somehow a point of operation essential to one or more general ledger assignments. See [Facilities](#) for more details.
- **Adding Versions.** To create different versions of a model, use the Versions screen. Creating a new version will allow you to manipulate dynamic data without changing the original model components. See [Adding Versions](#) for more details.
- **Managing Users and Groups.** The screens under this tab allow you to manage PA5G users by adding or removing their data modification privileges, and assigning them to groups. See [Managing Users and Groups](#) for more details.
- **Attributes.** The Attribute screens allow you to create different attributes for general ledger accounts, resource pools, processes and facilities. These attributes are usually added to provide essential information that is company-specific. See [Creating Attributes](#) for more details.
- **Designing Lookup Tables.** The Lookup Table screen offers the opportunity to create special lookup tables which you can populate with data on the Lookup Tables screen under the Data tab. You may also delete or edit lookup tables on this screen. See [Designing Lookup Tables](#) for more details.
- **Change Logs.** The Change Log screens allow you to view user sessions and the actions performed in these sessions, including the items that were deleted, added, or modified, and the data and time the changes occurred. See [Change Logs](#) for more details.

### Model Settings

The **Model Settings** screen is useful in establishing the key platform settings for your model's content. On this screen, you will have the opportunity to perform the following tasks:

- Name your model.
- Add a model description.
- Assign a base currency.
- Clear staging table data.
- Enable/disable log files.
- Set a UI row limit.

## Enable Change Logs

Enabling change logs allows the application to monitor and record user sessions. These logs give specific information regarding the identity of the user who worked with the data, the time and day it was performed, how the data was modified from its previous state, as well as any additional details about the session.

While enabling log files can be very useful, keep in mind that it may also significantly impact system performance. If you experience a critical level of slow or unstable performance after change logs have been enabled, disable the change logs to return to optimal performance.

## Setting User Interface Row Limits

Setting the user interface (UI) row limit allows you to control how much information you see on the Change Log screen at any given time. Use this function to specify a maximum number of log detail items. After the maximum limit value of the row is established, this limit is stored in the application configuration file.



**Tip:** User interface (UI) row limit is applicable only to the Change Log screen; it does not affect other screens.

When you set the row limit, the application considers the amount of log items available to view, and multiplies it by the number of attributes assigned to each of these logs.

### Example:

You have 5000 log items to view. If the UI Row limit is set to 1000, you can only see up to 1000 log item details at one time.

**Example:**

Suppose you added a 900-limit set. If the database contained 800 logs, with nine (9) attributes per log, the number of details would be the sum of the logs multiplied by the attributes, which in this case would be 7200. Since you have created a row limit of 900, you would only be able to see one-hundred (100) of these logs on one screen at a time.

## Clear Stage Tables

When you upload records from an .xlsx or .csv file, any records that failed to upload will remain in the staging tables. Ignoring these failed records may cause performance issues down the road. To solve this issue, you can return to the failed records and make the necessary adjustments that will allow for a successful upload, or you can choose to remove the failed data by selecting the “Clear All Staging Tables” action found on this screen. This function will clear any data leftover from a previous file upload, which will ultimately increase application performance. In order to perform this function, you must have the appropriate privilege for modifying a model. See [Managing Users and Groups](#) for more details.

## Internationalization Enabled

If the “Internationalization Enabled” field is checked, the database from which you have created your model has enabled internationalization through the Configuration Tool when the database was established and the application was configured. This feature implies that the database contains foreign characters and is using an NVarchar data type for string values. If the field is unchecked, the database is disabled for foreign characters, and is using a Varchar data type for string values.

## Facilities

Facilities refer to any property such as a building, plant, or structure that was built or established for the performance of one or more specific activities or functions for your company.



**Tip:** You can navigate to the **Facilities** screen by selecting the **Model** tab, then the **Facilities** tab.

| Name      | Description   | Unique Identifier | Corporate                           |
|-----------|---------------|-------------------|-------------------------------------|
| Corporate | Corporate - 0 | 0                 | <input checked="" type="checkbox"/> |
| East      | East - 1      | 1                 | <input type="checkbox"/>            |
| North     | North - 4     | 4                 | <input type="checkbox"/>            |
| South     | South - 3     | 3                 | <input type="checkbox"/>            |
| West      | West - 2      | 2                 | <input type="checkbox"/>            |

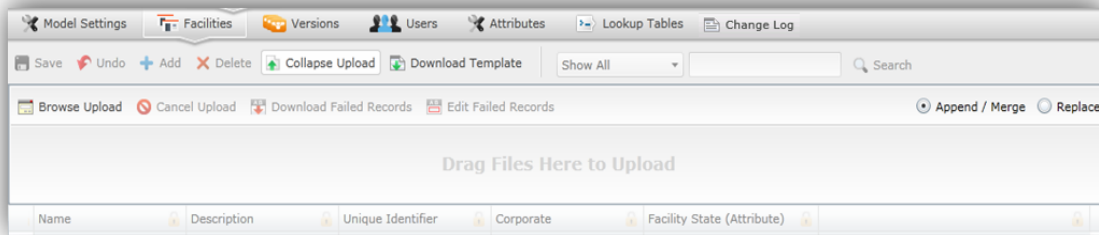
## Adding\Uploading Facilities

### To add facilities manually:

1. Select "Add". A new row will appear in the table.
2. Type the new facility and its data inside the fields, and select "Save". The Facilities table contains the following columns:
  - a. Name: Name of the facility.
  - b. Description: Description of the facility.
  - c. Unique Identifier: This column will contain any unique data that your company uses in identifying the facilities, such a geographic location or a numerical value.
  - d. Corporate: This column will be checked if the facility is considered part of the corporate headquarters, i.e. the central point of operations. Only one corporate facility should be assigned for each version.
3. Select "Save" to save changes.

### To upload files:

1. Select "Download Template". A download pop-up screen will appear. Choose the required options and select "Download".
2. Open the data template and confirm that the columns and the presentation of data are identical to your records.
3. Select "Upload". The Upload window will open.
4. Drag and drop files to the grayed area, or select "Browse Upload".
5. Select "Collapse Upload".



**Note:** If your file upload failed for some reason, you can edit this file on the application, or download them for editing in Excel. See [Failed Records](#) for more details.

**Note:** Select "Undo" to revert back from unsaved changes. Select "Delete" to delete an item.

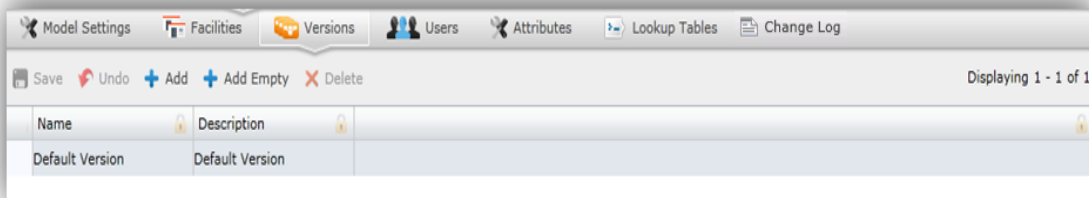
**Note:** You can cancel the upload at any time by selecting "Cancel Upload".

## Adding Versions

Use the **Versions** tab to create different versions of a model. You will want to create a new version if your processes or list of entities have changed dramatically from your current version.

More facts about versions:

- Model Versions are created to allow for varying representations in the business practices of the organization.
- A default version is created when the model is created.
- Additional versions of the model can be created as desired.
- Select "Add Version" to add a version that is prepopulated with data from the current active version.
- Select "Add Empty" to add a version that is empty of all data.



The Version table is divided into the following columns:

- **Name.** Name of the version. After you have selected "Add" or "Add Empty", you can create a name for the new version by clicking in the row under the Name column.
- **Description.** Description of the version. For example, the purpose for its creation, or the elements that contain different data compared to previously established versions.



**Tip:** To ensure that you're copying from the correct version, look at the version tabs located at the top screen. The active version will be highlighted.

## Managing Users and Groups

The **Users** tab helps you manage PA5G users and their respective groups. These screens will be prepopulated with user data from the database if this information is present. If not, a user with the correct privileges will need to manually add this data. The **Users** tab consists of three screens: **Manage Users**, **Manage Groups** and **User Preferences**.

### Administrator Privileges/Manage Groups

Before utilizing the user management screens, keep in mind that in order to have complete autocracy for these functions, administrative privileges must be assigned to you.

The Administrators group was created during configuration. The user who configured PA5G will automatically receive Administrator privileges and will be added as a member to the Administrators group. If you were not administered these privileges because you did not initially configure the software, ask an administrator to add you to the Administrators group.



**Note:** Currently, administrators will not have the ability to log out other users if the login authentication has been enabled.

### Assigning Administrative Privileges

To assign administrative privileges to an individual, the user must already exist in the database. You can confirm their user status on the **Manage Users** screen. Once you have confirmed the user's status, add him or her as an administrator by completing the following steps:

1. Navigate to the Manage Groups screen. The table is divided into the following columns:
  - a. **Name:** Name designated to the group. The name should give some indication as to the group's role.
  - b. **Members:** PA5G users assigned to the groups.

- c. **Groups:** Displays subgroups, often referred to as “child” groups. Child groups prevent administrators from creating an entirely new group in situations where the differentiation of privileges is minor.
  - d. **Permissions:** Lists the accessibility of the application for the users assigned to this group.
2. Select the Administrators group.
  3. Expand the child grid for the group by selecting the arrow beside the group's name.
  4. Select “Add Member”.
  5. Select the user from the drop-down.
  6. Select “Save”.

Although a majority of non-Administrative group data can be altered by a user with the correct privileges, the Administrators group cannot. The following information cannot be edited:

- the group's name
- the permission columns
- parent groups

When the database is upgraded, users assigned to the Administrators group will remain in this group and have all permissions. Confirm all users who need Administrator privileges are added to the group before upgrading. The only instance where a user is automatically added to the Administrator group is when he or she was the user who configured the application.

## Other Groups

The **Manage Groups** screen allows you to create and edit Groups and their permissions, as well as add users to these groups. User groups make it easier to organize users based on functions specific to their role within the company.

### Example:

If you have several users in your Finance department that only need access to viewing cost validation summaries, you would create a group, and assign this group various permissions that only allow viewing the reports, without uploading data that may modify the report's outcome. After you have created this group, you can assign members.

## Parent and Child Groups

Parent groups refer to the group created out of a set of privileges designed from your database's pre-defined list. Child groups inherit all parent group permissions. It is impossible to give the child group permissions that the parent group does not have.

### When do I create a new group?

A new group should be created when you need to distinguish certain members of an existing group with privileges that other members in that group should not have.

Other factors to remember about parent and child groups:

- When users or groups are added to another group with lower permissions, they will automatically inherit the new parent group permissions by matching the parent group permissions.
- During editing, if the current permissions of the user or group do not match the parent group, they will be updated to match the parent group permissions.

### Example:

The twenty members of the Finance department are assigned to a user group containing the privilege for modifying data and calculating scenarios. Ideally, only ten users should have this privilege. In this situation, the correct course of action is to create a new group and disable the privilege of calculating scenarios. The next step is to add all users but the select ten users to the new group. The other ten users would remain in the original group, thus maintaining their privilege to calculate scenarios.

## Group Privileges

The following list contains the existing privileges for these groups:

- Load/Edit Transactional Data. This privilege allows users to modify any data under the Data tab, including GL Amounts, Exchange Rates, Process Rates, Transactions, Lookup Tables Data, Universal Connector
- Calculate Model. Allows users to validate the model and its cost flow, and perform calculation.
- Modify Model. User will have the ability to modify any data under Model tab, as well as GL, RP, Processes, Assignments, Drivers, Metrics etc., including modifying scenarios.
- Create/Edit Users and Roles. User can edit, create, and delete users, as well as edit, create, and delete groups.

## Add a New Group

1. Navigate to the **Manage Groups** screen. The table is divided into the following columns:
  - a. **Name:** Name designated to the group. The name should hint at the group's role.
  - b. **Members:** PA5G users assigned to the groups.
  - c. **Groups:** Displays subgroups, often referred to as "child" groups. Child groups prevent administrators from creating an entirely new group in situations where the differentiation of privileges is minor.
  - d. **Permissions:** Lists the accessibility of the application for the users assigned to this group.
2. Select "Add".
3. Provide a name for the new group.
4. Select check-boxes in permission columns to establish permissions for the group.
5. Select "Save".

## Add a User as a Group Member

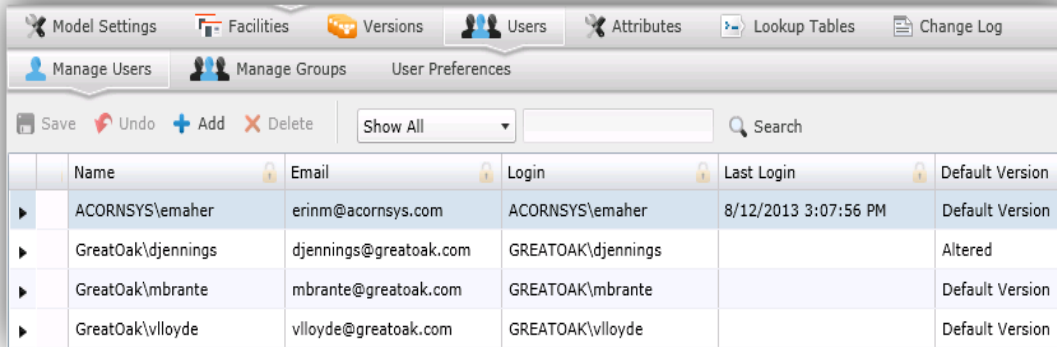
Adding a user to a group is identical to adding users to the administrative group. To review this procedure, see [Assigning Administrative Privileges](#). To confirm that the user has been added to the group, return to the Manage Users screen and expand the child grid for the user. The group should be listed under the "Groups" column.

## Manage Users

The Manage Users screen's appearance and functionality is similar to the Manage Groups screen, with one big exception: no privileges can be assigned, removed, or edited on this screen. All privilege tasks must be performed on the Manage Groups screen. In other words, the Manage Users screen's primary function is to add or delete users from the application, or to edit users' information. Anything more complex must be completed on the Manage Groups screen.



**Note:** You can choose to view all users at once, or opt to view only specific users by using the filter function.



|   | Name               | Email                  | Login              | Last Login           | Default Version |
|---|--------------------|------------------------|--------------------|----------------------|-----------------|
| ▶ | ACORNSYS\emaher    | erinm@acornsys.com     | ACORNSYS\emaher    | 8/12/2013 3:07:56 PM | Default Version |
| ▶ | GreatOak\djennings | djennings@greatoak.com | GREATOAK\djennings |                      | Altered         |
| ▶ | GreatOak\mbrante   | mbrante@greatoak.com   | GREATOAK\mbrante   |                      | Default Version |
| ▶ | GreatOak\vlloyde   | vlloyde@greatoak.com   | GREATOAK\vlloyde   |                      | Default Version |

## Manage Users Table

The Manage Users table is divided into the following columns:

- **Name.** Name of the user. The name does not have a correct format for applying the name; it can be added using the first/last name, domain name, etc.
- **Email.** Email of the user, usually their company email.
- **Login.** The login name of user. The login will always contain the domain name\user name.
- **Last Login.** Specifies the most recent login of the user.
- **Default Version.** The model version that will appear immediately upon a user logging onto the application.
- **Groups.** The group, if any, the user is assigned to, including administrative, reporting, etc.

## Creating Attributes

Attributes are characteristics unique to a particular element in your model. PA5G comes with built-in attributes, but using the Attribute screens, you can create attributes specific to your company's needs. Some attributes can be used in calculation; others are meant to exist as unique identifiers or important nonnumeric data.

To begin working with attributes, go to the Attributes screens by selecting the Model tab on the Start screen, then selecting the Attributes tab.

There are three types of attributes represented in the application:

- **Entity Attributes.** On this screen, you will first define the type of entity attribute you want to add – does it belong with resource pools or general ledger accounts? When you have made this distinction, you can proceed with naming the new attribute and defining its variables.
- **Process Attributes.** Use this screen to add attributes that will help in distinguishing dimensions of your business processes.

- **Facility Attributes.** Attributes on this screen will identify the different facets of your company's facilities. This may include distinguishing their location, operating manager, number of employees, etc.

## Adding\Uploading Attributes

### To add an attribute manually:

Adding entity attributes is slightly more involved than adding other attributes, which is why the following steps use the entity screen as an example.

1. Select "Add". A new row will appear in the table.
2. Type the name of the attribute and its data inside the fields. The Attribute table contains the following columns:
  - a. **Entity Type:** This column provides a drop-down, allowing you to choose if your new attribute belongs to a general ledger account or a resource pool.
  - b. **Name:** Name given to the attribute.
  - c. **Type:** Type of data.
  - d. **Capacity Multiplier:** This column is only relevant for resource pools. The capacity multiplier is the number used to multiply an attribute's value with its allocation to create the capacity time. This sum, in turn, is crucial for calculating the capacity rate. If the "Capacity Multiplier" field is left empty during scenario processing, the capacity time and rate will both be null.
3. Select "Save" to save the attribute.

| Entity Type     | Name             | Type        | Capacity Multiplier | Units     |
|-----------------|------------------|-------------|---------------------|-----------|
| Resource Pool   | Computers        | Float       | 1.00                | Computers |
| Support Process | Cost Category    | String      |                     |           |
| GL Account      | GL Cost Type     | String      |                     |           |
| GL Account      | GL Expense Group | String      |                     |           |
| GL Account      | GL Type          | String      |                     |           |
| Resource Pool   | Num of employees | Big Integer | 1.00                | FTE       |
| Resource Pool   | Square Footage   | Float       | 0.00                |           |

### To upload files:

1. Select "Download Template". A download pop-up screen will appear. Make your selections and select "Download".
2. Open the data template and confirm that the columns and the presentation of data are identical to your records.
3. Select "Upload". The Upload window will open.
4. Drag and drop files to the grayed area, or select "Browse Upload".
5. Select "Collapse Upload".



**Note:** If your file upload failed for some reason, you can edit this file on the application, or download them for editing in Excel. See [Failed Records](#) for more details.

**Note:** Select “Undo” to revert back from unsaved changes. Select “Delete” to delete an item.

**Note:** You can cancel the upload at any time by selecting “Cancel Upload”.

## Using Attributes for Assignments

If you have created numeric attributes for a resource pool, you can use this attribute as an assignment type when allocating general ledger items to resource pools or allocating support resource pools. See [General Ledger to Resource Pool Assignments](#) and [Support Resource Pool to Resource Pool Assignments](#).

## Facility and Process Attributes

The other Attribute screens work similarly to Entity Attributes in regards to function, although if you look at the examples given below, notice PA5G only asks that you provide two important details regarding your new attribute – its name, and its data type. After you have added and saved the new attribute, navigate to their respective screen. The attribute should appear as a column on the table. If you already have a large number of attributes available, use the filter option to pinpoint your new attribute.

**Example of the Facility Attributes screen:**

| Name              | Type    |
|-------------------|---------|
| Updated           | Boolean |
| Cost Category     | String  |
| Seasonal          | Boolean |
| Sub-Cost Category | String  |

**Example of the Process Attributes screen:**

| Name              | Type    |
|-------------------|---------|
| Updated           | Boolean |
| Cost Category     | String  |
| Seasonal          | Boolean |
| Sub-Cost Category | String  |

## Designing Lookup Tables

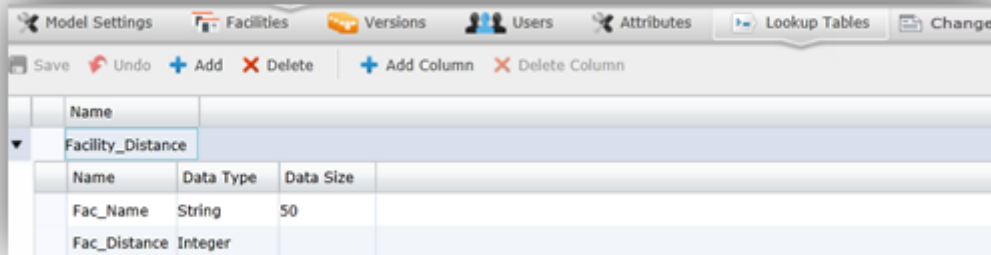
Lookup tables allow client-specific data to be considered for equations by matching disparate data sets against each other. The tables give more dynamic correlations of data than the standard database tables. Think of the table you create on PA5G as a map from the application to the table name with key/value columns.

### Example:

Instead of writing a Cost Equation that checks a customer's category and matches it to a discount percentage, you could create a table that matches the discount percentages with the customer categories. In addition to saving time when creating equations, using a database table also simplifies maintenance and prevents entry errors. For example, if a category's discount changes later, instead of changing it in every Cost Equation where it is found, you can change it in just one lookup table.

There are two stages involved in creating a lookup table:

- Creating the table and its attributes on the **Lookup Tables** screen under the **Model** tab.
- Adding data to the table on the **Lookup Tables** screen under the **Data** tab.



### Create a Lookup Table

1. For the first step, navigate to the **Lookup Tables** screen by selecting "Model" on the **Main Menu**.
2. Select "Add".
3. A new, blank row will open. Type the name of your table under the "Name" column.
4. Select "Add Column". This will open a new sub-row where you can enter new data, and edit data type/size if needed. Perform this action multiple times until you have all the data you want for searching added to the table.
5. From the Type list, select the type of data this column will contain:
  - a. **Boolean**: Either TRUE or FALSE.
  - b. **Date**: Date in the format mm/dd/yyyy (for example, 12-15-2006 for December 15, 2006);

- c. **Currency:** Decimal numbers denoting monetary value (for example, 250.00). December 15, 2006).
  - d. **Integer:** Whole numbers (e.g., 32, 0, or -498).
  - e. **Float:** Decimal numbers (e.g., 1.2, 93.0, or 3.0023).
  - f. **String:** Alphanumeric characters (e.g., Acme or Dock14).
  - g. **Interval:** Numerical; represents a period of time.
  - h. **Big Integer:** An arbitrarily large- signed integer (e.g., 179032.6541, 6315489358112).
6. Select "Save" to save your changes.

After you have created the tables, navigate to **the Lookup Tables** screen under the **Data** tab to upload or add table data. See [Adding Data to Lookup Tables](#) for more details.



**Note:** Only select "Delete" to delete an entire table. Select "Delete Column" to delete a column from the highlighted table.

## Change Logs

Change logs enable you to view user session details. The logs give specific information regarding the identity of the user who worked with the data, the time and day it was performed, how the data was modified from its previous state, as well as any additional details.

Change logs must be enabled before they can be used for viewing. Keep in mind, however, that enabling change logs may significantly impact system performance. If you experience a critical level of slow or unstable performance after change logs have been enabled, disable the change logs to return to optimal performance.

## Enable Change Logs

1. Navigate to the **Model Settings** screen under the **Model** tab.
2. Select the box beside "Enable Change Log".
3. In the field beside "UI Row Limit", add the number of rows you prefer to view on the screen. See [Model Settings](#) for more details.
4. Save any changes.

## View Log Files

After you have enabled change logs, the logging will begin recording instances of user session and the changes they have made. You can view the change logs after the first user session has occurred. All logs will remain in the database until they are archived.

## Sync Details

The “Sync Details” button is used to sync the data for log details with the latest log changes.

This feature was added to PA5G as an optional procedure; depending on the data table structure or number of logs onto the application, syncing the files with the database can become a time-consuming operation. Hence, this button will be disabled if your data is up-to-date, disallowing the ability to needlessly update current data.

## Viewing Log Files

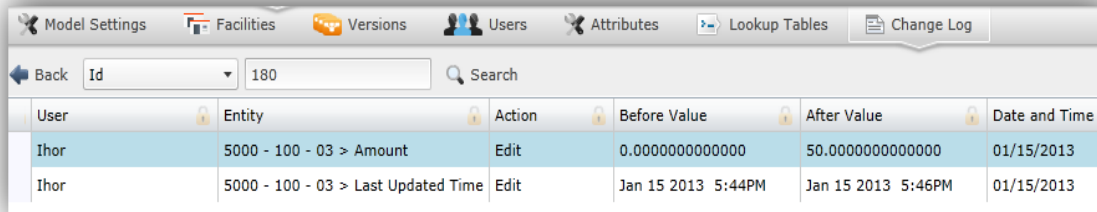
1. Select the **Change Log** tab under the **Model** tab. The Change Log screen will open.
2. Select a group to which belongs your page: Business Rules, Data, or General.
3. In the second drop-down, select a page for log tracking view.
4. Select “Sync Details” to sync the application with the latest log changes. If this feature is disabled, you are currently viewing the latest data and you can skip this step.

5. Select "View Log". The screen will change to reflect your choices. The logging information pertaining to the model object you have selected will appear in the table. The columns will be different according to the item you are reviewing, but the default data for all items will include:
  - a. **Log ID.** Login ID of the user who made the changes.
  - b. **User Name.** Name of the user who made the changes.
  - c. **Action (Log).** This column lists the action that was performed. All screens except the AUC can perform the following actions: "Add", "Edit", and
  - d. "Delete". Screens that allow template capability can also perform the "Download" and "Upload" actions. The AUC can perform "Execute", "Validate", and "Import" actions.
  - e. **Update Time (Log).** The time and date in which the changes to data occurred.
  - f. **File Name.** The file name, if applicable, that was used during action.
  - g. **Comment.** The file name, if applicable, that was used during action.
  - h. **Scenario Name / Version Name.** Scenario-specific screens show the scenario where the changes were made. Version-specific screens display the version name where the changes were made.

## View Log Details

Select the appropriate page with logs, then double-click on the changed record that contains the details icon located in the column to the left of the item's ID. The **Item Details** screen will open.

The item details will consist of the information that was also viewable on the **Change Log** screen, as well as the entity's name and any attributes associated with that entity. You can filter for specific items by using the drop-down search list and/or typing an item in the search field and selecting "Search".



| User | Entity                              | Action | Before Value       | After Value        | Date and Time |
|------|-------------------------------------|--------|--------------------|--------------------|---------------|
| Ihor | 5000 - 100 - 03 > Amount            | Edit   | 0.00000000000000   | 50.00000000000000  | 01/15/2013    |
| Ihor | 5000 - 100 - 03 > Last Updated Time | Edit   | Jan 15 2013 5:44PM | Jan 15 2013 5:46PM | 01/15/2013    |

The change log table contains the following columns:

- **User.** The name of the user who made the changes.
- **Entity.** The item name or screen where the changes occurred.

- **Actions.** The action that was performed. All screens, with the exception of the AUC, will have Add, Edit, Delete actions. Screens with template capability will additionally have Download and Upload actions. The AUC actions include Execute, Validate, and Import.
- **Before Value.** Contains the data as it appeared before the change.
- **After Value.** Contains the changed value, or the new value if it new data that was added.



**Note:** To return to the Change Logs screen, select the “Back” button.

## Archived Logs

Archiving a log will enable you to view the log at a later date, regardless of the “save” preference allotted on the **Model Settings** screen.

There are two important reasons for performing this action:

- To reduce time for loading log data.
- To dramatically eliminate issues with a large database size.

You can choose to archive files in one of two ways:

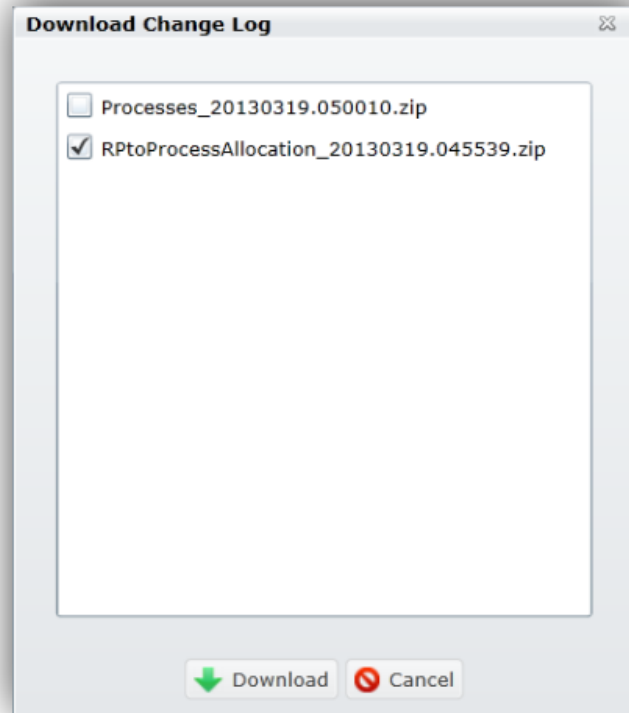
- **Manual.** To manually archive logs, select the “Archive Logs” button on the Change Logs screen.
- **Automatic.** If you select to automatically archive logs, the application will archive all logs by starting in the period of time and with the interval defined by the system administrator.

Whether you choose to archive logs manually or automatically, this action will remove all log data from the database. After you have archived logs, you can download them and view all items that were available in the database at the time the log was created.

**To retrieve an archived log**, select “Download Archived Logs”, and a screen will appear with an available list of archived logs for you to view.

**When PA 5G is uninstalled, all logs will be removed as well.**

Archived logs are saved on the path: “ProgramFiles\Acorn Systems\Performance Analyzer 5G\logs\ChangeLog”.



**Archived Logs and Drivers.** Modifying driver data may cause you to lose transaction data and related table columns from the application. When this happens, any change log files that have documented previous changes to the deleted or modified data will be affected, and you run the risk of losing that information altogether. To ensure this doesn't happen, archive all change logs before modifying driver data.

## Clear Log Archive

As the quantity of your archived logs grows, it may become more time-consuming to filter through the archive. You can correct this issue by clearing previously archived logs. To do this, select the “Clear Log Archive” button on the Change Log screen. This button will only be enabled if you have administrator privileges.

## Chapter 4 Creating Business Rules

After you establish the basic model settings, visit the **Business Rules** panel for the next important step to creating your model. It's here where you'll create calculations and assign resources to processes, general ledgers to resources, and other functions that will essentially be used as the framework for your model.



**Tip:** There's no preferred way to begin working with business rules. If you want to create your cost objects and metrics first, you can skip over to the Business Dimensions panel. If you prefer adding dimension data and assigning resources first, start there and return later to add their metric components.

Below is a list of the panels and a description of their functionality.

- **General Ledger Accounts.** Opens the General Ledger screen, where you can edit general ledger data, including account names, their resources, and company-specific attributes. See [General Ledger Accounts](#) for more details.
- **General Ledger to Resource Pool Assignments.** Opens the GL Assignments screen, where you can assign general ledger items to the resources (otherwise known as departments, or teams) within your company that create a basis for the general ledger account to exist. See [General Ledger to Resource Pool Assignments](#) for more details.
- **Resource Pools.** Opens the Resource Pools screen, where you can edit resources, or add new ones manually or by uploading a file using the download template. See [Resource Pools](#) for more details.
- **Resource Pool to Resource Pool Assignments.** Opens the Support Resource Pools screen, where you can assign resource pools to support resource pools. The support resource pools provide means for the resource pool to perform its function. See [Support Resource Pool to Resource Pool Assignments](#) for more details.
- **Resource Pool to Process Assignments.** Opens the RP Assignments screen, where you can assign processes—the term “process” referring to the method or actions performed by your company that causes cost to occur—to resource pools associated with these processes. See [Resource Pool to Process Assignments](#) for more details.
- **Processes.** Opens the Processes screen, where you can create processes and their equation. See [Processes](#) for more details.
- **Business Dimensions.** Opens the Business Dimensions tab, where you can create and review objects, drivers, metrics, weight equations, global drivers, and global metrics, and their equations. See [Business Dimensions](#) for more details.

## General Ledger Accounts

General ledger accounts store all company expenses and their related data, including cost type, the facility directly responsible for the account, and the account owner. These accounts contain all the expenses of the organization, and any related data.

To work with general ledger accounts, from the **Start** screen, select the **General Ledger Accounts** panel.

### Adding\Uploading General Ledger Accounts

#### Add general ledger accounts manually:

1. Select "Add". A new row will appear in the table.
2. Type the new general ledger account and its data inside the fields. Along with any customized attributes, the General Ledger table contains the following columns:
  - a. **Name:** General ledger account name.
  - b. **GL Account Owner:** Person responsible PA5G user for managing the costs of this account.
  - c. **Facility:** Associated facility which the general ledger account is created for.
  - d. **Description:** The description of the general ledger account.
3. Select "Save" to save the new general ledger account.

| Name            | GL Account Owner | Facility | Description             | GL Type (Attribute) | GL Expense Group (Attribute) | GL Cost Type (Attribute) |
|-----------------|------------------|----------|-------------------------|---------------------|------------------------------|--------------------------|
| 5000 - 100 - 01 |                  |          | Lease Expense - East    | Fixed               | Facilities                   | Standard GLs             |
| 5000 - 100 - 02 |                  |          | Lease Expense - West    | Fixed               | Facilities                   | Standard GLs             |
| 5000 - 100 - 03 |                  |          | Lease Expense - East    | Fixed               | Facilities                   | Standard GLs             |
| 5000 - 100 - 04 |                  |          | Lease Expense - West    | Fixed               | Facilities                   | Standard GLs             |
| 5100 - 100 - 01 |                  |          | Hardware Storage Deprec | Fixed               | IT                           | Standard GLs             |
| 5100 - 100 - 02 |                  |          | Hardware Storage Deprec | Fixed               | IT                           | Standard GLs             |
| 5100 - 100 - 03 |                  |          | Hardware Storage Deprec | Fixed               | IT                           | Standard GLs             |
| 5100 - 100 - 04 |                  |          | Hardware Storage Deprec | Fixed               | IT                           | Standard GLs             |
| 5200 - 100 - 01 |                  |          | Network Charges - East  | Fixed               | IT                           | Standard GLs             |
| 5200 - 100 - 02 |                  |          | Network Charges - West  | Fixed               | IT                           | Standard GLs             |
| 5200 - 100 - 03 |                  |          | Network Charges - East  | Fixed               | IT                           | Standard GLs             |
| 5200 - 100 - 04 |                  |          | Network Charges - West  | Fixed               | IT                           | Standard GLs             |

#### To upload files:

1. Select "Download Template". A download pop-up screen will appear. Make your selections and select "Download".
2. Open the data template and confirm that the columns and the presentation of data are identical to your records.
3. Select "Upload". The "Upload" panel will open.

4. Drag and drop files to the grayed area, or select "Browse Upload".
5. Select "Collapse Upload".



**Note:** If your file upload failed for some reason, you can edit this file on the application, or download them for editing in Excel. See [Failed Records](#) for more details.

**Note:** Select "Undo" to revert back from unsaved changes. Select "Delete" to delete an item.

**Note:** You can cancel the upload at any time by selecting "Cancel Upload".

## General Ledger to Resource Pool Assignments

Each general ledger account must be assigned to a resource in order for the model to be properly calculated. Resources are assigned to general ledger accounts either because they create the need for the expense, or they are related to the account's payment. Each resource belongs to a resource pool. Resources pools are a compilation of multiple resources. All general ledger accounts should be assigned before model calculation.

### What are Assignment Types?

Assignments types define how a general ledger cost is allocated (identified on the screen under the "Assignment Type" column) and the percentage amount of the cost is allocated to individual resources ("Percentage").

#### Example:

The East Office is a resource pool that consists of several departments, i.e. resources. Each of these resources utilizes office space; the expense of leasing the building is an item that should be divided among all resources. Because it is space, it is assigned to "Square Footage" and allocated to each resource by the percentage of the space they use.



**Tip:** To review, add, or modify general ledger to resource pool assignments, select the **General Ledger to Resource Pool Assignments** panel, which will open the **GL Assignments** screen.

## Managing Assignments

### To modify an existing assignment:

1. Select the desired source general ledger. The screen will open to reveal a current list of destination resource pools along with their assignment types and allocation percentages. Any general ledger account not assigned will be displayed in red.
2. To add an assignment, select "Add Assignment". A new row will form. Type the name of the resource.
3. To delete an assignment, highlight the resource and select "Delete Assignment".
4. Select "Save" to save the changes.

### Add a new Destination Resource Pool Assignment to an existing GL:

1. Highlight the row of the general ledger.
2. Select "Add Assignment". A new row will appear.
3. Type the resource's name in the empty row.
4. Select "Save" to save the changes.

### To add a new GL assignment manually:

1. Under the "Percentage" column, use the drop-down to choose the type of assignment between the general ledger and the source.
2. Select "Add Assignment". A new row will appear.
3. Type the resource's name in the empty row. Repeat steps 2 and 3 until all desired resources have been added to the assignment.
4. Select "Save" to save the changes.

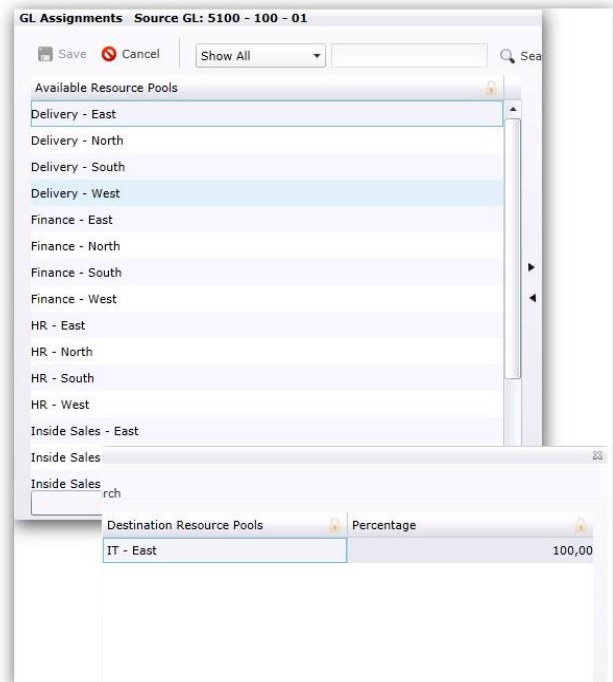
### Add assignments using upload:

1. Select "Upload".
2. The Upload window will appear. Drag and drop your files in the grayed area, or select "Browse Upload".
3. Select "Collapse Upload".

You can display and select more than one destination resource pool at a time.

### Add assignments by bulk:

1. Select the “Bulk Assign/Edit” button. The General Ledger Assignments Bulk Edit screen will appear. This screen is divided into two panels. The left panel contains available resource pools. The right panel contains the destination resource pools. Resource pools that have already been selected for assignments will be grayed-out.
2. Perform one or more of the following actions:
  - a. **To assign a resource pool** on the left grid, highlight the resource pool and select “>”. The item will now appear on the right grid and disabled on the left.
  - b. **To remove a resource pool** from assignment on right grid, highlight the destination resource pool and select “<”. The item will no longer be assigned to the General Ledger item.
  - c. **To select a group of resource pools** in the left grid, highlight a resource pool, hold “CTRL”, and select “>”. The items will now appear on the right grid and disabled on the left.
  - d. **To remove a group of resource pools** from assignment on right grid, highlight a destination resource pool, hold “CTRL” and select “<”. The items will no longer be assigned to the General Ledger item.
  - e. **To change percentage** value using bulk edit, highlight the resource pools you want to assign and move them to the right grid. Use the “Percentage” column to edit percentage values.
3. After performing the intended action, select “Save” to save changes.
4. To validate your changes, return to the General Ledger Assignments screen. View the item you have edited. The new resource pool should be assigned to this item.



**Note:** If your file upload failed for some reason, you can edit this file on the application, or download them for editing in Excel. See [Failed Records](#) for more details.

**Note:** Select “Undo” to revert back from unsaved changes. Select “Delete” to delete an item.

## Resource Pools

Your company's resource pool should consist of all resources that are available for assignment to various company functions, and contribute to the general ledger by supporting one or more processes. An example of resources could include sales, IT work, human resources, etc.

Resources are typically process-based and consist of a group of employees who perform similar tasks. The resources you define here may be different from your official resource list. There are frequently more process-based resources than traditional resources because traditional resources (often called “departments”) encompass many processes.

To open the Resource Pools screen, select Resource Pools panel on the Start screen.



**Tip:** PA5G allows you to add your own attributes for resources by using the **Model>Attributes>Entity Attributes** tab. A few common resources attributes are head count, square footage, and number of computers.

## Adding/Uploading Resources

To add resources manually:

1. Select “Add”. A new row will appear in the table.
2. Type the new resource and its data inside the fields. The columns will depend on the existing resource pools' attributes. Check the “Support” box if the resource pool supports another resource pool in your company. For example, the “Finance” resource pool supports the “Shipping” resource pool.
3. Select “Save”.

| Name             | Resource Pool Owner | Facility | Support                  | Description | Square Footage (Attribute) | HeadCount (Attribute) | Computers |
|------------------|---------------------|----------|--------------------------|-------------|----------------------------|-----------------------|-----------|
| Delivery - East  |                     | East     | <input type="checkbox"/> |             | 150                        | 0                     | 1         |
| Delivery - North |                     | North    | <input type="checkbox"/> |             | 150                        | 0                     | 1         |
| Delivery - South |                     | South    | <input type="checkbox"/> |             | 290                        | 0                     | 2         |
| Delivery - West  |                     | West     | <input type="checkbox"/> |             | 290                        | 0                     | 2         |
| Finance - East   |                     | East     | <input type="checkbox"/> |             | 720                        | 0                     | 6         |

**To upload files:**

1. Select "Download Template". A download pop-up screen will appear. Choose your options and select "Download".
2. Open the data template and confirm that the columns and the presentation of data are identical to your records.
3. Select "Upload". The Upload panel will open.
4. Drag and drop files to the grayed area, or select "Browse Upload".
5. Select "Collapse Upload".



**Note:** If your file upload failed for some reason, you can edit this file on the application, or download them for editing in Excel. See [Failed Records](#) for more details.

**Note:** Select "**Undo**" to revert back from unsaved changes. Select "**Delete**" to delete an item.

**Note:** You can cancel the upload at any time by selecting "Cancel Upload".

## Support Resource Pool to Resource Pool Assignments

If your model contains support resource pools, their assignments are managed separately from resource pools that directly impact the processes of business dimensions. Support resources are departments that support other resources in the company. These resource pools typically refer to groups such as HR, IT, and other business supporting resource pools. For instance, corporate management is a support resource because it supports inside sales by allocating and providing employees.

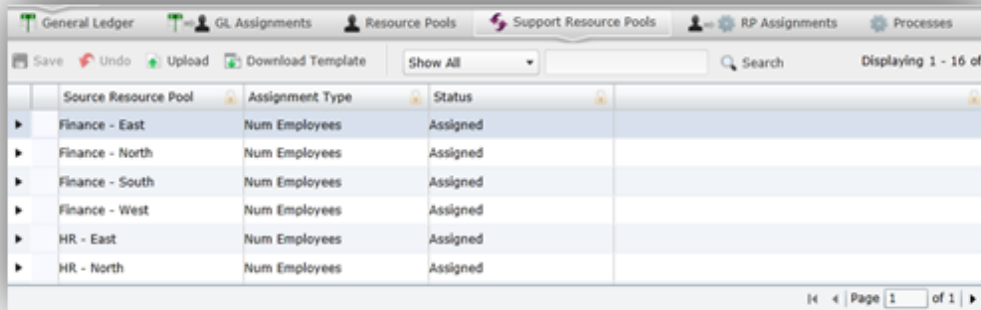


All resource pools should be assigned before model calculation.

You can view and manage support resources by selecting the Resource Pool to Resource Pool Assignments panel located on the Start screen. The Support Resource Pools screen will open.

## Viewing Support Resources

Under the "Source Resource Pool" column, select a support resource. The support resource's allocation and assignment type will open. For example, the screen shot below depicts the "Finance - North" support resource that supplies employees ("Num Employees") to the resources located under "Destination Resource Pool". Any support resource pool not assigned will be displayed in red.

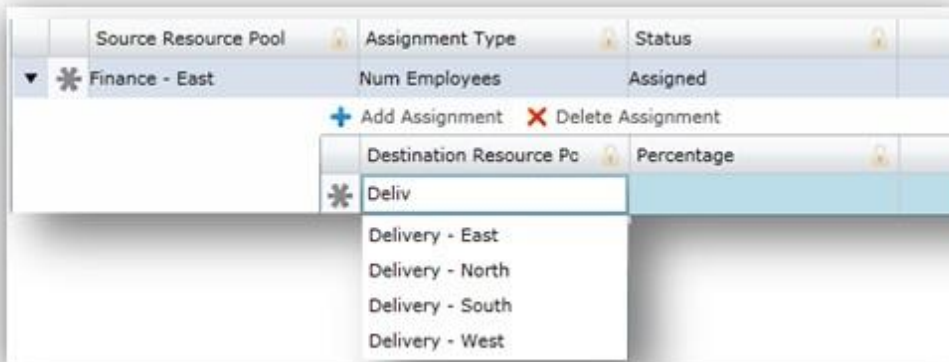


| Source Resource Pool | Assignment Type | Status   |
|----------------------|-----------------|----------|
| Finance - East       | Num Employees   | Assigned |
| Finance - North      | Num Employees   | Assigned |
| Finance - South      | Num Employees   | Assigned |
| Finance - West       | Num Employees   | Assigned |
| HR - East            | Num Employees   | Assigned |
| HR - North           | Num Employees   | Assigned |

## Adding a New Resource Pool for Support

1. Navigate to the Resources Pool screen.
2. Select "Add". The columns located on the Resource Pools screen will reflect the different attributes you have assigned to provide the required data:
  - a. **Name:** The name of the resource pool.
  - b. **Resource Pool Owner:** The employee assigned to manage the resource pool.
  - c. **Facility:** The facility that hosts resource pool's activity.
  - d. **Support:** Check this box if your resource pool will be used for support.
  - e. **Description:** A brief description of the resource pool, such as its primary function.
3. Select "Save".
4. Navigate to the Support Resource Pools screen.
5. Expand newly added Support Resource Pool.
6. Select "Add Assignment" and begin typing the name of the functional resource pool in the
7. "Destination Resource Pool" column. The full name will be autocompleted.
8. Select "Save".

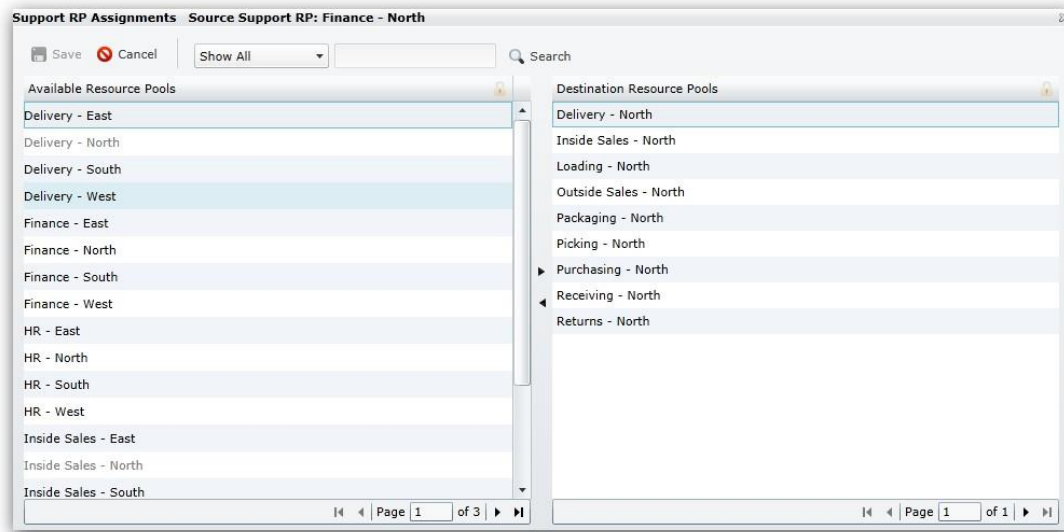
Earlier PA5G releases allowed users to add assignments for one resource pool both on RP to RP and RP to Processes screens. This PA5G release will only allow a user to add assignments to these screens by selecting and deselecting the "Support" checkbox on the Resource Pools screen. This requirement removes any possibility of the user creating both support and functional assignments for the resource pool. If the model containing the described assignment was created with this release, it will be handled by database upgrade functionality as follows: the resource pool will be set as functional (default new resource pool value), and only the resource pool to process for this source resource pool assignment will remain.



## Add Support Resource Pool Assignments by Bulk

You can display and select more than one destination resource pool at a time by following these steps:

1. Expand the item you wish to assign on the Process Assignments grid.
2. Select "Bulk Assign/Edit".
3. The Support RP Assignments Bulk Edit screen will appear. This screen is divided into two panels. The left panel contains available resource pools. The right panel contains the destination resource pools. Resource pools that have already been selected for assignments will be grayed-out.
  - a. **To assign a resource pool:** on the left grid, highlight the resource pool and select ">". The item will now appear on the right grid and disabled on the left.
  - b. **To remove a resource pool from assignment:** on right grid, highlight the destination resource pool and select "<".
  - c. **To select a group of resource pools:** in the left grid, highlight a resource pool, hold "CTRL", and select ">". The items will now appear on the right grid and disabled on the left.
  - d. **To remove a group of resource pools from assignment:** in the right grid, highlight a destination resource pool, hold "CTRL" and select "<".
  - e. **To change percentage value using bulk edit:** highlight the resource pools you want to assign and move them to the right grid. Use the "Percentage" column to edit percentage values.
4. After performing the intended action, select "Save" to save changes.
5. To validate your changes, return to the Support Resource Pools screen. View the item you have edited. The new resource pool should be assigned to this item.
6. Select "Save". After the object has been saved, you have the ability to rearrange the model by selecting on the orange boxes, or by selecting "Arrange".



## Resource Pool to Process Assignments

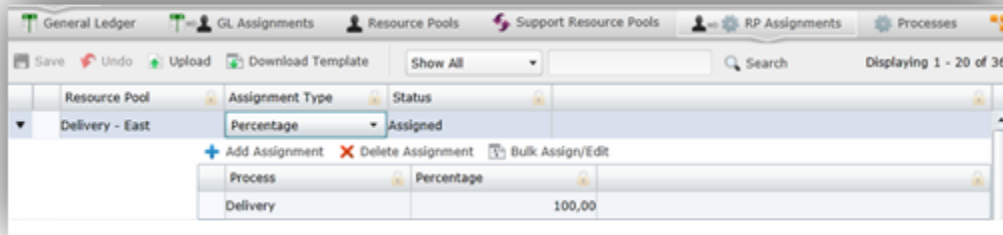
The Resource Pool Assignments panel opens the Resource Pool Assignments screen, where you can view your resources and select the processes where they will be collectively assigned to the resource pool.

To view a resource assignment, select a resource under the “Resource Pool” column. The “Process” column and “Percentage” column will open to display the resource's assignments.

## Adding/Uploading Assignments

### Add an assignment to an existing resource manually:

1. To add an assignment to an existing resource, select the resource in the “Resource Pool” column.
2. Select “Add Assignment”. A blank row will open.
3. Type the name of the process under the “Process” column.
4. For assignment with Percentage Assignment Type, add the percentage value into the “Percentage” column.
5. Select “Save”.

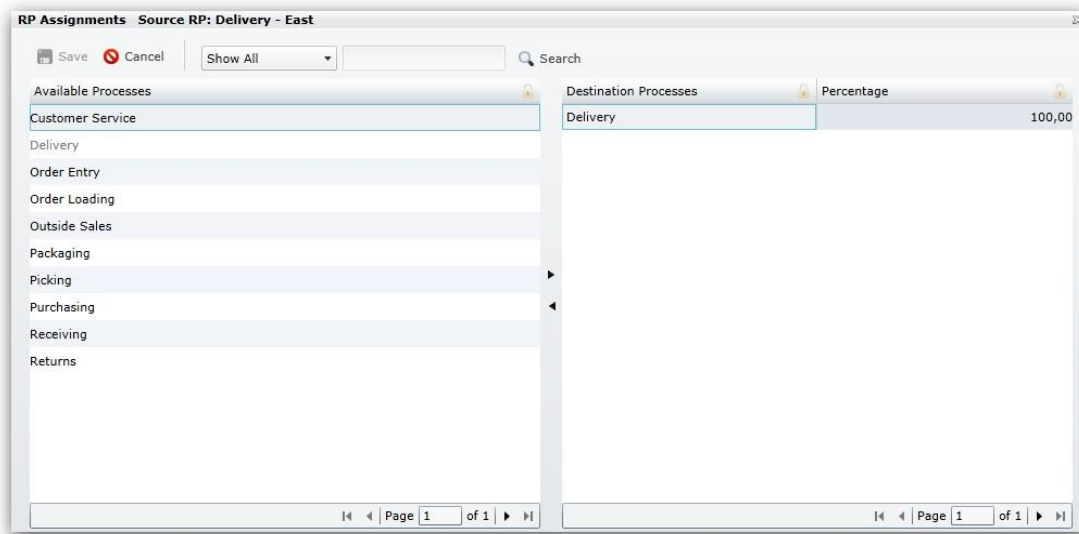


### Add an assignment through an upload:

1. Select "Download Template". A download pop-up screen will appear. Choose your download options and select "Download".
2. Open the data template and confirm that the columns and the presentation of data are identical to your records.
3. Select "Upload". The "Upload" panel will open.
4. Drag and drop files to the grayed area, or select "Browse Upload".
5. Select "Collapse Upload".

### Add process assignments by bulk:

1. Expand the item you wish to assign on the Process Assignments grid.
2. Select the Bulk Assign/Edit button.
3. After performing the intended action, select "Save" to save changes.
4. To validate your changes, return to the RP Assignments screen. View the item you have edited. The new resource pool should be assigned to this item.



**Note:** If your file upload failed for some reason, you can edit this file on the application, or download them for editing in Excel. See [Failed Records](#) for more details.

**Note:** Select “**Undo**” to revert back from unsaved changes. Select “**Delete**” to delete an item.

## Processes

Processes are defined, consistent types of work performed within an organization. They are used in the model to accurately distribute costs from resources to business dimensions. Processes are useful process analysis tools; they can help you identify customer- and product-specific issues, as well as areas for improvement within your organization.

Processes can be measured in whatever unit is most logical and useful for the organization. Common units include time, length, or weight, but you can use whatever unit your organization’s activities are focused on as long as you are consistent. Many organizations settle on time units in order to utilize Acorn software’s ability to measure resource capacity, but using time units is not required.

Driving costs from resources to processes involves interviewing employees within your organization to determine how much time they spend in what kinds of activities, choosing which activities to include in the model, and allocating resources costs to those processes.

Navigate to the **Processes** screen by selecting the **Processes** panel on the **Start** screen.

---

## Types of Functions

Listed below are the four types of functions used in creating processes. To obtain a full list with descriptions, click their hyperlink.

- **Aggregated.** These functions refer to a process that receives its data from a sum of other data factors, such as the maximum amount of values based on one or more key indicators. See [Aggregate Functions](#) for more details.
- **Scalar.** Functions that only contain one value from data, such as the year of a specific time period. See [Scalar Functions](#) for more details.
- **Logical and Interval.** Logical processes are Boolean in nature and are used to retrieve data using “True” or “False” indicators. Interval functions retrieve data that is relative to other data, such as days and minutes. See [Other Functions](#) for more details.

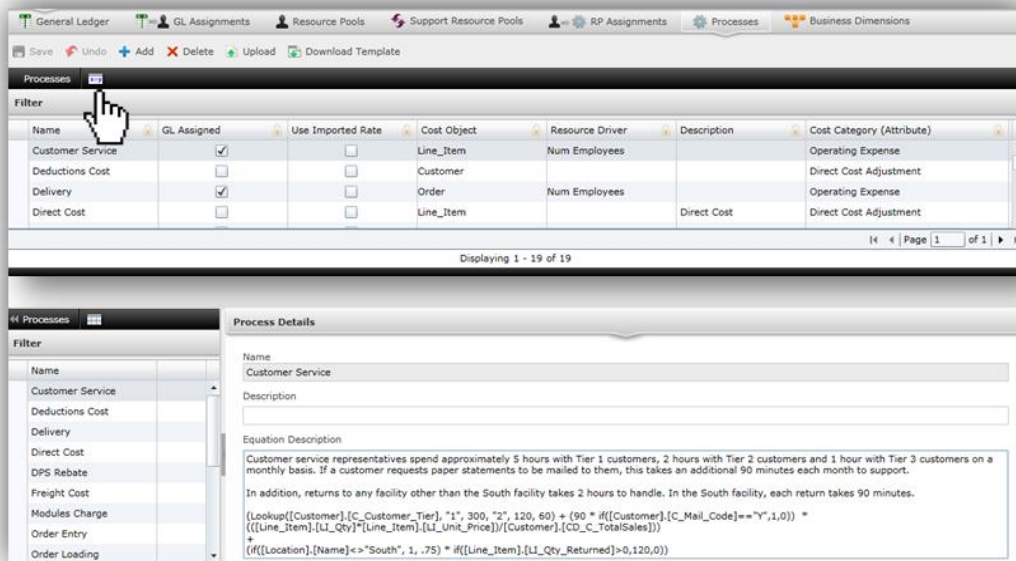
## Working with Processes

### View a process:

1. Select a process under the Processes window.
2. The right window will change to reflect the process you have chosen. The process name, description, equation description, and equation editor are available to view.
3. To view the processes in a list format, select the icon inside the black “Processes” heading.
4. The screen will change to a list view.

### To add a process manually:

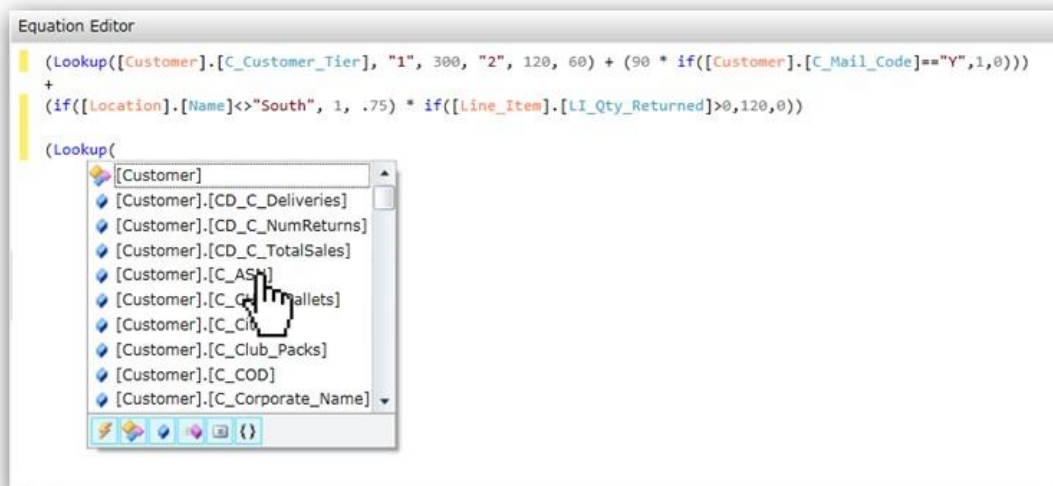
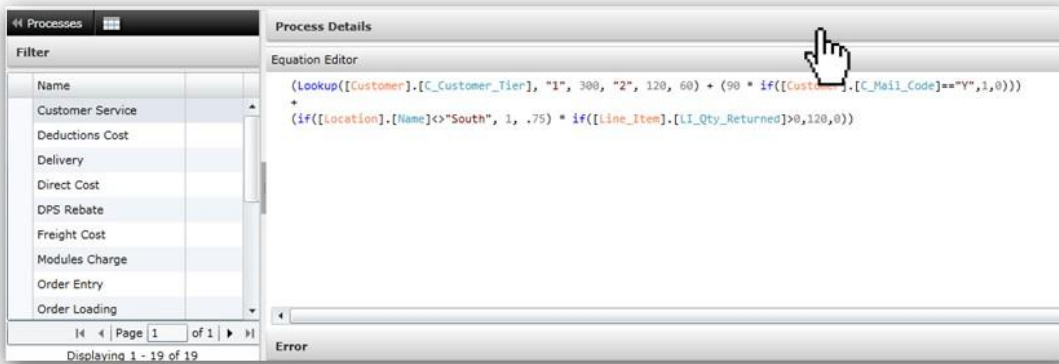
1. Confirm that you are on the Processes screen where processes are listed (the “Add” function on the equation view will be disabled).
2. Select “Add”. A new row will appear in the table. Type the new data inside the fields. The Processes table contains the following columns:
  - a. **Name:** Name of the process.
  - b. **GL Assigned:** should be checked to make process available for selection as a destination process on Resource Pools to Processes Assignments screen.
  - c. **Use Imported Rate:** This box will be checked if the process will be defined by the rate imported at the time the process was uploaded/added.
  - d. **Cost Object:** The cost object associated with the process.
  - e. **Description:** Description of the process. It is NOT mandatory that this column be filled.
  - f. **Cost Category:** Lists the type of cost the process generates.
3. To create the equation, select the grid icon to navigate to the calculation screen.



4. Type "(" in the Equation Editor window to make the pop-up box appear. Choose from functions, cost objects/drivers/processes or process time variables to add to the equation. You can also add another process Equation to the equation by selecting a process in the Processes window, copying the equation and pasting it in the new process' Equation Editor. As equations are written, the Equation Editor will display a reference box which can be used to reference model objects within the model. At the end of this section, review the Color Key to learn the different variables and their color assignments, and the Operations table to learn more about writing the particular equation needed for an operation.
5. Select "Save".

#### To add processes using upload:

1. Select "Upload".
2. The Uploading panel will appear. Drag and drop your files in the grayed area, or select "Browse Upload".
3. Select "Collapse Upload" after you have successfully uploaded the processes.



- Cost Object identifies the cost object which will be the recipient of the activity cost and time.
- Equation Description can detail the purpose of the description and hold previous equations.

Because process names can be defined using whitespaces, numbers and/or special symbols, they must be added to equations using brackets. Items without brackets will cause the calculation to fail.



**Note:** If your file upload failed for some reason, you can edit this file on the application, or download them for editing in Excel. See [Failed Records](#) for more details.

**Note:** Select "Undo" to revert back from unsaved changes. Select "Delete" to delete an item.

## Aggregate Functions

The list below contains all functions that result from the combination two or more functions. All aggregated processes return numeric data.

|              |   |
|--------------|---|
| <b>avg</b>   | <ul style="list-style-type: none"><li>• Description: Returns the average (arithmetic mean) of all expressions.</li><li>• Syntax: avg (numeric_expression)</li><li>• Arguments: a positive or negative integer or real number</li><li>• Example Usage: avg([Line_Item].[CD_LI_Unit_Price])</li><li>• Example Return Value: 100</li></ul> |
| <b>count</b> | <ul style="list-style-type: none"><li>• Description: Counts the number of occurrences of a cost object.</li><li>• Syntax: Count (scopeName)</li><li>• Arguments: the name of a Business Dimension in the model</li><li>• Example Usage: Count("Invoice")</li><li>• Example Return Value: 150</li></ul>                                  |
| <b>max</b>   | <ul style="list-style-type: none"><li>• Description: Returns the maximum (arithmetic mean) of all expressions.</li><li>• Syntax: max (numeric_expression)</li><li>• Arguments: an integer or real number</li><li>• Example Usage: max([Line_Item].[CD_LI_Unit_Price])</li><li>• Example Return Value: 500</li></ul>                     |
| <b>min</b>   | <ul style="list-style-type: none"><li>• Description: Returns the minimum (arithmetic mean) of all expressions.</li><li>• Syntax: min (numeric_expression)</li><li>• Arguments: a positive integer or real number</li><li>• Example Usage: min([Line_Item].[CD_LI_Unit_Cost])</li><li>• Example Return Value: 55</li></ul>               |
| <b>total</b> | <ul style="list-style-type: none"><li>• Description: adds all the values of the expressions.</li><li>• Syntax: total (numeric_expression)</li><li>• Arguments: a positive or negative integer or real number</li><li>• Example Usage: total([Line_Item].[LI_Qty])</li><li>• Example Return Value: 50</li></ul>                          |

**dblookupavg**

- Description: Opens the table, specified by name. Returns the average of value\_column values based on one or more keys.
- Syntax: dblookupavg (table, value\_column, default, expr1, key\_column1, expr2, key\_column2,...)
- Arguments: table - a look up table, value\_column - the column subject to the operation, default - the default value to be used in the case the return value does not exist, expr1 - any calculated expression or constant like we do in equation; the result of this expression is searched in Lookup table in key column1; key\_column1 - name of the key column1; expr2 - any calculated expression or constant like we do in equation; the result of this expression is searched in Lookup table in key column2; key\_column2 - name of the key column2
- Example Usage: dblookupavg("Discounts", "discount", 0.0, [Location\_ID], "Location", [CustomerType\_ID], "CustomerType")
- Example Return Value: returns average discount value from all discount values for each pair Location-Customer Type

**dblookupcount**

- Description: Opens the table, specified by name. Returns the number of value\_column values based on one or more keys.
- Syntax: dblookupcount (table, value\_column, default, expr1, key\_column1, expr2, key\_column2,...)
- Arguments: table - a look up table, value\_column - the column subject to the operation, default - the default value to be used in the case the return value does not exist, expr1 - any calculated expression or constant like we do in equation; the result of this expression is searched in Lookup table in key column1; key\_column1 - name of the key column1; expr2 - any calculated expression or constant like we do in equation; the result of this expression is searched in Lookup table in key column2; key\_column2 - name of the key column2
- Example Usage: dblookupcount("Discounts", "discount", 0.0, [Location\_ID], "Location", [CustomerType\_ID], "CustomerType")
- Example Return Value: returns count of discount values for each pair Location-Customer Type.

**dblookupmax**

- Description: Opens the table, specified by name. Returns the maximum of value\_column values based on one or more keys.
- Syntax: dblookupmax (table, value\_column, default, expr1, key\_column1, expr2, key\_col-umn2...)
- Arguments: table - a look up table, value\_column - the column subject to the operation, default - the default value to be used in the case the return value

does not exist, `expr1` - any calculated expression or constant like we do in equation; the result of this expression is searched in Lookup table in key `column1`; `key_column1` - name of the key `column1`; `expr2` - any calculated expression or constant like we do in equation; the result of this expression is searched in Lookup table in key `column2`; `key_column2` - name of the key `column2`.

- Example Usage: `dblookupmax("Discounts", "discount", 0.0, [Location_ID], "Location", [CustomerType_ID], "CustomerType")`
- Example Return Value: returns maximum discount value from all discount values for each pair Location-Customer Type.

#### **dblookupmin**

- Description: Opens the table, specified by name. Returns the minimum of `value_column` values based on one or more keys.
- Syntax: `dblookupmin(table, value_column, default, expr1, key_column1, expr2, key_col-umn2,...)`
- Arguments: `table` - a look up table, `value_column` - the column subject to the operation, `default` - the default value to be used in the case the return value does not exist, `expr1` - any calculated expression or constant like we do in equation; the result of this expression is searched in Lookup table in key `column1`; `key_column1` - name of the key `column1`; `expr2` - any calculated expression or constant like we do in equation; the result of this expression is searched in Lookup table in key `column2`; `key_column2` - name of the key `column2`
- Example Usage: `dblookupmin("Discounts", "discount", 0.0, [Location_ID], "Location", [CustomerType_ID], "CustomerType")`
- Example Return Value: returns minimum discount value from all discount values for each pair Location-Customer Type.

#### **dblookuptotal**

- Description: Opens the table, specified by name. Returns the sum of the `value_column` values based on one or more keys.
- Syntax: `dblookuptotal(table, value_column, default, expr1, key_column1, expr2, key_col-umn2,...)`
- Arguments: `table` - a look up table, `value_column` - the column subject to the operation, `default` - the default value to be used in the case the return value does not exist, `expr1` - any calculated expression or constant like we do in equation; the result of this expression is searched in Lookup table in key `column1`; `key_column1` - name of the key `column1`; `expr2` - any calculated expression or constant like we do in equation; the result of this expression is searched in Lookup table in key `column2`; `key_column2` - name of the key `column2`
- Example Usage: `dblookuptotal("Discounts", "discount", 0.0, [Location_ID], "Location", [CustomerType_ID], "CustomerType")`

- Example Return Value: returns total discount values for each pair Location-Customer Type

## Scalar Functions

This section contains Scalar functions that are returned numerically, text, or another type of format.

### Numerical Return Type

The following list of functions returns numerical values.

|                 |  |
|-----------------|--|
| <b>abs</b>      | <ul style="list-style-type: none"> <li>• Description: Returns the positive of the value specified.</li> <li>• Syntax: abs (numeric_expression)</li> <li>• Arguments: a positive or negative integer or real number</li> <li>• Example Usage: abs(-10.5)</li> <li>• Example Return Value: 10.5</li> </ul>   |
| <b>DeptCost</b> | <ul style="list-style-type: none"> <li>• Description: Returns the calculated cost of a department.</li> <li>• Syntax: DeptCost ("DeptName")</li> <li>• Arguments: a string value that equals a department name in the model</li> <li>• Example Usage: DeptCost("Human Resources")</li> <li>• Example Return Value: 560,000</li> </ul>  |
| <b>find</b>     | <ul style="list-style-type: none"> <li>• Description: The search string starting position is returned; zero if search string is not found. If the starting position is not specified, the search starts with the first character.</li> <li>• Syntax: find (source Str, searchStr, start)</li> <li>• Arguments: sourceStr - a string value, searchStr - a string value, start - a numeric integer value</li> <li>• Example Usage: find("this is test string", "is",4)</li> <li>• Example Return Value: 5</li> </ul> |
| <b>getday</b>   | <ul style="list-style-type: none"> <li>• Description: Returns the day of the month (e.g., 22).</li> <li>• Syntax: getday (date_expression)</li> <li>• Arguments: a date value</li> <li>• Example Usage: getday(10/31/2012)</li> <li>• Example Return Value: 31</li> </ul>  |

|                   |   |
|-------------------|---|
| <b>getmonth</b>   | <ul style="list-style-type: none"><li>• Description: Returns the numeric month (e.g., 06).</li><li>• Syntax: <code>getmonth (date_expression)</code></li><li>• Arguments: a date value</li><li>• Example Usage: <code>getmonth(10/31/2012)</code></li><li>• Example Return Value: 10</li></ul>  |
| <b>getquarter</b> | <ul style="list-style-type: none"><li>• Description: Returns the quarter of the year. First quarter starts on January 1.</li><li>• Syntax: <code>getquarter (date_expression)</code></li><li>• Arguments: a date value</li><li>• Example Usage: <code>getquarter(10/31/2012)</code></li><li>• Example Return Value: 1-Oct</li></ul>   |
| <b>getyear</b>    | <ul style="list-style-type: none"><li>• Definition: Returns the numeric year (e.g., 2003).</li><li>• Syntax: <code>getyear (date_expression)</code></li><li>• Arguments: a date value</li><li>• Example Usage: <code>getyear(10/31/2012)</code></li><li>• Example Return Value: 2012</li></ul>  |
| <b>int</b>        | <ul style="list-style-type: none"><li>• Definition: Converts a string to an integer.</li><li>• Syntax: <code>int (string_expression)</code></li><li>• Arguments: a string value</li><li>• Example Usage: <code>int("12")</code></li><li>• Example Return Value: 12</li></ul>  |
| <b>len</b>        | <ul style="list-style-type: none"><li>• Definition: Returns the number of characters in the string.</li><li>• Syntax: <code>len (sourceStr)</code></li><li>• Arguments: a string value</li><li>• Example Usage: <code>len("this is test string")</code></li><li>• Example Return Value: 19</li></ul>  |
| <b>pow</b>        | <ul style="list-style-type: none"><li>• Definition: Returns the value raised to a power.</li><li>• Syntax: <code>pow (numeric_expression, power)</code></li><li>• Arguments: <code>numeric_expression</code> - a positive or negative integer or real number, <code>power</code> - an integer number</li><li>• Example Usage: <code>pow(2,3)</code></li><li>• Example Return Value: 8</li></ul> |
| <b>real</b>       | <ul style="list-style-type: none"><li>• Definition: Converts a string to a real value.</li><li>• Syntax: <code>real (string_expression)</code></li><li>• Arguments: a string that represents a number</li><li>• Example Usage: <code>real("10.2")</code></li><li>• Example Return Value: 10.2</li></ul>   |

|              |   |
|--------------|---|
| <b>round</b> | <ul style="list-style-type: none"> <li>• Definition: Rounds a real value to the nearest integer.</li> <li>• Syntax: round (numeric_expression)</li> <li>• Arguments: a positive or negative integer or real number</li> <li>• Example Usage: round(5.7)</li> <li>• Example Return Value: 6</li> </ul> |
| <b>sqrt</b>  | <ul style="list-style-type: none"> <li>• Definition: Returns the square root of the specified value.</li> <li>• Syntax: sqrt (numeric_expression)</li> <li>• Arguments: a positive integer or real number</li> <li>• ExampleUsage: sqrt(25)</li> <li>• ExampleReturnValue: 5</li> </ul>               |

### Scalar Return Types: Other Return Types

|                   |   |
|-------------------|---|
| <b>date</b>       | <ul style="list-style-type: none"> <li>• Return Type: Datetime</li> <li>• Definition: Converts the specified string into a date/time of format date [HH:MM[:SS [.MSEC]] [AM PM]nothing].</li> <li>• Syntax: date (string_expression)</li> <li>• Arguments: a string value representing a date</li> <li>• ExampleUsage: date(1/1/2001)</li> <li>• ExampleReturnValue: 1/1/2001 12:01</li> </ul>  |
| <b>datetotext</b> | <ul style="list-style-type: none"> <li>• Return Type: Text</li> <li>• Definition: Formats a date/time into a string of format MMM DD YYYY HH:MMAM (e.g., Jan 01 2001 12:01PM).</li> <li>• Syntax: datetotext (date_expression)</li> <li>• Arguments: a data value</li> <li>• Example Usage: datetotext(06/15/2012)</li> <li>• Example Return Value: 6/15/2012 12:00 PM</li> </ul>   |
| <b>dblookup</b>   | <ul style="list-style-type: none"> <li>• Return Type: Varies</li> <li>• Definition: Opens specified table. Returns valuecolumn value that corresponds to test- column expression. If no corresponding value is found, the default is returned. Test must be a variable name enclosed in square brackets. Names must be string constants enclosed in quotes (Tablename, testcolumnname, and valuecolumn).</li> <li>• Syntax: dblookup (test, tablename, testcolumnname, valuecolumnname, default)</li> <li>• Arguments: test - a variable name enclosed in square brackets, tablename; test- columnname; valuecolumnname - string constants enclosed in quotes, default - numeric or string value</li> </ul> |

|                  |  |
|------------------|--|
| dblookupmultikey | <ul style="list-style-type: none"> <li>• ExampleUsage: dbLookup([CostType], "Discounts", "Customer Type", "discount", 0.0)</li> <li>• ExampleReturnValue: Checks "Discounts" tables to see which discount corresponds to each cost object instance's CostType value.</li> <li>• Return Type: Varies</li> <li>• Definition: Opens the table, specified by name. Returns value_Column value based on one or more keys. Each key is determined by an expression and column (e.g. expr1, key_column1). If no corresponding value is found, or the result of the lookup is NULL, the default is returned. The default and exprn expressions can be of arbitrary complexity.</li> <li>• Syntax: dblookupmultikey (table, value_column, default, expr1, key_column1, expr2, key_column2, ...)</li> <li>• Arguments: table - a table, value_column - the expected value to be returned, default - the default value to be used in the case the value_column has no value, expr(n) – a valid expression like a variable and if statement or lookup or an equation (expressions can be of arbitrary complexity), key_column(n) - a column from "table" that will be used to compare to the expression(n)</li> <li>• ExampleUsage: DBLookupMultiKey ("vw_activity", "activity_id", 0, CurrentModelId(), "model_id", CurrentVersionId(), "version_id", "Act_operating_expense_2", "activity_name")</li> <li>• ExampleReturnValue: Returns the activity ID from vw_activity using the three primary key columns.</li> </ul> |
| intervaltotext   | <ul style="list-style-type: none"> <li>• Return Type: Text</li> <li>• Definition: Formats an interval into a string.</li> <li>• Syntax: intervaltotext (interval_expression)</li> <li>• Arguments: an interval expression</li> <li>• ExampleUsage: intervaltotext(interval(1,0,0,0))</li> <li>• ExampleReturnValue: 1:00:00:00.</li> </ul>   |
| left             | <ul style="list-style-type: none"> <li>• Return Type: Text</li> <li>• Definition: Returns the first number of characters specified. If length is longer than the string, all of the characters are returned.</li> <li>• Syntax: left (sourceStr, length)</li> <li>• Arguments: sourceStr - a string value, length - a positive integer value</li> <li>• ExampleUsage: left("this is test string", 4)</li> <li>• ExampleReturn Value: "this"</li> </ul>   |
| lookup           | <ul style="list-style-type: none"> <li>• Return Type: Varies</li> </ul>  |

|       |  |
|-------|--|
|       | <ul style="list-style-type: none"> <li>• Definition: The return type is the same as v1, and all value parameters must be the same data type. The result value's data type must all match expr's data type.</li> <li>• Syntax: lookup ( expr, rslt1, v1 [,rslt2, v2]..., default)</li> <li>• Arguments: expr - any calculated expression or constant like we do in equations; rslt1 - expected value of the expression; v1 - value to use if rslt1 matches the expression's value; default - the value to use if the expression's value does not match any of the result values</li> <li>• ExampleUsage: Lookup([Customer].[C_Customer_Tier], "1", 300, "2", 120, 60)</li> <li>• ExampleReturnValue: if you get a match, the function will return 300 or 120. If there is no match, the function will return 60.</li> </ul> |
| mid   | <ul style="list-style-type: none"> <li>• Return Type: Text</li> <li>• Definition: Returns the specified part of the string. The first character of the returned string is the character at position startPos. If length is not specified, all characters following startPos are returned.</li> <li>• Syntax: mid (srcStr, startPos, length)</li> <li>• Arguments: srcStr - a string value, startPos - an integer value, length - an integer value</li> <li>• Example Usage: mid("this is test string", 9, 4)</li> <li>• Example ReturnValue: "this"</li> </ul>   |
| right | <ul style="list-style-type: none"> <li>• Return Type: Text</li> <li>• Definition: Returns the last number of characters specified. If length is longer than the string, all of the characters are returned.</li> <li>• Syntax: right (sourceStr, length)</li> <li>• Arguments: sourceStr - a string value, length - a positive integer value</li> <li>• ExampleUsage: right("this is test string", 6)</li> <li>• ExampleReturnValue: "string"</li> </ul>   |
| str   | <ul style="list-style-type: none"> <li>• Return Type: Text</li> <li>• Definition: Converts an integer or real value into a string.</li> <li>• Syntax: str (numeric_expression)</li> <li>• Arguments: a positive or negative integer or real number</li> <li>• ExampleUsage: str(25)</li> <li>• ExampleReturnValue: "25"</li> </ul>   |
| trunc | <ul style="list-style-type: none"> <li>• Return Type: Text</li> <li>• Definition: Truncates a real value to its integer "stem", rounding toward zero.</li> <li>• Syntax: trunc (numeric_expression)</li> <li>• Arguments: a positive or negative integer or real number</li> </ul>   |

- ExampleUsage: trunc(5.7)
- ExampleReturnValue: 5

## Other Functions

Processes that are not scalar or aggregated are either interval or logical in nature. All interval processes return numeric data. Logical processes can return numerical or text data, such as the case with “if”, and Boolean data, such as the case with “isnull”.

### Interval and Logical Functions (Multiple Types of Return)

|                   |  |
|-------------------|--|
| <b>getdays</b>    | <ul style="list-style-type: none"> <li>• Function Type: Interval</li> <li>• Return Type: Numeric</li> <li>• Description: Total truncated days.</li> <li>• Syntax: getdays (interval_expression)</li> <li>• Arguments: an interval expression</li> <li>• Example Usage: getdays(interval(1,2,3,4))</li> <li>• Example Return Value: 1 day</li> </ul>            |
| <b>gethours</b>   | <ul style="list-style-type: none"> <li>• Function Type: Interval</li> <li>• Return Type: Numeric</li> <li>• Description: Total truncated hours.</li> <li>• Syntax: gethours (interval_expression)</li> <li>• Arguments: an interval expression</li> <li>• Example Usage: gethours(interval(1,2,3,4))</li> <li>• Example Return Value: 26 hrs.</li> </ul>       |
| <b>getminutes</b> | <ul style="list-style-type: none"> <li>• Function Type: Interval</li> <li>• Return Type: Numeric</li> <li>• Description: Total truncated minutes.</li> <li>• Syntax: getminutes (interval_expression)</li> <li>• Arguments: an interval expression</li> <li>• Example Usage: getminutes(interval(0,1,3,4))</li> <li>• Example Return Value: 63 min.</li> </ul> |
| <b>getseconds</b> | <ul style="list-style-type: none"> <li>• Function Type: Interval</li> <li>• Return Type: Numeric</li> <li>• Description: Total truncated seconds.</li> </ul>   |

|          |   |
|----------|---|
|          | <ul style="list-style-type: none"> <li>• Syntax: getseconds (interval_expression)</li> <li>• Arguments: an interval expression</li> <li>• Example Usage: getseconds(interval(0,0,2,4))</li> <li>• Example Return Value: 124 sec.</li> </ul>   |
| interval | <ul style="list-style-type: none"> <li>• Functional Type: Interval</li> <li>• Return Type: Numeric</li> <li>• Description: Converts the given integers to an interval. Interval(1,0,0,0) returns one day, and is stored in the database relative to midnight on 1/1/1900 - January 2, 1900 12:00 AM in this case.</li> <li>• Syntax: interval(int days, int hours, int min, int sec)</li> <li>• Arguments: days - an integer value representing the number of days, hours - an integer value representing number of minutes, min - an integer value representing number of minutes, sec - an integer value representing number seconds</li> <li>• Example Usage: Interval(1,0,0,0)</li> <li>• Example Return Value: 1 day</li> </ul>  |
| if       | <ul style="list-style-type: none"> <li>• Function Type: Logical</li> <li>• Return Type: Varies</li> <li>• Description: The first parameter (boolExpr) is evaluated. If its result is true, the second parameter (trueValue) is evaluated and the result is returned. Otherwise the third parameter (falseValue) is evaluated and that result is returned. Both values must be the same data type. If one is integer and the other is real, the return type will be real.</li> <li>• Syntax: if (boolExpr, trueValue, falseValue)</li> <li>• Arguments: boolExpr - a boolean value that evaluates to true or false, trueValue - the value used when boolExpr evaluates to true, falseValue - the value used when boolExpr evaluates to false</li> <li>• Example Usage: if(facility = "East", 200, 300)</li> <li>• Example Return Value: 300</li> </ul> |
| isnull   | <ul style="list-style-type: none"> <li>• Function Type: Logical</li> <li>• Return Type: Boolean</li> <li>• Description: If the first expression (expr1) evaluates to a NULL value, the second expression (expr2) is used. Otherwise, the first expression (expr1) is used.</li> <li>• Syntax: isnull (expr1, expr2)</li> <li>• Arguments: expr1 - a string or numeric value, expr2 - a string or numeric value</li> <li>• Example Usage: isnull("expr1", "expr2")</li> <li>• Example Return Value: expr2</li> </ul>   |

## Business Dimensions

Business dimensions, previously known as “cost objects” in earlier Acorn applications, represent categories of data.

- Business dimensions are the final accumulation point for costs, and can represent any item which cost and performance measurement are desired.
- Common business dimensions include customers, products, orders, line items, and, depending on the industry, can also include territory, salesperson, vendor and more.
- Business dimensions interact in a parent / child relationship, which dictates the insight each object has into the details of the other.
- Details are always driven to lower business dimensions in the model, while aggregates travel up.

You can access the business dimension functions by selecting the Business Dimensions panel on the Start screen. The Business Dimensions screen allows you to create the model's components. A sub-ribbon appears on this screen, listing the various business dimensions.

The Business Dimensions panel is made up of the following tabs:

- **Objects.** Opens the Objects screen. Use this screen to modify objects, or create new ones. See [Designing the Cost Object Flow](#) for more details.
- **Drivers.** Opens the Drivers screen. Use this screen to modify drivers, or create new drivers manually or by file upload. See [Drivers](#) for more details.
- **Metrics.** Opens the Metrics screen. Use this screen to apply new metric equations to cost objects, or to modify existing equations. See [Metrics](#) for more details.
- **Weight Equations.** Opens the Weights screen. Use this screen to apply new weight equations to cost objects, or to modify existing equations. See [Weight Equations](#) for more details.
- **Global Drivers.** Opens the Global Drivers screen. Use this screen to apply new global drivers manually or by file upload, or to modify existing drivers. See [Global Drivers](#) for more details.
- **Global Metrics.** Opens the Global Metrics screen. Use this screen to apply new global metrics to cost objects, or to modify existing metrics. See [Global Metrics](#) for more details.

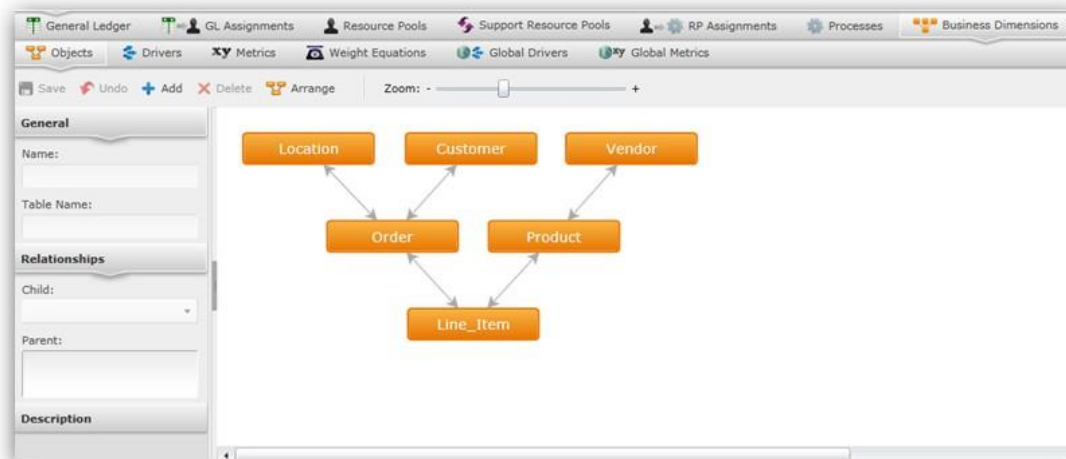


The total amount displayed in the Business Dimension panel **cannot** be used to identify potentially incorrect weight equations between the business dimensions.

## Designing the Cost Object Flow

To begin defining business dimensions, it is recommended that you start by defining the model objects. You can navigate to the Objects screen by selecting the Objects tab under Business Dimensions.

Review the screen sample pictured below. Each orange box represents a cost object. Cost objects are defined as any entity in your business that creates costs. All cost objects are related to one another in some capacity.



### Example:

The cost object "Product" is sold by the "Vendor". If there was no product, what good is a vendor? Because "Vendor" relies on "Product" to exist, "Vendor" and "Product" have a parent/child relationship. The arrows between the orange boxes indicate this relationship. "Vendor" is the child of "Product", therefore, the arrow is pointing from "Vendor" to "Product".

Business dimensions names must be unique within the model. It is recommended they not be changed once they have been established. Adjustments to cost objects after creation can have negative implications on the model validation and calculation.

- **Name.** Display name for the business dimension, and is used in calculations.
- **Table Name.** The name which will be used for the SQL Database Table, and cannot be changed after creation.
- **Child.** Represents the child business dimension where the costs will be driven.
- **Parent(s).** Represent the upstream business dimension(s) which will drive costs to the business dimension.

## Create a New Model Object

1. Select "Add".
2. A new orange box will appear in the right panel. In the left panel, type the name of your new object, and its name as it will be used in the table under "Table Name".
3. Use the scroll-down under "Child" to determine any objects that flow from the new object.
4. Select the arrow beside the objects listed in "Parent" to determine which objects flow to the new object.
5. Add a description for the object under "Description".
6. Select "Save". After the object has been saved, you have the ability to rearrange the model by selecting on the orange boxes, or by selecting "Arrange".



**Tip:** Use the Zoom tool to zoom in and out of the model, maximizing only the objects you wish to view, and minimizing the others.

## Drivers

Business dimension drivers represent any data element which initiates, supports, or influences the processes of your organization. Drivers include common data elements—quantities ordered, returned, or calculated financial results, such as revenues.

To access business dimension drivers, select the Business Dimensions panel on the Start screen, then select the Drivers tab.

By default, the Drivers screen will open in grid view. Below is a list of the columns that represent the drivers' data, as well as their descriptions.

### Data Elements for Drivers

By default, the Drivers screen will open in grid view. Below is a list of the columns that represent the drivers' data, as well as their descriptions.

- **Name.** Display name of the driver.

- **Data Type.** Type of Data from the following selection—“String”, “Currency”, “Float”, “Integer”, “Boolean”, “Date”, “Interval”, and “Big Integer”.
- **Data Size.** Data column size, when applicable for certain data types.
- **User Defined.** A user-defined driver. A selection of system-defined drivers will be created to support the model.
- **Facility Title Link.** Select this box if the driver is linked to a specific facility. This system will map the facility to its table and its subsequent data.
- **Calculated.** Calculated represents any driver that has an equation associated with it to calculate the value of the driver.
- **Description.** The description of the driver.
- **Column Name.** The column name which the driver will hold within the Business Dimension Table.
- **Cost Object.** The business dimension associated with the driver.

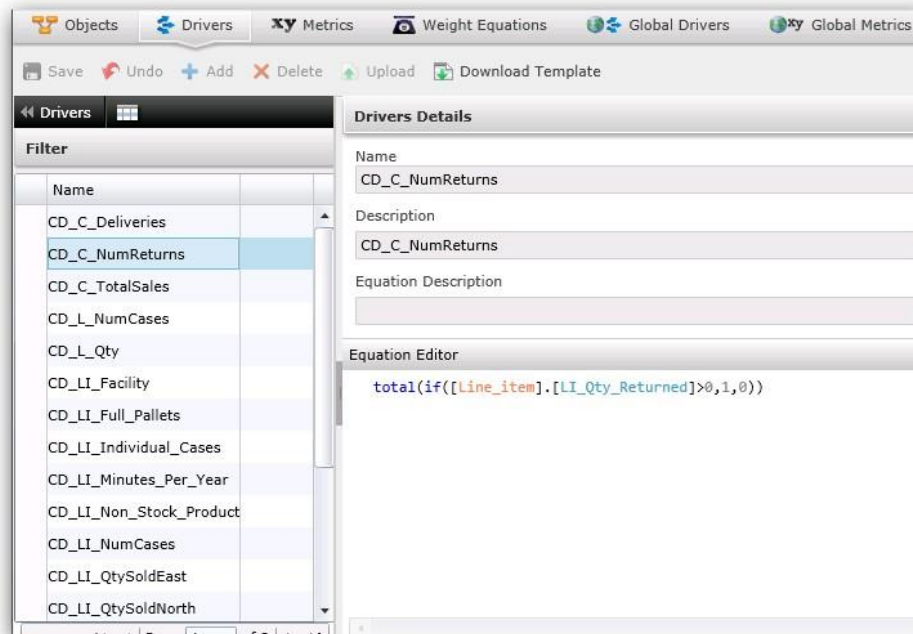
| Eq | Name                | Data Type   | Data Size | User Defined                        | Facility Title Link      | Calculated               | Description      | Column Name        | Cost Object |
|----|---------------------|-------------|-----------|-------------------------------------|--------------------------|--------------------------|------------------|--------------------|-------------|
|    | C_ASN               | String      | 2         | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C_ASN            | C_ASN              | Customer    |
|    | C_CHEP_Pallets      | String      | 2         | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C_CHEP_Pallets   | C_CHEP_Pallets     | Customer    |
|    | C_City              | String      | 25        | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C_City           | C_City             | Customer    |
|    | C_Club_Packs        | Big Integer |           | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C_Club_Packs     | C_Club_Packs       | Customer    |
|    | C_COD               | String      | 5         | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C_COD            | C_COD              | Customer    |
|    | C_Corporate_Name    | String      | 50        | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C_Corporate_Nam  | C_Corporate_Name   | Customer    |
|    | C_CPFR_Enabled      | String      | 2         | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C_CPFR_Enabled   | C_CPFR_Enabled     | Customer    |
|    | C_CRP               | String      | 2         | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C_CRP            | C_CRP              | Customer    |
|    | C_Customer_Category | String      | 50        | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C_Customer_Cate  | C_Customer_Categor | Customer    |
|    | C_Customer_Tier     | String      | 5         | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C_Customer_Tier  | C_Customer_Tier    | Customer    |
|    | C_Direct_Shipments  | Big Integer |           | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C_Direct_Shipmen | C_Direct_Shipments | Customer    |
|    | C_Distance_East     | Big Integer |           | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C_Distance_East  | C_Distance_East    | Customer    |

If you are working with a database established on a previous PA5G release, all existing drivers will be assigned to a Long Integer data type by default. To use the new Integer data type, you must modify the drivers one at a time. After changing the data type of the driver, all data will be removed from the column on Transactions.

## Adding and Editing Drivers

### Add drivers manually:

1. Switch to the data view by selecting the “Data View” icon.
2. Select “Add”.
3. The right panel will open where you can add the driver name, description, and equation description. On the bottom of the right panel is the Equation Editor.



4. Type "(" in the Equation Editor to make a pop-up box appear. Choose from functions, cost objects/drivers/processes or process time variables to add to the equation. You can also add another driver equation to the equation by selecting a driver in the Drivers window, copying the equation and pasting it in the new driver's Equation Editor.
5. Select "Save" to save the equation.
6. To return to the previous screen, select the "Grid View" icon next to the list of drivers.



**Tip: Don't Forget the Brackets.** Because driver names can be defined using whitespaces, numbers and/or special symbols, they must be added to equations using brackets. Items without brackets will cause the calculation to fail.

#### To upload files:

1. Select "Download Template". A download pop-up screen will appear. Choose your options and select "Download".
2. Open the data template and confirm that the columns and the presentation of data is identical to your records.
3. Select "Upload". The "Upload" panel will open.
4. Drag and drop files to the grayed area, or select "Browse Upload".
5. Select "Collapse Upload".



**Note:** If your file upload failed for some reason, you can edit this file on the application, or download them for editing in Excel. See [Failed Records](#) for more details.

**Note:** Select “Undo” to revert back from unsaved changes. Select “Delete” to delete an item.

**Note:** You can cancel the upload at any time by selecting “Cancel Upload”.



**Archived Logs and Drivers.** Modifying driver data may cause you to lose translation data and related table columns from the application. When this happens, any change log files that have documented previous changes to the deleted or modified data will be affected, and you run the risk of losing that information altogether. To ensure this doesn't happen, archive all change logs before modifying driver data.

## Metrics

Metrics are measurements used to determine and build key performance indicators (KPIs). A metric can be any number or value, such as an organization's revenue, customer satisfaction numbers, or sales figures.

The Metrics screen allows you to add, edit and modify cost object metrics. To navigate to the Metrics screen, select “Metrics” under Business Dimensions.

View metric details by clicking on a metric on the left panel. The right panel will open with the metric's name, description, and the formula used to create the metric. You can modify the equation at any time by clicking in the Equation Editor window. To delete a metric, select “Delete”.

| Name                   | Data Type | Data Size | Description | Data Base Name         |
|------------------------|-----------|-----------|-------------|------------------------|
| G_CM_Paper_Statement_  | Float     |           |             | G_CM_Paper_Statement_  |
| G_CM>Returns_Cost_Per_ | Float     |           |             | G_CM>Returns_Cost_Per_ |
| G_CM_Separate_Pallets_ | Float     |           |             | G_CM_Separate_Pallets_ |
| G_CM_Special_Labeling_ | Float     |           |             | G_CM_Special_Labeling_ |

## Adding/Uploading a Metric Equation

### To add a metric equation:

1. The Metrics screen will automatically open the list of metrics on the left panel, and metric details on the right panel. In order to add a metric, select the “Grid View” icon located in the left panel. This action will open the Metrics table.
2. Select “Add”. A new row will appear.
3. Type the data in the given columns:

- a. **Name:** Name of the new metric.
  - b. **Data Type:** Type of data as it is maintained in the database.
  - c. **Data Size:** Size of the data.
  - d. **Description:** Description of the metric.
  - e. **Data Base Name:** Name as the metric will appear in the database.
  - f. **Cost Object:** The cost object that the metric measures.
4. Select "Save" to save changes.

#### To upload metrics using a file:

1. Select "Download Template" to ensure that your file is correctly structured.
2. After confirming that your data is organized correctly, select "Upload". The Upload window will open.
3. Drag and drop your files to the grayed area or select file after clicking "Browse Upload".
4. Select "Collapse Upload".



**Note:** If your file upload failed for some reason, you can edit this file on the application, or download them for editing in Excel. See [Failed Records](#) for more details.

**Note:** Select "Undo" to revert back from unsaved changes. Select "Delete" to delete an item.

**Note:** You can cancel the upload at any time by selecting "Cancel Upload".

#### Creating a Metric Equation

After creating the metric, you must return to the original Metrics screen to create its equation. Select the "Grid View" icon.

Type "(" in the Equation Editor window to enable the pop-up box appear. Choose from functions, cost objects/drivers/processes or process time variables to add to the equation. You can also add another process equation by selecting a process in the Processes window, copying the equation and pasting it in the new process' Equation Editor.



**Tip:** Don't forget the brackets. Because metric names can be defined using whitespaces, numbers and/or special symbols, they must be added to equations using brackets. Items without brackets will cause the calculation to fail.



## Weight Equations

Weight equations allow you to create an equation which, when calculated, is used as a weight to give a business dimension instance more or less process time.

Weight equations change the flow of processes down the business dimension hierarchy, enabling you to drive more time, and therefore cost, to business dimensions that meet certain criteria. Without weight equations, the activity time would be driven evenly down the hierarchy.

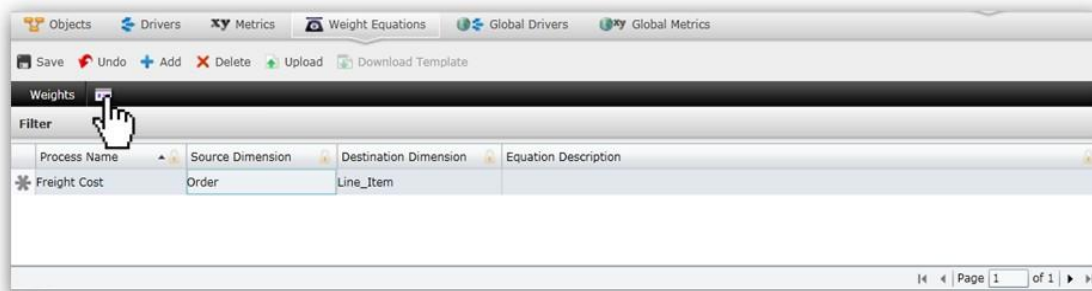
### Example:

If the cost equation for packaging is placed at the order level, the total packaging cost is calculated for each order. A weight equation placed at the line Item level divides each order's cost among its line items according to the given formula. This can help divide costs more fairly among each order's line items, making difficult-to-package line items to carry the majority of the packaging costs. If there were no weight equation, this cost would have been allocated in equal portions from each order to its line items.

## Adding/Uploading a Weight Equation

### To add an equation:

1. To navigate to the Weight Equations screen, select the Business Dimensions panel on the Start screen.
2. Select "Add" on the grid view, and then select the process from the drop-down in "Process Name" column.
3. Select the dimension from the drop-down in the "Source Dimension" column. The destination dimension will be selected automatically.
4. Select the "Equation" icon to switch the screen to the equation view.
5. Add a description of the weight equation, such as the type of weights used in the equation, in the "Equation Description".
6. Under Equation Editor, create your equation.
7. Select "Save" to save changes.



### To upload a weight equation using a file:

1. Select "Download Template" to ensure that your file is correctly structured.
2. Select "Upload" to upload the file to the application. After uploading, you can make any changes to a weight by selecting the row.
3. Select "Collapse Upload".



**Note:** If your file upload failed for some reason, you can edit this file on the application, or download them for editing in Excel. See [Failed Records](#) for more details.

**Note:** Select "Undo" to revert back from unsaved changes. Select "Delete" to delete an item.

**Note:** You can cancel the upload at any time by selecting "Cancel Upload".

After creating the weight, return to the original Weight Equations screen by selecting the "Grid View" icon. It's here where you can create an equation for your metric, as well as the equation description.

## Global Drivers

Global drivers are high-level drivers that have a major or critical effect on their associated elements or on the entire system.

You can manage global drivers by selecting the Business Dimensions panel on the Start screen, then selecting the Global Drivers tab.

### Adding\Uploading Global Drivers

#### Add global driver manually:

1. Select "Add". A new row will appear in the table.

| Filter | Name           | Data Type   | Data Size | User Defined                        | Facility Title Link      | Calculated                          | Description       | Column Name    |
|--------|----------------|-------------|-----------|-------------------------------------|--------------------------|-------------------------------------|-------------------|----------------|
|        | CD_G_BigPigPct | Float       |           | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | CD_G_BigPigPct is | CD_G_BigPigPct |
|        | G_BigIntDv1    | Big Integer |           | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | G_BigIntDv1       | G_BigIntDv1    |
|        | G_BigIntDv2    | Big Integer |           | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | G_BigIntDv2       | G_BigIntDv2    |
|        | ID             | String      | 50        | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | ID                | ID             |
|        | Name           | String      | 50        | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | Name              | Name           |
|        | Quarter        | String      | 50        | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | Quarter           | Quarter        |

2. After creating the driver, select the "Grid View" icon. The Equation Editor will open. The Equation Editor is available only for calculated drivers.
3. Type "(" in the Equation Editor to make a pop-up box appear. Choose from functions, cost objects/drivers/processes or process time variables to add to the equation. You can also add another driver to the equation by selecting a driver in the Global Drivers window, copying the equation and pasting it in the new driver's Equation Editor.
4. Return to the list of Global Drivers by selecting the "List View" icon.
5. Select "Save" to save the new global driver.



**Tip:** Don't forget the brackets. Because metric names can be defined using whitespaces, numbers and/or special symbols, they must be added to equations using brackets. Items without brackets will cause the calculation to fail.

#### To upload files:

1. Select "Download Template". A download pop-up screen will appear.
2. Choose your options and select "Download".
3. Open the data template and confirm that the columns and the presentation of data is identical to your records.
4. Select "Upload". The Upload window will open.
5. Drag and drop files to the grayed area, or select "Browse Upload".
6. Select "Collapse Upload".



If you are working with a database established on a previous PA5G release, all existing drivers will be assigned to a Long Integer data type by default. To use the new Integer data type, you must modify the drivers one at a time.



**Note:** If your file upload failed for some reason, you can edit this file on the application, or download them for editing in Excel. See [Failed Records](#) for more details.

**Note:** Select “Undo” to revert back from unsaved changes. Select “Delete” to delete an item.

**Note:** You can cancel the upload at any time by selecting “Cancel Upload”.

## Global Metrics

Global metrics represent a type of measurement that is used across the board at gauging a quantifiable component of a company's performance, such as return on investment (ROI), employee and customer churn rates, revenues, and so on.

To manage global metrics, select the Global Metrics tab under Business Dimensions to open the Global Metrics screen.

View global metric details by clicking on a metric on the left panel. The right panel will open with the metric's name, description, and the formula used to create the metric. You can modify the equation at any time by clicking in the Equation Editor.

| Name                    | Data Type | Data Size | Description | Data Base Name          |
|-------------------------|-----------|-----------|-------------|-------------------------|
| G_CM_Paper_Statement_   | Float     |           |             | G_CM_Paper_Statement_   |
| G_CM>Returns_Cost_Per.  | Float     |           |             | G_CM>Returns_Cost_Per.  |
| G_CM_Separate_Pallets_! | Float     |           |             | G_CM_Separate_Pallets_! |
| G_CM_Special_Labeling_! | Float     |           |             | G_CM_Special_Labeling_! |

## Adding/Uploading a Global Metric

### Add a global metric manually:

1. The Metrics screen will automatically open the list of metrics on the left panel, and metric details on the right panel. In order to add a metric, you will need to select the “Grid View” icon located in the left panel to open the Metrics table.
2. Select “Add”. A new row will appear.
  - a. Name: The name identified with the global metric.

- b. Data Type: "String", "Currency", "Float", "Integer", "Boolean", "Date", "Interval", and "Big Integer".
  - c. Data Size: Data column size (if applicable).
  - d. Data Base Name: Database column name.
3. Type the data in the given columns:
4. Select "Save" to save changes.

**To upload files:**

1. Select "Download Template" to ensure that your file is correctly structured.
2. After confirming your data is correctly organized, select "Upload". The Upload window will appear. Drag and drop your files in the grayed area.
3. Select "Collapse Upload".



**Note:** If your file upload failed for some reason, you can edit this file on the application, or download them for editing in Excel. See [Failed Records](#) for more details.

**Note:** Select "**Undo**" to revert back from unsaved changes. Select "**Delete**" to delete an item.

**Note:** You can cancel the upload at any time by selecting "Cancel Upload".

## Chapter 5 Advanced Modeling

After you have completed adding the fundamental elements for calculating a model, you can begin modifying other model data. Utilizing screens found under the Data tab, you can add exchange and process rates, view transaction details and general ledger amounts, work with lookup tables, or import data from a different application with the Acorn Universal Connector.

- **General Ledger Amounts.** Discusses the General Ledger Amounts screen, which allows you to add, edit, or remove amounts which have been generated from your general ledger items. Each amount represents one financial item. See [General Ledger Amounts](#) for more details.
- **Process Rates.** Describes the steps you can take to add data to tables previously created on the Lookup Tables screen located under the Model tab. See [Assigning Process Rates](#) for more details.
- **Exchange Rates.** Opens the Exchange Rates screen, which will you to add, delete, or update the rates at which one country's currency will be exchanged for another (also regarded as the value of one country's currency in terms of another currency). See [Assigning Process Rates](#) for more details.
- **Transactions.** Describes the transaction data viewable from the Transactions screen. See [Transactions](#) for more details.
- **Lookup Tables.** Describes the steps you can take to add data to tables previously created on the Lookup Tables screen located under the Model tab. See [Adding Data to Lookup Tables](#) for more details.
- **Using the Universal Connector for Uploading Data.** Describes the Acorn Universal Connector, a tool used to import and validate data from staging tables into the actual application. See [Using the Universal Connector for Uploading Data](#) for more details.

### General Ledger Amounts

PA5G gives you the flexibility to modify, add, or remove general ledger amounts without removing the general ledger item itself from the model. The General Ledger Amounts screen lists the collection of the totals related to the general ledger accounts.

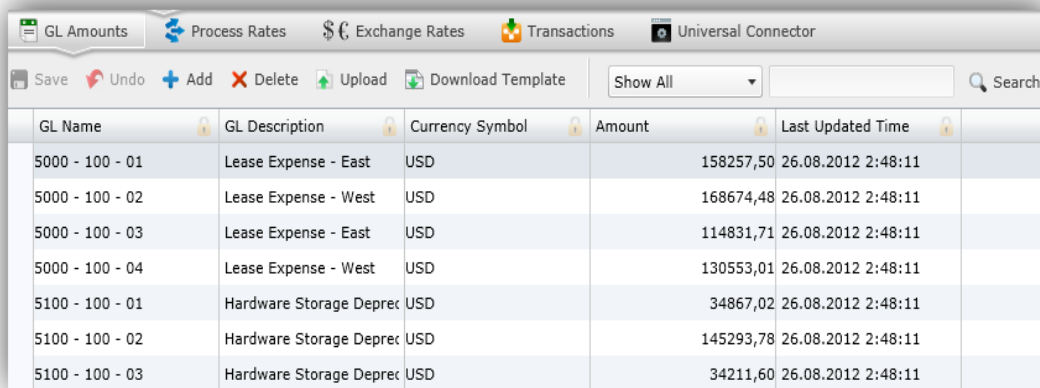
To access general ledger amounts, navigate to the General Ledger Amounts screen by selecting the Data icon on the Start screen, then selecting the GL Amounts tab.

#### Adding\Uploading General Ledger Items

##### Add an amount manually:

1. Select "Add". A new row will appear in the table.

2. Type the new general ledger item and its data inside the fields. The General Ledger table contains the following columns.
  - a. **GL Name:** Name given to the general ledger item. Only names previously established via the General Ledger Accounts screen will be accepted.
  - b. **GL Description:** A brief description of the item. Text in this column cannot be edited; its data derives from information given on the General Ledger Accounts screen.
  - c. **Currency Symbol:** Symbol of the currency used to calculate the general ledger item.
  - d. **Amount:** Amount allotted to the general ledger item.
  - e. **Last Updated Time:** Time and date the data belonging to the general ledger item was updated.
3. Select "Save" to save new changes.



| GL Name         | GL Description          | Currency Symbol | Amount    | Last Updated Time  |
|-----------------|-------------------------|-----------------|-----------|--------------------|
| 5000 - 100 - 01 | Lease Expense - East    | USD             | 158257,50 | 26.08.2012 2:48:11 |
| 5000 - 100 - 02 | Lease Expense - West    | USD             | 168674,48 | 26.08.2012 2:48:11 |
| 5000 - 100 - 03 | Lease Expense - East    | USD             | 114831,71 | 26.08.2012 2:48:11 |
| 5000 - 100 - 04 | Lease Expense - West    | USD             | 130553,01 | 26.08.2012 2:48:11 |
| 5100 - 100 - 01 | Hardware Storage Deprec | USD             | 34867,02  | 26.08.2012 2:48:11 |
| 5100 - 100 - 02 | Hardware Storage Deprec | USD             | 145293,78 | 26.08.2012 2:48:11 |
| 5100 - 100 - 03 | Hardware Storage Deprec | USD             | 34211,60  | 26.08.2012 2:48:11 |

### To upload files:

1. Select "Download Template". A download pop-up screen will appear. Make your selections and select "Download".
2. Open the data template and confirm that the columns and the presentation of data is identical to your records.
3. Select "Upload". The Upload window will open.
4. Drag and drop files to the grayed area or select "Browse Upload" to choose a file.
5. Select "Collapse Upload".



**Note:** If your file upload failed for some reason, you can edit this file on the application, or download them for editing in Excel. See [Failed Records](#) for more details.

**Note:** Select "Undo" to revert back from unsaved changes. Select "Delete" to delete an item.

**Note:** You can cancel the upload at any time by selecting "Cancel Upload".

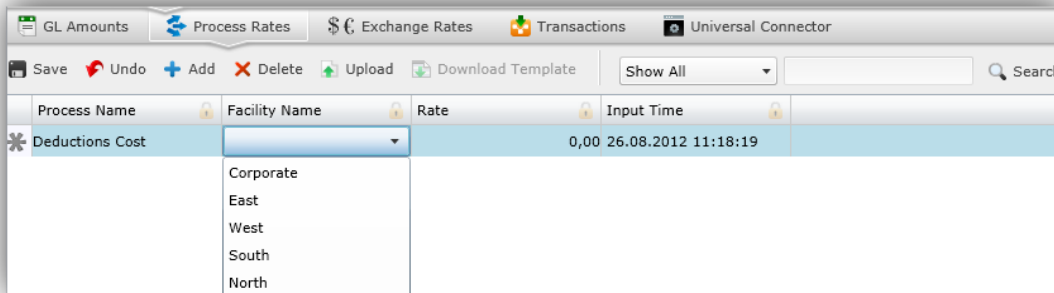
## Assigning Process Rates

Process rates are used to translate descriptions of processes into concrete quantities of time, calculating the time it takes to perform a process for each instance at the selected cost object level. This provides a non-arbitrary method of allocating resource costs to processes and, via the processes, to the business dimensions.

You can navigate to the Process Rates screen by selecting the Data tab on the Start screen, then the Process Rates tab.

## Adding\Uploading Process Rates

1. Select "Add". A new row will appear in the table.
2. Type the new process rate and its data inside the fields.
3. The Process Rates table contains the following columns.
  - a. **Process Name:** Name of the process for which the rate is applied.
  - b. **Facility Name:** The facility that is associated with the process.
  - c. **Rate:** Rate applied to the process.
  - d. **Input Time:** Date and time the rate was added to the application.
4. Select "Save".



| Process Name    | Facility Name | Rate | Input Time          |
|-----------------|---------------|------|---------------------|
| Deductions Cost | Corporate     | 0,00 | 26.08.2012 11:18:19 |
|                 | East          |      |                     |
|                 | West          |      |                     |
|                 | South         |      |                     |
|                 | North         |      |                     |

### To upload files:

1. Select "Download Template". A download pop-up screen will appear. Make your selections and select "OK".
2. Open the data template and confirm that the columns and the presentation of data is identical to your records.
3. Select "Upload". The Upload window will open.
4. Drag and drop files to the grayed area, or select "Browse Upload".

5. Select "Collapse Upload".



**Note:** If your file upload failed for some reason, you can edit this file on the application, or download them for editing in Excel. See [Failed Records](#) for more details.

**Note:** Select "Undo" to revert back from unsaved changes. Select "Delete" to delete an item.

**Note:** You can cancel the upload at any time by selecting "Cancel Upload".

## Adding and Managing Model Exchange Rates

Exchange rates are an important factor for determining model calculation. You can have multiple exchange rates in your model, however, only one exchange rate can be used as a base rate. The base exchange rate should be assigned to the rate that is the most frequently represented rate in the model.

To modify exchange rates, select the Exchange Rates tab under the Data tab.



**Note:** Exchange Rates are considered an "Advanced Modeling" option because in most cases, it is not a variable that must be manipulated in order for a model to be calculated. Upon your initial PA5G session, a currency rate should already be set.

## Adding\Uploading Exchange Rates

**To add an exchange rate manually:**

1. Select "Add". A new row will appear in the table.
2. Type the new exchange rate and its data inside the fields. The Exchange Rates table contains the following columns.
  - a. **Currency Code:** Code of the currency for which the rate is applied.
  - b. **Currency Name:** Name of the currency that is correspondent to the selected code.
  - c. **Rate:** Value of the exchange rate.
  - d. **Rate Date:** Date and the time that the rate was added to the application.
3. Select "Save".

| Currency Code | Currency Name | Rate                   | Rate Date |
|---------------|---------------|------------------------|-----------|
| AED           | UAE Dirham    | 1.0012.02.2009 0:00:00 |           |
| AMD           | Armenian Dram | 1.0012.02.2009 0:00:00 |           |

### To upload files:

1. Select "Download Template". A download pop-up screen will appear. Make your selections and select "Download".
2. Open the data template and confirm that the columns and the presentation of data are identical to your records.
3. Select "Upload". The Upload window will open.
4. Drag and drop files to the grayed area, or select "Browse Upload" to select a file.
5. Select "Collapse Upload".



**Note:** If your file upload failed for some reason, you can edit this file on the application, or download them for editing in Excel. See [Failed Records](#) for more details.

**Note:** Select "Undo" to revert back from unsaved changes. Select "Delete" to delete an item.

**Note:** You can cancel the upload at any time by selecting "Cancel Upload".

## Transactions

The Transactions screen lists all transactions that take place internally or between your business and other businesses.

You can navigate to the Transactions screen by selecting the Data tab on the Main Menu, then the Transactions tab.

The screenshot shows the Performance Analyzer 5G interface with a table of customer transactions. The table has the following columns: II, Name, GlobalsID, C\_ASN, C\_CHEP\_Pallets, C\_City, C\_Club\_Packs, and C\_COD. The data rows are as follows:

| II  | Name                    | GlobalsID | C_ASN | C_CHEP_Pallets | C_City        | C_Club_Packs | C_COD |
|-----|-------------------------|-----------|-------|----------------|---------------|--------------|-------|
| 1   | Walmart - New York City | 1         | N     | Y              | New York City | 0            | N     |
| 10  | Target - Houston        | 1         | N     | Y              | Houston       | 69           | Y     |
| 100 | Meijer - Houston        | 1         | N     | Y              | Houston       | 0            | N     |
| 101 | Safeway - Los Angeles   | 1         | N     | Y              | Los Angeles   | 8            | N     |
| 102 | CVS - Dallas            | 1         | N     | Y              | Dallas        | 0            | N     |
| 103 | CVS - Los Angeles       | 1         | N     | Y              | Los Angeles   | 6            | N     |
| 104 | Wawa - Dallas           | 1         | N     | Y              | Dallas        | 0            | N     |
| 105 | Target - Los Angeles    | 1         | Y     | Y              | Los Angeles   | 22           | N     |
| 106 | Foodtown - Los Angeles  | 1         | N     | N              | Los Angeles   | 0            | N     |
| 107 | Piggly Wiggly - Dallas  | 1         | N     | Y              | Dallas        | 0            | N     |

## Adding\Uploading Transactions

### To add a transaction manually:

1. Select "Add". A new row will appear in the table.
2. Type the new transaction item and its data inside the fields. The table's columns include "Name", "ID", and driver columns, which are listed according to the dimension. Only non-calculated drivers' columns are editable.
3. Select "Save".

### To upload files:

1. Select "Download Template". A download pop-up screen will appear. Choose your options
2. and select "Download".
3. Open the data template and confirm that the columns and the presentation of data are identical to your records.
4. Select "Upload". The Upload window will open.
5. Drag and drop files to the grayed area, select "Browse Upload".
6. Select "Collapse Upload".



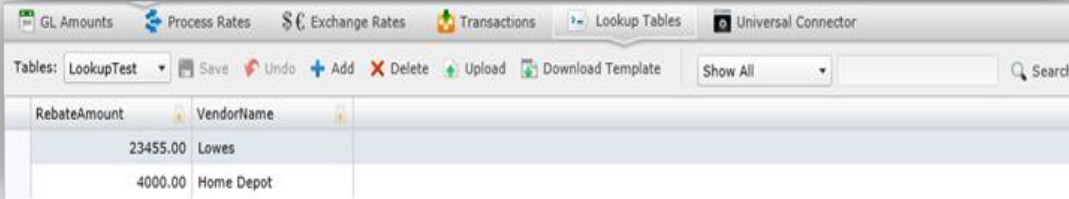
**Note:** If your file upload failed for some reason, you can edit this file on the application, or download them for editing in Excel. See [Failed Records](#) for more details.

**Note:** Select "Undo" to revert back from unsaved changes. Select "Delete" to delete an item.

**Note:** You can cancel the upload at any time by selecting "Cancel Upload".

## Adding Data to Lookup Tables

If you've designed the elements of a lookup table on the Lookup Tables screen located under the Model tab, you can then proceed to add data to the table by navigating to the Lookup Tables screen located under the Data tab. If you haven't created a table, see [Designing Lookup Tables](#) for information on how to get started.



| RebateAmount | VendorName |
|--------------|------------|
| 23455.00     | Lowes      |
| 4000.00      | Home Depot |

### Add or Upload Data to a Lookup Table

Selecting "Delete" will delete the highlighted row. To delete a column or an entire table, you must navigate to the Lookup Tables screen located under the Model tab. See [Designing Lookup Tables](#) for more details.

#### To add data manually:

A list of established tables is located in the drop-down beside "Tables". Select a table from this list. The screen will change to reflect the table you have chosen. The attributes shown will reflect the columns added from the Lookup Tables screen under the Model tab. To add data manually, select "Add", and a new row will appear.

How do I edit existing data? To edit existing data, select the cell where the data is located. The field will become enabled, allowing you to make the necessary changes.

#### To upload files:

1. Select "Download Template". A download pop-up screen will appear. Choose your options and select "OK".
2. Open the data template and confirm that the columns and the presentation of data is identical to your records.
3. Drag and drop files to the grayed area, or select "Browse Upload".
4. Select "Upload". The Upload window will open.
5. Select "Collapse Upload".



**Note:** If your file upload failed for some reason, you can edit this file on the application, or download them for editing in Excel. See [Failed Records](#) for more details.

**Note:** Select “**Undo**” to revert back from unsaved changes. Select “**Delete**” to delete an item.

**Note:** You can cancel the upload at any time by selecting “Cancel Upload”.

## Using the Universal Connector for Uploading Data

Acorn Universal Connector (AUC) is the tool used to validate and import data into PA5G from another data system.

The type of data the AUC can import include the following:

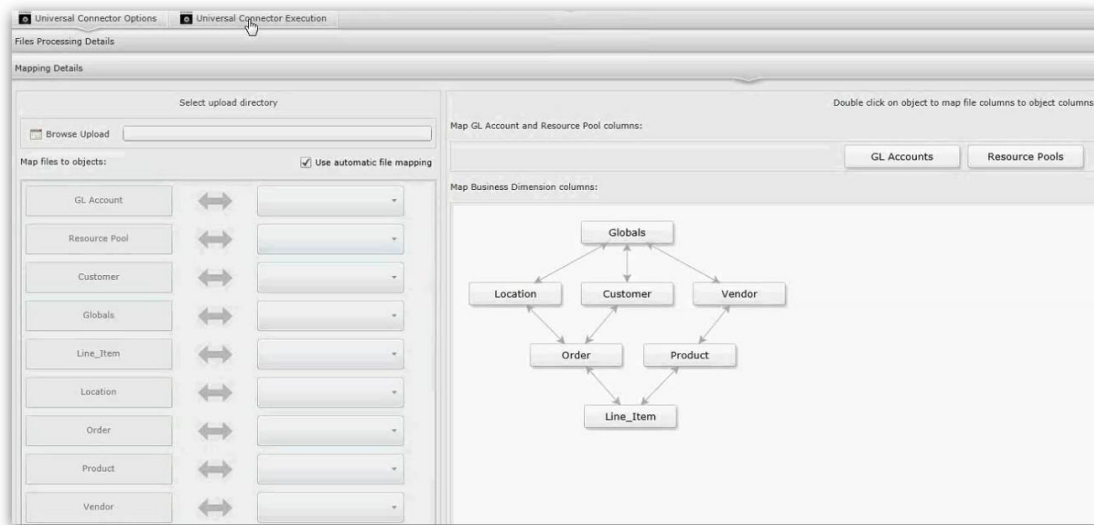
- General ledger accounts, attributes and amounts.
- Resource pools and their attributes.
- Business dimension transactions.

To use the Universal Connector functions, select the Data>Universal Connector tab. This tab contains access to two screens

- **Universal Connector Options.** Allows you to map data from your files to the different model objects in PA5G using spreadsheets.
- **Universal Connector Execution.** This screen will allow you to select which items to validate and import to PA5G. Universal Connector Options

### Universal Connector Options

You can choose to map the data manually or have the system automatically map it for you.



## Mapping the Data Manually

To use data spreadsheets for managing the data import, begin the AUC importing process on the Universal Connector Options screen. This screen allows you to browse through .txt, .csv, or .xlsx files and map them to PA5G model objects.

The right panel consists of the three different types of model objects used for mapping files:

- general ledger accounts
- resource pools
- business dimensions.

Because the different data elements are dependent on each other, the business dimensions are displayed as a graph to help illustrate their relationships.

Once the mapping of all columns for each model object is complete, the model object will turn green. If only required columns were mapped, the object will turn yellow. If any of the required columns for an object was not mapped, the object will turn red.

To use data spreadsheets for managing the data import, begin the AUC importing process on the Universal Connector Options screen. This screen allows you to browse through .txt, .csv, or .xlsx files and map them to PA5G model objects.

The right panel consists of the three different types of model objects used for mapping files: general ledger accounts, resource pools, and business dimensions. Because the different data elements are dependent on each other, the business dimensions are displayed as a graph to help illustrate their relationships.

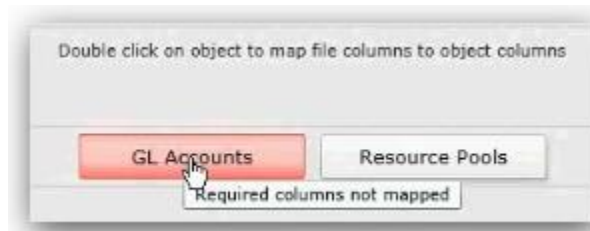
Once the mapping of all columns for each model object is complete, the model object will turn green. If only required columns were mapped, the object will turn yellow. If any of the required columns for an object was not mapped, the object will turn red.

## Automatic File Mapping

Selecting the “Use Automatic File Mapping” option will allow the application to intuitively map uploaded files to a model object based on file names. When this happens, the right column in the left panel will be labeled with the uploaded file's name beside the object where it has been mapped.

If you would like to change the auto-mapped object, use the drop-down beside the correct model object to change it to the correct object.

If you would like to change the auto-mapped value, it will simply upload the file without placing it with specific object.



## Mapping Spreadsheet Data to PA5G Objects

1. Select “Browse Upload”. A window will appear.
2. Find the file you wish to upload and select it. Select “Open”. Use the “CTRL” button and left click to select multiple items.
3. The status of the upload can be viewed in the Progress bar. When the upload is complete,
4. choose the drop-down beside the object you wish to map, and select the file. If you previously selected the “Use Automatic File Mapping” option, the file will already be assigned to the object.



5. Double-click on the object's name on the right panel. The Map Columns window will appear.
6. Select data from the spreadsheet columns on the left to map to the object's columns on the right.
7. When you have completed mapping columns, select “OK”. The window will disappear.
8. Select the “Upload” button located on the bottom right of the screen to upload the data to the application. Continue with other files if desired.



The application will NOT acknowledge the uploaded data until you navigate to the Universal Connector Execution screen and select it for validation and importation.

## Universal Connector Execution

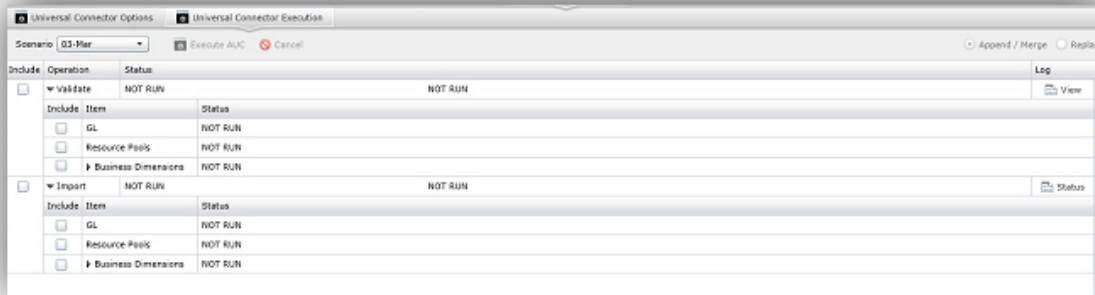
In preparation for using PA5G, your company should have, at one point, delivered your data from your previous data system to Acorn using files in flat formats, such as .txt, .csv, or .xlsx. These files are added into staging tables within PA5G. The Acorn Universal Connector is the tool by which you will extract this data from these tables and add them to the PA5G application.

The AUC is convenient in that it multi-tasks the importing of new data into the application. Instead of navigating to multiple different screens to upload new data, you can use the AUC to import the data at one time.

Before you import data, however, it is important to validate it against the tables, and to ensure that you have selected the correct scenario to validate and import data. You do not have to choose the scenario you are currently viewing; however, remember that if scenarios are linked, changing data on one scenario will change the data on any scenario linked to it.

The Acorn Universal Connector execution occurs in “Replace” mode. When a user is executing the Universal Connector with valid data, all items existing in the model will be replaced with data from the files.

In situations where only one of the records contains invalid data and the validation process fails, none of the data will be imported to the system. When the validation fails, users should correct the data and repeat validation before importing the procedures.



When a user is executing the Universal Connector with empty files, all data on the pages will be deleted. Global Dimensions data is the only exception to this rule. When this data is uploaded, the user will have the initial Global Transactions data that was originally present in the model.

When all Global Transactions are empty on the first place, they will be populated with an item with ID = Globals and Name = Globals.

For executing the Universal Connector for GL Accounts, the user must provide the currency code data for all general ledgers. The general ledger amounts are not required for importing data. However, in a situation where it is not provided, all general ledgers will be imported with zero (0.00) values.

The Universal Connector should not be executed with empty files unless the user wants data on all pages to be deleted. The one exception to this rule is uploading empty Global Dimensions, in which the user will end up with the initial dimensions that existed pre-Universal Connection execution. In cases where Global Transactions were previously empty, they will be populated with an item with an ID and name that reads "Global".

## Validating and/or Importing Data Using the AUC

1. Select the scenario that will contain the imported data using the drop-down arrow beside "Scenario".
2. Select the actions that you wish to include. If you wish to validate, select the box under the "Include" column located on far-left column. If you wish to import as well, select the box beside "Import". Selecting "Import" will automatically select the "Validate" operation as well, since the data cannot be imported until it has been validated first.
3. Next, select the items you wish to validate and/or import. You can select items simply for validating and not importing, but importing data will automatically tell the application to validate as well. Note the status of the item. Available statuses for importing data include: "Successful", "Running", "Canceling", "Succeeded", "Canceled", "Failed", "Validated", "Not Run", "Completed with Errors", and "Partially Processed".
4. Select whether you want to replace or append/merge the imported data with existing data by choosing one of the options on the right of the screen. If you choose to replace data, all data previously migrated will be replaced once the AUC has been executed. If you choose to simply append/merge, new data will be imported and added to existing data, without causing the existing data to be deleted.
5. Select "Execute AUC". The application will begin to import the data. You can view a log of your operations by reviewing the "Log" column and selecting "View" next to the items you wish to view.



The "Cancel" function is ONLY to be used if you want to cancel the operation while it is still processing the import. Canceling the operation will stop the process after the data that was in the process of being imported at the time of cancellation has completed importing.



**Note:** Select "Undo" to revert back from unsaved changes. Select "Delete" to delete an item.

## Chapter 6 Creating Statements

The PA5G Statement Builder allows you to create statements with custom features. Using this tool, you have the ability to modify the statement template to fit your company's needs. Keep in mind as you are making changes, the statement should be easily decipherable for you and your team to distinguish both the income and the expenses of your company. Once the default template is established, you can create multiple statements based on the original statement, making modifications when needed.

To begin using the Statement Builder, select the Statements tab icon on the Start screen. The Manage Statements screen will open.

### Income Statement Name

The default statement is listed on the screen with an Acorn icon, indicating it is system-created. It is named "Default Income Statement" by default. Click in its row under the "Name" column to rename the statement.

If another statement is present with a user icon, this means the statement is user-created and can only be modified by users with specific privileges.

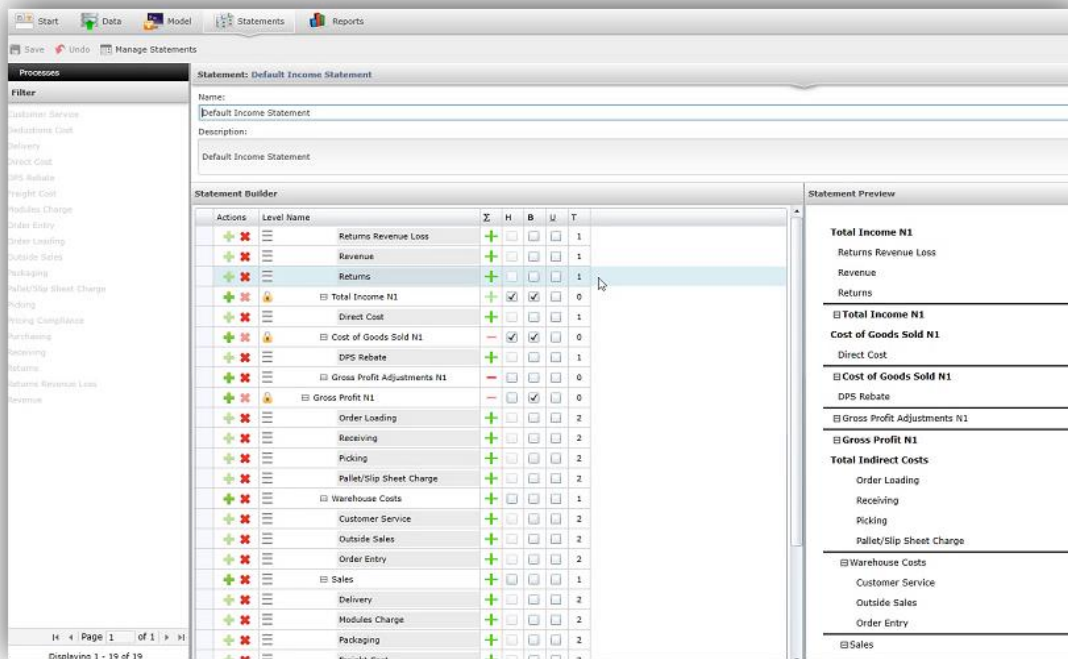
System-created income statements can be renamed, but they can never be deleted.

Review the following topics to begin using the Statements features:

- **Edit Statements Screen.** Describes the four main elements of the Edit Statements screen, which is where you will be doing most of your statement activities. See [Edit Statements Screen](#) for more details.
- **Modifying the Default Statement.** Describes what the default statement is used for, as well as the elements you can modify. See [Modifying the Default Statement](#) for more details.
- **Creating a New Statement.** Describes how to create a new statement based on the default statement, and how it can be used to predict the appearance of the income statement report. See [Create New Statement](#) for more details.

### Edit Statements Screen

To open the Edit Statements screen, highlight the default income statement row, and select "Edit Statement". The Edit Statement screen will open.



The Edit Statement screen is essentially comprised of four areas:

- Statement Name and Description.** In the top center of the screen are the statement name and description fields. If you have modified the name and/or description on the Manage Statements screen, these fields will reflect your changes. If you have not, you have the ability to make these changes here.
- Statement Builder.** The Statement Builder window is where you will create the cost flow of your statement, as well as add processes. You can also control the appearance of your statement. The Statement Builder contains the following columns:
  - Actions.** Under this column, you can add a child level (+), or remove an existing Level Name (X).
  - Aggregation (Σ).** Under this column, you can choose whether to add or subtract the level from the parent level (if it is a child level) or from the total amount (if it is a parent level). The bottom line level will only have the ability to add; it does not have the ability to subtract.
  - Header (H).** Select this option if the level corresponds with a header value. This option will be disabled for processes dragged and dropped from the Process Filter.
  - Bold (B).** Bold font.
  - Underline (U).** Underline font.
  - T (T).** Number of tab stops before the level appears.
- Processes Filter.** On the left of the screen is the Processes Filter panel, which lists all the available processes. You will use this panel to drag and drop processes into the Statement Builder to be added into the statement

- **Statement Preview.** On the right of the screen is the Statement Preview window. As you are building your statement, this window will adjust to reflect the changes you have made. The final result of your statement will be identical to how it will appear once it is processed as an income statement report.

## Modifying the Default Statement

The default statement cannot be deleted, but it can be renamed and modified. Follow the steps listed below to modify the default statement.

1. Select the default statement's row on the Manage Statements screen and select "Edit Statement". The Edit Statement screen will appear.
2. (Optional). Rename the default statement, if you have not already renamed it on the Manage Statements screen. You can do this by clicking in the field under "Name" in the Statement window.
3. (Optional) If you have not already added a description on the Manage Statements screen, you can do so now by selecting the field under "Description" and adding a description.



**Note:** As you are modifying the default statement, keep your eyes on the Statement Preview window. It's there for you to maintain good insight on how the statement will appear when it is generated as a report. Each time you modify an element in the statement, the Statement Preview window will adjust to accommodate your changes.

4. On the Statement Builder window, note that there are five levels already present. These levels contain the "🔒" icon beside them, signifying that they cannot be removed or re-ordered. They can, however, be renamed by clicking in the field beside their name. By default, these levels will appear in the Statement Preview window in bold and with no tab stops, but these elements can be modified, with the exception of their aggregation. These levels include:
  - a. Total Revenue
  - b. Total Direct Cost
  - c. Gross Profit (underlined by default)
  - d. Total Indirect Cost
  - e. Net Income (underlined by default)

| Statement Builder |                     |   |                          |                                     |                                     |   |
|-------------------|---------------------|---|--------------------------|-------------------------------------|-------------------------------------|---|
| Actions           | Level Name          | Σ | H                        | B                                   | U                                   | T |
| + × 🔒             | Total Revenue       | + | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 0 |
| + × 🔒             | Total Direct Cost   | - | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 0 |
| + × 🔒             | ▢ Gross Profit      | + | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 0 |
| + × 🔒             | Total Indirect Cost | - | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 0 |
| + × 🔒             | Net Income          |   | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 0 |



**Note** the “-” icon beside “Gross Profit”. The presence of this icon indicates that “Gross Profit” is a parent level that contains child dependents. All levels acting as “parent levels” will have this icon beside it when it is expanded. Clicking the icon will collapse the child levels, and the “+” icon will appear beside the parent level. In the case of “Gross Profit”, “Total Gross Profit” and “Total Direct Cost” are child levels; if you click the “-” icon beside “Gross Profit”, these levels will collapse.






































**Note:** In the default statement, “Net Profit” is the bottom line item; therefore, it will not be aggregated and does not need the symbol. This is true for any level you make a “bottom line” item in custom statements as well. Note, too, that bottom line items on custom statements cannot be removed from the statement.

5. To add child cost levels (groups) to a default level
  - a. Under the “Actions” column, select the “+” sign on the level where you want to add the child. A new row will appear above the default level. Note that the “\*” icon will appear by the new row. This indicates that the row is new and has not been added to the database. After the statement is saved, this icon will disappear. This is also true when you are adding processes to the cost levels.
  - b. Add the name of the new child in the field under “Level Name”.
  - c. Select how the cost level will be aggregated from statement. By default, the level will be added with a “+” aggregation, but you can modify this by selecting the new row under the “Aggregation” column and changing it to “-”.



**Tip:** Select “Undo” to undo the last change you made to the statement.

- d. Select how the level will appear in the statement. Because you are adding a new group, you can determine if the group will be associated with a header, as well as select if the font will appear in bold and/or underlined, and the tab count before the level appears.

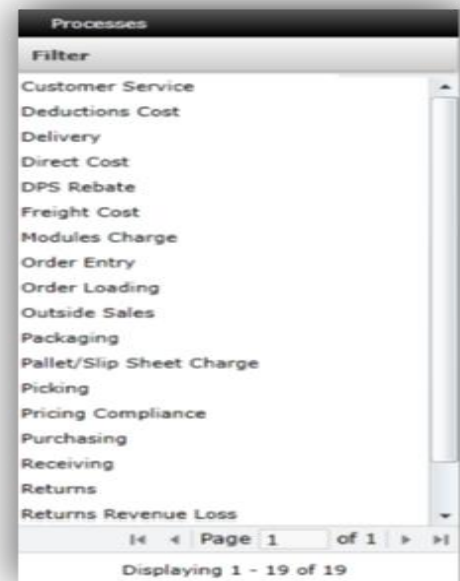
| Actions   | Level Name  | Σ   | H                        | B                                   | U                                   | T |
|---|---|---|--------------------------|-------------------------------------|-------------------------------------|---|
|     |  Total Revenue       |  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 0 |
|    |  Freight Weight      |  | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | 2 |
|    |  Shipping            |  | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | 1 |
|    |  Revenue             |  | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | 1 |
|    |  Total Direct Cost   |  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 0 |
|     |  Gross Profit        |  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 0 |
|     |  Total Indirect Cost |  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 0 |
|     |  Net Income          |   | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 0 |

6. To add processes to cost levels
  - a. On the Processes Filter panel, drag and drop the process on top of the desired cost level. After you drop the process, note that the “+” beside the process will be disabled because it is not a group and therefore cannot have children.
  - b. Select how the process will be aggregated within the group. It will be added with a “+” aggregation by default, but you can change this by clicking on its row under the “Aggregation” column and selecting “-”.



**Note:** Just as the default levels have a “ ” icon beside them, processes and new levels will show a “ ” icon beside their names. When you see this icon, it means the level or process can be dragged and dropped to different parts of the statement.

- c. Select how the process will appear in the statement. Because it is not a group, the “Headline” column will be disabled, but you can select to have the process underlined, in bold, and choose the number of tab stops that will occur before the process appears on the statement.
7. To remove a non-default level and/or process
  - a. Under the “Actions” column, select the “x” beside the level or process you want to remove.

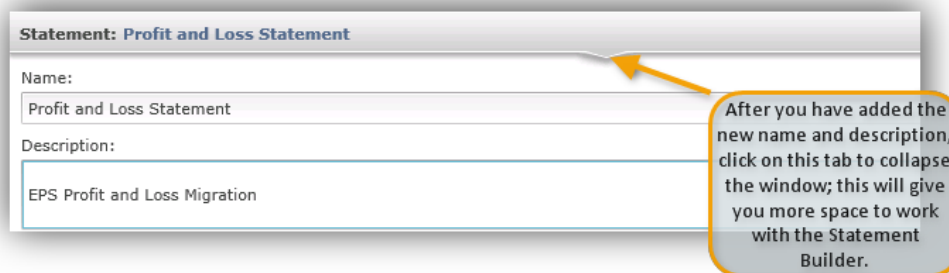


If you select a level, remember that all child processes belonging to that level will be removed from the statement as well.

- b. A warning message will appear. Confirm that you want to delete the level and/or processes, and select "Delete". The level and/or process will be removed from the statement.
8. Select "Save" to save changes to the default statement before navigating away from the screen.

## Create New Statement

1. To create a new statement, select "Create Statement" on the Manage Statement screen. The Edit Statement screen will open.
2. In the field below "Name", rename the statement.
3. In the field below "Description", add a brief description of the statement.



**Statement: Profit and Loss Statement**

Name:  
Profit and Loss Statement
















Description:  
EPS Profit and Loss Migration

After you have added the new name and description, click on this tab to collapse the window; this will give you more space to work with the Statement Builder.



**Note:** As you are modifying your statement, keep your eyes on the Statement Preview window. Each time you modify an element in the statement, the Statement Preview window will adjust to accommodate your changes.

4. On the Statement Builder window, note that the five default levels (defined in the default statement) are already present. Unlike the default statement, however, you can drag and drop these levels, change their aggregation, or delete them altogether—all but the "Net Income" level, which remains locked and cannot be removed. These default levels include:
  - a. Total Revenue
  - b. Total Direct Cost
  - c. Gross Profit (underlined by default)
  - d. Total Indirect Cost
  - e. Net Income (underlined by default)

| Statement Builder   |                     |  |          |                                     |                                     |                                     |   |
|---|---------------------|--|----------|-------------------------------------|-------------------------------------|-------------------------------------|---|
| Actions   | Level Name          |  | $\Sigma$ | H                                   | B                                   | U                                   | T |
|    | Total Revenue       |  | +        | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 3 |
|    | Total Direct Cost   |  | -        | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 3 |
|    | ▣ Gross Profit      |  | +        | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 2 |
|    | Total Indirect Cost |  | -        | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 2 |
|    | Net Income          |  |          | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 1 |




































Except for "Net Income," default levels can be deleted in a non-default statement

Only "Net Income" is locked in a non-default statement



**Note** the "-" icon beside "Gross Profit". The presence of this icon indicates that "Gross Profit" is a parent level that contains child dependents. All levels acting as "parent levels" will have this icon beside it when it is expanded. Clicking the icon will collapse the child levels, and the "+" icon will appear beside the parent level. In the case of "Gross Profit", "Total Revenue" and "Total Direct Cost" are child levels; if you click the "-" icon beside "Gross Profit", these levels will collapse.

5. To add child cost levels (groups)
  - a. Under the "Actions" column, select the "+" sign on the level where you want to add the child. A new row will appear above the level. Note that the "\*" icon will appear by the new row. This indicates that the row is new and has not been added to the database. After the statement is saved, this icon will disappear. This is also true when you are adding processes to the cost levels.
  - b. Add the name of the new child in the field under "Level Name".
  - c. Select how the cost level will be aggregated from statement. By default, the level will be added with a "+" aggregation, but you can modify this by selecting the new row under the "Aggregation" column and changing it to " - ".
  - d. Select how the level will appear in the statement. Because you are adding a new group, you can determine if the group will be associated with a header, as well as select if the font will appear in bold and/or underlined, and the tab count before the level appears.

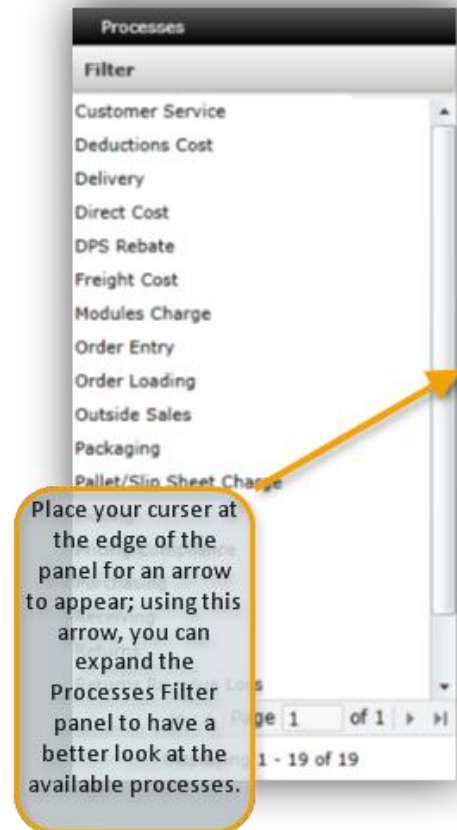
| Actions   | Level Name          | $\Sigma$  | H                        | B                                   | U                                   | T |
|---|---------------------|---|--------------------------|-------------------------------------|-------------------------------------|---|
|      | Total Revenue       |  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 0 |
|     | Freight Weight      |  | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | 2 |
|     | Shipping            |  | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | 1 |
|     | Revenue             |  | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | 1 |
|     | Total Direct Cost   |  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 0 |
|      | Gross Profit        |  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 0 |
|      | Total Indirect Cost |  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 0 |
|      | Net Income          |   | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 0 |



**Tip:** Select “Undo” to undo the last change you made to the statement.

#### 6. To add processes to cost levels

- a. On the Processes Filter panel, drag and drop desired process onto the cost level. When you are dragging new processes and dropping them onto the statement builder, keep in mind that when a line appears in the builder, this means you are adding the process as a non-child level. When a triangle appears, you are adding a child level. After you drop the process, note that the "+" beside the process will be disabled because it is not a group and therefore cannot have children.
- b. Select how the process will be aggregated within the group. It will be added with a "+" aggregation by default, but you can change this by clicking on its row under the "Aggregation" column and selecting " - ".
- c. Select how the process will appear in the statement. Because it is not a group, the "Headline" column will be disabled, but you can select to have the process underlined, in bold, and choose the number of tab stops that will occur before the process appears on the statement.





**Note:** Just as the default levels have a "🔒" icon beside them, processes and new levels will show a "☰" icon beside their names. When you see this icon, it means the level or process can be dragged and dropped to different parts of the statement.

7. To remove a non-default level and/or process
  - a. Under the "Actions" column, select the "✖" beside the level or process you want to remove. If you select a level, remember that all child processes belonging to that level will be removed from the statement as well.
  - b. A warning message will appear. Confirm that you want to delete the level and/or processes, and select "Delete". The level and/or process will be removed from the statement.
  - c. Select "Save" to save changes to the default statement before navigating away from the screen.

## Chapter 7 Reports

After you've calculated your scenario, navigate to the Reports tab to view the two types of standard reports offered by PA5G:

- **Default Income Statement Report.** This report shows the results from the income statement that should have previously been built on Statements screen. If you haven't worked with statements yet, this report will consist of data generated from the default levels of the default income statement. See [Income Statement Report](#) for more details.
- **Validation Report for Support Allocations.** This report will help you identify support resource pool allocations that are being dropped from the results of your calculation due to drivers that equal to "0" or NULL. See [Validation Report for Support Allocations](#) for more details.

| Standard Reports  |  |
|---|--|
| Name  | Description  |
|  Income Statement                          | Income Statement Report utilizing statements from the PA5G Statement Builder |
|  Validation Report for Support Allocations | Support Resource Pools allocation validation and subsequent 'cost fallout'   |

Reports will not be available to view until you have calculated your scenario. If you navigate to the Reports screen and the reports are grayed-out, this means your scenario has not been calculated. Return to the Start screen to calculate your scenario before attempting to view reports again.



**Warning:** Language localization is not implemented for reports. Reports will be generated in English only.

### Income Statement Report

The Income Statement Report displays the results of your company's financial performance generated from the income statement. If you've built a well-designed income statement using the Statement Builder, the report should give an accurate summary of revenues and expenses through both operating and non-operating activities, as well as display the net profit or loss incurred over the specified scenario's time allocation.

## Filtering Options

The Income Statement Report screen contains a Filtering window that allows you to select the income statement—default or custom—you want to generate, as well as set report parameters. The options include:

- **Income Statement.** Use this drop-down for selecting which statement to generate.
- **Percentage Of.** This drop-down allows you to select a percentage type of a specific cost level.
- **Business Dimension Driver.** Use this drop-down to allow data from a specific business dimension driver to be included in the report. By default, this option will be set to “none”.
- **Value.** In the value field, add any particular value you want included in your report.
- **Scenario.** Use the drop-down to select which scenarios you wish to view in the report. You can select multiple scenarios or simply one, but this field cannot be empty. By default, this field will be set to “Select All”.
- **Business Dimension.** Use this drop-down to select a specific business dimension for reporting.
- **Operation.** In this drop-down, you can choose further result restrictions based on the operation protocol of the business dimension driver. This field will be enabled only if there is a driver selected in the “Business Dimension Driver” field, and the options in the drop-down will depend on the operational elements assigned to the driver.

## Generate the Report

After you’ve selected your report criteria, select “View Report” to view the outcome. The application will begin generating the report.

**acorn**  
— profit redefined —

Default Income Statement  
Run Date: September 17, 2013 1:29:00 PM  
Model: Great Oak  
Parameters: /ez

|                                    | 01-Jan                  | 01-Jan Test               | 02-Feb                  | 03-Mar                  | 03-Mar Whatif             | This is a test            |
|------------------------------------|-------------------------|---------------------------|-------------------------|-------------------------|---------------------------|---------------------------|
|                                    | Amount                  | Amount                    | Amount                  | Amount                  | Amount                    | Amount                    |
| <b>Total Income N1</b>             |                         |                           |                         |                         |                           |                           |
| Returns Revenue Loss               | (\$ 1,689,736.97)       | (\$ 1,689,736.97)         | (\$ 133,886.58)         | (\$ 95,283.70)          | (\$ 95,283.70)            | (\$ 95,283.70)            |
| Revenue                            | \$ 72,858,214.12        | \$ .00                    | \$ 97,969,805.20        | \$ 78,717,575.90        | \$ .00                    | \$ .00                    |
| Returns                            | \$ 428,822.37           | \$ 459,517.04             | \$ 437,547.23           | \$ 456,173.52           | \$ 456,173.52             | \$ 456,173.52             |
| <b>Total Income N1</b>             | <b>\$ 71,597,299.52</b> | <b>(\$ 1,230,219.93)</b>  | <b>\$ 98,273,465.85</b> | <b>\$ 79,078,465.72</b> | <b>\$ 360,889.82</b>      | <b>\$ 360,889.82</b>      |
| <b>Cost of Goods Sold N1</b>       |                         |                           |                         |                         |                           |                           |
| Direct Cost                        | \$ 52,690,512.51        | \$ 52,690,512.51          | \$ 70,750,442.21        | \$ 56,797,642.52        | \$ 56,797,642.52          | \$ 56,797,642.52          |
| <b>Cost of Goods Sold N1</b>       | <b>\$ 52,690,512.51</b> | <b>\$ 52,690,512.51</b>   | <b>\$ 70,750,442.21</b> | <b>\$ 56,797,642.52</b> | <b>\$ 56,797,642.52</b>   | <b>\$ 56,797,642.52</b>   |
| DPS Rebate                         | \$ 101,430.00           | \$ 101,430.00             | \$ 583,590.00           | \$ 545,580.00           | \$ 545,580.00             | \$ 545,580.00             |
| <b>Gross Profit Adjustments N1</b> | <b>\$ 101,430.00</b>    | <b>\$ 101,430.00</b>      | <b>\$ 583,590.00</b>    | <b>\$ 545,580.00</b>    | <b>\$ 545,580.00</b>      | <b>\$ 545,580.00</b>      |
| <b>Gross Profit N1</b>             | <b>\$ 18,805,357.00</b> | <b>(\$ 54,022,162.45)</b> | <b>\$ 26,939,433.64</b> | <b>\$ 21,735,243.19</b> | <b>(\$ 56,982,332.70)</b> | <b>(\$ 56,982,332.70)</b> |
| <b>Total Indirect Costs</b>        |                         |                           |                         |                         |                           |                           |
| Order Loading                      | \$ 819,349.63           | \$ 865,839.57             | \$ 847,215.90           | \$ 878,384.67           | \$ 878,384.67             | \$ 878,384.67             |
| Receiving                          | \$ 2,425,863.92         | \$ 2,548,327.78           | \$ 2,343,725.86         | \$ 2,450,893.92         | \$ 2,450,893.92           | \$ 2,450,893.92           |
| Picking                            | \$ 2,452,393.98         | \$ 2,570,333.65           | \$ 2,402,713.10         | \$ 2,550,587.58         | \$ 2,550,587.58           | \$ 2,550,587.58           |
| Pallet/Slip Sheet Charge           | \$ 9,184.00             | \$ 9,184.00               | \$ 7,848.00             | \$ 8,120.00             | \$ 8,120.00               | \$ 8,120.00               |
| <b>Warehouse Costs</b>             | <b>\$ 5,706,791.53</b>  | <b>\$ 5,993,685.00</b>    | <b>\$ 5,601,502.86</b>  | <b>\$ 5,887,986.17</b>  | <b>\$ 5,887,986.17</b>    | <b>\$ 5,887,986.17</b>    |
| Customer Service                   | \$ 552,896.93           | \$ 584,157.80             | \$ 550,817.92           | \$ 582,418.75           | \$ 582,418.75             | \$ 582,418.75             |
| Outside Sales                      | \$ 1,910,733.66         | \$ 1,984,741.44           | \$ 1,840,632.68         | \$ 1,897,497.32         | \$ 1,897,497.32           | \$ 1,897,497.32           |
| Order Entry                        | \$ 552,896.93           | \$ 584,157.80             | \$ 550,817.92           | \$ 582,418.75           | \$ 582,418.75             | \$ 582,418.75             |



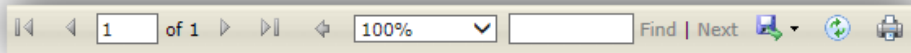
**Tip:** To expand the report, use the collapse arrow located between the Filtering window and the report to collapse the Filtering window, and select it again when you need to expand the window once more.

## Viewing the Report

The toolbar at the top of the report allows you to perform several functions (listed in order of appearance):

- **View Next/Previous Page.** Select these icons to navigate to the page before or after the page that you are currently viewing.
- **View Front/Back Page.** Select these icons to navigate to the front of the report, or the end.
- **Return to Parent Report.** Select this arrow to return to the report that originated the report you are viewing (if applicable).
- **Percentage Width.** Select this drop-down to change the viewing percentage of the report.
- **Find.** In the field beside "Find", add the search criteria you wish to use, then select "Find" to allow the application to search the report. If multiple instances have been found, select "Next" to jump from one result to the next.
- **Next.** After you have selected "Find", if the report has returned multiple results, select "Next" to navigate to the next returned result.
- **Export.** Select this option to export your report to one of the following options: XML File with Report Data, CSV (Commas Delimited), PDF, MHTML (archived Web file), Excel, TIFF file, and Word.
- **Refresh.** Select this option to refresh report results.

- **Print.** Select this option to print your report.



## Expand /Collapse Results

Wherever you see an expanse icon, this indicated that the data is collapsed and can be expanded to show more information. Select the icon to expand the data. When you are finished viewing the data, select the collapse icon to re-collapse the data.

### Example Screen of a Collapsed Scenario

☐ 01-Jan

### Example Screen of an Expanded Scenario

| ☐ 01-Jan |       |                    |
|----------|-------|--------------------|
| Amount   | Units | % of Total Revenue |
|          |       |                    |

## Parameter Values Box

At the end of report, you'll see a box titled "Parameter Values". This box contains the filtering parameters you used to generate the report. This box is especially useful after you have exported the report, as you can refer back to the box to remind you of the report's parameters.

| Parameter Values:          |                                 |
|----------------------------|---------------------------------|
| Scenario: 01-Jan           | Business Dimension Driver: None |
| Business Dimension: Vendor | Value:                          |
| Operation: None            |                                 |

---

## Validation Report for Support Allocations

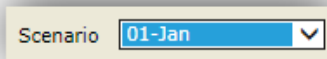
The Validation Report for Support Allocations is a necessity for instances where cost is disappearing from your model due to a value set at "0". Using this report, you will be able to locate the support resource pool that is causing this event to occur.

### Example:

Human Resources is a support resource with three destination resource pools--North Office, South Office, and East Office. It has a target of "0" values for its selected driver, "Employee Headcount". In this instance, its allocation amount of \$18,000.00 will fall out of the model because none of Human Resources' destination resource pools have values for the "Employee Headcount" driver.

## Selecting the Scenario

Each scenario has a different Validation Report. Use the "Scenario" drop-down to select the scenario you wish to view.



## Generate the Report

After you've selected the scenario, select "View Report" to view the outcome. The application will begin generating the report.

Performance Analyzer 5G - Reporting

Scenario: 01-Jan [View Report]

Document Map: SupportReport, Summary, Finance - E, Finance - N, Finance - S, Finance - W, HR - East

acorn — profit redefined —

Support Validation Report  
Run Date: September 17, 2013, 12:31:22 PM

Resource Pool Validation Summary for: 01-Jan

| Allocation Type | Incoming Cost  | Outgoing Cost  | Unassigned Cost | # Issues |
|-----------------|----------------|----------------|-----------------|----------|
| Desks           | \$655,370.80   | \$0.00         | \$655,370.80    | 5        |
| Computers       | \$2,075,903.69 | \$2,075,903.69 | \$0.00          | 0        |
| Num Employees   | \$1,294,338.65 | \$1,294,338.65 | \$0.00          | 0        |
|                 | \$4,025,613.15 | \$3,370,242.35 | \$655,370.80    | 5        |



**Tip:** To expand the report, use the collapse arrow located between the Scenarios window and the report to collapse the Scenarios window, and select it again when you need to expand the window once more. You can also do the same with the collapse arrow between the report and the Document Map

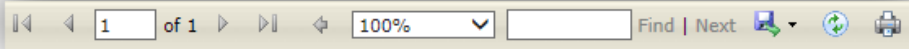
## Viewing the Report

Unallocated costs and their subsequent data are displayed in red. To scale to other sections of the report, such as the summary, use the Document Map on the left and select the section. The report will change to display the desired data.

The toolbar at the top of the report allows you to perform several functions (listed in order of appearance):

- **View Next/Previous Page.** Select these icons to navigate to the page before or after the page that you are currently viewing.
- **View Front/Back Page.** Select these icons to navigate to the front of the report, or the end.
- **Return to Parent Report.** Select this arrow to return to the report that originated the report you are viewing (if applicable).
- **Percentage Width.** Select this drop-down to change the viewing percentage of the report.
- **Find.** In the field beside "Find", add the search criteria you wish to use, then select "Find" to allow the application to search the report. If multiple instances have been found, select "Next" to jump from one result to the next.

- **Next.** After you have selected “Find”, if the report has returned multiple results, select “Next” to navigate to the next returned result.
- **Export.** Select this option to export your report to one of the following options: XML File with Report Data, CSV (Commas Delimited), PDF, MHTML (archived Web file), Excel, TIFF file, and Word.
- **Refresh.** Select this option to refresh report results.
- **Print.** Select this option to print your report.



## Expand /Collapse Results

Whenever you see an expanse icon, this indicated that the data is collapsed and can be expanded to show more information. Select the icon to expand the data. When you are finished viewing the data, select the collapse icon to re-collapse the data.

## Chapter 8 Validation and Calculation

You've installed PA5G, connected to the database, tinkered with the data, and checked and rechecked your business rules. Next stop: Validation and Calculation.

This section contains the following topics:

- **Cost Validation.** Each Business Rules panel on the Start screen contains a summary amount located at the bottom of the panel. Selecting the Business Dimension summary amount will open a new screen, where you can view the cost flow. See [Cost Validation Summaries](#) for more details.
- **Understanding Scenario Data.** Includes information regarding how to read the "Scenario" pane located on the Start screen, and defines the data associated with each scenario. See [Understanding Scenario Data](#) for more details.
- **Performing Scenario Functions.** Describes the functionality of each action located in the Scenarios pane, including "Validate Model", "Validate Cost Flow", "Full Calculation", "Manage Scenarios", and "Scenario Messages". See [Performing Scenario Functions](#) for more details.
- **Manage Scenarios.** Includes information regarding how to create, modify and delete scenarios. See [Manage Scenarios](#) for more details.
- **Scenario Messages.** Selecting this option will open the Scenario Messages screen. This screen is only useful if you have validated and/or calculated your scenario, especially if there was an error during the operation. See [Scenario Messages](#) for more details.

### Cost Validation Summaries

Each Business Rules panel contains a summary amount at the bottom of the panel. If the summary shows a warning icon, it is alerting you of a cost flow issue. Select the summary amount at the bottom of the Business Dimensions panel to open a "report" screen that allows you to view the cost flow. Items that contain problematic assignments will display its costs in red font.

| General Ledger |              |              |
|----------------|--------------|--------------|
| \$54,536.55    | \$21,422.32  | \$21,422.32  |
| \$00.00        | \$00.00      | \$00.00      |
| \$(27,145.85)  | \$(8,261.57) | \$(8,261.57) |
| \$00.00        | \$00.00      | \$00.00      |
| \$00.00        | \$00.00      | \$00.00      |
| \$00.00        | \$00.00      | \$00.00      |
| \$00.00        | \$00.00      | \$00.00      |
| \$84,182.54    | \$38,829.90  | \$38,829.90  |
| \$00.00        | \$00.00      | \$00.00      |

An assignment status accompanies each item. These statuses include the following:

- **Not Assigned.** The item contains no Destination Assignments.

- **Under Assigned.** The total is less than 100%.
- **Assigned.** The total equals 100%.
- **Over Assigned.** The total is more than 100%.

| Resource Pool  | Assignment Type | Status   |
|----------------|-----------------|----------|
| 628 - Shipping | Percentage      | Assigned |
| 628 - Supplies | Percentage      | Assigned |

For more information the item and its assignment, select the arrow beside the item's name. The child window will appear.



**Tip:** You can add or delete an assignment on these screens, but you CANNOT add or delete items from the validation screen, nor can Source Entity names (general ledger or resource pool names) be edited.

| Process Name          | General Ledger | BOM            | Finished_Item  | Raw_Materials  | Production_Line |
|-----------------------|----------------|----------------|----------------|----------------|-----------------|
| Blending - Labor      | \$320,157.65   | \$00.00        | \$00.00        | \$00.00        | \$00.00         |
| Blending - Machine    | \$00.00        | \$00.00        | \$00.00        | \$00.00        | \$00.00         |
| Coating - Labor       | \$164,526.85   | \$164,526.85   | \$164,526.85   | \$164,526.85   | \$164,526.85    |
| Compection - Labor    | \$206,189.25   | \$206,189.25   | \$206,189.25   | \$206,189.25   | \$206,189.25    |
| Compression - Labor   | \$264,025.93   | \$264,025.93   | \$264,025.93   | \$264,025.93   | \$264,025.93    |
| Day Mixer - Labor     | \$288,253.99   | \$288,253.99   | \$288,253.99   | \$288,253.99   | \$288,253.99    |
| Day Mixer - Machine   | \$00.00        | \$00.00        | \$00.00        | \$00.00        | \$00.00         |
| Encapsulation - Labor | \$229,727.65   | \$229,727.65   | \$229,727.65   | \$229,727.65   | \$229,727.65    |
| Fluid Bed - Labor     | \$235,258.69   | \$235,258.69   | \$235,258.69   | \$235,258.69   | \$235,258.69    |
| Gross Sales           | \$9,968,511.26 | \$9,968,511.26 | \$9,968,511.26 | \$9,968,511.26 | \$9,968,511.26  |
| Inspection            | \$169,457.28   | \$169,457.28   | \$169,457.28   | \$169,457.28   | \$169,457.28    |

## Understanding Scenario Data

You can access validation and calculation functionality by navigating to the Start screen. A list of scenarios is located at the bottom of the screen.

| Scenarios             |         |                |                |
|-----------------------|---------|----------------|----------------|
| Active                | Name    | Status         | Log            |
| <input type="radio"/> | Default | NOT CALCULATED | Not calculated |

### Scenario Table Columns

- **Active.** This column will be marked if the scenario is currently active.
- **Name.** Name of the scenario.
- **Status.** The status of the scenario, if it has been calculated, and if so, if the calculation was successful.
- **Log.** A detailed description of the scenario's status if the calculation has failed.

## Performing Scenario Functions

The columns are preceded by different action functions, which include:

- **Validate Model.** Before calculating your model, you will need to validate your data. Selecting "Validate Model" will tell the application to review all data related to the scenario. If data is missing, the application will flag it, and you will be able to review the errors in the Scenario Messages screen. Once a scenario's data has been validated, the scenario's status will appear, "Validated".
- **Validate Cost Flow.** This action will not validate your entire scenario; instead, it will simply validate the costs running to and from your model objects. As with "Validate Model", errors that occur during validation will appear in the Scenario Messages screen.
- **Full Calculation.** After you have successfully validated scenario data, select the "Full Calculation" function to start calculation. If you have successfully calculated your model, "Succeeded" will appear under the "Status" column. If the calculation was unsuccessful, review the Scenario Messages screen to review error messages.
- **Manage Scenarios.** This function allows you to add certain attributes or operational rules to the scenario, which includes the scenario name, start/end date, description, and options to copy data for

another scenario, read data without processing, partially absorb costs, and allow the scenario to be available online.

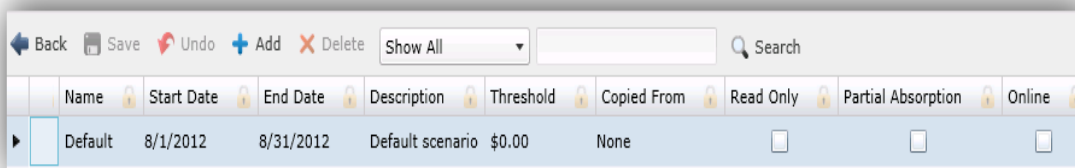
- **Scenario Messages.** Selecting this option will open the Scenario Messages screen. This screen is only useful if you have validated and/or calculated your scenario, especially if there was an error during the operation.

## Manage Scenarios

Ensuring a scenario will process with expected results requires establishing custom settings. PA5G allows you to manage these settings on the Manage Scenarios screen. It is on this screen where you can perform the following tasks:

- Create a new scenario with data from an established scenario, or as an “empty” scenario.
- Delete a scenario.
- Change the online status.
- Choose only used capacity for processing.
- Choose a scenario as the “default”.
- Establish start and end dates.
- Mark the scenario as “Read Only”, disallowing changes to business dimensions and blocking the capability for deletion or processing.

To navigate to the Manage Scenarios screens, select the “Manage Scenarios” action located in the Scenarios pane of the Start screen.



|   | Name    | Start Date | End Date  | Description      | Threshold | Copied From | Read Only                | Partial Absorption       | Online                   |
|---|---------|------------|-----------|------------------|-----------|-------------|--------------------------|--------------------------|--------------------------|
| ▶ | Default | 8/1/2012   | 8/31/2012 | Default scenario | \$0.00    | None        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

The three scenario elements available for linking/copying include:

- Data related to cost objects, which are defined in the by the business dimensions.
- Process, general ledger, and resource pool assignments and their drivers.
- General ledgers, exchange rates, and imported rates.

---

## Differences between Linking and Copying

**Linking.** When your scenario elements are linked, the new scenario creates a dependent relationship with the original. Data related to the linked element will be completely identical and will not diverge as long as no changes are made to the link action. Linked data cannot be edited in the new scenario. Any changes must take place on the original scenario. After modifications have been made and saved to the original scenario, the changes can be viewed in the copied scenario.

There is no “Link” action in the “Link Actions” drop-down. If you choose to make changes to one or two elements, but wish for at least one element to remain linked, select “No Change” under the “Link Actions” column beside the targeted element. This action will ensure the element is linked, even if the status of the other elements have changed.

But what if you don't want the copied scenario to continue to absorb data and modifications from the original? What if you want the scenario, or selected elements of it, to exist as its own entity? If that is the case, choose to “Copy” the data.

**Copying.** Choosing to copy a data element without linking it means you are replicating data that will not be reliant or controlled by the scenario from which it was copied. The copied elements will be identical to the original scenario's data at the time of copying, but after the action is performed, you can make changes as needed. The copied scenario is not dependent on the original. Changes to the original data will not affect the new scenario, and vice versa.

The Manage Scenarios table contains the following columns:

- **Name.** Name of scenario, usually a name that suggests the timespan the scenario encompasses.
- **Start Date.** Start date of the scenario.
- **End Date.** End date of the scenario.
- **Description.** Description of the scenario, such as why the scenario was created, the differentiation between the scenario and previously created scenarios.
- **Threshold.** The monetary starting point for the scenario.
- **Copied From.** If the scenario was copied originally from another scenario, the name of the scenario will appear in this column.
- **Read Only.** Check this box to disable users from processing the scenario.
- **Partial Absorption.** Selecting this option will provoke the system to process only used capacity.
- **Online.** This column will be checked if the scenario is accessible on the network.

## Creating an Empty Scenario

To create a scenario that doesn't contain data from previous scenarios, select “Add”. On the drop-down under “Copied From”, select “None”.

| Name   | Start Date | End Date   | Description | Threshold | Copied From | Read Only                | Partial Absorption       | Online                              |
|--------|------------|------------|-------------|-----------|-------------|--------------------------|--------------------------|-------------------------------------|
| I      | 10/1/2012  | 10/31/2012 |             | \$0.00    | 03-Mar      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 01-Jan | 2/9/2009   | 2/9/2009   | 01-Jan      | \$0.00    | None        | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

## Creating a Copied Scenario

To create a scenario containing elements from a previous scenario, select “Add”. On the drop-down under “Copied From”, select the scenario to be copied.



**Tip:** After choosing a scenario, highlight the new scenario row and expand its parent grid by clicking the black arrow to the left of its name.

## Copied Scenarios: Defining the Elements

By selecting a scenario in the “Copied From” column, the application will set new scenario's elements to the “Linked” status by default. If you do not wish to have your data linked, it is especially important to redefine data relationships on the scenario's child grid.

| Name   | Start Date | End Date   | Description | Threshold    | Copied From | Read Only                | Partial Absorption       | Online                              |
|--|------------|------------|-------------|--------------|-------------|--------------------------|--------------------------|-------------------------------------|
| Test3  | 10/1/2012  | 10/31/2012 |             | \$0.00       | 03-Mar      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| Model Element  |            |            | Link State  | Link Actions |             |                          |                          |                                     |
| Transaction Business Dimension (Cost Object) Data          |            |            | Linked      | No change    |             |                          |                          |                                     |
| Assignment (Allocations), Attributes, and Resource Drivers |            |            | Linked      | No change    |             |                          |                          |                                     |
| General Ledger, Currency Exchange Rates, Imported Rates    |            |            | Linked      | No change    |             |                          |                          |                                     |
| 01-Jan   | 2/9/2009   | 2/9/2009   | 01-Jan      | \$0.00       | None        | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 02-Feb   | 2/12/2009  | 2/12/2009  | 02-Feb      | \$0.00       | None        | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 03-Mar   | 2/12/2009  | 2/12/2009  | 03-Mar      | \$0.00       | None        | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Test   | 9/1/2012   | 9/30/2012  |             | \$0.00       | 03-Mar      | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Test2  | 10/1/2012  | 10/31/2012 |             | \$0.00       | 03-Mar      | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

## Unlinking the Scenario

Selecting “Unlink” will break the dependent relationship between the copied scenario and the original, but it won't copy new data. If your scenario is new, the element will remain empty until data is uploaded through the user interface.

## Linked Status

The “Linked Status” column will identify if the scenario element is currently linked. This column will be empty until you have processed the scenario. If the scenario is linked, the term “Linked” will be shown in the element's row. If you choose to unlink the element, the status will not change to “Unlinked” until after it has been processed. If you choose to copy the element, the status will be also displayed as “Unlinked”.



## Partial Absorption: When to Use

Choosing the “Partial Absorption” option allows companies to view the actual capacity used within the given scenario timeframe, and not the projected capacity, thus only processing costs that the customer actually used.

### Example:

The general ledger assigns \$1000 to the Shipping Department. They have a total capacity of one-hundred hours, but only eighty hours were used, resulting in 80% capacity. Applying the “Partial Absorption” option to this instance will create a new rate, shifting the remaining \$200 to Overhead, and adjusting the GL assignment to the Shipping Department from \$1000 to \$800.

## Guidelines for “Read Only” Scenarios

When you select a scenario as “Read Only”, certain functionality for this scenario will be limited or no longer be available. The following list contains rules that apply to “Read Only” scenarios:

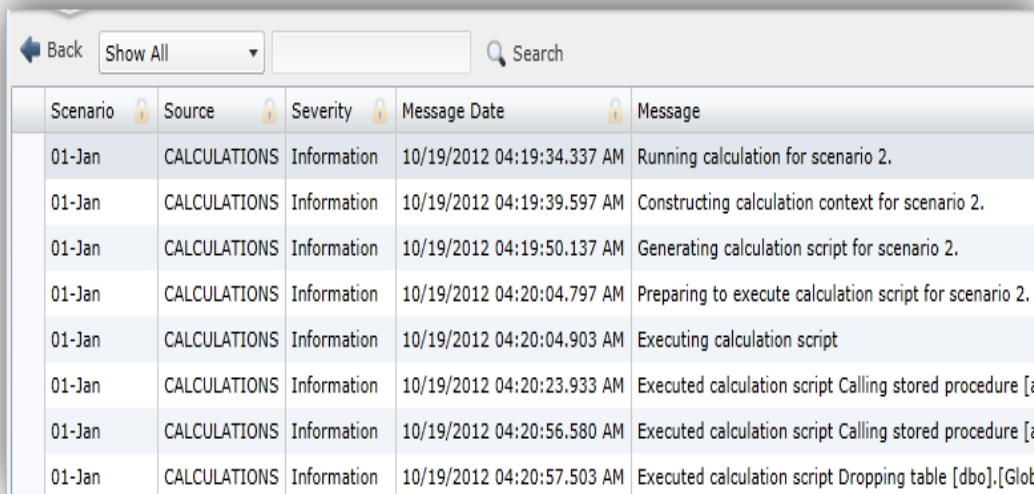
- You cannot add or delete a business dimension that is part of a “Read Only” scenario. There is, however, two exceptions: when a change occurs to a non-Read-only scenario that is linked to a “Read Only” scenario, data will be modified for the “Read Only” scenario. Also, changing business dimension data in version-specific scenarios is allowed in scenarios that are linked to another scenario.
- Deleting of a “Read Only” scenario is not allowed. The scenario must be changed to non-Read-Only before it can be deleted.

## Scenario Messages

Select "Scenario Messages" to navigate to the Scenario Messages screen. You can use this screen to view a scenario calculation as it is occurring, or to view scenario messages after calculation. This screen will be empty if a scenario has not been calculated.

The Scenario Message table contains the following columns:

- **Scenario.** Name of the scenario.
- **Source.** The location where the error was generated.
- **Severity.** The severity of the calculation.
- **Message Date.** The date and time that the message was generated.
- **Message.** Detailed message that describes the step of calculation execution or the nature of the error which occurred during calculation.



The screenshot shows a web interface for viewing scenario messages. At the top, there is a navigation bar with a "Back" button, a "Show All" dropdown menu, and a search box. Below this is a table with the following columns: Scenario, Source, Severity, Message Date, and Message. The table contains eight rows of data, all for scenario "01-Jan" and source "CALCULATIONS". The severity is "Information" for all entries. The messages describe the steps of a calculation process, from running the calculation to dropping a table.

| Scenario | Source       | Severity    | Message Date               | Message   |
|----------|--------------|-------------|----------------------------|---|
| 01-Jan   | CALCULATIONS | Information | 10/19/2012 04:19:34.337 AM | Running calculation for scenario 2.                     |
| 01-Jan   | CALCULATIONS | Information | 10/19/2012 04:19:39.597 AM | Constructing calculation context for scenario 2.        |
| 01-Jan   | CALCULATIONS | Information | 10/19/2012 04:19:50.137 AM | Generating calculation script for scenario 2.           |
| 01-Jan   | CALCULATIONS | Information | 10/19/2012 04:20:04.797 AM | Preparing to execute calculation script for scenario 2. |
| 01-Jan   | CALCULATIONS | Information | 10/19/2012 04:20:04.903 AM | Executing calculation script                            |
| 01-Jan   | CALCULATIONS | Information | 10/19/2012 04:20:23.933 AM | Executed calculation script Calling stored procedure [a |
| 01-Jan   | CALCULATIONS | Information | 10/19/2012 04:20:56.580 AM | Executed calculation script Calling stored procedure [a |
| 01-Jan   | CALCULATIONS | Information | 10/19/2012 04:20:57.503 AM | Executed calculation script Dropping table [dbo].[Glob  |

## Appendix A: Screen Shots

This section displays the different screen shots found in PA5G.

- **Login Screen.** Includes the Login screen. See [Login Screen](#) for more details.
- **Start and Scenario.** Includes the Start screen, the Manage Scenario screen, and all of the Cost Validation screens. See [Start and Scenario Screens](#) for more details.
- **Data Management.** Includes the screens for GL Amounts, Process Rates, Exchange Rates, Transactions, Lookup Tables, and the Acorn Universal Connector. See [Data Management Screens](#) for more details.
- **Model and User Management.** Includes screens for Model Settings, Facilities, Versions, Users, Attributes, and Lookup Tables. See [Model and User Management Screens](#) for more details.
- **Statements.** Includes the Manage Statements screen, the Edit Statement screen, and the Add Statement screen. See [Statement Screens](#) for more details.
- **Reports.** Includes the Reports screen, an example of the Income Statement report, and the Validation Report for Support Allocation. See [Report Screens](#) for more details.
- **Business Rules.** Includes screens for General Ledger Accounts, Processes, Resource Pools, Support Resource Pools, General Ledger to Resource Pool Assignments, Resource Pool to Process Assignments, and Business Dimensions. See [Business Rules Screens](#) for more details.

### Login Screen

Below is an example of the Login screen.

**Login**

User Name:

Password:

This copy of Acorn Performance Analyzer 5G is licensed to Great Oak. Improper or unauthorized use of this application may lead to criminal prosecution or other disciplinary action. Use of this application, authorized or unauthorized, constitutes consent to monitoring of the system and the user's acknowledgement of accountability and responsibility.

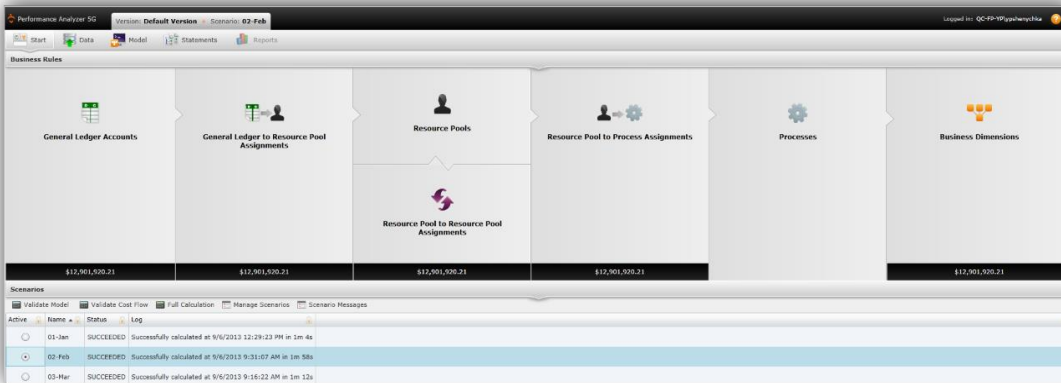
I accept the terms and conditions of this application.

Login

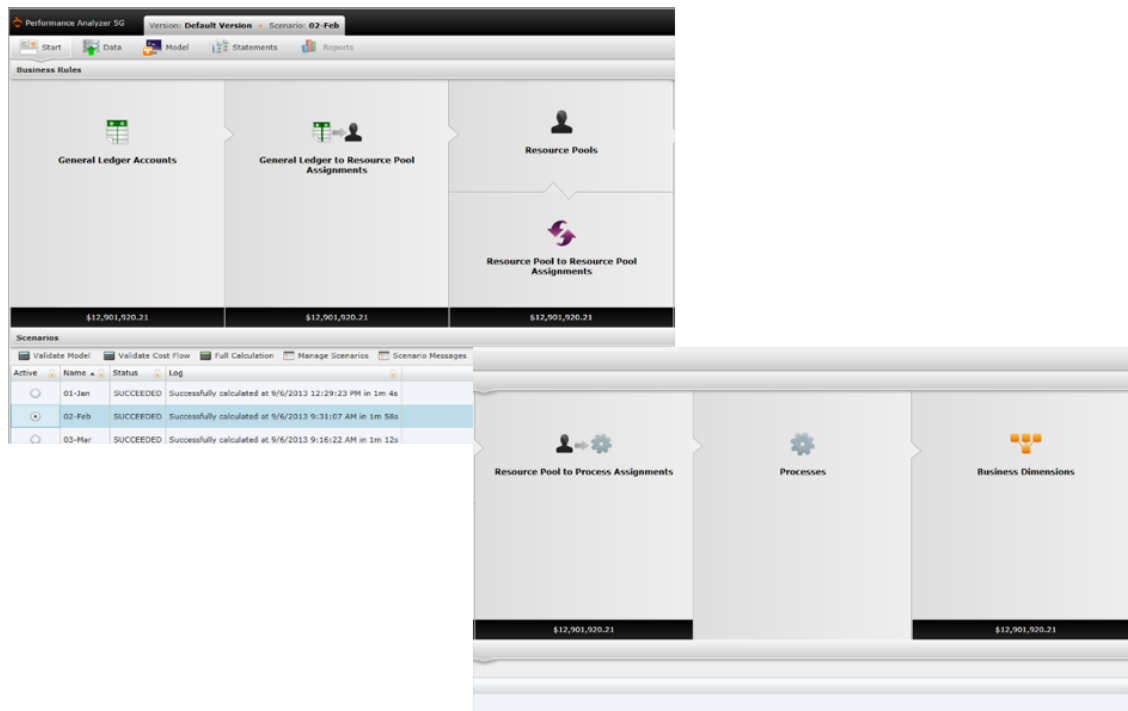
## Start and Scenario Screens

Start & Scenario screens are located on Main app screen. The following images reflect these screens as they are seen in the application.

### Start Screen (Intact)



### Start Screen (Cascaded)



## Cost Validation Screen (Intact)

| Back                  |                |                |                |                |                 |                |
|-----------------------|----------------|----------------|----------------|----------------|-----------------|----------------|
| Process Name          | General Ledger | BOM            | Finished_Item  | Raw_Materials  | Production_Line |                |
| Blending - Labor      | \$320,157.65   | \$00.00        | \$00.00        | \$00.00        | \$00.00         | \$00.00        |
| Blending - Machine    | \$00.00        | \$00.00        | \$00.00        | \$00.00        | \$00.00         | \$00.00        |
| Coating - Labor       | \$164,526.85   | \$164,526.85   | \$164,526.85   | \$164,526.85   | \$164,526.85    | \$164,526.85   |
| Compection - Labor    | \$206,189.25   | \$206,189.25   | \$206,189.25   | \$206,189.25   | \$206,189.25    | \$206,189.25   |
| Compression - Labor   | \$264,025.93   | \$264,025.93   | \$264,025.93   | \$264,025.93   | \$264,025.93    | \$264,025.93   |
| Day Mixer - Labor     | \$288,253.99   | \$288,253.99   | \$288,253.99   | \$288,253.99   | \$288,253.99    | \$288,253.99   |
| Day Mixer - Machine   | \$00.00        | \$00.00        | \$00.00        | \$00.00        | \$00.00         | \$00.00        |
| Encapsulation - Labor | \$229,727.65   | \$229,727.65   | \$229,727.65   | \$229,727.65   | \$229,727.65    | \$229,727.65   |
| Fluid Bed - Labor     | \$235,258.69   | \$235,258.69   | \$235,258.69   | \$235,258.69   | \$235,258.69    | \$235,258.69   |
| Gross Sales           | \$9,968,511.26 | \$9,968,511.26 | \$9,968,511.26 | \$9,968,511.26 | \$9,968,511.26  | \$9,968,511.26 |
| Inspection            | \$169,457.28   | \$169,457.28   | \$169,457.28   | \$169,457.28   | \$169,457.28    | \$169,457.28   |

### Cost Validation Screen (Cascaded)

Performance Analyzer 5G Version: Default Version + Sc

Start Data Model Statements

Back

| Process Name     | General Ledger  | Line_Item |
|------------------|-----------------|-----------|
| Customer Service | \$582,418.79    |           |
| Deductions Cost  | \$347,774.17    |           |
| Delivery         | \$1,942,589.37  |           |
| Direct Cost      | \$56,797,642.52 |           |
| DPS Rebate       | \$545,580.00    |           |
| Freight Cost     | \$978,260.77    |           |
| Modules Charge   | \$178,150.00    |           |
| Order Entry      | \$582,418.79    |           |
| Order Loading    | \$878,384.70    |           |
| Outside Sales    | \$1,897,497.41  |           |
| Packaging        | \$835,881.49    |           |

Scenario: 03-Mar Logged in: Erin

Displaying 1 - 19 of 1

|                 | Order           | Product |
|-----------------|-----------------|---------|
| \$582,418.79    | \$582,418.79    |         |
| \$347,774.17    | \$347,774.17    |         |
| \$1,942,589.37  | \$1,942,589.37  |         |
| \$56,797,642.52 | \$56,797,642.52 |         |
| \$545,580.00    | \$545,580.00    |         |
| \$978,260.77    | \$978,260.77    |         |
| \$178,150.00    | \$178,150.00    |         |
| \$582,418.79    | \$582,418.79    |         |
| \$878,384.70    | \$878,384.70    |         |
| \$1,897,497.41  | \$1,897,497.41  |         |

### Manage Scenarios Screen (Intact)

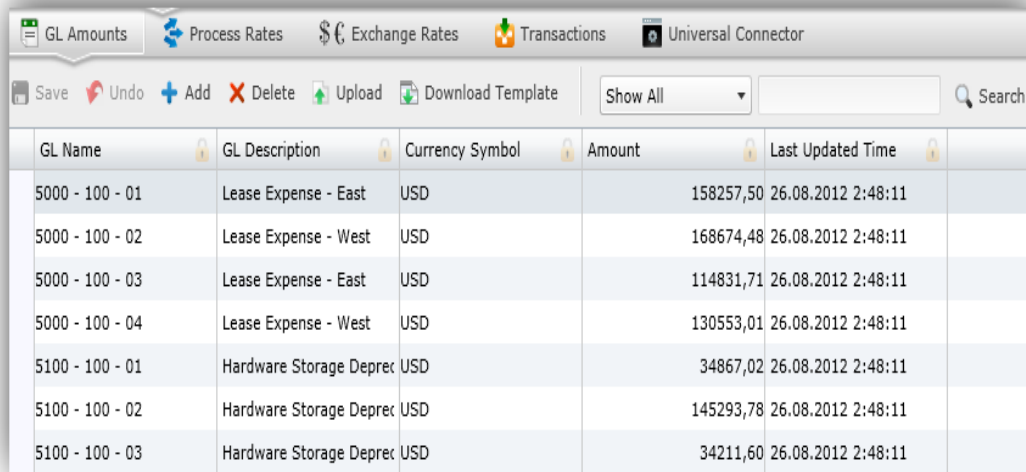
Back Save Undo Add Delete Show All Search Display

| Name   | Start Date | End Date  | Description | Threshold | Copied From | Read Only | Partial Absorption       | Online                              |
|--------|------------|-----------|-------------|-----------|-------------|-----------|--------------------------|-------------------------------------|
| 01-Jan | 2/9/2009   | 2/9/2009  | 01-Jan      | \$0.00    | None        | -         | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 02-Feb | 2/12/2009  | 2/12/2009 | 02-Feb      | \$0.00    | None        | -         | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 03-Mar | 2/12/2009  | 2/12/2009 | 03-Mar      | \$0.00    | None        | -         | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

## Data Management Screens

Data Management screens are located on the Data tab on the Start screen. The following images reflect these screens as they are seen in the application.

### GL Amounts Screen (Intact)



| GL Name         | GL Description          | Currency Symbol | Amount    | Last Updated Time  |
|-----------------|-------------------------|-----------------|-----------|--------------------|
| 5000 - 100 - 01 | Lease Expense - East    | USD             | 158257,50 | 26.08.2012 2:48:11 |
| 5000 - 100 - 02 | Lease Expense - West    | USD             | 168674,48 | 26.08.2012 2:48:11 |
| 5000 - 100 - 03 | Lease Expense - East    | USD             | 114831,71 | 26.08.2012 2:48:11 |
| 5000 - 100 - 04 | Lease Expense - West    | USD             | 130553,01 | 26.08.2012 2:48:11 |
| 5100 - 100 - 01 | Hardware Storage Deprec | USD             | 34867,02  | 26.08.2012 2:48:11 |
| 5100 - 100 - 02 | Hardware Storage Deprec | USD             | 145293,78 | 26.08.2012 2:48:11 |
| 5100 - 100 - 03 | Hardware Storage Deprec | USD             | 34211,60  | 26.08.2012 2:48:11 |

### GL Amounts Screen (Cascaded)

Performance Analyzer 5G  
Version: **Default Version** + Scenario: **03-Mar**

Start Data Model Statements

GL Amounts Process Rates Exchange Rates Transactions Lookup Table

Save Undo Add Delete Upload Download Template Show All

| GL Name         | GL Description          | Currency Symbol | Amount    |
|-----------------|-------------------------|-----------------|-----------|
| 5000 - 100 - 01 | Lease Expense - East    | USD             | 160117.45 |
| 5000 - 100 - 02 | Lease Expense - West    | USD             | 177552.09 |
| 5000 - 100 - 03 | Lease Expense - East    | USD             | 115284.57 |
| 5000 - 100 - 04 | Lease Expense - West    | USD             | 161572.41 |
| 5100 - 100 - 01 | Hardware Storage Deprec | USD             | 36372.33  |
| 5100 - 100 - 02 | Hardware Storage Deprec | USD             | 150162.69 |
| 5100 - 100 - 03 | Hardware Storage Deprec | USD             | 25460.63  |
| 5100 - 100 - 04 |                         |                 |           |
| 5200 - 100 - 01 |                         |                 |           |

Lookup Tables Universal Connector

Show All Search Displaying 1 - 20 of

| Amount    | Last Updated Time     |
|-----------|-----------------------|
| 160117.45 | 4/23/2012 11:20:04 PM |
| 177552.09 | 4/23/2012 11:20:04 PM |
| 115284.57 | 4/23/2012 11:20:04 PM |
| 161572.41 | 4/23/2012 11:20:04 PM |
| 36372.33  | 4/23/2012 11:20:04 PM |
| 150162.69 | 4/23/2012 11:20:04 PM |
| 25460.63  | 4/23/2012 11:20:04 PM |
| 138149.67 | 4/23/2012 11:20:04 PM |

### Process Rates Screen

| Process Name    | Facility Name | Rate | Input Time          |
|-----------------|---------------|------|---------------------|
| Deductions Cost | Corporate     | 0,00 | 26.08.2012 11:18:19 |
|                 | East          |      |                     |
|                 | West          |      |                     |
|                 | South         |      |                     |
|                 | North         |      |                     |

### Exchange Rates Screen

| Currency Code | Currency Name    | Rate                       | Rate Date |
|---------------|------------------|----------------------------|-----------|
| DJF           | Djibouti, France | 2.0012/24/2012 12:02:57 PM |           |
| EUR           | Euro             | 1.7512/24/2012 12:02:57 PM |           |

### Transactions Screen (Intact)

| ID  | Name                    | GlobalsID | C_ASN | C_CHEP_Pallets | C_City        | C_Club_Packs | C_COD |
|-----|-------------------------|-----------|-------|----------------|---------------|--------------|-------|
| 1   | Walmart - New York City | 1         | N     | Y              | New York City | 0            | N     |
| 10  | Target - Houston        | 1         | N     | Y              | Houston       | 69           | Y     |
| 100 | Meijer - Houston        | 1         | N     | Y              | Houston       | 0            | N     |
| 101 | Safeway - Los Angeles   | 1         | N     | Y              | Los Angeles   | 8            | N     |
| 102 | CVS - Dallas            | 1         | N     | Y              | Dallas        | 0            | N     |
| 103 | CVS - Los Angeles       | 1         | N     | Y              | Los Angeles   | 6            | N     |
| 104 | Wawa - Dallas           | 1         | N     | Y              | Dallas        | 0            | N     |
| 105 | Target - Los Angeles    | 1         | Y     | Y              | Los Angeles   | 22           | N     |
| 106 | Foodtown - Los Angeles  | 1         | N     | N              | Los Angeles   | 0            | N     |
| 107 | Piggly Wiggly - Dallas  | 1         | N     | Y              | Dallas        | 0            | N     |

Transactions Screen (Cascaded)

The screenshot displays a software interface for managing transactions. The top navigation bar includes tabs for 'GL Amounts', 'Process Rates', 'Exchange Rates', 'Transactions', and 'Lookup Table'. Below the navigation is a toolbar with 'Save', 'Undo', 'Add', 'Delete', 'Upload', and 'Download Temp' buttons. The main area is split into two panes. The top pane is titled 'Dimension: Customer' and contains a table with the following data:

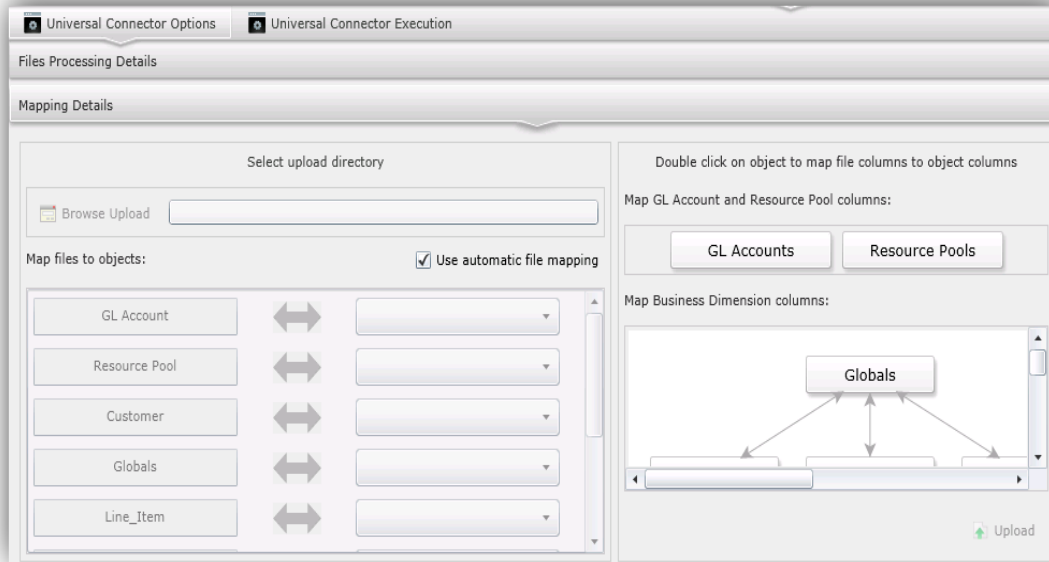
| ID  | Name                    | GlobalsID | C_ASN |
|-----|-------------------------|-----------|-------|
| 1   | Walmart - New York City | 1         | N     |
| 10  | Target - Houston        | 1         | N     |
| 100 | Meijer - Houston        | 1         | N     |
| 101 | Safeway - Los Angeles   | 1         | N     |
| 102 | CVS - Dallas            | 1         | N     |
| 103 |                         |           |       |
| 104 |                         |           |       |
| 105 |                         |           |       |
| 106 |                         |           |       |

The bottom pane shows a table with the following data:

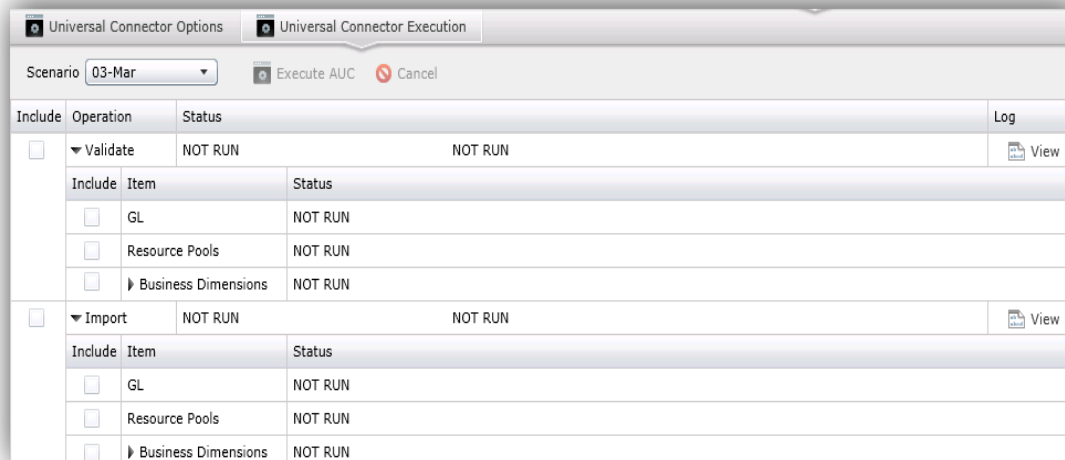
| C_ASN | C_CHEP_Pallets | C_City        | C_Club |
|-------|----------------|---------------|--------|
| N     | Y              | New York City |        |
| N     | Y              | Houston       |        |
| N     | Y              | Houston       |        |

Additional interface elements include a 'Show All' dropdown menu and a 'Universal Connector' button in the bottom pane.

## Universal Connector Options Screen



## Universal Connector Execution Screen

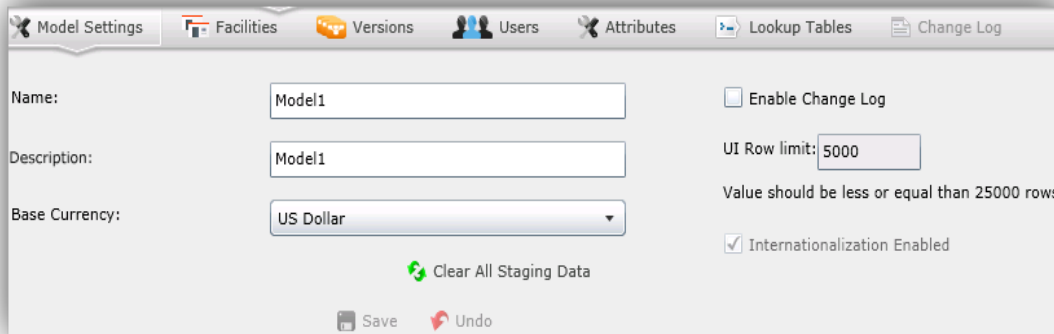


## Model and User Management Screens

The Model tab is made up of the following screens:

- **Model Settings Screen.** Includes the Model Settings screen. See [Model Settings Screen](#) for more details.
- **Facilities Screen.** Includes the Facilities screen. See [Facilities Screen](#) for more details.
- **Versions Screen.** Opens the Versions screen. See [Versions Screen](#) for more details.
- **User Management Screens.** Includes the Manage Users, Manage Groups and User Preference screens. See [Manage Groups Screen](#) for more details.
- **Attributes Screens.** Includes the Entity Attributes, Process Attributes, and Facility Attribute screens. See [Attribute Screens](#) for more details.
- **Lookup Tables Screen.** Includes the Lookup Tables screen. See [Lookup Tables Screen](#) for more details.
- **Change Log Screen.** Includes the Change Log screen. See [Change Log Screens](#) for more details.

### Model Settings Screen



The screenshot displays the Model Settings screen with the following elements:

- Navigation Tabs:** Model Settings (active), Facilities, Versions, Users, Attributes, Lookup Tables, Change Log.
- Form Fields:**
  - Name:** Text input field containing "Model1".
  - Description:** Text input field containing "Model1".
  - Base Currency:** Dropdown menu showing "US Dollar".
  - Enable Change Log:** Check box, currently unchecked.
  - UI Row limit:** Text input field containing "5000".
  - Internationalization Enabled:** Check box, currently checked.
- Text Labels:** "Value should be less or equal than 25000 rows" is positioned below the UI Row limit field.
- Buttons:** "Clear All Staging Data" (with a trash icon), "Save" (with a floppy disk icon), and "Undo" (with a red arrow icon).

## Facilities Screen

| Name                 | Description       | Unique Identifier | Corporate                           |
|----------------------|-------------------|-------------------|-------------------------------------|
| Corporate            | Corporate         | Corporate         | <input checked="" type="checkbox"/> |
| Sales and Operations | sales, operations | SO                | <input type="checkbox"/>            |
| Warehouse North      | north warehouse   | NW                | <input type="checkbox"/>            |

## Versions Screen

| Name            | Description                           |
|-----------------|---------------------------------------|
| Altered         | Facilities and resource pools altered |
| Default Version | Default Version                       |

## User Management Screens

### Manage Users Screen

| Name               | Email                  | Login              | Last Login           | Default Version |
|--------------------|------------------------|--------------------|----------------------|-----------------|
| ACORNSYS\emaher    | erinm@acornsys.com     | ACORNSYS\emaher    | 8/12/2013 3:07:56 PM | Default Version |
| GreatOak\djennings | djennings@greatoak.com | GREATOAK\djennings |                      | Altered         |
| GreatOak\mbrante   | mbrante@greatoak.com   | GREATOAK\mbrante   |                      | Default Version |
| GreatOak\vlloyde   | vlloyde@greatoak.com   | GREATOAK\vlloyde   |                      | Default Version |

## Manage Groups Screen

The screenshot shows the 'Manage Groups' screen with a table of user groups. The table has columns for Name, Members, Groups, Load/edit transactional, Calculate model, Modify model, and Create/edit users and roles. The 'Calculate' group is highlighted.

|     | Name                 | Members         | Groups    | Load/edit transactional             | Calculate model                     | Modify model                        | Create/edit users and roles         |
|-----|----------------------|-----------------|-----------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| ▶ * | Modify               |                 |           | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| ▶ * | Modify and Calculate |                 | Calculate | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| ▶ * | Calculate            |                 |           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| ▶ * | Administrators       | ACORNSYS\emaher |           | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

## User Preferences Screen

The screenshot shows the 'User Preferences' screen. It features a 'Number of rows per page:' label followed by an input field containing the value '20'. There are also 'Save' and 'Undo' buttons.

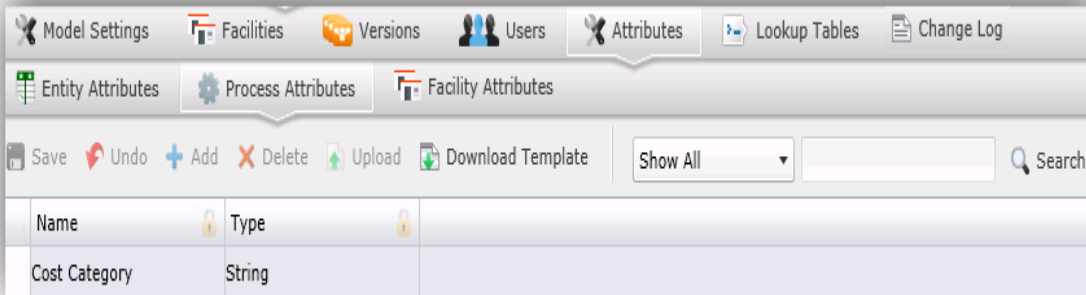
## Attribute Screens

### Main Screen

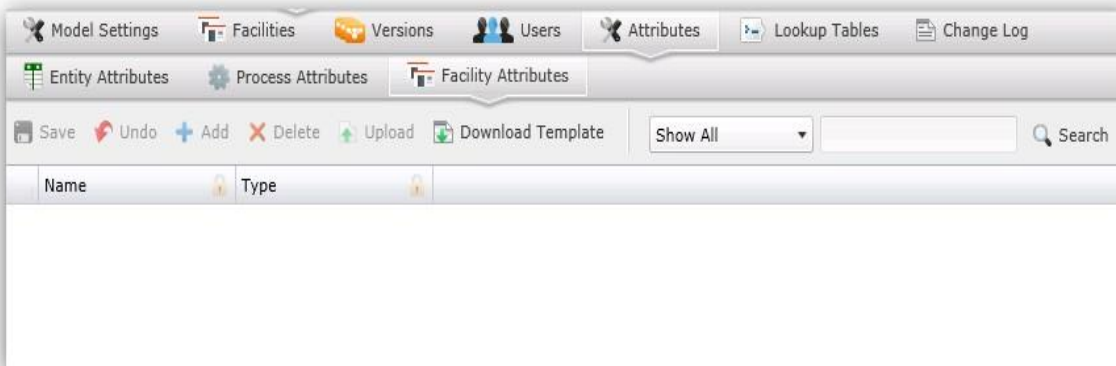
The screenshot shows the 'Main Screen' with a table of entity attributes. The table has columns for Entity Type, Name, Type, Capacity Multiplier, and Units. The 'Computers' attribute is highlighted.

| Entity Type   | Name             | Type   | Capacity Multiplier | Units         |
|---------------|------------------|--------|---------------------|---------------|
| Resource Pool | Computers        | Float  |                     | 1.00computers |
| GL Account    | GL Cost Type     | String |                     |               |
| GL Account    | GL Expense Group | String |                     |               |
| GL Account    | GL Type          | String |                     |               |
| Resource Pool | HeadCount        | Float  | 0.00                |               |
| Resource Pool | Num Employees    | Float  | 1.00FTE             |               |
| Resource Pool | Square Footage   | Float  | 0.00                |               |

### Process Attributes Screen

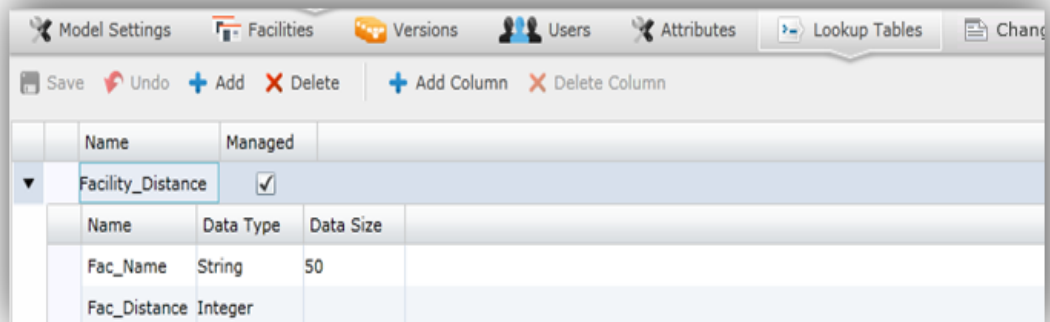


### Facility Attributes Screen



### Lookup Tables Screen

The following image depicts the Lookup Tables screen as it appears in the application under the Model tab.



## Change Log Screens

### Change Log Screen

The screenshot shows the 'Change Log' screen in a software application. The top navigation bar includes 'Model Settings', 'Facilities', 'Versions', 'Users', 'Attributes', 'Lookup Tables', and 'Change Log'. Below the navigation bar, there are several tabs: 'Business Rules', 'GL to RP Assignments', 'Sync Details', 'View Log', 'Archive Log', 'Download Archived Logs', and 'Clear Log Archive'. The main area displays a table with the following columns: Id, User Name, Action, Updated Time, File Name, and Comment. The table contains several rows of log entries, with the row for Id 115 highlighted in blue.

| Id  | User Name | Action | Updated Time        | File Name | Comment |
|-----|-----------|--------|---------------------|-----------|---------|
| 110 | Ihor      | Edit   | 02/01/2013 17:17:23 |           |         |
| 111 | Ihor      | Edit   | 02/01/2013 17:17:23 |           |         |
| 112 | Ihor      | Edit   | 02/01/2013 17:17:23 |           |         |
| 114 | Ihor      | Edit   | 02/01/2013 17:17:50 |           |         |
| 115 | Ihor      | Add    | 02/01/2013 17:17:50 |           |         |
| 119 | Ihor      | Edit   | 02/01/2013 17:18:21 |           |         |
| 120 | Ihor      | Edit   | 02/01/2013 17:18:21 |           |         |
| 121 | Ihor      | Edit   | 02/01/2013 17:18:21 |           |         |

### Log Details Screen

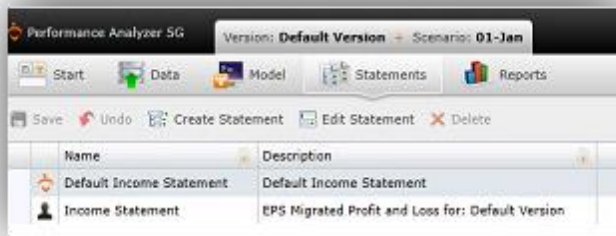
The screenshot shows the 'Log Details' screen in the same software application. The top navigation bar is identical to the previous screenshot. Below the navigation bar, there is a 'Back' button, a dropdown menu for 'Id' with the value '180', and a search box. The main area displays a table with the following columns: User, Entity, Action, Before Value, After Value, and Date and Time. The table contains two rows of log details.

| User | Entity                              | Action | Before Value       | After Value         | Date and Time |
|------|-------------------------------------|--------|--------------------|---------------------|---------------|
| Ihor | 5000 - 100 - 03 > Amount            | Edit   | 0.0000000000000000 | 50.0000000000000000 | 01/15/2013    |
| Ihor | 5000 - 100 - 03 > Last Updated Time | Edit   | Jan 15 2013 5:44PM | Jan 15 2013 5:46PM  | 01/15/2013    |

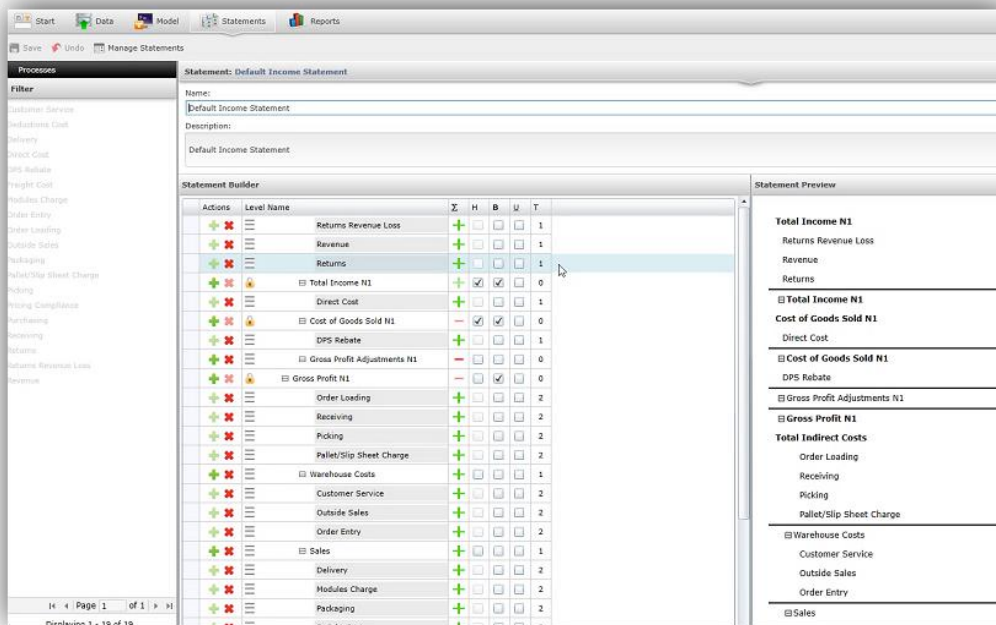
## Statement Screens

Statement screens are located on the Statements tab on the Start screen. The following images reflect these screens as they are seen in the application.

### View Statements Screen



### Edit Statement Screen



## Report Screens

Report screens are located on the Reports tab on the Start screen. The following images reflect these screens as they are seen in the application.

### Reports Screen

| Standard Reports                          |  |
|---|--|
| Name                                      | Description  |
| Income Statement                          | Income Statement Report utilizing statements from the PA5G Statement Builder |
| Validation Report for Support Allocations | Support Resource Pools allocation validation and subsequent 'cost fallout'   |

### Income Statement Report

| acorn<br>— profit redefined —      |                         | Default Income Statement                 |                         |                         |                           |                           |
|------------------------------------|-------------------------|--|-------------------------|-------------------------|---------------------------|---------------------------|
|                                    |                         | Run Date: September 17, 2013, 1:29:00 PM |                         |                         |                           |                           |
|                                    |                         | Model: Great Oaks                        |                         |                         |                           |                           |
|                                    |                         | Parameters: Yes                          |                         |                         |                           |                           |
|                                    | 01-Jan                  | 01-Jan Test                              | 02-Feb                  | 03-Mar                  | 03-Mar Whatif             | This is a test            |
|                                    | Amount                  | Amount                                   | Amount                  | Amount                  | Amount                    | Amount                    |
| <b>Total Income N1</b>             |                         |  |                         |                         |                           |                           |
| Returns Revenue Loss               | (\$ 1,689,736.97)       | (\$ 1,689,736.97)                        | (\$ 133,886.58)         | (\$ 95,283.70)          | (\$ 95,283.70)            | (\$ 95,283.70)            |
| Revenue                            | \$ 72,858,214.12        | \$ .00                                   | \$ 97,969,805.20        | \$ 78,717,575.90        | \$ .00                    | \$ .00                    |
| Returns                            | \$ 428,822.37           | \$ 459,517.04                            | \$ 437,547.23           | \$ 456,173.52           | \$ 456,173.52             | \$ 456,173.52             |
| <b>Total Income N1</b>             | <b>\$ 71,597,299.52</b> | <b>(\$ 1,230,219.93)</b>                 | <b>\$ 98,273,465.85</b> | <b>\$ 79,078,465.72</b> | <b>\$ 360,889.82</b>      | <b>\$ 360,889.82</b>      |
| <b>Cost of Goods Sold N1</b>       |                         |  |                         |                         |                           |                           |
| Direct Cost                        | \$ 52,690,512.51        | \$ 52,690,512.51                         | \$ 70,750,442.21        | \$ 56,797,642.52        | \$ 56,797,642.52          | \$ 56,797,642.52          |
| <b>Cost of Goods Sold N1</b>       | <b>\$ 52,690,512.51</b> | <b>\$ 52,690,512.51</b>                  | <b>\$ 70,750,442.21</b> | <b>\$ 56,797,642.52</b> | <b>\$ 56,797,642.52</b>   | <b>\$ 56,797,642.52</b>   |
| DPS Rebate                         | \$ 101,430.00           | \$ 101,430.00                            | \$ 583,590.00           | \$ 545,580.00           | \$ 545,580.00             | \$ 545,580.00             |
| <b>Gross Profit Adjustments N1</b> | <b>\$ 101,430.00</b>    | <b>\$ 101,430.00</b>                     | <b>\$ 583,590.00</b>    | <b>\$ 545,580.00</b>    | <b>\$ 545,580.00</b>      | <b>\$ 545,580.00</b>      |
| <b>Gross Profit N1</b>             | <b>\$ 18,805,357.00</b> | <b>(\$ 54,022,162.45)</b>                | <b>\$ 26,939,493.64</b> | <b>\$ 21,735,243.19</b> | <b>(\$ 56,982,332.70)</b> | <b>(\$ 56,982,332.70)</b> |
| <b>Total Indirect Costs</b>        |                         |  |                         |                         |                           |                           |
| Order Loading                      | \$ 819,349.63           | \$ 865,839.57                            | \$ 847,215.90           | \$ 878,384.67           | \$ 878,384.67             | \$ 878,384.67             |
| Receiving                          | \$ 2,425,863.92         | \$ 2,548,327.78                          | \$ 2,343,725.86         | \$ 2,450,893.92         | \$ 2,450,893.92           | \$ 2,450,893.92           |
| Picking                            | \$ 2,452,393.98         | \$ 2,570,333.65                          | \$ 2,402,713.10         | \$ 2,550,587.58         | \$ 2,550,587.58           | \$ 2,550,587.58           |
| Pallet/Slip Sheet Charge           | \$ 9,184.00             | \$ 9,184.00                              | \$ 7,848.00             | \$ 8,120.00             | \$ 8,120.00               | \$ 8,120.00               |
| <b>Warehouse Costs</b>             | <b>\$ 5,706,791.53</b>  | <b>\$ 5,993,685.00</b>                   | <b>\$ 5,601,502.86</b>  | <b>\$ 5,887,986.17</b>  | <b>\$ 5,887,986.17</b>    | <b>\$ 5,887,986.17</b>    |
| Customer Service                   | \$ 552,896.93           | \$ 584,157.80                            | \$ 550,817.92           | \$ 582,418.75           | \$ 582,418.75             | \$ 582,418.75             |
| Outside Sales                      | \$ 1,910,733.66         | \$ 1,984,741.44                          | \$ 1,840,652.68         | \$ 1,897,497.32         | \$ 1,897,497.32           | \$ 1,897,497.32           |
| Order Entry                        | \$ 552,896.93           | \$ 584,157.80                            | \$ 550,817.92           | \$ 582,418.75           | \$ 582,418.75             | \$ 582,418.75             |

## Validation Report for Support Allocations


Scenario: 01-Jan View Report

---

6 of 6 100% Find | Next

Document Map

- SupportReport
  - Summary
  - Finance - E
  - Finance - N
  - Finance - S
  - Finance - W
  - HR - East**



### Support Validation Report

Run Date: September 17, 2013, 12:31:42 PM

### Resource Pool Statement for: HR - East

|                                |                    |
|--------------------------------|--------------------|
| Total Incoming Cost:           | <b>\$89,330.03</b> |
| Total Outgoing Cost:           | <b>\$0.00</b>      |
| <b>Total Unassigned Costs:</b> | <b>\$89,330.03</b> |

| Type       | Destination Resource Pool | Amount | Driver | Driver Value |
|------------|---------------------------|--------|--------|--------------|
| Functional | Delivery - East           | \$0.00 | Desks  |              |
|            | Inside Sales - East       | \$0.00 | Desks  |              |
|            |                           | \$0.00 |        |              |

## Business Rules Screens

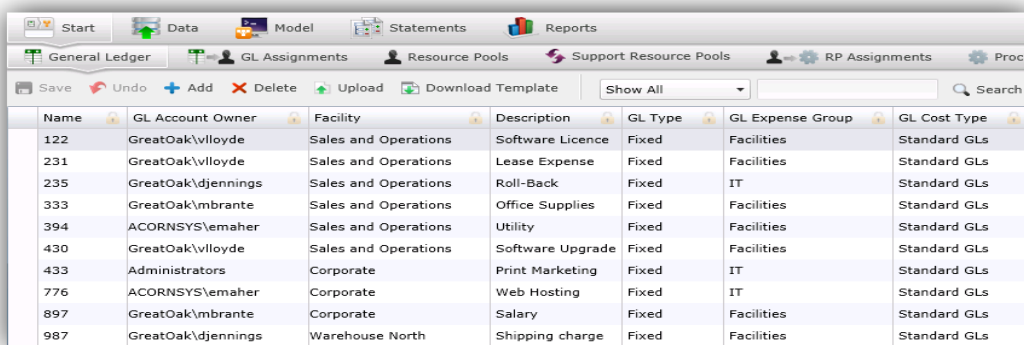
The screens listed here are part of the Business Rules panels.

- **General Ledger Accounts and Assignment Screens.** Include the General Ledger Accounts and General Ledger to Resource Pool Assignments screens.
- **Resource Pool Screens.** Includes the Resource Pools and Resource Pools to Resource Pool Assignment screens.
- **Process Screens.** Includes the Processes and Resource Pool to Process Assignments screens.
- **Business Dimension Screens.** Includes the following screens:
  - Cost Objects
  - Drivers
  - Metrics
  - Weight Equations
  - Global Drivers
  - Global Metrics

## General Ledger Accounts and Assignment Screens

The following images reflect the General Ledger Accounts and General Ledger to Resource Pool Assignment screens as they appear in the application.

### General Ledger Accounts



| Name | GL Account Owner   | Facility             | Description      | GL Type | GL Expense Group | GL Cost Type |
|------|--------------------|----------------------|------------------|---------|------------------|--------------|
| 122  | GreatOak\vlloyde   | Sales and Operations | Software Licence | Fixed   | Facilities       | Standard GLs |
| 231  | GreatOak\vlloyde   | Sales and Operations | Lease Expense    | Fixed   | Facilities       | Standard GLs |
| 235  | GreatOak\djennings | Sales and Operations | Roll-Back        | Fixed   | IT               | Standard GLs |
| 333  | GreatOak\mbrante   | Sales and Operations | Office Supplies  | Fixed   | Facilities       | Standard GLs |
| 394  | ACORNSYS\emaher    | Sales and Operations | Utility          | Fixed   | Facilities       | Standard GLs |
| 430  | GreatOak\vlloyde   | Sales and Operations | Software Upgrade | Fixed   | Facilities       | Standard GLs |
| 433  | Administrators     | Corporate            | Print Marketing  | Fixed   | IT               | Standard GLs |
| 776  | ACORNSYS\emaher    | Corporate            | Web Hosting      | Fixed   | IT               | Standard GLs |
| 897  | GreatOak\mbrante   | Corporate            | Salary           | Fixed   | Facilities       | Standard GLs |
| 987  | GreatOak\djennings | Warehouse North      | Shipping charge  | Fixed   | Facilities       | Standard GLs |

## General Ledger Assignments

| Source GL       | Assignment Type | Status   |
|-----------------|-----------------|----------|
| 5000 - 100 - 01 | Square Footage  | Assigned |

| Destination Resource Po | Percentage |
|-------------------------|------------|
| Delivery - East         |            |
| Inside Sales - East     |            |
| Loading - East          |            |
| Outside Sales - East    |            |
| Packaging - East        |            |
| Picking - East          |            |
| IT - East               |            |
| Management - East       |            |
| Purchasing - East       |            |
| Receiving - East        |            |
| Returns - East          |            |

## General Ledger Assignments - Bulk (Intact)

| Available Resource Pools | Destination Resource Pools | Percentage |
|--------------------------|----------------------------|------------|
| Delivery - East          | IT - East                  | 100,00     |

General Ledger Assignments - Bulk (Cascaded)

**GL Assignments Source GL: 5100 - 100 - 01**

Save Cancel Show All Search

Available Resource Pools

- Delivery - East
- Delivery - North
- Delivery - South
- Delivery - West
- Finance - East
- Finance - North
- Finance - South
- Finance - West
- HR - East
- HR - North
- HR - South
- HR - West
- Inside Sales - East

Inside Sales

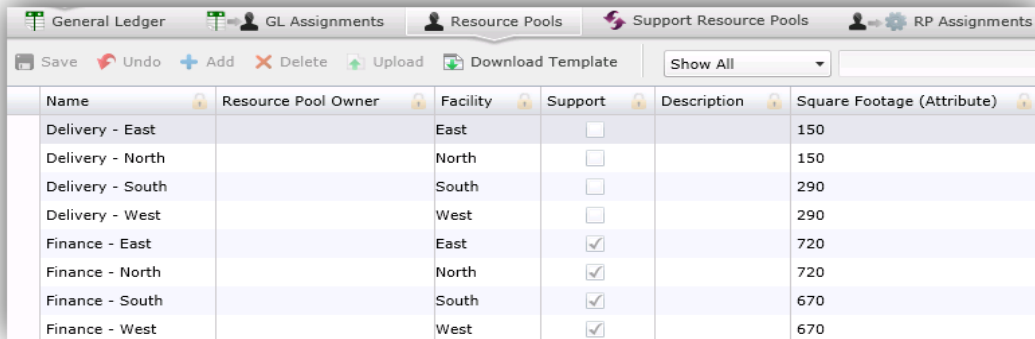
Inside Salesrch

| Destination Resource Pools | Percentage |
|----------------------------|------------|
| IT - East                  | 100,00     |

## Resource Pool Screens

The following images reflect the Resource Pool screens as they appear in the application.

### Resource Pools (Intact)



The screenshot displays the 'Resource Pools' screen in an application. The interface includes a top navigation bar with tabs for 'General Ledger', 'GL Assignments', 'Resource Pools', 'Support Resource Pools', and 'RP Assignments'. Below the navigation bar is a toolbar with buttons for 'Save', 'Undo', 'Add', 'Delete', 'Upload', and 'Download Template', along with a 'Show All' dropdown menu. The main content area is a table with the following columns: Name, Resource Pool Owner, Facility, Support, Description, and Square Footage (Attribute). The table contains eight rows of data, with the 'Support' column containing checkboxes.

| Name             | Resource Pool Owner | Facility | Support                             | Description | Square Footage (Attribute) |
|------------------|---------------------|----------|-------------------------------------|-------------|----------------------------|
| Delivery - East  |                     | East     | <input type="checkbox"/>            |             | 150                        |
| Delivery - North |                     | North    | <input type="checkbox"/>            |             | 150                        |
| Delivery - South |                     | South    | <input type="checkbox"/>            |             | 290                        |
| Delivery - West  |                     | West     | <input type="checkbox"/>            |             | 290                        |
| Finance - East   |                     | East     | <input checked="" type="checkbox"/> |             | 720                        |
| Finance - North  |                     | North    | <input checked="" type="checkbox"/> |             | 720                        |
| Finance - South  |                     | South    | <input checked="" type="checkbox"/> |             | 670                        |
| Finance - West   |                     | West     | <input checked="" type="checkbox"/> |             | 670                        |

Resource Pools (Cascaded)

Performance Analyzer 5G Version: **Default Version** + Scenario

Start Data Model Statements

General Ledger GL Assignments Resource Pools

Save Undo Add Delete Upload Download

| Name             | Resource Pool Owner | Facility |
|------------------|---------------------|----------|
| Delivery - East  |                     | East     |
| Delivery - North |                     | North    |
| Delivery - South |                     | South    |
| Delivery - West  |                     | West     |
| Finance - East   |                     | East     |
| Finance - North  |                     | North    |
| Finance - South  |                     | South    |
| Final            |                     |          |
| HR -             |                     |          |

Scenario: **03-Mar**

Tools Support Resource Pools RP Assignments

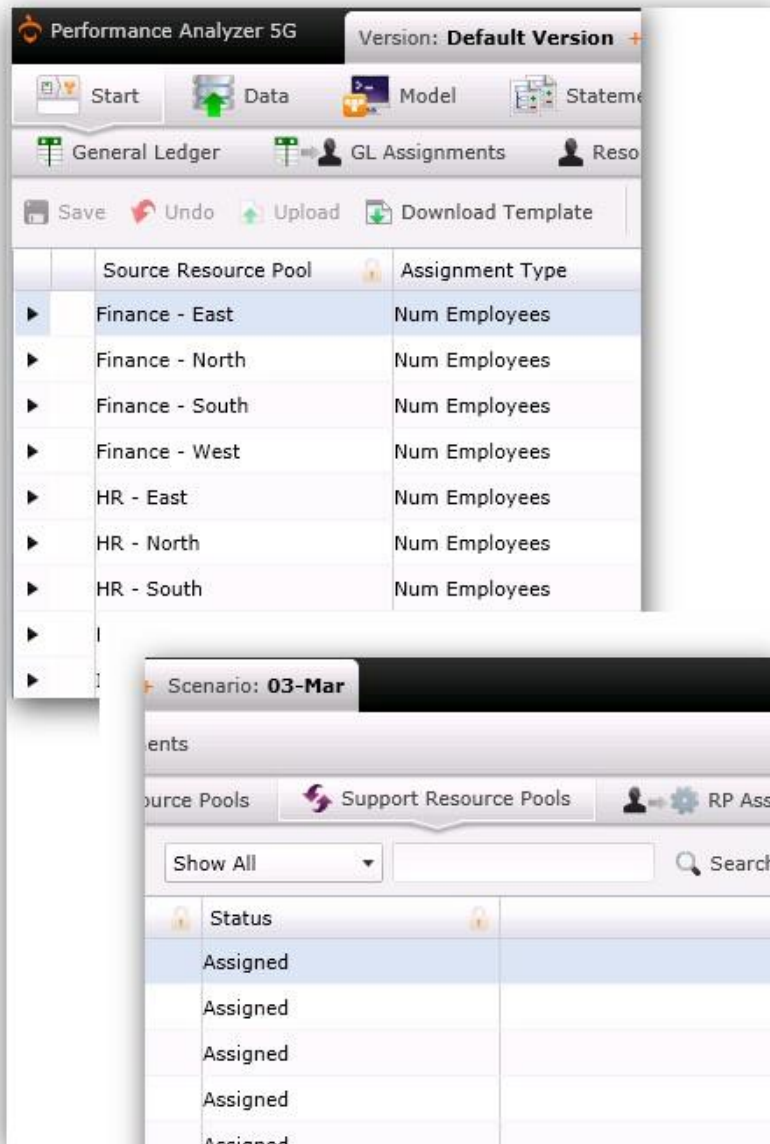
Template Show All

| Support                  | Description | Square Footage (Attribute) |
|--------------------------|-------------|----------------------------|
| <input type="checkbox"/> |             | 150                        |
| <input type="checkbox"/> |             | 150                        |
| <input type="checkbox"/> |             | 290                        |

Support Resource Pools (Intact)

|   | Source Resource Pool | Assignment Type | Status   |
|---|----------------------|-----------------|----------|
| ▶ | Finance - East       | Num Employees   | Assigned |
| ▶ | Finance - North      | Num Employees   | Assigned |
| ▶ | Finance - South      | Num Employees   | Assigned |
| ▶ | Finance - West       | Num Employees   | Assigned |
| ▶ | HR - East            | Num Employees   | Assigned |
| ▶ | HR - North           | Num Employees   | Assigned |
| ▶ | HR - South           | Num Employees   | Assigned |
| ▶ | HR - West            | Num Employees   | Assigned |
| ▶ | IT - East            | Computers       | Assigned |

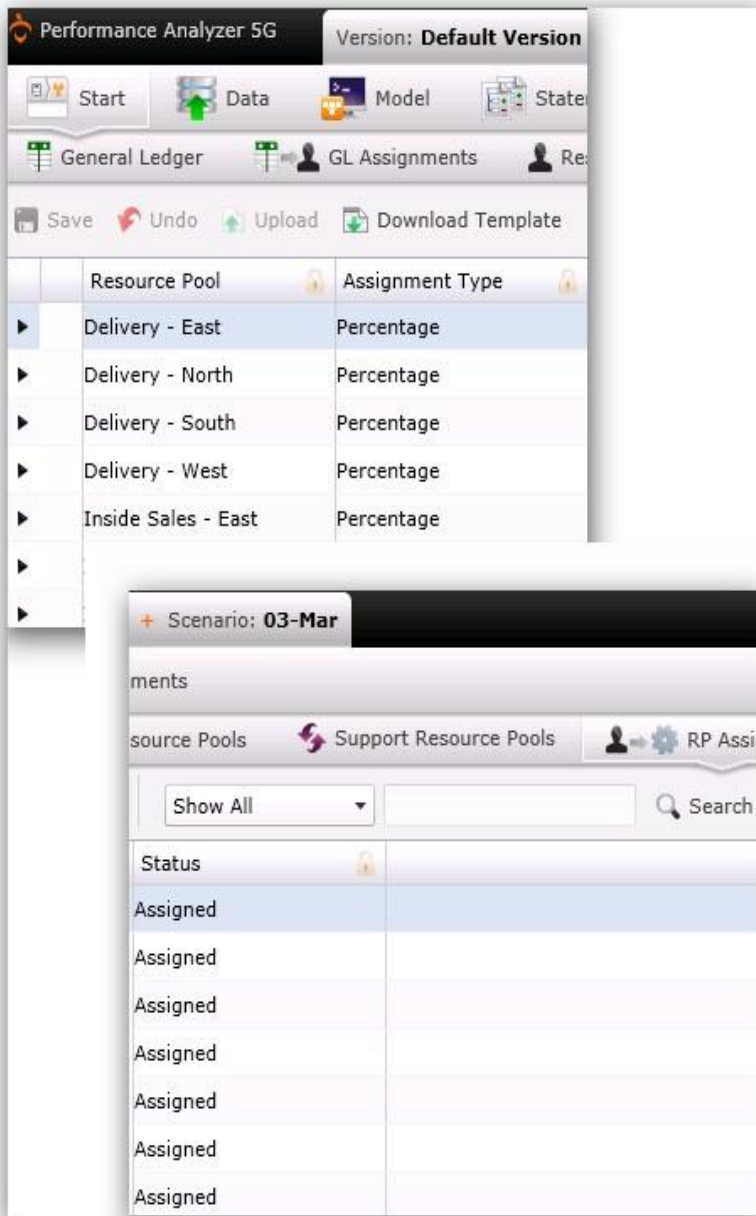
### Support Resource Pools (Cascaded)



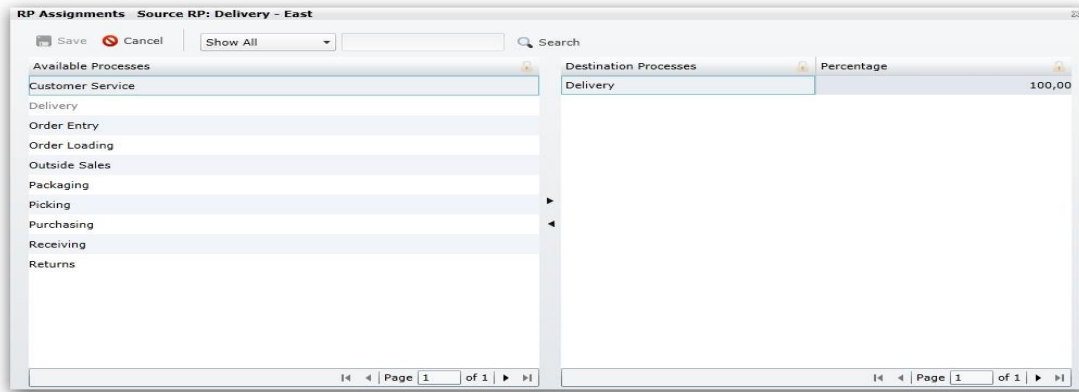
### Resource Pool Assignments (Intact)

|   | Resource Pool        | Assignment Type | Status   |
|---|----------------------|-----------------|----------|
| ▶ | Delivery - East      | Percentage      | Assigned |
| ▶ | Delivery - North     | Percentage      | Assigned |
| ▶ | Delivery - South     | Percentage      | Assigned |
| ▶ | Delivery - West      | Percentage      | Assigned |
| ▶ | Inside Sales - East  | Percentage      | Assigned |
| ▶ | Inside Sales - North | Percentage      | Assigned |
| ▶ | Inside Sales - South | Percentage      | Assigned |

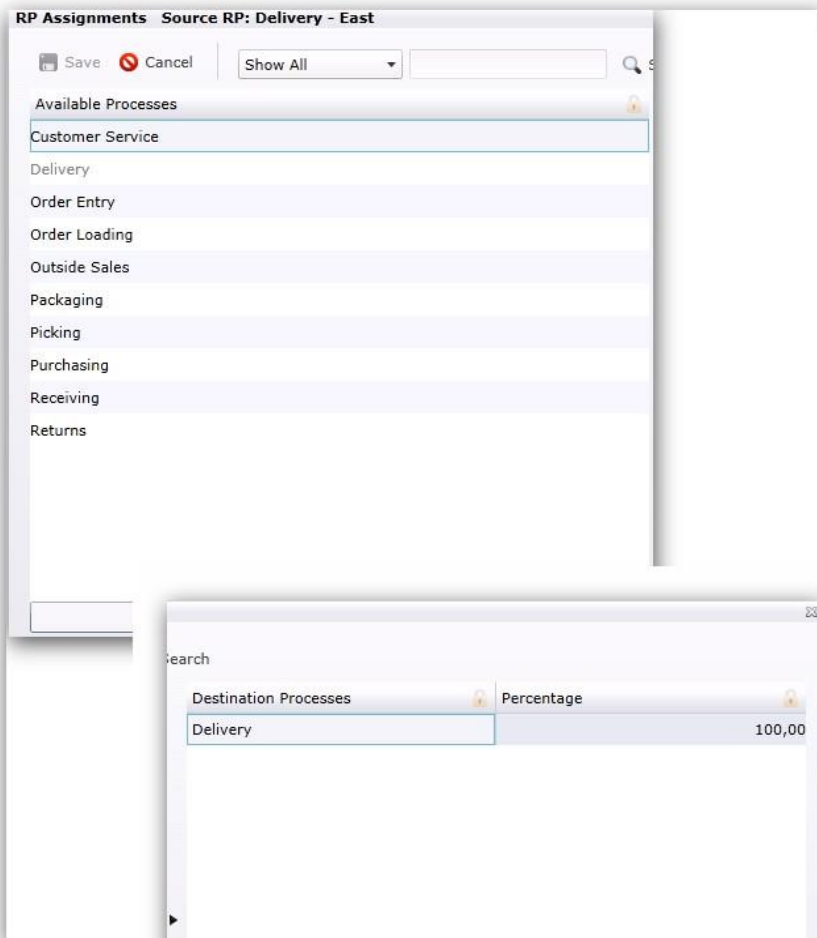
### Resource Pool to Process Assignments (Cascaded)



### Resource Pools to Process Assignments - Bulk (Intact)



### Resource Pool to Process Assignments Bulk (Cascaded)



## Process Screens

The following images reflect Process screens as they appear in the application.

### Processes (Grid, Intact)

| Name             | GL Assigned                         | Use Imported Rate        | Cost Object | Resource Driver | Description |
|------------------|-------------------------------------|--------------------------|-------------|-----------------|-------------|
| Customer Service | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Line_Item   | Num Employees   |             |
| Deductions Cost  | <input type="checkbox"/>            | <input type="checkbox"/> | Customer    |                 |             |
| Delivery         | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Order       | Num Employees   |             |
| Direct Cost      | <input type="checkbox"/>            | <input type="checkbox"/> | Line_Item   |                 | Direct Cost |
| DPS Rebate       | <input type="checkbox"/>            | <input type="checkbox"/> | Customer    |                 |             |
| Freight Cost     | <input type="checkbox"/>            | <input type="checkbox"/> | Order       |                 |             |
| Modules Charge   | <input type="checkbox"/>            | <input type="checkbox"/> | Customer    |                 |             |

Processes (Grid, Cascaded)

The screenshot displays the 'Performance Analyzer 5G' interface. At the top, there is a navigation bar with tabs for 'Start', 'Data', 'Model', and 'Statements'. Below this is a secondary bar with 'General Ledger', 'GL Assignments', and 'Resource Pools'. A toolbar contains 'Save', 'Undo', 'Add', 'Delete', 'Upload', and 'Download Template' buttons. The main area is titled 'Processes' and includes a 'Filter' section. Below the filter is a table with the following data:

| Name             | GL Assigned                         | Use Imported Rate        |
|------------------|-------------------------------------|--------------------------|
| Customer Service | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Deductions Cost  | <input type="checkbox"/>            | <input type="checkbox"/> |
| Delivery         | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Direct Cost      | <input type="checkbox"/>            | <input type="checkbox"/> |
| DPS Rebate       | <input type="checkbox"/>            | <input type="checkbox"/> |
| Freight Cost     | <input type="checkbox"/>            | <input type="checkbox"/> |
| Modules Charge   | <input type="checkbox"/>            | <input type="checkbox"/> |

Below the table, a cascaded view is shown for '03-Mar'. It includes a 'Support Resource Pools' section with 'RP Assignments' and a table with the following data:

| Cost Object | Resource Driver | Description |
|-------------|-----------------|-------------|
| Line_Item   | Num Employees   |             |
| Customer    |                 |             |
| Order       | Num Employees   |             |

## Processes (Edit)

**Process Details**

Name  
Customer Service

Description

Equation Description  
Customer service representatives spend approximately 5 hours with Tier 1 customers, 2 hours with Tier 2 customers and 1 hour with customer requests paper statements to be mailed to them, this takes an additional 90 minutes each month to support.  
In addition, returns to any facility other than the South facility takes 2 hours to handle. In the South facility, each return takes 90 minutes.

Equation Editor  
`(Lookup([Customer].[C_Customer_Tier], "1", 300, "2", 120, 60) + (90 * if([Customer].[C_Mail_Code]="Y",1,0))) * (([Line_Item].[LI_Qty]*[Line_Item].[LI_Unit_Price])/([Customer].[CD_C_TotalSales])) + (if([Location].[Name]<>"South", 1, .75) * if([Line_Item].[LI_Qty_Returned]>0,120,0))`

## Left Panel (Process List)

**Filter**

| Name                     |
|--------------------------|
| Customer Service         |
| Deductions Cost          |
| Delivery                 |
| Direct Cost              |
| DPS Rebate               |
| Freight Cost             |
| Modules Charge           |
| Order Entry              |
| Order Loading            |
| Outside Sales            |
| Packaging                |
| Pallet/Slip Sheet Charge |
| Picking                  |

## Right Panel (Process Details)

Default Version + Scenario: 03-Mar

Statements

ments Resource Pools Support Resource Pools RP Assignments Processes Business Dimensions

Upload Download Template

**Process Details**

Name  
Customer Service

Description

Equation Description

Customer service representatives spend approximately 5 hours with Tier 1 customers, 2 hours with Tier 2 customers and 1 hour with Tier 3 mailed to them, this takes an additional 90 minutes each month to support.

In addition, returns to any facility other than the South facility takes 2 hours to handle. In the South facility, each return takes 90 minutes.

$$\begin{aligned} & (\text{Lookup}([\text{Customer}].[C\_Customer\_Tier], "1", 300, "2", 120, 60) + (90 * \text{if}([\text{Customer}].[C\_Mail\_Code] == "Y", 1, 0))) * \\ & (([\text{Line\_Item}].[LI\_Qty] * [\text{Line\_Item}].[LI\_Unit\_Price]) / [\text{Customer}].[CD\_C\_TotalSales]) \\ & + \\ & (\text{if}([\text{Location}].[Name] <> "South", 1, .75) * \text{if}([\text{Line\_Item}].[LI\_Qty\_Returned] > 0, 120, 0)) \end{aligned}$$

Equation Editor

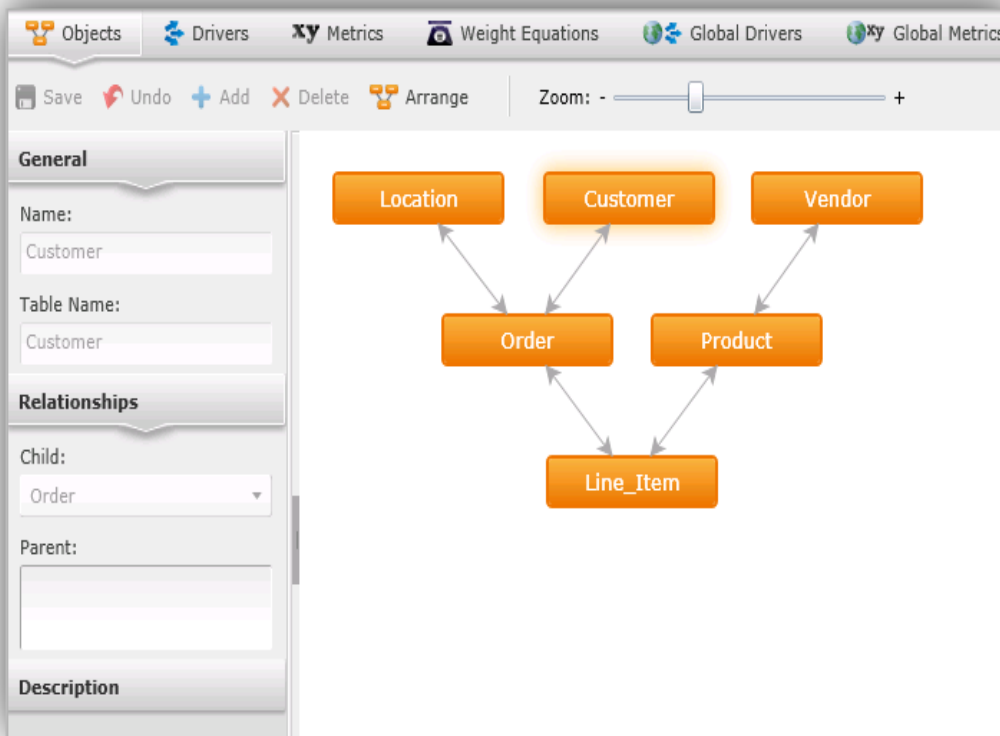
$$\begin{aligned} & (\text{Lookup}([\text{Customer}].[C\_Customer\_Tier], "1", 300, "2", 120, 60) + (90 * \text{if}([\text{Customer}].[C\_Mail\_Code] == "Y", 1, 0))) \\ & + \\ & (\text{if}([\text{Location}].[Name] <> "South", 1, .75) * \text{if}([\text{Line\_Item}].[LI\_Qty\_Returned] > 0, 120, 0)) \end{aligned}$$

## Business Dimensions Screens

Business Dimension screens are considered part of the "Business Rules". These screens are found by selecting the Business Dimensions panel. The dimensions are categorized into the following sections.

- Cost Objects
- Drivers
- Metrics
- Weight Equations
- Global Drivers
- Global Metrics

### Business Dimensions/Cost Object Screen



### Business Dimensions/Driver Screens

#### Business Dimensions/Drivers (Grid, Intact)

| Eq | Name                | Data Type   | Data Size | User Defined                        | Facility Title Link      | Calculated               | Description      | Column Name        | Cost Object |
|----|---------------------|-------------|-----------|-------------------------------------|--------------------------|--------------------------|------------------|--------------------|-------------|
|    | C_ASN               | String      | 2         | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C_ASN            | C_ASN              | Customer    |
|    | C_CHEP_Pallets      | String      | 2         | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C_CHEP_Pallets   | C_CHEP_Pallets     | Customer    |
|    | C_City              | String      | 25        | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C_City           | C_City             | Customer    |
|    | C_Club_Packs        | Big Integer |           | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C_Club_Packs     | C_Club_Packs       | Customer    |
|    | C_COD               | String      | 5         | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C_COD            | C_COD              | Customer    |
|    | C_Corporate_Name    | String      | 50        | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C_Corporate_Name | C_Corporate_Name   | Customer    |
|    | C_CPFR_Enabled      | String      | 2         | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C_CPFR_Enabled   | C_CPFR_Enabled     | Customer    |
|    | C_CRP               | String      | 2         | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C_CRP            | C_CRP              | Customer    |
|    | C_Customer_Category | String      | 50        | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C_Customer_Cate  | C_Customer_Categor | Customer    |
|    | C_Customer_Tier     | String      | 5         | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C_Customer_Tier  | C_Customer_Tier    | Customer    |
|    | C_Direct_Shipments  | Big Integer |           | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C_Direct_Shipmen | C_Direct_Shipments | Customer    |
|    | C_Distance_East     | Big Integer |           | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C_Distance_East  | C_Distance_East    | Customer    |

*Business Dimensions/Drivers (Grid, Cascaded)*

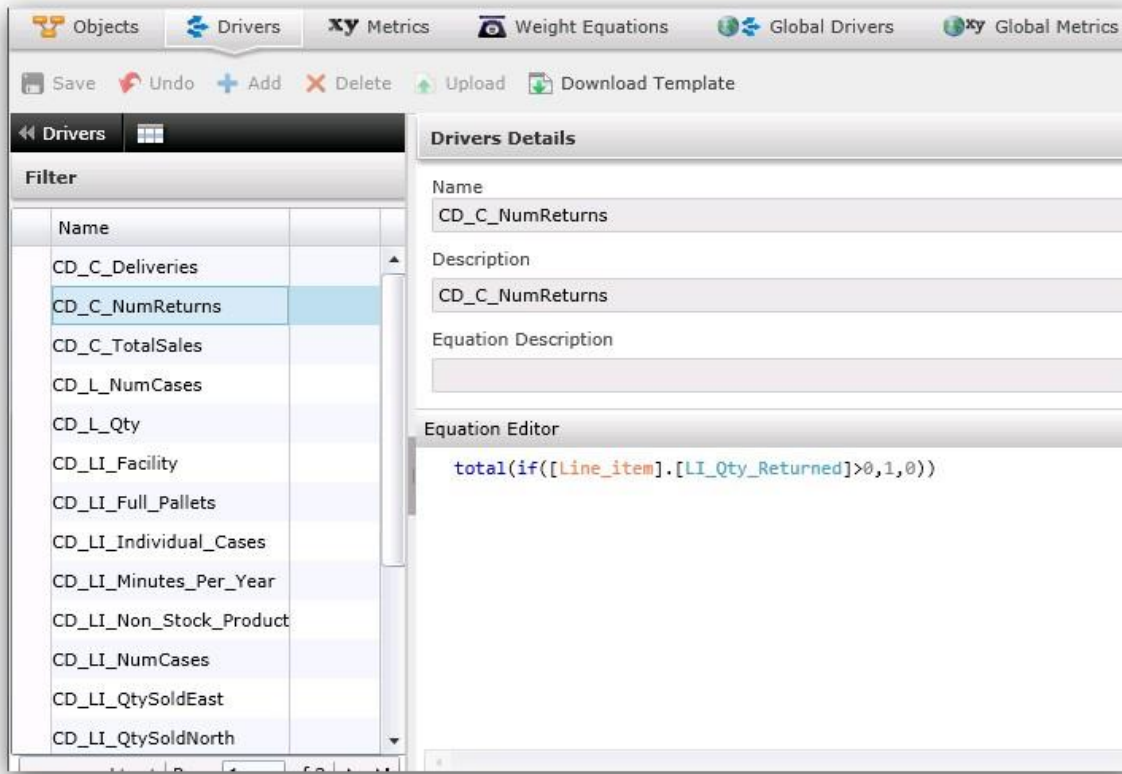
The screenshot displays a software interface with a top navigation bar containing 'Objects', 'Drivers', 'Metrics', 'Weight Equations', 'Global Drivers', and 'Global'. Below the navigation bar is a toolbar with 'Save', 'Undo', 'Add', 'Delete', 'Upload', and 'Download Template' buttons. The main area is titled 'Drivers' and features a 'Filter' section above a grid. The grid has columns for 'Eq', 'Name', 'Data Type', 'Data Size', 'User Defined', and 'Facility Title Link'. Below the grid is a 'Metrics' section with a table containing columns for 'Calculated', 'Description', 'Column Name', and 'Cost Object'.

| Eq | Name             | Data Type | Data Size | User Defined                        | Facility Title Link      |
|----|------------------|-----------|-----------|-------------------------------------|--------------------------|
|    | C_ASN            | String    | 2         | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|    | C_CHEP_Pallets   | String    | 2         | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|    | C_City           | String    | 25        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|    | C_Club_Packs     | Integer   |           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|    | C_COD            | String    | 5         | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|    | C_Corporate_Name | String    | 50        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|    | C_CPFR_Enabled   | String    |           |                                     |                          |

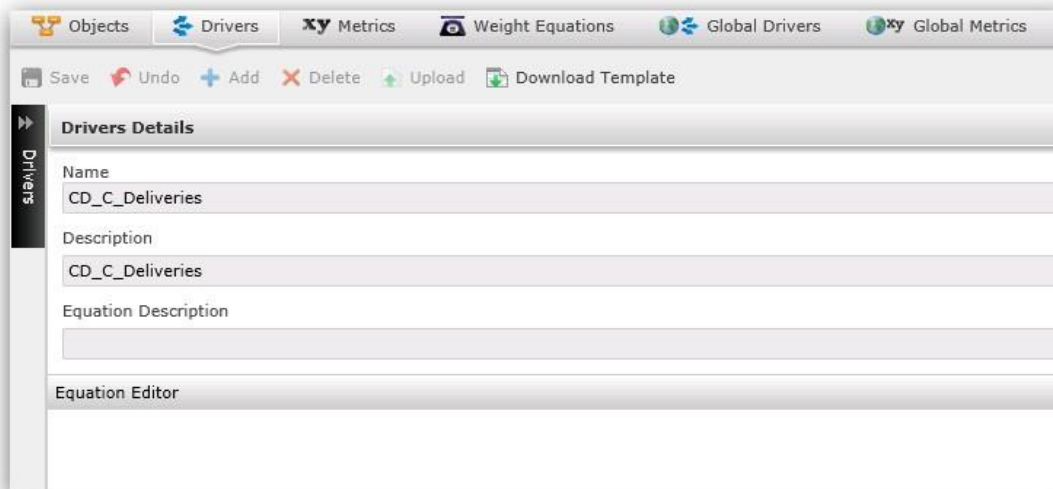
  

| Calculated               | Description    | Column Name    | Cost Object |
|--------------------------|----------------|----------------|-------------|
| <input type="checkbox"/> | C_ASN          | C_ASN          | Customer    |
| <input type="checkbox"/> | C_CHEP_Pallets | C_CHEP_Pallets | Customer    |
| <input type="checkbox"/> | C_City         | C_City         | Customer    |
| <input type="checkbox"/> | C_Club_Packs   | C_Club_Packs   | Customer    |
| <input type="checkbox"/> | C_COD          | C_COD          | Customer    |

*Business Dimensions/Drivers (Edit)*



*Business Dimensions/Drivers (Details)*



Business Dimensions/Metric Screens

*Business Dimensions/Metrics (Intact, Grid)*

| Name                   | Data Type   | Data Size | Description | Data Base Name         | Cost Object |
|------------------------|-------------|-----------|-------------|------------------------|-------------|
| C_CM_Advanced_Ship_Nr  | Float       |           |             | C_CM_Advanced_Ship_Nr  | Customer    |
| C_CM_Average_Order_Si  | Float       |           |             | C_CM_Average_Order_Si  | Customer    |
| C_CM_CHEP_Pallets      | Float       |           |             | C_CM_CHEP_Pallets      | Customer    |
| C_CM_Cost_Per_Delivery | Float       |           |             | C_CM_Cost_Per_Delivery | Customer    |
| C_CM_CPFR              | Float       |           |             | C_CM_CPFR              | Customer    |
| C_CM_Customer_Pick_Up  | Float       |           |             | C_CM_Customer_Pick_Up  | Customer    |
| C_CM_Deductions        | Float       |           |             | C_CM_Deductions        | Customer    |
| C_CM_Delivery_Cost_Per | Float       |           |             | C_CM_Delivery_Cost_Per | Customer    |
| C_CM_Delivery_Minutes  | Big Integer |           |             | C_CM_Delivery_Minutes  | Customer    |
| C_CM_Direct_Plant_Ship | Float       |           |             | C_CM_Direct_Plant_Ship | Customer    |
| C_CM_EDI               | Float       |           |             | C_CM_EDI               | Customer    |
| C_CM_Electronic_Funds_ | Float       |           |             | C_CM_Electronic_Funds_ | Customer    |

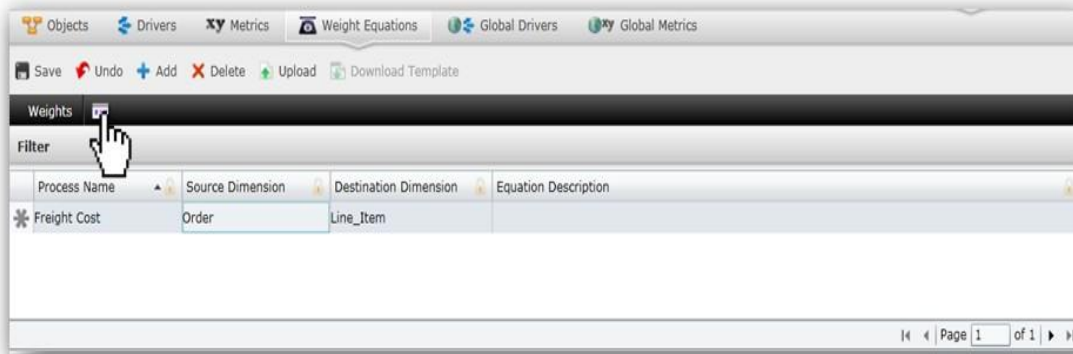
*Business Dimensions/Metrics (Grid, Cascaded)*

| Name                   | Data Type | Data Size |
|------------------------|-----------|-----------|
| C_CM_Advanced_Ship_Nr  | Float     |           |
| C_CM_Average_Order_Si  | Float     |           |
| C_CM_CHEP_Pallets      | Float     |           |
| C_CM_Cost_Per_Delivery | Float     |           |
| C_CM_CPFR              |           |           |
| C_CM_Customer_Pick_Up  |           |           |

| Description | Data Base Name        | Cost Object |
|-------------|-----------------------|-------------|
|             | C_CM_Advanced_Ship_Nr | Customer    |
|             | C_CM_Average_Order_Si | Customer    |
|             | C_CM_CHEP_Pallets     | Customer    |

### Business Dimensions/Weight Equation Screen



### Business Dimensions/Global Driver Screens

#### *Business Dimensions/Global Drivers Screen (Intact)*

| Eq | Name           | Data Type   | Data Size | User Defined                        | Facility Title Link      | Calculated                          | Description       | Column Name    |
|----|----------------|-------------|-----------|-------------------------------------|--------------------------|-------------------------------------|-------------------|----------------|
|    | CD_G_BigPigPct | Float       |           | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | CD_G_BigPigPct is | CD_G_BigPigPct |
|    | G_BigIntDv1    | Big Integer |           | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | G_BigIntDv1       | G_BigIntDv1    |
|    | G_BigIntDv2    | Big Integer |           | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | G_BigIntDv2       | G_BigIntDv2    |
|    | ID             | String      | 50        | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | ID                | ID             |
|    | Name           | String      | 50        | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | Name              | Name           |
|    | Quarter        | String      | 50        | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |                   | Quarter        |

*Business Dimensions/Global Drivers Screen (Grid, Cascaded)*

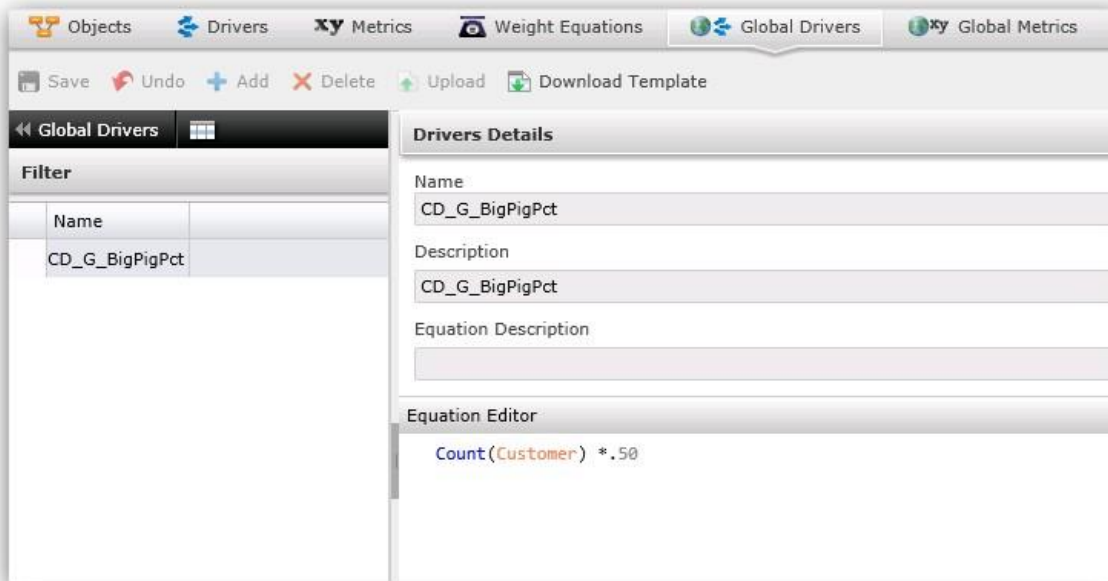
The screenshot displays the 'Global Drivers' configuration interface. At the top, there are tabs for 'Objects', 'Drivers', 'Metrics', and 'Weight Equations'. Below the tabs is a toolbar with 'Save', 'Undo', 'Add', 'Delete', 'Upload', and 'Download Template' buttons. The main area is titled 'Global Drivers' and contains a 'Filter' section. Below the filter is a table with the following data:

| Eq  | Name           | Data Type | Data Size | User Defined                        |
|-----|----------------|-----------|-----------|-------------------------------------|
| x1y | CD_G_BigPigPct | Float     |           | <input checked="" type="checkbox"/> |
|     | ID             | String    | 50        | <input type="checkbox"/>            |

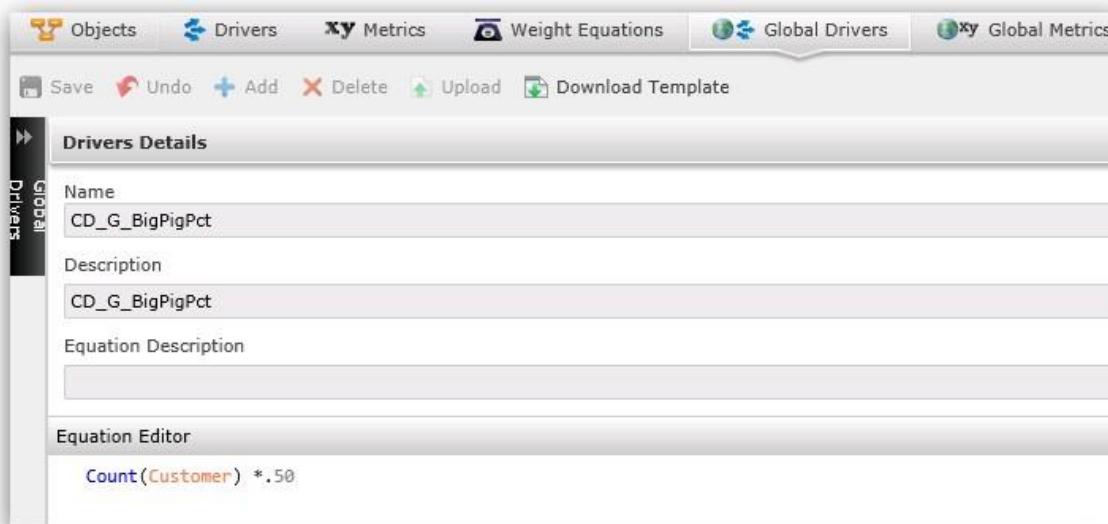
Below the table, there are tabs for 'Global Drivers' and 'Global Metrics'. Underneath, there is a section for 'Facility Title Link' with the following table:

| Facility Title Link      | Calculated                          | Description    | Column Name    |
|--------------------------|-------------------------------------|----------------|----------------|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | CD_G_BigPigPct | CD_G_BigPigPct |
| <input type="checkbox"/> | <input type="checkbox"/>            | ID             | ID             |
| <input type="checkbox"/> | <input type="checkbox"/>            | Name           | Name           |

*Business Dimensions/Global Drivers Screen (Edit)*



*Business Dimensions/Global Drivers Screen (Details)*



Business Dimensions/Global Metric Screens

*Business Dimensions/Global Metrics Screen (Grid)*

| Name                   | Data Type | Data Size | Description | Data Base Name         |
|------------------------|-----------|-----------|-------------|------------------------|
| G_CM_Paper_Statement_  | Float     |           |             | G_CM_Paper_Statement_  |
| G_CM>Returns_Cost_Per. | Float     |           |             | G_CM>Returns_Cost_Per. |
| G_CM_Separate_Pallets_ | Float     |           |             | G_CM_Separate_Pallets_ |
| G_CM_Special_Labeling_ | Float     |           |             | G_CM_Special_Labeling_ |

*Business Dimensions/Global Metrics (Details)*

**Metric Details**

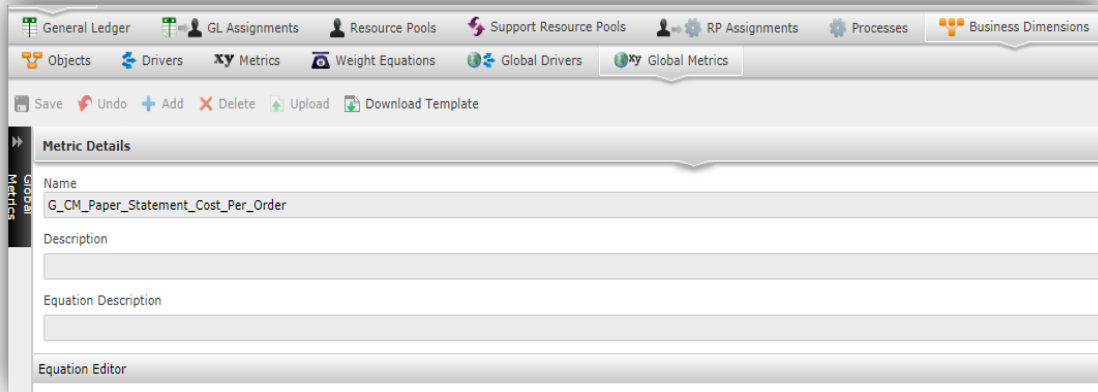
Name: G\_CM\_Paper\_Statement\_Cost\_Per\_Order

Description:

Equation Description:

Equation Editor:

*Business Dimensions/Global Metrics Screen (Details CHILD Expanded)*



## Appendix B: Troubleshooting

This following information includes issues found within the application, and how to work around the issues to maintain an optimal user experience.

### EPS Lookup Table Migration

**Issue:** The Migration Tool migrates only definitions of lookup tables. It doesn't migrate lookup tables' data. Because EPS is multi-model, equations in EPS uses physical lookup table names. When tables are made in EPS, because there are multiple models, the tables, for example, could be called "Facility\_1" instead of "Facility". PA5G, on the other hand, migrates the physical lookup table names according to the lookup table definition. This leads to a discrepancy in equations, causing the calculation to fail with an error stating the Lookup Table name could not be resolved.

**Workaround:** To fix this issue, all equations containing references to lookup tables must be edited in PA5G after migration process. A user can make these changes using Excel. Once the changes have been made, the user can then attempt to calculate scenario.

### Migrating Multi-Facilities

**Issue:** When migrating multi-facility models, if a cost object named "Facility" exists, it will break the migrated model calculation due to the presence of equations referencing such cost object. PA5G does not support the concept of a Facility Business Dimension.

**Workaround:** Change the name for the "Facility" business dimension and update all equations that reference this business dimension.

### Staging Tables: Unsupported Clean-Up

**Issue:** The cleanup of staging tables (STG) is not fully supported in PA5G. The presence of excessive records in these tables can be problematic for template upload, causing performance degradation.

**Workaround:** Users must truncate the table content on a periodic basis.

## Linking Scenarios: Unable to Link Lookup Table Data

**Issue:** When a user selects a scenario to be linked to another scenario's data, the database lookup table information cannot be linked to the new scenario.

**Workaround:** To populate the database lookup table with the original scenario data, the user must download a data template from the original scenario, proceed to change the scenario data, and finally upload the data template to the newly created scenario database lookup table.

## Business Dimension "Parent ID" Editing Disabled

**Issue:** When a new Business Dimension is created and not set as a parent entity, a "Parent ID" attribute is assigned to it. This attribute is not editable.

**Workaround:** Editing the data size is possible, as long as it is set to a higher value. This restriction was implemented to prevent technical problems related to reduction. Only editing system drivers (drivers with the User Defined checkbox unselected) adhere to this rule.

## Scenario Version is Active Before Copy is Complete

**Issue:** After you have added a new version, it is expected that the UI's response to activity is correlated with the complete copying of the version data. However, the GUI will become active before the version completes copying, and any screens where you navigate will be empty. It is also possible that the application will timeout before it is fully copied.

**Workaround:** Open the Configuration Tool and go to the Application Settings window. In the "Application Timeout" option, change the timeout to a larger number. Select "Save" and restart the application.

## Adding New Subscribers Leads to Errors

**Issue:** You are attempting to add multiple users on one or more servers. When you add the second user, you receive the message that your user could not be authenticated.

**Workaround:** Navigate to your IIS settings and select the PA5G site. Review the authentication screen and confirm that "Windows for Application" is enabled, and "Anonymous" is deselected. Next, navigate to the PA5G Configuration Tool to confirm that you are logging into the application using Windows Authentication.

Return to the “Add Subscriber” window on the Configuration Tool. You should now be able to add the subscriber without receiving an error.

## Accessing the Application

**Issue:** You cannot log into the application.

**Possible Explanation:** Another user is executing the Acorn Universal Connector.

**Workaround:** You must wait for the Acorn Universal Connector to finish its validation and importation of data before accessing the application.

## Appendix C: Intellisense Usage

"Intellisense" refers to the automatic filling of data in the Equation Editor, which is a window found on the Business Dimension screens. This function performs differently according to a user's input. The following list describes the different characters a user may type in the field, and describes how Intellisense performs according to the character.

### Character Types

Character Type: ""

- **Previous Character:** EMPTY
  - Shows in Hint: Any driver, process, process time variable, and aggregate function for that scope.\*
- **Previous Character:** Scope
  - Shows within the hint inside Aggregate Function: Any driver, process, process time variable, and aggregate function for that scope
- **Previous Character:** Variable
- **Previous Character:** All Function

Character Type: "Space"

- **Previous Character:** EMPTY
  - Shows in hint: Anything in Parents and the "home" scope, except in aggregate
- **Previous Character:** Scope
- **Previous Character:** Variable
- **Previous Character:** All Function

Character Type: "Comma"

- **Previous Character:** EMPTY
  - Crlt+Space: Required
- **Previous Character:** Scope
  - Crlt+Space: Required
  - Shows within the hint inside Aggregate Function: Any driver, process, process time variable, and function for any scope.
- **Previous Character:** Variable
  - Crlt+Space: Required
  - Shows in hint: Comma is acceptable. It will show anything in Parents and the "home" scope, except when aggregated.

- Shows within the hint inside Aggregate Function: Any driver, process, process time variable, and function for any scope.
- **Previous Character: All Function**
  - Crlt+Space: Required
  - Shows within the hint inside Aggregate Function: Any driver, process, process time variable, and function for any scope.

Character Type: "("

- **Previous Character: EMPTY**
  - Shows in hint: Anything in Parents and the "home" scope, except in aggregate
- **Previous Character: Scope**
- **Previous Character: Variable**
- **Previous Character: All Function**
  - Shows in hint: Anything in Parents and the "home" scope, except when aggregated.
  - Shows within the hint inside Aggregate Function: Any driver, process, process time variable, and function for any scope.

Character Type: "operator"

- **Previous Character: EMPTY**
  - Crlt+Space: Requires Space or Ctrl+Space.
  - Shows in hint: Anything in Parents and the "home" scope, except when aggregated.
- **Previous Character: Scope**
  - Crlt+Space: Required Space or Ctrl+Space
- **Previous Character: Variable**
  - Crlt+Space: Required Space or Ctrl+Space.
  - Shows in hint: Anything in Parents and the "home" scope, except when aggregated.
  - Shows within the hint inside Aggregate Function: Any driver, process, process time variable, and function for any scope.
- **Previous Character: All Function**
  - Crlt+Space: Required Space or Ctrl+Space.
  - Shows in hint: Anything in Parents and the "home" scope, except when aggregated.
  - Shows within the hint inside Aggregate Function: Any driver, process, process time variable, and function for any scope.

Legal Operators: +, -, \*, /, ^, or, and, ||, &&, !, not

Aggregate Functions: MIN, MAX, AVG, TOTAL, COUNT, DBLOOKUP, DBLOOKUPMIN, DBLOOKUPMAX, DBLOOKUPAVG, DBLOOKUPTOTAL, DBLOOKUPCOUNT, DBLOOKUPMULTIKEY



**Note:** \* "home" scope or "base scope": related to the object's equation.

## Appendix D: Character Limitations

SQL Server Analysis Services (SSAS) contains limitations for object names and their respective IDs. As of the latest PA5G release, certain limitations on specific objects have only been partially implemented, or not implemented at all.

Limitations are divided in the following categories:

- Unique
- No leading and trailing spaces
- Maximum number of characters (100)
- Reserved Names, including AUX, CLOCK\$, COM<sub>1</sub> through COM<sub>9</sub>, CON, LPT<sub>1</sub> through LPT<sub>9</sub>, NUL, PRN, NULL
- Invalid characters, including: . , ; ' ` : / \ \* | ? " & % \$ ! + = ( ) [ ] { } < >
- Business Dimensions (Name and Table Name)
  - Unique: Implemented
  - Leading/trailing spaces: Implemented
  - Max length: Implemented
  - Reserved Names: No Limitation
  - Invalid Characters: Partially Implemented
- Drivers
  - Unique: Implemented
  - Leading/trailing spaces: Implemented
  - Max length: Implemented
  - Reserved Names: No Limitation
  - Invalid Characters: Partially Implemented
- Metrics
  - Unique: Implemented
  - Leading/trailing spaces: Implemented
  - Max length: Implemented
  - Reserved Names: No Limitation
  - Invalid Characters: Partially Implemented
- General Ledgers
  - Unique: Implemented
  - Leading/trailing spaces: Implemented
  - Max length: Implemented
  - Reserved Names: No Limitation
  - Invalid Characters: No Limitation
- Resource Pools

- Unique: Implemented
- Leading/trailing spaces: Implemented
- Max length: Implemented
- Reserved Names: No Limitation
- Invalid Characters: No Limitation
- Processes
  - Unique: Implemented
  - Leading/trailing spaces: Implemented
  - Max length: Implemented
  - Reserved Names: No Limitation
  - Invalid Characters: No Limitation
- Facilities
  - Unique: Implemented
  - Leading/trailing spaces: Implemented
  - Max length: Implemented
  - Reserved Names: No Limitation
  - Invalid Characters: No Limitation
- Attributes
  - Unique: Implemented
  - Leading/trailing spaces: Implemented
  - Max length: Implemented
  - Reserved Names: No Limitation
  - Invalid Characters: No Limitation
- Statements
  - Unique: Implemented
  - Leading/trailing spaces: Implemented
  - Max length: Implemented
  - Reserved Names: No Limitation
  - Invalid Characters: No Limitation
- Cost Groups
  - Unique: Implemented
  - Leading/trailing spaces: Implemented
  - Max length: Implemented
  - Reserved Names: No Limitation
  - Invalid Characters: No Limitation
- Scenarios
  - Unique: Implemented
  - Leading/trailing spaces: Implemented
  - Max length: Implemented
  - Reserved Names: No Limitation
  - Invalid Characters: No Limitation

# Glossary

## A

### Aggregate Functions

Functions that result from the combination two or more functions. All aggregated processes return numeric data.

### Attributes

Any measurement of the business which is not done mathematically. For example, entity attributes can be departments or resource pool names. Process Attributes can be elements of a business process. Facility attributes can be related to the facility, such as its location.

## B

### Business Dimensions

Components that are considered the final accumulation point for costs, and can represent any item which cost and performance measurement are desired. Examples include Customers, Products, Orders, Line Items, etc.

## D

### Default Income Statement

The system-created income statement that a user can modify (within limitations) to fit their company's needs.

## Drivers

Data elements that initiate, supports, or influence the activities and processes of your organization.

## E

### Exchange Rate

Rate at which one currency will be exchanged for another. In PA5G, you can have one default exchange rate but also add multiple alternative exchange rates.

## F

### Facilities

Entities that allow for the costs of a model to be identified in a solid manner which identifies overall costs and profits in individual facility locations.

## G

### General Ledger

Any expense of an organization and its related data

### General Ledger Assignments

The relationship that allocates the costs from general ledger accounts to the appropriate resource pool.

### Global Drivers

High-level drivers that have a major or critical effect on their associated elements or on the entire system.

## Global Metrics

A type of measurement that is used across the board at gauging a quantifiable component of a company's performance, such as return on investment (ROI), employee and customer churn rates, revenues, and so on.

## I

### Intellisense

Refers to the automatic filling of data on the application. Different rules apply to different sections of PA5G.

## L

### Lookup Tables

Tables the user can create that will allow data that is not managed by PA5G processes to be loaded into the model for references in the calculation.

## M

### Metrics

Calculations used in defining Key Performance Indicators.

### Model

Term used to describe PA5G's container for the business structure and business- related rules.

## P

### Process Rates

Rates used to translate descriptions of processes into concrete quantities of time, calculating the time it takes to perform a process for each instance at the selected cost object level. This provides a non-arbitrary method of allocating resource costs. to processes and, via the processes to the business dimensions.

### Processes

Consistent work items and activities which accurately allocate costs from Resource Pools to Business Dimensions based on the functions Resource Pools perform for the Business Dimensions.

## R

### Resource Pools

A collective group of resources which perform similar tasks or activities within your organization.

## S

### Scalar Functions

Functions that are returned numerically, text, or another type of format

### Support Resource Pools

Departments that support other resources in the company.

## U

### Universal Connector

The tool used to import data into PA5G from another data system.

## V

### Validation Report for Support Allocations

A report that identifies support resource pool allocations that are being dropped from the results of your calculation due to drivers that equal to "o" or NULL.

## Versions

Modified model types that are created to allow for the varying representation in the business practices of the organization.

## W

### Weight Equations

Equations used to calculate a weighted value of more processing for individual processes.