



**Prismata Business Intelligence Suite**  
**Prismata CPS - Detailed Cost & Profit Engine**  
**CPS Reports**

**Cutting edge business intelligence tools designed for usability and affordability.**

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## **Table of Contents**

Chapter 1 – Introduction

Chapter 2 – Preparing the Data Imports

Chapter 3 – Getting Started

Chapter 4 – Defining the General Ledger

Chapter 5 – Defining the Resources

Chapter 6 – Defining the Activities

Chapter 7 – Ledger → Resources

Chapter 8 – Resources → Activities

Chapter 9 – Allocation Methodology

Chapter 10 – Running the Model

Chapter 11 – Additional Functionality

Chapter 12 - Security

Chapter 13 - Reports

Appendix

## Chapter 1 - Introduction

Congratulations on your purchase. You have just taken the first step to truly understanding how to turn your organization into a more profitable business.

\*\*\*\*\* **Before You Begin!** \*\*\*\*\*

As you progress through the manual and begin to build your profit / margin model, please remember this: *keep it simple*. It is easy to build very simple yet very accurate and powerful costing models. Industry leading experience has proven one thing very reliably – *there is an inverse relationship between how complex a costing model is and how usable it is*. We will continually reiterate this point throughout the manual.

If you'd like some assistance putting your model together, please visit our website, send us an e-mail and / or give us a call. We have worked in numerous industries (e.g. distribution, manufacturing, financial services, shared services, healthcare...) and would be happy to give you some quick pointers to get you started in the right direction.

\*\*\*\*\*

As you are undoubtedly aware, understanding profits in business is confusing because of the simple fact that organizations are compensated by products sold, but costs are aggregated across the entire organization. This makes it very difficult to know what costs what – and without this information it is impossible to know where you are making money and where you are losing it.

Enter Activity Based Costing (ABC).

Over the past 10 years, the utilization of ABC has gained widespread acceptance across numerous industries to answer the age-old question of “Where am I actually making money and where am I losing it?”. ABC identifies all of the resources involved in providing a product or service (either personnel or material), and then allocates expenses so that they accurately quantify the costs of those products or services.

The result is powerful information.

The truth is that there are as many ways to use ABC as there are people using it. However, the 3 main areas where Prismata has seen organizations put this information to use are:

- 1) Internal Streamlining – How efficient is the entire process? Why are some activity costs so much higher than others, and should they be? Are there redundancies in job responsibilities? Are there outsourcing opportunities?
- 2) Marketing – What are profitable products / customer types for you? Given your mix of products and services, who are profitable customers to work with? What kind of customer profile is profitable for you – and what kind is not?
- 3) Educating Salespeople – We have seen over and over again that as soon as salespeople are informed of what makes an order profitable, the more profitable orders become.

It's important to note that "Firing Customers" is not on the list – it is simply not something that we see done very often. We do see our clients being happy when their unprofitable customers go away, though...

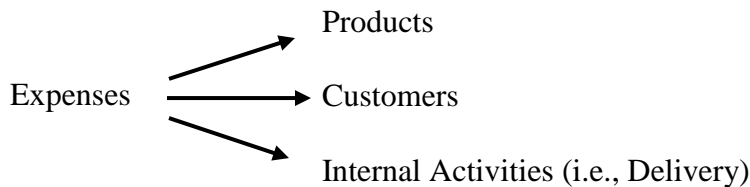
The following information will help guide you through the process of setting up your own Activity Based Costing system. If you need help during the process, you can reach us at: [information@prismata.com](mailto:information@prismata.com).

And, if as intended, you achieve outstanding results with minimal effort, please let us know.

Again, congratulations and good luck!

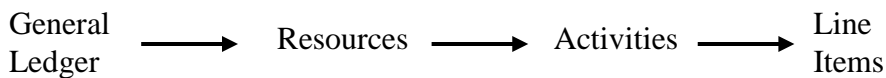
## Overview of Methodology

Activity Based Costing is a technique that accurately allocates direct and indirect costs to the activities, services, or service recipients which consume an organization's resources.



Since all activities have costs associated with them and those costs are allocated to each line item, your costs can be 'sliced and diced' however you would like to see them: by product line, Customer, zip code, internal activity, etc.

Here is the simple, straight-forward methodology that accomplishes the task.



### General Ledger

All money starts out in the General Ledger. This is where a organization has its rent, utilities, salaries, materials costs, etc. Those dollars are dispersed to different Resources.

### Resources

A Resource is defined as any person or group of people that perform a like or related activity (e.g. there may be 4 people that work in Inside Sales, but they all essentially do the same thing, so we would group them into a single 'Inside Sales' resource group). By breaking the General Ledger account apart and redistributing the money to Resources, we are able to re-group expenses into cost buckets that lend to easier and more intuitive analysis for the next step in the process – distribution of Resource dollars to Activities.

### Activities

An activity is defined as a primary task of a resource, e.g. the Inside Sales resource group's primary tasks are (1) order entry, (2) customer mgmt, and (3) cold calls. Once the different Activities are defined, Resource dollars are redistributed from the Resources to the Activities that those Resources perform.

### Line Items

The final step in the process is to distribute an Activity's cost to the line items that the Activity was involved with. For example, the cost of the Activity of Delivery should be distributed to all line items that were delivered.

### High Level Steps

There are four high-level steps in building a costing model:

1. Importing Data to be Analyzed (Chapter 2)
2. Determining the Activity Cost (Chapters 3 – 8)
3. Determining the Allocation Methodology (Chapter 9)
4. Calculating the Model (Chapter 10)

Some steps are more complex than others and require a bit more time / care in their creation. As you'll see, though, Prismata has included templates and Wizards to make the entire process as simple as possible.

Let's get started, first by preparing the imports and then by allocating expenses.

## Chapter 2 - Preparing the Data Imports

\*\*\*\*\* While not chronologically essential as the first step (i.e. you can build a model before importing data, though you cannot *calculate* a model before importing data), importing the data before building the model *greatly* simplifies the model building process.

In order for Prismata to analyze your organization you must gather some data from your accounting &/or sales management system (ERP?) and import it into the Prismata CPS. Financial data is usually pretty straightforward to obtain. Sales data can be a bit more difficult, especially to acquire in the format that costing models require. That said, there are some simple ways that we'll show you that will get you the data that you're looking for. In whatever way you ultimately create the import files, creating quality data imports is essential to creating quality costing models.

Prismata has created templates for you to use to make 'Preparing the Imports' as straightforward as possible.

If you have Microsoft Excel, you can take advantage of templates that have pre-built cell protection and hints to make the import process go very seamlessly. If you do not have Microsoft Excel, you can import your data from *comma delimited* text files (CSVs), templates of which you will also find in the 'Templates' folder described below. Unfortunately, importing from text files is significantly more open to error due to the lack of data screening capabilities.

The 2 pieces of data that must be brought in are: (1) The Line Item data, and (2) the General Ledger.

- The Line Item data ***must be imported.***
- The General Ledger can either be imported or entered in manually, whichever is easier for you.

When you installed the CPS, a folder named "Prismata Data" was placed on your desktop. This folder is a shortcut to the folder where you installed the software. Inside this folder are several subfolders.

- IMPORTS – This folder is where you need to place the Excel or text files (both ledger and Line item) before importing them into the software.
- EXPORTS – This folder is where the files that you export from the model will be placed.
- TEMPLATES – This folder contains templates and examples for both the ledger and Line item files. When you create a new folder to store time period specific data, copy these files into your time period specific folder.

## Preparing the General Ledger for Import.

We will look at preparing the ledger for import using the Ledger\_Import.xls template found in the 'Templates' folder.

The Ledger\_Import.xls file in the Templates folder (pictured below) contains 3 columns:

- Account Number – The account id
- Account Name – The account name
- Account Amount – The account's dollar value; *must be numeric*

1	Account Number	Account Name	Account Amount
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

In order to get your General Ledger data into the Prismata Ledger\_Import.xls template, export your ledger from your accounting software into a spreadsheet or database of some kind. Then paste the data from the exported file into the Prismata template. Your Ledger\_Import.xls should look like the picture below.

1	Account Number	Account Name	Account Amount
2		Advertising	\$500.00
3		Answering Service	\$3,796.65
4		Automobile	\$2,817.33
5		Bank Srvc Charges	\$421.00
6		Charity	\$4,874.73
7		Computer	\$35,901.49
8		Contract Labor	\$10,500.00
9		Copier	\$3,538.35
10		Credit Card Fees	\$2,769.25
11		Dental Cost	\$3,911.50
12		Direct Material Cost	\$11,085.66
13		Disposal	\$969.82
14		Drugs	\$18,827.51
15		E-Billing	\$29.51
16		Insurance (Business)	\$8,657.21

You may also prepare your General Ledger import by creating a *comma delimited* text file resembling the picture below.

```
File Edit Format View Help
Account_Number,Account_Name,Account_Amount
,Advertising,$500.00
,Answering Service,"$3,796.65"
,Automobile,"$2,817.33"
,Bank Srvc Charges,$421.00
,Charity,"$4,874.73"
,Computer,"$35,901.49"
,Contract Labor,"$10,500.00"
,Copier,"$3,538.35"
,Credit Card Fees,"$2,769.25"
,Dental Cost,"$3,911.50"
,Direct Material Cost,"$11,085.66"
,Disposal,$969.82
,Drugs,"$18,827.51"
,E-Billing,$29.51
,Insurance (Business),"$8,657.21" ..
```

Please note that there are 3 headers and 3 columns (the same 3 columns, with the same name, and in the same order, that you'll find in the Excel file). The comma separated value must be a CSV file, not a TXT file.

Please refer to the *EXAMPLE\_Ledger\_Import.xls* and / or *EXAMPLE\_Ledger\_Import.CSV* file in the Templates folder of the Prismata Data folder to give yourself an idea of what a typical General Ledger import might look like.

### Import Ledger Checklist

1. Open a Ledger\_Import file from the 'Templates' subfolder of the Prismata Data folder
2. Populate the Ledger\_Import file with your ledger's data
3. 'Save As' the file to the 'IMPORTS' subfolder of the Prismata Data folder.
4. Import the Ledger (See Chapter 4)
5. Remove the Ledger\_Import file from the 'IMPORTS' folder

### Preparing the Line items Data for Import

Now we will look at preparing the line items for import using the *Activity\_Lines\_Import.xls* template found in the Prismata Data/Templates folder.

Conceptually, preparing the Line item data is identical to preparing the General Ledger data except for the fact that there are many more columns to deal with. There are 61 columns to be exact, 31 of which have been pre-defined for you based on the types of data that organizations typically want to use in their analysis. Prismata has left 30 columns (*User\_Def\_Col\_01* through *User\_Def\_Col\_30*) for you to use however you wish. You can use those columns to import data that you'd like to use for cost allocation or reporting.

Of the 61 columns, some deserve special attention:

- Product ID & Product Name – These are the columns into which you will paste the products that were sold. ***A value in one of these columns is required. Every other column can be blank and the model will still run correctly. Lines with a blank product\_id and blank product\_name will be deleted by the CPS before import.***
- Sales Price, Revenue2, Revenue3 – If you are interested in **profit** analysis, these columns are where you will paste the revenue received for providing services or selling products. (Revenue2 & Revenue3 are generic fields to capture miscellaneous revenue such as rebates...) ***These values must be numeric.***
- COGS1, COGS2, COGS3– If you are interested in **profit** analysis, these columns are where you will paste the Cost of Goods specific to providing services or selling products. (For example, you can input the cost of materials for a specific Line item...). ***Must be numeric.***

To get your data into the Activity\_Lines\_Import.xls template, export the data from your organization’s sales management system into a spreadsheet or database of some kind and paste it into the appropriate columns in the Activity\_Lines\_Import.xls spreadsheet. Your spreadsheet should look like the table below.

1	A	B	C	D	E	F	G	H
1	Salesman ID	Salesman Name	Customer ID	Customer Name	Customer Type	Customer Account Type 1	Customer Account Type 2	Customer Zip
2	1	Bob	A	Three Brothers	Distributor	Frames		77042
3	1	Bob	A	Three Brothers	Distributor	Frames		77042
4	1	Bob	B	Jim & Son	Distributor	Tires		36415
5	1	Bob	B	Jim & Son	Distributor	Tires		36415
6	2	Janet	C	Allied	OEM	Tires		10001
7	3	Chris	C	Allied	OEM	Tires		10001
8	3	Chris	C	Allied	OEM	Tires		10001
9	3	Chris	D	Worldwide Shipping	OEM	Tires		98725
10								

Some sales management systems are significantly easier to get data out of or build custom reports in (which can be exported to text files or spreadsheets...) than others. Hopefully your software is one that enables easy access to the data (it’s your data after all...), and you can create a very detailed data import quite easily. If you have a difficult time knowing where to start, please give us a call. We have a tremendous amount of experience getting sales data into the right format, and we should be able to point you in the right direction. We have successfully integrated with several organization management systems, and can often offer tools that do the extraction for you.

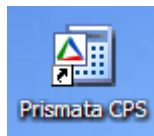
Please refer to the *EXAMPLE\_Activity\_Lines\_Import.xls* and / or *EXAMPLE\_Activity\_Lines\_Import.CSV* file in the Prismata Data\Templates folder to give yourself an idea of what a typical Line item import might look like.

Also, if you do not have Microsoft Excel, you can import your Line item data from a *comma delimited* text file. The file should have 61 headers and must contain 61 columns, the same 61 headers and columns found in the Excel spreadsheet. Refer to Appendix A for a breakdown of table columns.

### Import Line item Checklist

1. Open an Activity\_Lines\_Import file from the 'Templates' subfolder of the Prismata Data folder
2. Populate the Activity\_Lines\_Import file with data from your organization management system
3. 'Save As' the file to the 'IMPORTS' subfolder of the Prismata Data folder.
4. Import the file (See Chapter 8)
5. Remove the Activity\_Lines\_Import file from the 'IMPORTS' folder

Once the data has been prepared for import, go to the desktop and double click the Prismata CPS icon to launch the software.

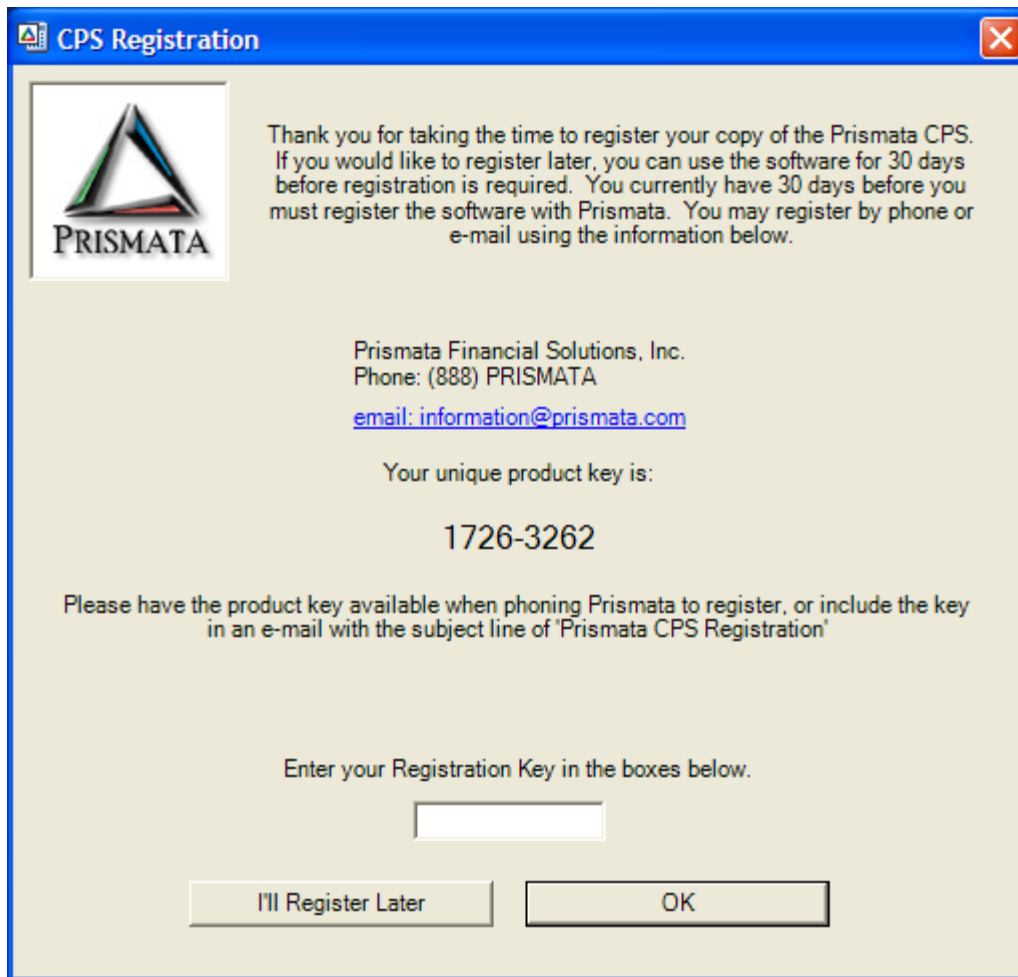


## Chapter 3 – Getting Started

The first time that you launch the CPS, there are a couple of things to expect:

### Registration

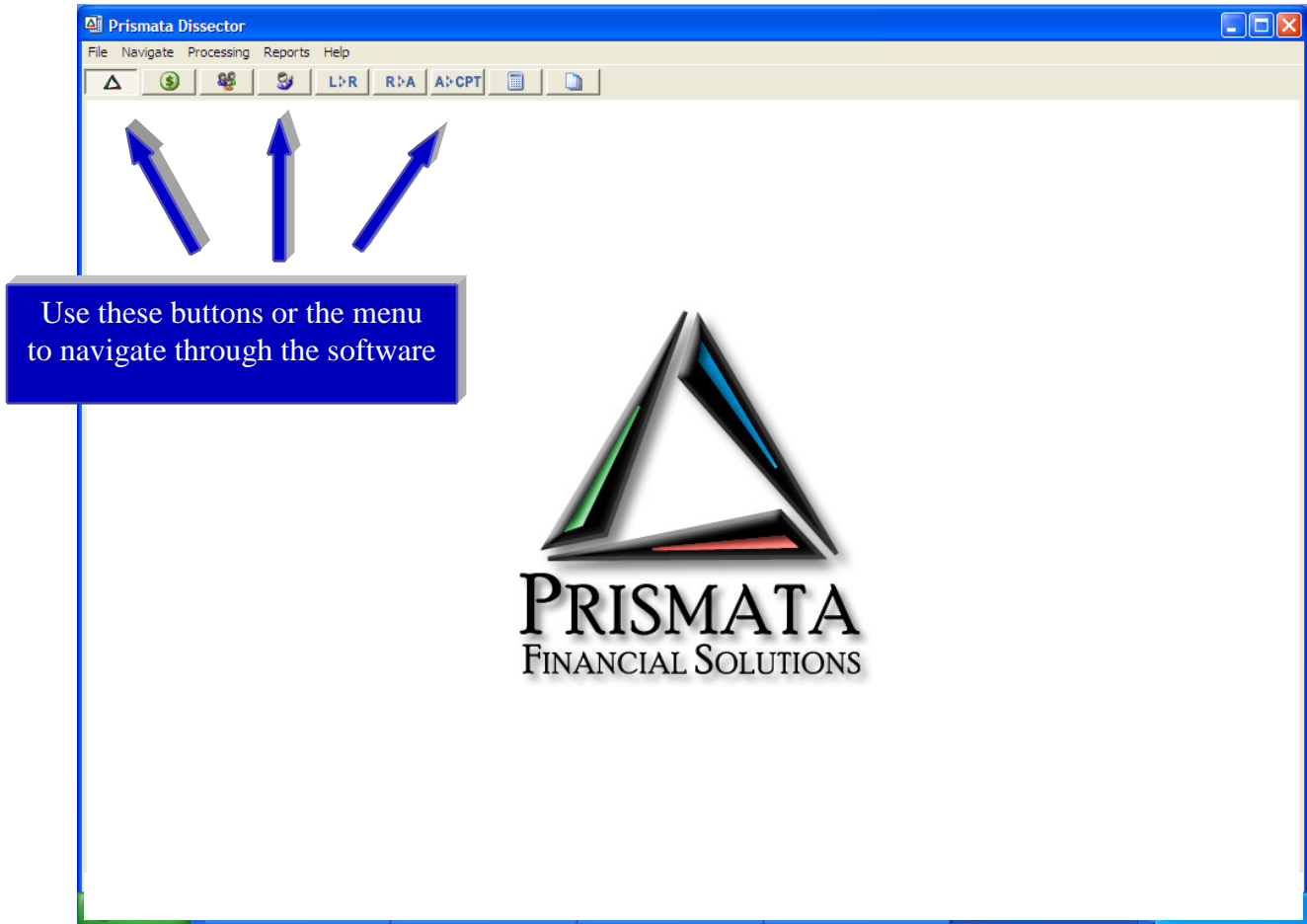
Prismata requires that all software (even demos) be licensed with the company within 30 days of installation. As such, until you register your product you will get the following screen upon software launch.



You may register your product either by phone or email. You must provide Prismata with the Product Key, at which time Prismata will provide you with a Registration Key for you to enter into the text box on the registration screen.

## The Welcome Page

The first screen you'll see upon the software's opening is the Welcome Page.



From here, you begin your model building.

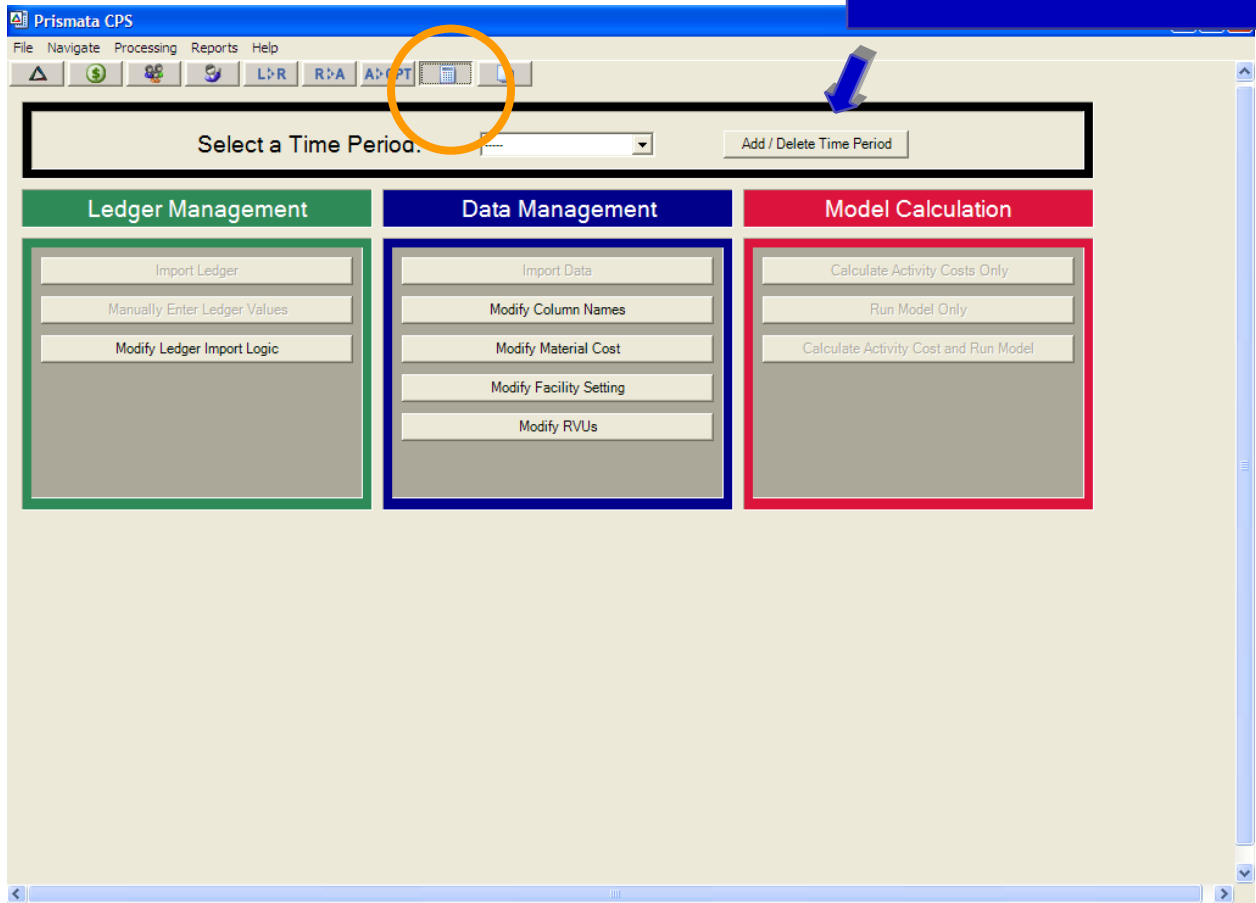
## Chapter 4 - Step 1: The General Ledger

Building your model begins with entering in the information from your General Ledger – both the account names and the corresponding values for the time period you wish to consider. There are two ways to accomplish this – you may enter them manually, or you may import the data. If you choose to import the data, please follow the ‘Preparing the General Ledger for Import’ instructions in Chapter 2.

### Creating Time Periods

Before entering or importing your ledger data, you must define for the CPS which time period you’d like to put the data into. All data management, including defining time periods, importing data, and running the model are accomplished on the same page of the software. The Import / Run Model page is the 2nd button from the right on the toolbar, and has a calculator icon.

Click this button to add, modify or delete time periods.



The screenshot displays the Prisma CPS software interface. At the top, there is a menu bar with 'File', 'Navigate', 'Processing', 'Reports', and 'Help'. Below the menu bar is a toolbar with several icons. The icon representing 'Add / Delete Time Period' (a calculator icon) is circled in orange. A blue arrow points from a text box above to this icon. Below the toolbar is a section labeled 'Select a Time Period.' with a dropdown menu and an 'Add / Delete Time Period' button. The main interface is divided into three columns: 'Ledger Management' (green header), 'Data Management' (blue header), and 'Model Calculation' (red header). Each column contains several buttons for various functions.

Ledger Management	Data Management	Model Calculation
Import Ledger	Import Data	Calculate Activity Costs Only
Manually Enter Ledger Values	Modify Column Names	Run Model Only
Modify Ledger Import Logic	Modify Material Cost	Calculate Activity Cost and Run Model
	Modify Facility Setting	
	Modify RVUs	

Once there, click the ‘Add / Delete Time Periods’ button to see the screen below.

**Manage Time Periods**

ADD A NEW TIME PERIOD:

Time Period name:

Start Date:

End Date:

MODIFY / DELETE AN EXISTING TIME PERIOD:

Existing Time Period name:

New Time Period name:

Start Date:

End Date:

Enter information, and click 'Add Time Period'

After you add a time period, click 'OK' on the 'Manage Time Periods' dialog...

...and select your newly added time period from the 'Select a Time Period' drop down.

The screenshot shows the Prisma CPS software interface. At the top, there is a menu bar with 'File', 'Navigate', 'Processing', 'Reports', and 'Help'. Below the menu bar is a toolbar with various icons. The main interface is divided into three columns: 'Ledger Management' (green header), 'Data Management' (blue header), and 'Model Calculation' (red header). In the 'Ledger Management' column, there are three buttons: 'Import Ledger', 'Manually Enter Ledger Values', and 'Modify Ledger Import Logic'. A blue callout box with a white border points to the 'Import Ledger' button, containing the text: 'Use this button to import your General Ledger.' Another blue callout box with a white border points to the 'Select a Time Period' dropdown menu, containing the text: 'Selecting a time period activates the 'Import' buttons.'

\*\*\*\*\* **A note about officer salary and material cost...** : Two special considerations when preparing the general ledger are (1) how to handle officer salary and (2) how to handle direct material cost.

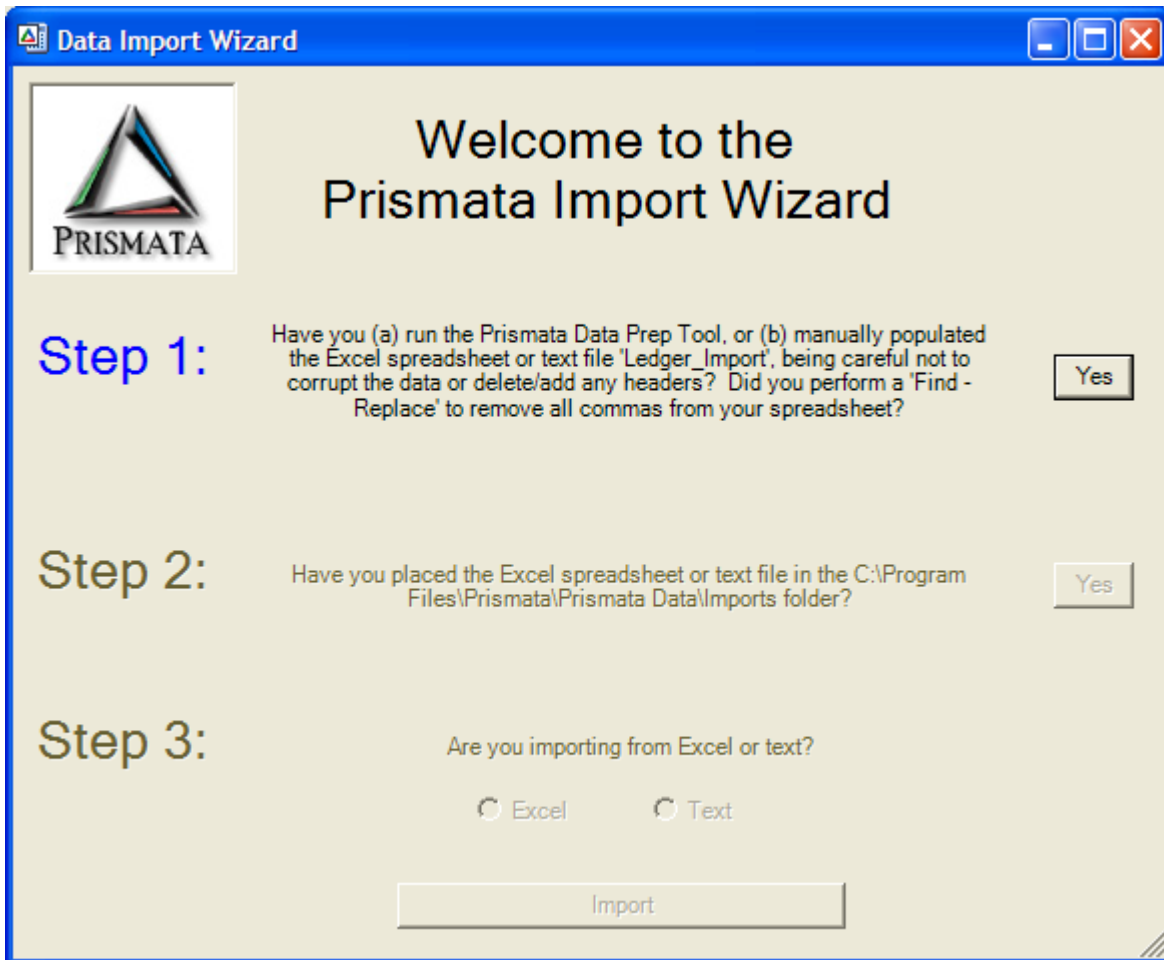
The issue with officer salary is that if the officer's salary is simply the profits of the organization, then including the salary into the costing information is mixing costs and profits into a single analysis, and the results are compromised by how efficiently an organization generates revenue. Prisma recommends that either a regional salary average be used to represent the officer's salary or the officer's salary be excluded from the analysis, both for the understanding of your own results as well as for a benchmarking standard.

Direct material cost also warrants special attention. If at all possible, the direct material cost should *not* be allocated from the general ledger – rather it should be imported with the activity

lines in the COGS1, COGS2 or COGS3 field. If it cannot be imported w/ the lines, Prismata allows for users to enter the cost of materials in the software by clicking on the 'Modify Material Cost' button on the Import and Run Models page.

### Importing the General Ledger

Once you have selected a time period, click on the 'Import Ledger' button and your import will begin. The first thing you will notice is the Import Wizard dialog.



The Import Wizard helps remind you to format your import files appropriately and to place them in the folder where the CPS is going to look for them to import.

### Reminder -- Import Ledger Checklist

1. Open a Ledger\_Import file from the 'Templates' subfolder of the Prismata Data folder
2. Populate the Ledger\_Import file with your ledger's data
3. 'Save As' the file to the 'IMPORTS' subfolder of the Prismata Data folder.
4. Import the Ledger (See Chapter 4)

5. Remove the Ledger\_Import file from the 'IMPORTS' folder

During the import process you may get several messages. If this is your first import, you will get the following message:



The Prismata CPS needs to know how to recognize ledger accounts so that you don't have to re-allocate your ledger every time you do a new import. If you tell the software that your account names remain constant, what you're saying is that Prismata can use the account name to recognize specific ledger accounts (e.g. advertising, salaries, rent, insurance...) and Prismata needs to remember how your account *names* relate to the resource groups (e.g. that 'Parking' Expense should be allocated to all employees evenly, or that 'Rent' Expense should be allocated to all employees based on square footage...). If you say that your account numbers remain constant, Prismata will remember how your account *numbers* relate to resource groups (e.g. that account number 4005-00-01 should be allocated to all employees evenly...). When you import your ledger for a second time period, Prismata scans the names or numbers (depending on which one you define) and makes sure that it recognizes all of the accounts being brought in. If Prismata finds accounts that it doesn't recognize, it will inform you and import the ledger accounts as new accounts.

The critical errors that you might get from importing the General Ledger will occur if:

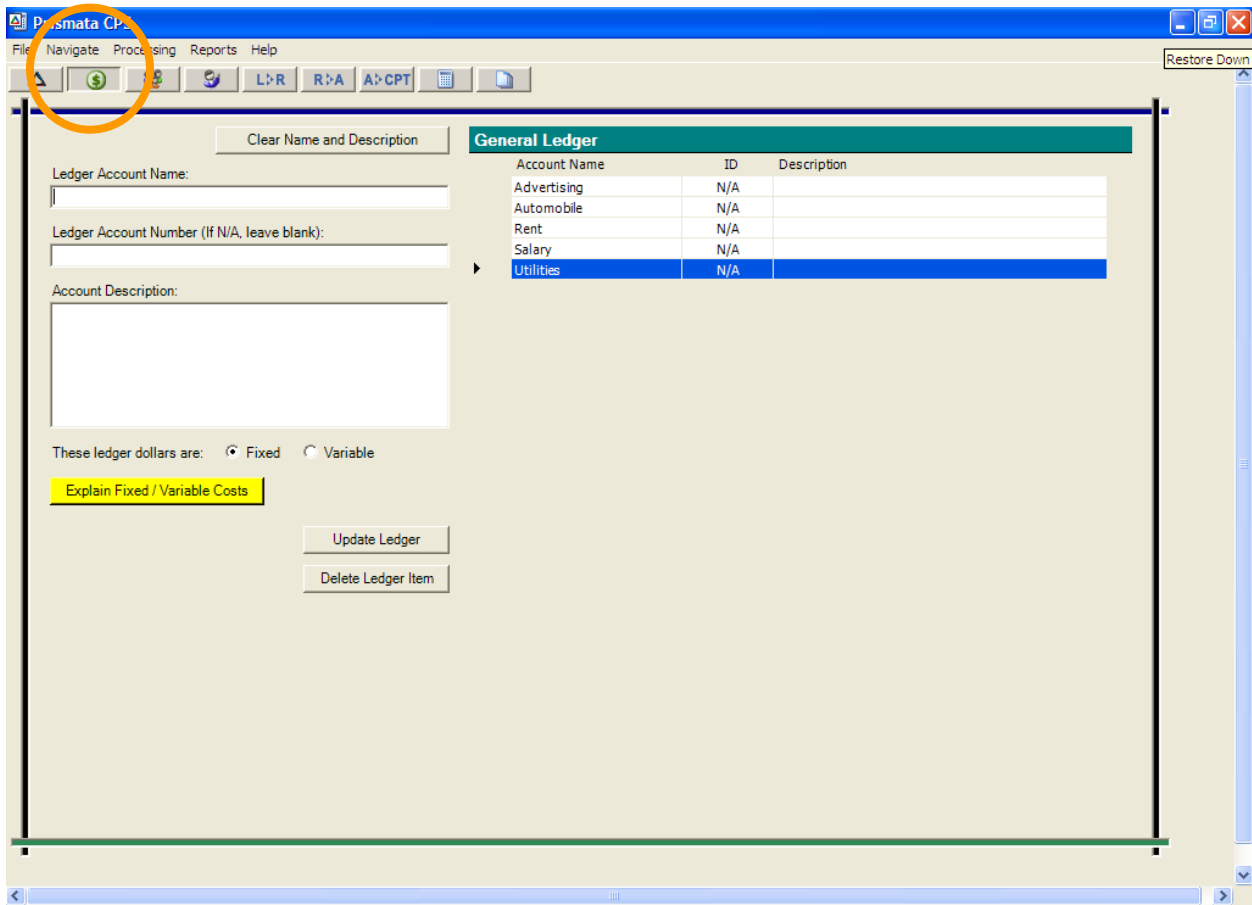
- The ledger contains a non-numeric value in the 'Account Amount' field
- The ledger contains a Null or duplicate value in the 'Account Name' field if account\_name has been defined as key
- The ledger contains a Null or Duplicate value in the Account Number field if account\_number has been defined as key

Congratulations on your first import. To view or modify the ledger accounts you have imported, please go the ‘Ledger’ page described in the next section “Manually Entering the General Ledger”.

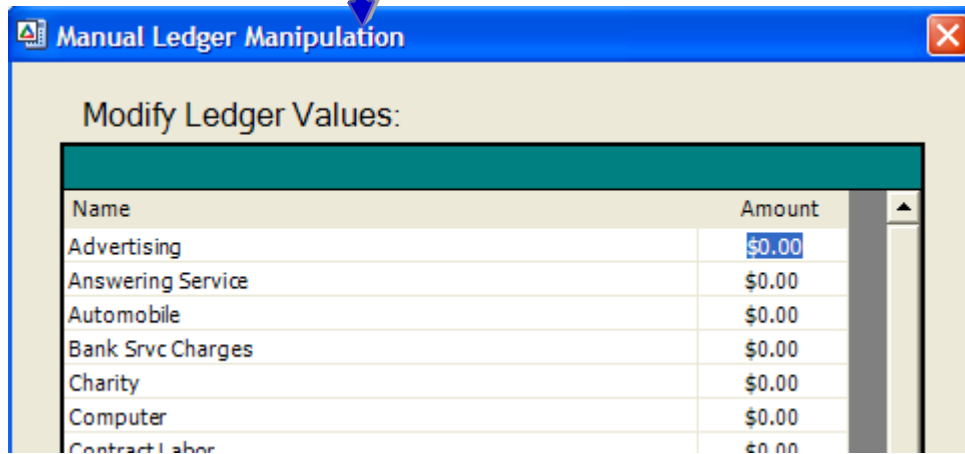
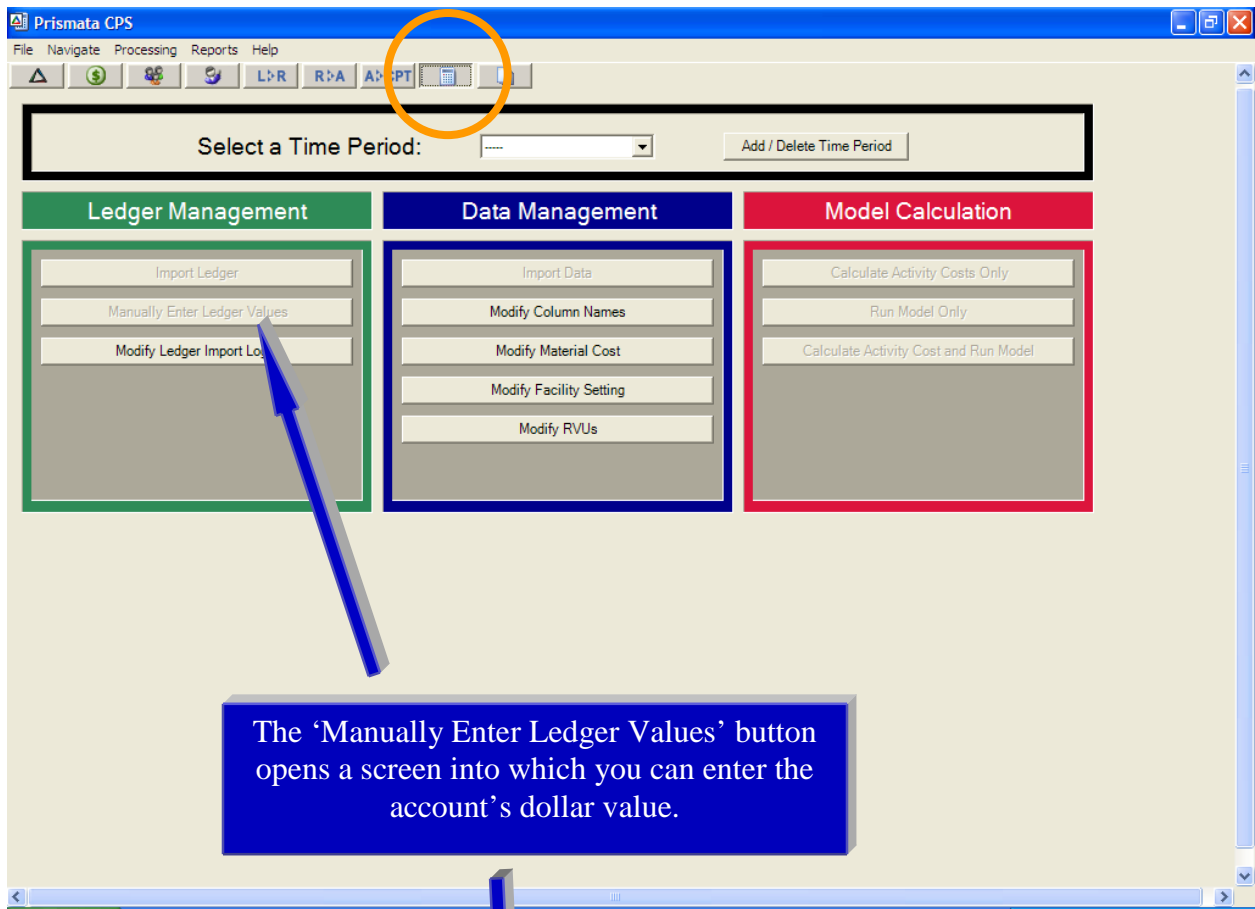
### Manually Entering the General Ledger

If you prefer not to import the data, then you may manually enter it directly into the Prismata CPS. This is a two step Process.

First, click on the Ledger tab (the second button from the left, with a \$ icon). Here you may enter the General Ledger categories. If you have not defined whether or not the account\_name or account\_id is key to your ledger, the software will ask you to. If you define the name as key, you **must** include a name and may include a number if applicable, and may attach a description to lend clarity to what is included in the account. If you define the number as key, you **must** include a number and may include a name if you like. To add an account, just type the name of the account to be added and click “Update Ledger.”



Once you have all of the Ledger accounts set up, you may enter the associated dollar values. On the Import / Run Model page (2nd button from the right with a calculator icon), select a time period and click on the button “Manually Enter Ledger Values.”



For examples of typical Ledger Accounts, refer to Appendix A.

**A note about fixed and variable expenses:** One of the most intriguing aspects of the CPS is that it allows you to define whether or not your expenses are fixed or variable, and then tracks those expenses through the cost allocation. This lends itself to very interesting analysis in that

you can predict the affects that changes will have on your profitability, for instance you can estimate how much your profit will go down if you drop one of your customers.

A general ledger of average complexity should require 15 – 45 minutes to enter.

Congratulations on getting your Ledger into the CPS.

Next Step – Defining Resources.

## Chapter 5 - Step 2: Defining Resources

Defining Resources is where we begin to really dig into the heart of Activity Based Costing. While the General Ledger is a very intuitive way to organize costs at a high level, the Ledger is not grouped in a way that lends itself to clarity upon dissection. By defining Resources we are able to re-group the General Ledger accounts into cost groups that make more sense to analyze more granularly.

Essentially, there are two basic kinds of Resources:

- 1) Personnel Based Resources – These are defined as any person or group of people that perform a like or related activity
  - Examples of these Resources: Order Entry, Picking, Delivery. ..
- 2) Non-Personnel Based Resources – These are expense categories (e.g. Advertising) that do not exist because of the employees, but rather for the organization as a whole, or for specific products or Customers
  - Examples of these Resources: Insurance, Training, Fees, Overhead.

The general methodology of defining the Resources for your organization is this:

- 1) Create a list of the Personnel-Based Resource Groups that you have in your organization (these are the people or groups of people that perform similar or related functions)
- 2) Create an ‘Overhead’ Resource
- 3) Examine your ledger accounts. For each account determine if:
  - a. The expense can be directly associated with the employees. If so, the Ledger Account expenses will be allocated directly to the employees, so you don’t need to add a Resource Group to your list.
  - b. The expense can be directly associated with specific Products or Customers or Customer Types...
  - c. The expense is simply a ‘cost of doing business’
- 4) For all Ledger accounts that can be specifically associated with certain Products or Customer types or Customers and are *not* directly associated with employees and are *not* general costs of doing business, add a Resource (with the same name as your Ledger account) to your Resource List.

It’s important to get to the root of why an expense exists. For example, on your Ledger you may have a “Computer” expense category. Why does the “Computer” expense exist – is it to help the employees do their jobs, or is it because a customer requires for invoices to be wired from a specific terminal? If you decide that the computers are there because an customer has specific requirements about invoice submission, we would want to create a Resource group to silo those dollars so that we could allocate them to the customer directly.

## Example

### Step 1 – Create a list of Personnel Resources

My resource list for a small bike shop looks like:

- P - Mgr
- P - Sales
- P - Services
- P - Accounting
- P - Warehouse
- P - Delivery

**\*\*Tip:** It is helpful to name your personnel Resource Groups with the same 1<sup>st</sup> letter so that they stay together when sorted alphabetically. This can speed up some of the future allocation steps.

### Step 2 – Create an ‘Overhead’ Resource

My resource list now looks like:

- Overhead
- P - Mgr
- P - Sales
- P - Services
- P - Accounting
- P - Warehouse
- P - Delivery

### Step 3 – Review Ledger Accounts

Ledger Account	Does These Expenses Exist Because of Personnel?	Do These Expenses Exist In Order To Service Specific Products or Customers or Vendors... ?	Do These Expenses Exist Simply as a Requirement of Running a Business?
Advertising	N	N	Y
Answering Service	Y	N	N
Automobile	Y	N	N
Bank Svc Charges	N	N	Y
Charity	N	N	Y
Computer	Y	N	N
Contract Labor	N	Y	N
Copier	Y	N	N
Credit Card Fees	N	Y	N
Dental Cost	Y	N	N
Disposal	N	N	Y
E-Billing	N	Y	N
Insurance (Health / Dental / Life)	Y	N	N
Insurance (Disability)	Y	N	N
Insurance (Business)	N	N	Y
Licenses and Permits	N	N	Y
Loan	N	N	Y

Ledger accounts with Y's in this column will be allocated to the personnel based resources

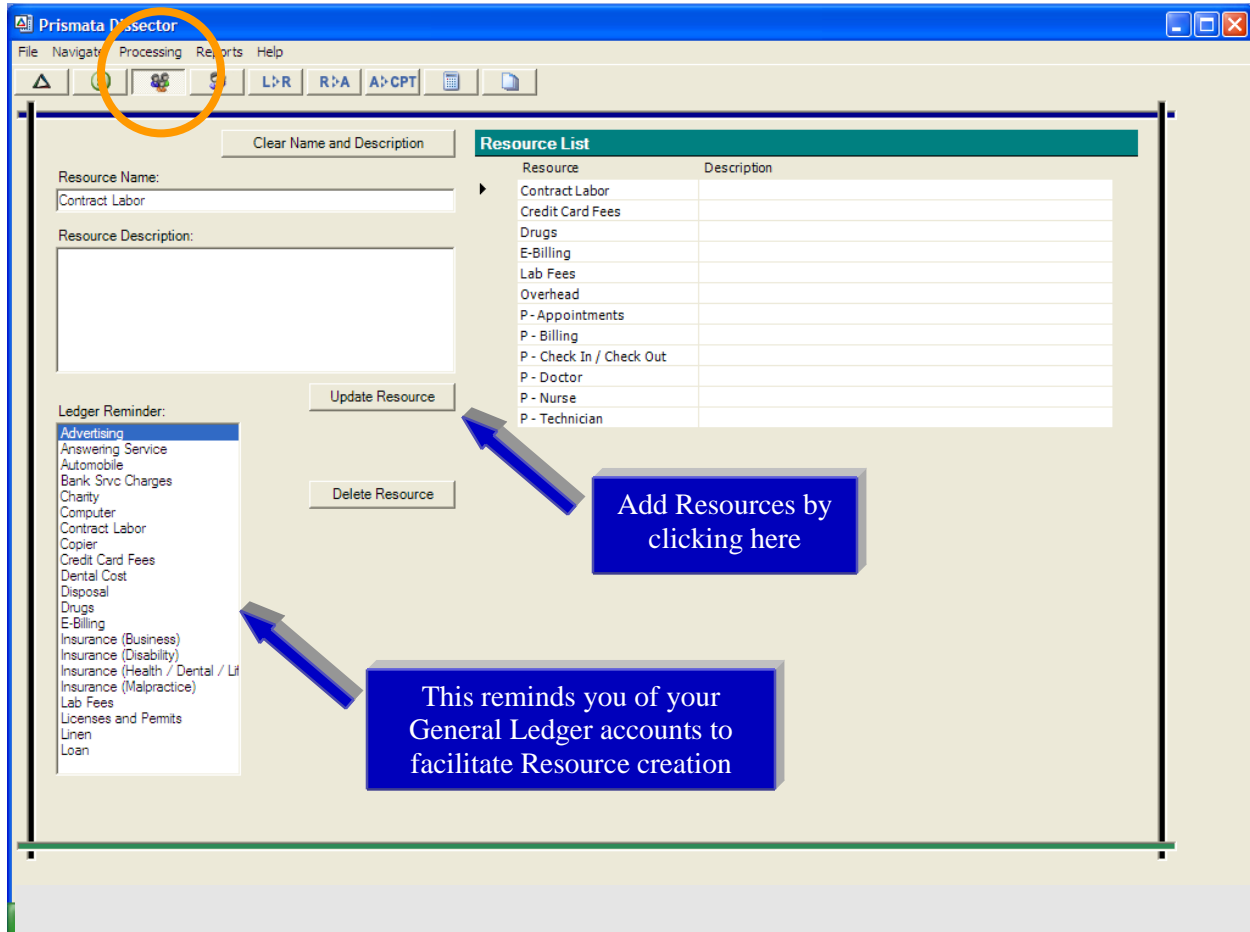
Ledger accounts with Y's in this column will require you to define new resource groups

Ledger accounts with Y's in this column will be allocated to the 'Overhead' resource



## How to enter this into the Prismata CPS

Once you have your Resource List defined, you may enter those Resources on the Resources page, shown in the picture below. The Resources Page of the CPS is the third from the left, and has a '3 people' icon.



This process works identically to the way that General Ledger accounts are entered in manually. Just type in a Resource Name and click 'Update Resource'.

To help remind you of the Ledger accounts that you have already entered (thereby facilitating the creation of your 'Resource Decision Matrix'), there is a Mini-View in the bottom left of the screen with each of the Ledger accounts listed out.

For examples of typical Resources, refer to Appendix B.

Defining Resources should take between 15 and 45 minutes.

Congratulations on defining your Resource Groups.

Next Step → Defining Activities

## Chapter 6 - Step 3: Defining Activities

Everyone in your organization has a *primary* set of Activities that he or she performs. In this step of building a costing model you create a master list of those activities. Most users find this step to be extremely useful in that, long before any actual cost allocation takes place, you learn a good deal about your organization, specifically what people are doing and what is causing them to do it!

### Interviews

You probably have a very good idea of what the personnel are doing and why they are doing it. Depending on how closely you work with everyone in your organization, it may make sense to sit down with the employees and speak with them about their activities. These ‘mini – interviews’ are easy to perform and should only take between 10 to 20 minutes depending on how complicated the Resource’s role is.

Some Resources may only do one thing - others may do a dozen things, ***but do not to get caught up in too many small, unimportant activities***. As a rule, an Activity should take up **at least 20%** of a Resource’s time. Breaking a Resource Group into more than 3 activities should almost never happen. Remember, a good costing model is a balance between *accuracy* and *usability*. If you define your activities too granularly, small details will become increasingly important and ‘the exceptions to the rule’ will begin to overpower your model, making it unusable.

As a rule of thumb, you probably should not have more than 10 activities per location.

### Examples

If you want to add a bit more granularity, to give you a flavor for what activities might look like, here are is an example of Activities broken down for the warehouse:

Receiving  
Picking  
Misc Product Handling

Or, here is an example list for a sales team:

Customer Mgmt  
Order Entry

When creating the Activity List, also take into consideration that some people may perform the same activity, such as “Customer Mgmt”. Even though the two people involved might have different primary roles, if they both spend 20% of their time managing customers, then it is the same activity and should therefore be grouped together in the same cost bucket.

Lastly, you should create a separate activity for each of the Resource Groups that were created because they were directly associated with servicing specific Products, Customers, Vendors...

## How to enter this into the Prismata CPS

Below is the screen where you would enter your list of Activities. To access the Activity page, click on the 4<sup>th</sup> button from the left, with the single person icon.

Prismata CPS

File Navigate Processing Reports Help

Activity List

Activity	Group	Description
----------	-------	-------------

Activity Name

Activity Description:

Resource Reminder:

Activity Groups:

Which activity group should your activity be a member of?

Explain Activity Groups

Misc

Update Activity

Delete Activity

This reminds you of your Resources to facilitate Activity creation

Add Activities by clicking here

As with entering Resources, just type in the Activity Name and Description (if applicable) and click “Update Activity.” The description field can be very helpful in jogging your memory as to exactly what an activity consists of.

A note about activity groups: To help make certain reports more manageable and easier to understand, Prismata allows you to group your activities together. For example, if you have several different locations in different cities and you are modeling them all together, you may have several different Customer Mgmt activities, e.g. Customer Mgmt – Houston, Customer Mgmt – San Antonio, Customer Mgmt – Austin... You can create an activity group called “Customer Mgmt” and all your individual activities to it – thus making your reports significantly more manageable.

For examples of typical Activities, refer to Appendix C.

Defining Activities (of average complexity) should take between 30 and 60 minutes.

Congratulations on defining your Activities.

Next Step → Defining Relationship Between Ledger and Resources

## **Chapter 7 - Step 4: Ledger to Resources**

Once you have all of your Ledger, Resource, and Activity accounts entered, it's time to begin allocating. And the first round of allocations is from the General Ledger Accounts to the Resources.

### **In Theory**

First, let's discuss the theory behind this and then we will go over how to enter the information into the program.

There are 3 main ways that Ledger accounts will pass to Resources

- 1) They will pass to the Overhead Resource
- 2) They will pass to Personnel Based Resources
- 3) They will flow through as their own entity

### **Allocations to Overhead**

Ledger expenses that are simply the costs of 'keeping the doors open' should be allocated 100% to the Resource of "Overhead". Some examples of these might be: advertising, charity, business insurance, postage, repairs, storage, subscriptions, accounting software ☺ ...

When we build custom costing models for our clients, we explain that 'Overhead' is like an internal tax – it is simply money that is scraped off of the top of revenue received.

### **Allocations to Personnel Based Resources**

Ledger expenses that exist primarily because of the employees should be allocated to the Personnel-Based Resources. For example, let's say that one of your ledger accounts is "Computers". You have six employees, but only two of them have computers. The "Computer" expense should be divided up among the employees with computers.

For another example, consider "Rent". You may wish to divide rent up based on square feet if there are some employees which require more room to do their work than others. Since those Resources would consume more rent cost, their Activity costs would increase and ultimately be more accurately passed on to the line items that they service.

What these last two examples should illustrate is that much of what happens in this step involves accurately representing the costs of having an employee work in the organization – not for the sake of seeing his or her cost, but rather for understanding how much the activities that they perform are really worth.

Some examples of Ledger accounts that we typically allocate to Personnel Based Resources are: communications services, computer, copier, health insurance, parking, rent, salaries, telephone...

### **Independent Flow-through Resources**

Ledger expenses that exist primarily because of specific products or customers or customer types... should be allocated 100% to themselves as a Resource.

This is a nice, simple way of stating that the Ledger account is already grouped in a way that makes very intuitive sense to allocate directly to certain Line items. So there is no need to re-define them in any way. Just keep passing that cost bucket through until the end and then divide it up how you want to.

For example, Credit Card Fees. These should be divided to those orders that are paid with a credit card. Another example might be Contract Labor – these dollars are applicable only to those products that the contract labor serviced.

### **Allocation Examples**

Once you decide what Resources to divide the costs out to, you need to put a percentage allocation on it. See the chart below.

<b>P - Sales</b>			<b>\$ 55,000.00</b>
	Automobile	20.00 %	\$ 2,000.00
	Rent	25.00 %	\$ 11,250.00
	Salary	30.00 %	\$ 37,500.00
	Utilities	25.00 %	\$ 4,250.00

These are all of the Ledger accounts that a organization decided to allocate to the “P - Sales” Resource.

In some cases, estimations provided the percentage figure. For example, it might be estimated that “Sales” consumes 20% of the utilities expense based on a rough estimate of the square footage of the sales department.

Some are exact numbers. Sales uses exactly 20% of the corporate automobiles, and so receives 20% of the automobile expense.

Allocation is guided by your knowledge of the organization and your own solid common sense and intuition.

### **How to accomplish Ledger to Resource Allocation in Prismata CPS**

Once you have decided how to allocate, it’s easy to do in the Prismata software. Use the Ledger to Resource screen (shown below), 5<sup>th</sup> button from the left, with the L→ R icon.

**Ledger Accounts**

Account	Total %
Advertising	100.00 %
Automobile	100.00 %
Rent	100.00 %
Salary	100.00 %
Utilities	100.00 %

**Ledger To Resource Allocation**

Resource Name	Percent
Overhead	0.00 %
P - Accounting	20.00 %
P - Admin	30.00 %
P - Delivery	15.00 %
P - Sales	30.00 %
P - Services	5.00 %

**Mini - View**

Resource	Percentage
P - Accounting	20.00 %
P - Admin	30.00 %
P - Delivery	15.00 %
P - Sales	30.00 %
P - Services	5.00 %

Refresh Ledger Total Allocation %

Since you have already entered in all of your Ledger accounts and all of your Resource accounts, all you have to do is select the Ledger account you wish to allocate from and fill in the percentage amount for each applicable Resource. *\*\*Be sure to click off of the 'Percent' column in the 'Ledger To Resource Allocation' box before selecting a different Ledger account – if the 'Percent' cell is active when you select a new ledger account, that cell's value will not be saved.*

Resources with allocations will appear in the “Mini View” window so that it is easy to keep tabs on where the money is going. When you Ledger account are completely allocated, the message at the top of the page will turn green and inform you “Ledger → Resource Allocation Complete.”

Allocating from Ledger to Resources should take 20 – 40 minutes.

Congratulations on defining what Resources consume what Expenses.

Next Step → Defining Relationship Between Resources and Activities

## **Chapter 8 - Step 5: Resources to Activities**

Now that your costs are grouped in ways that makes sense for them to be passed along to Activities, allocating to the activities becomes the next step in the process.

Several parts of this step are going to be extremely easy. In the last section, we identified 3 main ways that Ledger accounts pass onto activities – either to Overhead, to a Personnel Based Resource, or as a Flow-Through Resource. Overhead and Flow-Through Resources are simple and will be treated the same way – we will get to them in a minute. First let's talk about Personnel Based Resources.

### **Personnel Based Resources**

The rule is this: allocate each Resource to the Activities that the Resource performs based on the percentage of time that the Resource spends doing each activity.

As we mentioned in the section on identifying Activities, there is some additional information that should be gathered in your interviews with employees. Aside from just listing Activities, you should also divide those Activities into the percentage amount of time that the Resource (employee or group of employees) spends on them.

Sometimes this can be done by just ballpark estimates, other times you may wish to look at the actual workload and “run the math”.

For example, assume that you learn that one activity that a person does is Order Entry, and that it takes about 5 minutes to enter an order. You might then look at the number of orders that your team entered. If it is 50 per day, then you know that they spend about four hours per day entering orders (50 orders per day, times 5 minutes per order), or ~50% of their time if they work a 40 hour week.

During the interview, it can be prudent to ask the resource how much time they spend on this Activity as a percentage of their time. If they answer 60%, that's pretty close to your back of the envelope numbers. However, if they answer that they spend 90% of their time performing this activity, it is time to dig further into the matter!

Again, there is no exact science to doing this. Good judgment and knowledge of how your organization operates should be your best companions in this process.

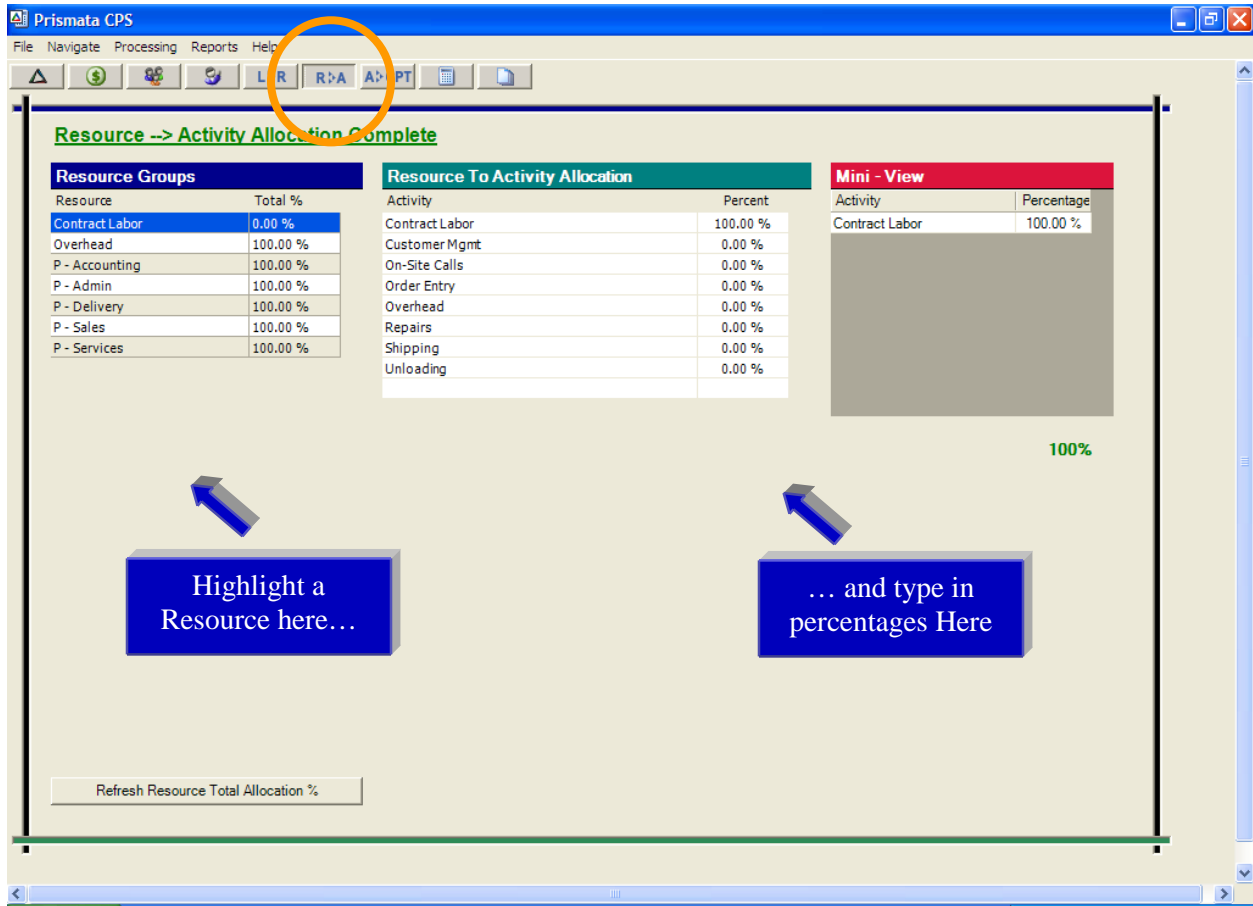
### **Overhead & Flow-Through Resources**

As a rule of thumb, pass the Resource of Overhead 100% to the Activity of Overhead. Similarly, Ledger accounts that were passed onto Resources as their own entity should be passed onto Activities as their own entity as well.

So, in a previous example, the Ledger account ‘Contract Labor’ was allocated 100% to the Resource ‘Contract Labor’, which should now be allocated 100% to the Activity of ‘Contract Labor’.

### How to enter this into the Prismata CPS

Entering in this allocation information is just as easy as it was for the Resource allocations. Use the Resource to Activity screen (4<sup>th</sup> button from the right, with the R → A icon).



As you can see, it works the same way that the Ledger to Resource allocation page works. Just highlight the Resource you wish to allocate, and fill in the percentage values on the appropriate Activities.

The Mini-View is there to help keep your eye on all Activities with allocations, and all percentages should add up to 100% when you are done, or the message at the top of the screen will not turn green and read “Resource → Activity Allocation Complete.”

### Performing a Test Run of the Activity costs

Once you complete this step you are actually at a very exciting point in the process of building your costing model.

You can calculate your fully loaded Activity Costs! Ever wonder exactly how much money is spent delivering products or entering orders or doing on-site calls? Now you know. And the fully loaded activity numbers have tremendous value in that you can use them to generate basic metrics, e.g. Order Entry cost divided by # of Ordes = Avg Order Entry Cost Per Order.

Also, from a validation standpoint it is a good idea to review the total costs of all of the Activities just to make sure that they make sense. If something seems out of line, you can always backtrack and change it if your methodology yields a result that you don't believe in.

To run the Activity costs, go to the Import / Run Model page (2<sup>nd</sup> button from the right, calculator icon) and click "Calculate Activity Costs Only" under the 'Model Calculation' section. When the model finishes calculating, go to the 'Reports' page (1<sup>st</sup> button from right, with the papers icon), run an 'Activity Cost' report\* and look over the results. If they look good to you, then you are ready to move on. If not, find the costs that are out of line and backtrack until you uncover the problem.

Allocating from Resources to Activities should take 20 – 40 minutes.

Congratulations on defining what Resources do.

Next Step → Defining Allocation Methodology.

\* For more information on running reports, please refer to Chapter 12.

## Chapter 9 - Step 6: Activity Allocation Methodology

\*\*\*\*\* STOP \*\*\*\*\*

Importing your Line item data into the model *before* defining your cost allocation methodologies makes the allocation methodology process **significantly simpler**. If you have not imported your Line item data yet, it is strongly recommended that you do so. Please refer to Chapter 2 for assistance in preparing the Activity\_Lines\_Import file.

The screenshot shows the Prisma CPS software interface. At the top, there is a menu bar with 'File', 'Navigate', 'Processing', 'Reports', and 'Help'. Below the menu bar is a toolbar with various icons. A blue circle highlights the 'Import' icon in the toolbar. Below the toolbar is a 'Select a Time Period:' dropdown menu. A blue callout box points to this dropdown with the text 'Selecting a time period activates the 'Import' buttons.' Below the dropdown is a section with three main panels: 'Ledger Management' (green header), 'Data Management' (blue header), and 'Model Calculation' (red header). The 'Data Management' panel is highlighted with a blue border and contains several buttons: 'Import Data', 'Modify Column Names', 'Modify Material Cost', 'Modify Facility Setting', and 'Modify RVUs'. A blue callout box points to the 'Import Data' button with the text 'Click this button to import your Line items.' The 'Model Calculation' panel contains buttons for 'Calculate Activity Costs Only', 'Run Model Only', and 'Calculate Activity Cost and Run Model'. The 'Ledger Management' panel contains buttons for 'Import Ledger', 'Manually Enter Ledger Values', and 'Modify Ledger Import Logic'.

### Reminder - Import Line item Checklist

- 1) Open an Activity\_Lines\_Import file from the 'Templates' subfolder of the Prisma Data folder
- 2) Populate the Activity\_Lines\_Import file with data from your organization management system
- 3) 'Save As' the file to the 'IMPORTS' subfolder of the Prisma Data folder.
- 4) Import the file (See Chapter 8)
- 5) Remove the Activity\_Lines\_Import file from the 'IMPORTS' folder

\*\*\*\*\*

## **Introduction**

Defining the Allocation Methodology is where the rubber meets the road in Activity-Based Costing, and where you will begin to see the model that you are building really begin to take shape. The questions that you're trying to answer by defining the allocation methodology are:

“What are the Line items that should be allocated expense from a certain activity, and how much of the activity cost should be allocated to each?”

For example - Repairs. Assume that your organization only does maintenance work on specific products, and that other products that require servicing are shipped out for work by a 3<sup>rd</sup> party. Since the activity is only applicable to certain products that were serviced in-house, we would want to allocate those costs only to those products. If each Line item took the same amount of effort to service, we would want to allocate the costs of repairs to each applicable line item evenly.

Another example – Credit Card Fees. These expenses are only applicable to orders that were paid for with a credit card, so we would want to isolate our expense allocation to those orders. We would probably not want to allocate the costs to all applicable orders evenly, because the credit card fee is a function of the size of the order. Therefore, our allocation methodology would be to allocate Credit Card Fees to orders that were paid for with a credit card based on Revenue.

As we've stated before, there is not a single right way of doing this. Use what you know about how your organization works and allocate accordingly.

## Creating the Allocation Methodologies in the CPS

The screenshot shows the Prisma CPS software interface. The main window is titled "Prisma CPS" and has a menu bar with "File", "Navigate", "Processing", "Reports", and "Help". Below the menu bar is a toolbar with icons for "Home", "Save", "Print", "Refresh", "L:R", "R:A", "A:CPT", and "Help".

On the left side, there is an "Activity List" table with the following data:

Activity	Eqn?
Contract Labor	No
Customer Mgmt	No
On-Site Calls	No
Order Entry	No
Overhead	No
Repairs	No
Shipping	No
Unloading	No

The main configuration area is for the "Order Entry" activity. It includes the following fields and options:

- Name:** Order Entry
- Description:** (Empty text area)
- COSTS SHOULD BE ALLOCATED TO:** Orders
- WHERE:** (Two dropdown menus, both set to "equals")
- and/or:** Radio buttons for "and" and "or" (both unselected)
- BASED ON:** Even Allocation
- COSTS SHOULD TRICKLE DOWN BASED ON:** Revenue
- Custom Allocation Query

Below the configuration area is a text box for the "Allocation Methodology" with the following text: "The costs associated with order entry are allocated to orders evenly and then are trickled down line items based on revenue." At the bottom right is a button labeled "Validate And Build Equation".

!!!!!!!!!!!! \*\*\*\*\* The Allocation Methodologies You Should Probably Use \*\*\*\*\* !!!!!!!!!!!!!

The tip that we've been reiterating to 'Keep it Simple' is *especially* true in this step. The best approach to take in building your allocation methodologies is this:

For each activity, build an appropriate filter to ensure that the activity costs are only allocated to applicable Line items. Then proportion the activity costs out to Line items based either on revenue or evenly.

This step is described below in section 1 'The Optimal Model – Good Filtering and Allocation to Line items'.

The Prisma CPS is one of the most powerful and advanced costing analysis engines in the world – but as such is somewhat like a sports car that goes up to 220 on the speedometer but that

you probably shouldn't take past 65. By keeping it simple, you assure yourself of building a very accurate and usable financial model.

## Model Design Approaches

### **(1) The Optimal Model – Good Filtering and Allocation to Line items**

As described in the section 'The Allocation Methodology You Should Probably Use' above, this technique affords you the optimal balance of precision and simplicity. Essentially, for each activity, you define filters to ensure that the expenses are allocated only to appropriate Products or Customers ... and then proportion the expenses out to the applicable *Line items (not Orders, Customers, Products or Vendors...)* based on revenue or evenly.

#### **Using the filters**

During the process of creating your allocation methodologies, there will probably be Activities where you will want to use Prismata's filters to 'silo' the costs that are allocated to the certain Line items. The filter is a powerful tool for you to use when it is not correct for all of the products or customers or vendors or locations... to get hit with a certain Activity cost because that Activity may only be relevant to a specific subset of Line items. It's important to note that you can only use data that you have imported into the model as a filter.

#### **Example**

Let's say that you accept orders in several different ways: customer can call you, fax an order in, enter it into a website or EDI something in. If you have a group of people and servers devoted to EDI, then those people will likely be grouped into their own resource and activity. It would not be appropriate to give their expenses to an order that was phoned in – you would want to keep those 'EDI Order Handling' costs defined to orders that were EDI'd in.

The way to do this is to use the filter (the "WHERE" section of the page).

You would click the first drop-down menu to select "Order\_Type". You would then click the second drop-down to select "equals". And the third drop-down you would then use to select whatever variable you use to denote EDI orders.

If there are two EDI variables that you use, then you may use the second filter. If there are more than that, then you may wish to use reverse logic and allocate those dollars to cases WHERE "Order\_Type" "is not equal to" "<EDI variable>".

#### **Example**

Another example of a filter that you might want to use might be if you only deliver to certain areas, for instance in-town. For all out-of-town deliveries you use a 3<sup>rd</sup> party.

You would certainly not want for the cost of your delivery trucks to be allocated to line items that were delivered by a 3<sup>rd</sup> party. So for the Delivery activity, you would allocate those costs to line items WHERE: “City” “equals” “XYZ”, or WHERE “Ship\_Type” equals “Self”.

Filters are easy to use and they can greatly increase the accuracy of the model and the quality of the information that you get about your organization.

.....  
We Recommend That You Build Your First Model Using the Model Design Approach Described Above. By Doing So, You Can Assure Yourself of Building Very Accurate and Usable Costing / Profit Models Quite Quickly. The Model Design Approaches Described Below Are Applicable In Some Situations, But (1) Greatly Increase the Likelihood of Errors, (2) Have Been Included For Organizations that Have a CPA on Staff and (3) Should Be Used Very Rarely, If At All, and Only In a Very Unique Set of Circumstances.  
.....

## **(2) The Complex Model – Using Custom Allocation Methods**

The Prismata CPS makes it possible for you to allocate your costs in a variety of different ways.

Activity costs can be allocated to five different options:

- Customers
- Orders
- Line items
- Products
- Vendors

And, they can then be proportioned out in two different ways:

- Evenly
- Based off of Revenue

While we give you the capability to do this, we caution you to use discretion in applying these different combinations. Allocating to Orders, Customers, Products or Vendors can result in errors or inaccurate cost allocations. The rule to avoid inaccuracies is this:

- if you allocate to Customers, for filters you can only use Customer\_ID, Customer\_Name, Customer\_Zip, Customer\_Account\_Type\_1, Customer\_Account\_Type\_2 (or any *Customer Specific variable that you define in the user defined columns*)
- if you allocate to Orders, for filters you can only use Customer\_ID, Customer\_Name, Customer\_Type, Order\_Type, Place\_Of\_Order, Date\_Of\_Order, Salesperson\_ID, Salesperson\_Name, Customer\_Account\_Type\_1, Customer\_Account\_Type\_2 (or any *Customer Specific variable that you define in the user defined columns*)

- if you allocate to Vendors, for filters you can only use Vendor\_ID, Vendor\_Name (or any vendor *specific variable that you define in the user-defined columns*)
- if you allocate to Products, for filters you can only use product\_id, product\_name, unit\_of\_measure, product\_custom\_1 (or any *PRODUCT specific variable that you define in the user defined columns*)
- if you allocate to line items, there are no restrictions on which filters to use

An example of a methodology that would result in an *inaccurate* model: allocating expenses to Customers where Product = 12345. If you allocate to Customers, the software needs a filter that is Customer specific (e.g. Customer\_Zip, Customer\_Account\_Type...). If it sees a filter that is not Customer specific (e.g. Product) it will not allocate costs correctly.

All of that said, let's go over a couple of examples where allocating to Orders or Customers may be appropriate.

### **Example**

“Creating Customer Accounts” is an activity that is probably just as costly to perform for a large customer as it is for a small customer. Whether a customer ultimately places 1 order or 100 orders, the amount of time to set the customer up in the system is relatively fixed. Thus allocating the “Creating Customer Accounts” expense to, e.g. line items based on revenue, is not an accurate allocation approach. Rather, allocating to Customers evenly would more fairly represent the distribution of effort involved in creating one customer account vs. another.

So, if that were the case in your organization, then it might be appropriate to allocate the costs of that Activity TO: Customers, BASED ON: an even distribution.

### **Example**

Another example might be the cost of loading the truck for delivery.

It is tempting to allocate the cost of loading to line items based on weight. In many situations, however, a forklift or some other mechanical device is used to load the delivery trucks. In those cases it does not matter if the order weighs 100 pounds or 5,000 pounds – the forklift loads the items at the same rate. Thus allocating to line items may result in slightly inaccurate results.

So, if the above were the case in your warehouse, you would be correct in allocating the Activity costs of ‘Loading’ TO: Orders BASED ON: an even distribution.

---

Again, these are exceptions, and not the rule. If you keep these exceptions to a minimum it will greatly decrease the likelihood of incredulous results in the model.

An implication of allocating costs at a level other than Line items is that you must define how you want the expense to ‘Trickle Down’ to Line items. Essentially the situation is this: if you allocate costs to Customer X, you will determine that Customer X costs \$500 to service. If Customer X bought 20 Products, how do you want to distribute the \$500 to Customer X’s 20 products? Again, you can ‘Trickle Costs’ down to Line items based on RVUs, Revenue or Evenly. Ultimately, all costs have to trickle down to the line items.

#### **(4) The Very Complex Model – Writing Custom Queries**

Suffice it to say that costing experts can write their own allocation queries using the Custom Allocation text box on the Allocation Methodology page. The language to use is Transact – SQL. Only write the ‘Set’ piece of an update statement, using the template:

Set activity\_units = XXX

All fields except for weight, num\_units, sales\_price, revenue2, revenue3, cogs1, cogs2 and cogs3 are defined as text, and you must use the original column name.

---

Creating the Allocation Methodologies can be as simple or as complex as you want to make it. As you consider each activity, you will quickly get a sense for how the cost allocation thought process works.

To summarize, the actual building of the equation in the CPS is simple:

- Highlight an activity
- Select what level to allocate the expenses to (should probably be Line item)
- Include applicable filters
- Determine how to proportion the expenses to the applicable lines (Revenue or evenly)
- If applicable, determine how to ‘Trickle’ expenses down to Line items
- Click ‘Validate and Build Equation’

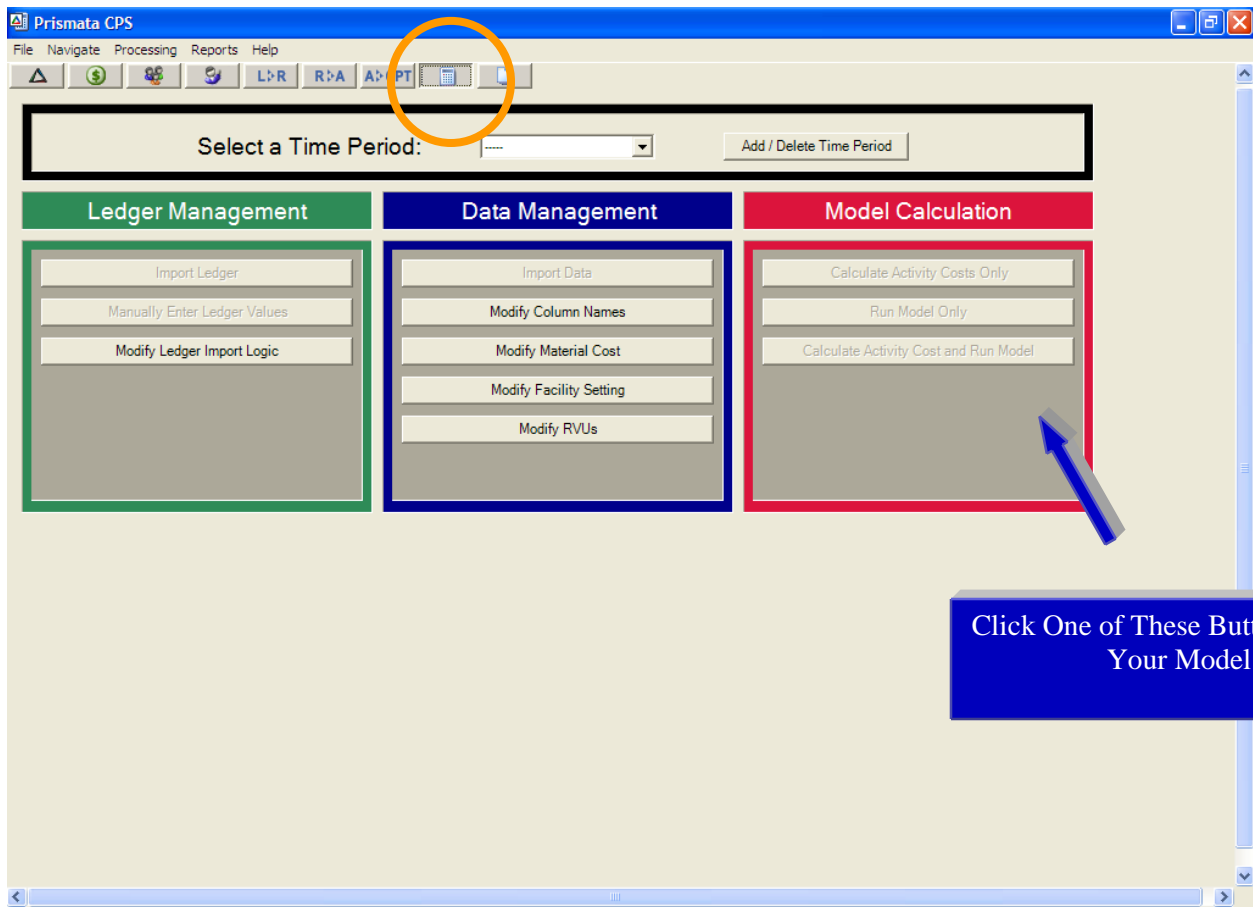
Determining Allocation Methodology should take 15 – 45 minutes.

Congratulations on building your Allocation Methodology equations.

Next Step → Running the Model.

## Chapter 10 - Final Step: Running the Model

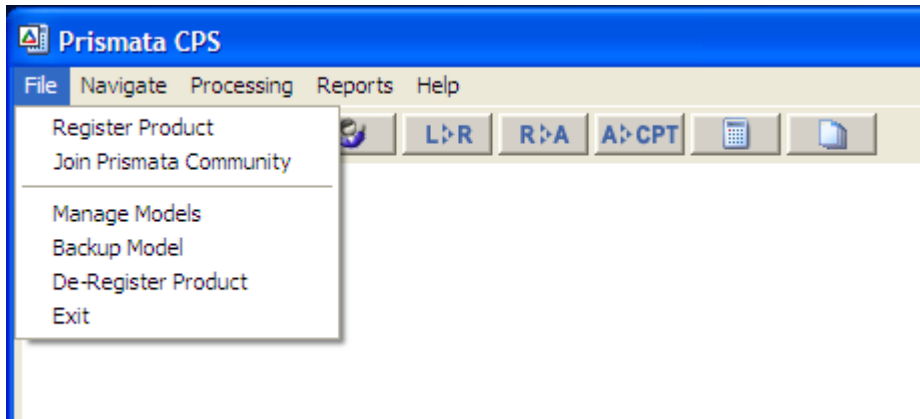
The 'Import / Run Model' page (2<sup>nd</sup> button from the right, with the calculator icon) contains the buttons to run the models (meaning to allocate the expense from the Ledger through the Resources and Activities to the Line items). If you have already calculated your Activity costs (and have made no changes since then that might affect those), then just click the "Run Model Only" button under the Run Model section. Or, if you would like to also run the Activity Costs, you can click the "Calculate Activity Cost and Run Model" button. Either way, your model will begin to be calculated.



Congratulations on running your costing model!

## Chapter 11 – Additional Functionality

In addition to the standard functionality described in the importing, model building and reports chapters of this manual, there are a few other items that warrant mentioning. Both items are accessed through the File menu.



- Backing up the Model

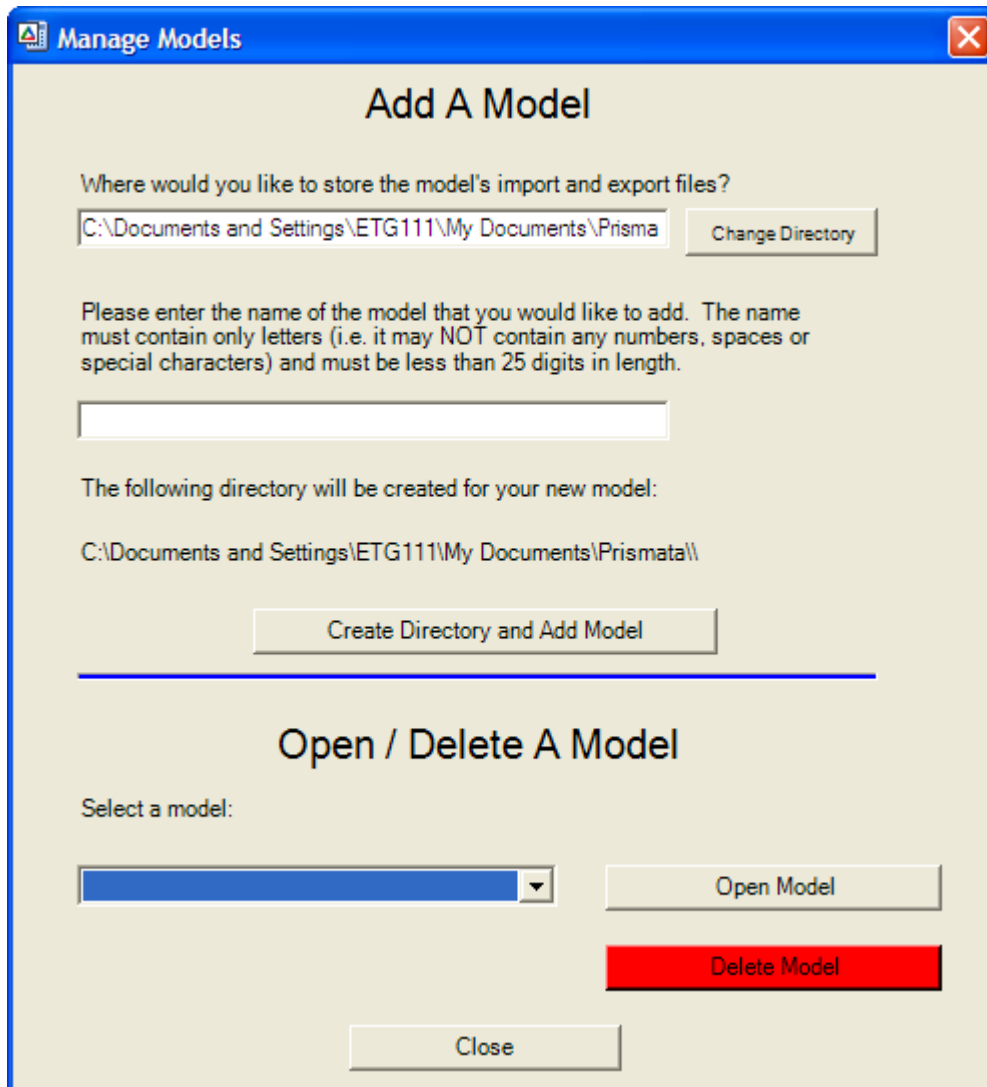
In addition to simply being good practice to backup the model, it is an excellent way to provide Prismata w/ your model in the event that you would like us to diagnose any issues that you might be having.

- Adding Models (Professional Version Only)

If you have the professional version of the CPS, you have the ability to add separate models to the software. This can be useful in a number of situations:

- If you want to do intense what-if analysis, it would probably make sense to create one model that holds the data that represents how your organization actually operates, and another model where you add or delete items or change data to perform your what – if experiments.
- If you want to create an “internal” and an “External” costing model. For example, so far we have discussed the allocation of expenses ‘outwardly’, i.e. to customers or Products or Vendors. It is often just as critical to accurately allocate expenses ‘inwardly’, i.e. if several things share a common resource (e.g. several sales offices utilize the same A/R team) then it can be essential to accurately allocate costs internally.
- If you are managing several entities that you want to keep entirely separate.

Adding, changing and deleting models is done through the ‘Manage Models’ window.



## Chapter 12 - Security

The Prismata BI Suite contains dynamic security features to ensure that your users have access to only the information that they should be accessing. For single user installations security is a non-issue – the user that installs the software is defined by the software as a system administrator and has access to all data. For multi-user installs, there are three elements to consider: GL, Report and Database security.

As a rule, security is role/group based provisioning, i.e. security access is given to groups, and users are then added to those groups.

### Users

\*\*\* Please note that when the software is installed, the user that installed the software is automatically identified as an administrator and added to the Built-In Administrators group. This is the only user created by default in the application. All other users must be added manually \*\*\*

Before a user can access either the Prismata CPS or CPS Reports that user must be added as a software user. *Be sure to add the user's full domain name.* This is done from the CPS Reports application → File menu → Manage Users and Reports.

The screenshot shows a web-based interface for managing users and groups. At the top, there is a section titled "Manage Users / Groups" with two rows of input fields. The first row is for a "New Group" named "New York Managers" and a dropdown menu for "this group will contain:" set to "Super-Users", with an "Add Group" button. The second row is for a "New User" named "Rich LaFleur" and a dropdown menu for "will be a member of:" set to "Builtin Admins", with an "Add User" button. Below this is a section titled "Modify User / Group Definition" with three columns: "Select Group:", "Not In Selected Group:", and "In Selected Group:". The "Select Group:" column contains a list box with "Builtin Admins" selected, and other options "Builtin Super Users", "Builtin Users", and "New York Managers". The "Not In Selected Group:" column contains a list box with "Rich LaFleur". The "In Selected Group:" column contains a list box with "Trey". There are right-pointing (>>) and left-pointing (<<) arrow buttons between the columns. At the bottom, there are three footnotes: "\*\* double click group to modify / delete" under the first column, "\*\* double click user to modify / delete" under the second column, and "\*\* double click user to modify / delete" under the third column.

Users are added and assigned to a primary group when created. After the user is set up, he/she can be added to multiple groups.

### Groups

There are three types of reporting groups recognized by the software: administrative, super-user and user groups. The primary purpose of the groups is to control report creation and access, though groups can be used to restrict access to certain GL accounts, resources and activities.

**Administrators** have security rights in the application, i.e. can create and delete users and change the groups that they belong to. These users also have access to create and view canned and custom reports.

**Super-users** have the ability to generate custom reports and view canned and custom reports that they have been given access to.

**Users** have the ability view canned and custom reports that they have been access to.

Three groups exist by default in the application:

Builtin Admins: this group contains administrative level users

Builtin Super Users: this group contains super-user level users

Builtin Users: this group contains user level users

New groups can be added – when they are added you must define what kinds of users they will contain. A group can only contain one type of user.

### GL Security

The first line of defense preventing users from accessing confidential GL information is to not install the CPS costing engine on their desktop. Only the CPS Reports tool should be installed on a user's desktop that you do not want to access GL information.

If you have a scenario in which there are multiple people that will define ledger accounts, resources, activities and allocation rules, and everyone should have access to all data, simply add those users to the Builtin Administrators group. \*\*\* The Builtin Administrators group will always have access to all GL accounts, resources, activities and allocation logic. \*\*\*

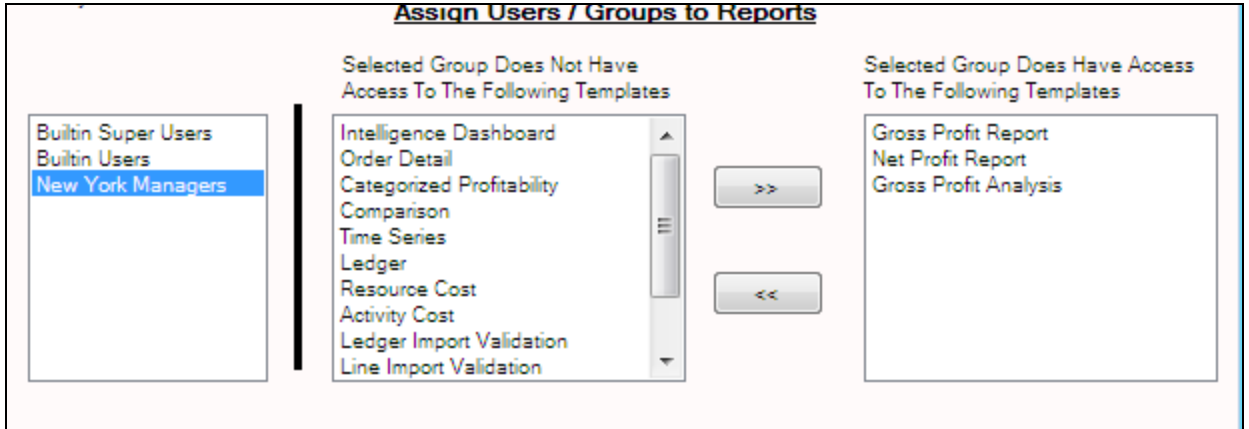
If you have a scenario in which there are multiple people that will define resources, activities and allocation rules, but those users should not be able to see other users' data, you can set up groups for each type of user. For example, if you have branches in Dallas and Minneapolis and users should be defined specifically for those geographic regions, create a Dallas GL and Minneapolis GL group. If a user in the Dallas GL group then creates a resource, only other members of the Dallas GL group and the Builtin Administrators group will be able to see that resource. (Builtin Administrators have all access to all GL Accounts, resources and activities.)

\*\*\* *It is essential that the groups designed to restrict access to the GL accounts, resources and activities be created **before** the groups designed to restrict access to reports. The software has been designed to search groups in that hierarchy – the first group that the software sees for a user is interpreted to be his/her GL access group. This logic applies to the Builtin groups as well – if the user is a member of the Builtin Super User or Builtin User groups, the software sees those as his/her GL security group. If you are going to use groups in order to restrict certain users to certain GL accounts,*

resources and activities, those users should not also be members of the Builtin Super User or Builtin User groups.\*\*\*

### Report Security

By default, the Builtin Administrators group is the only group that has any access to any reports. All other groups must be assigned access to reports. This is done in the same place as where the users and groups are initially defined: CPS Reports → File menu → Manage Users and Reports.



Users will have access to the reports that either (1) have been assigned to their groups, or (2) were created by a member in their groups. Users can be members of several groups, and will have cumulative security access (e.g. if a user is a member of 10 groups, each of which has access to 1 report, that user will have access to all 10 reports.)

### Database Security

The database that the Prismata costing and reporting engines run on is SQL Server 2005. Standard security setup applies. Network protocols are enabled during install.

The connection string is read by the applications from three encrypted text files in the Program Files\Prismata\Ver3\RGB directory:

PrisConn.txt: this file contains the user login information  
PrisConnDB.txt: this file contains the database name  
PrisConnServ.txt: this file contains the server name

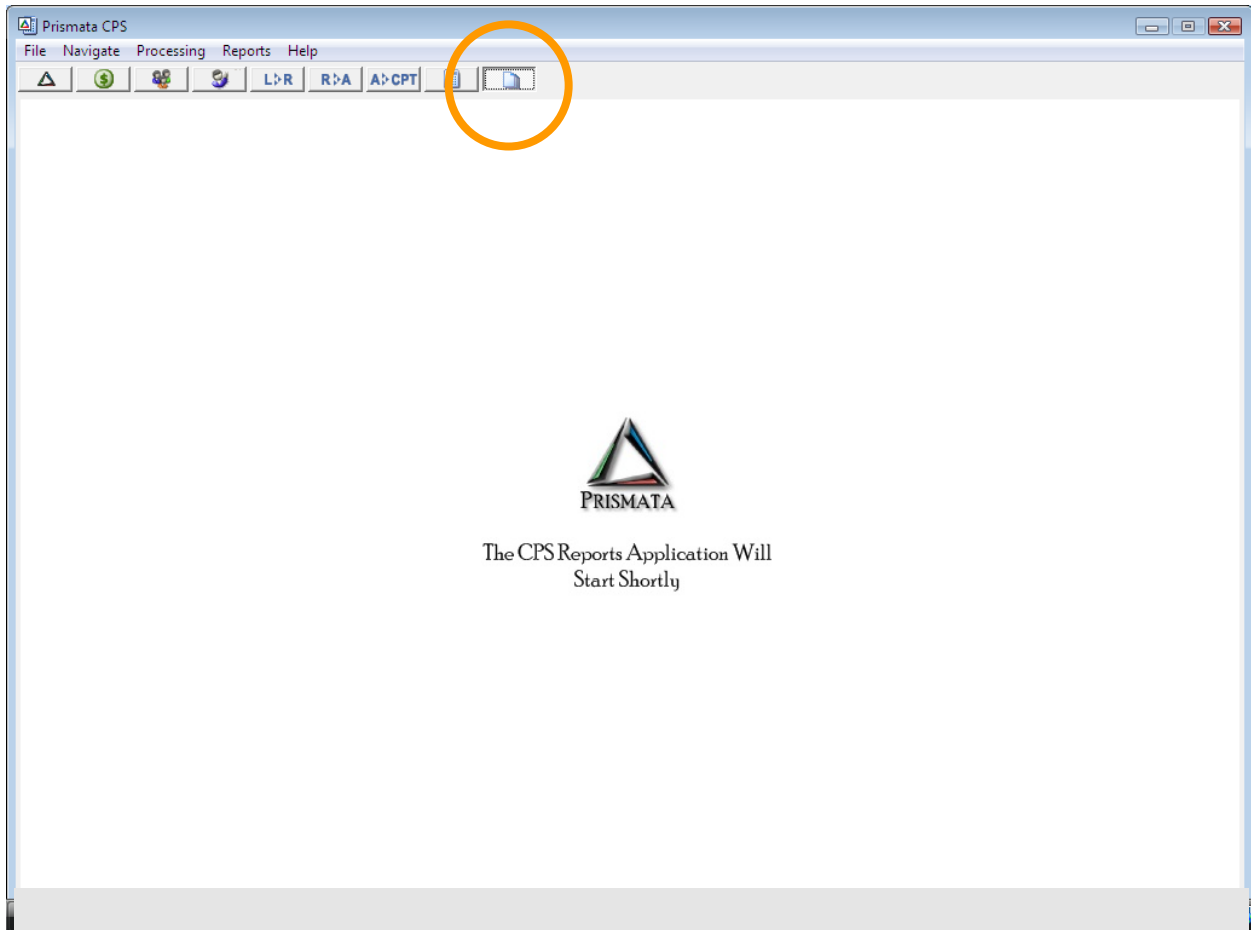
The connection string is designed thus to allow for quick modification of connection information, for example if you change server names...

At first install the server is (LOCAL)\PRISMATA, the database name is Prismata\_DB, and the user login is SQL authentication using the SA user. This most likely does not need to be changed for single user installs. Multi user installs will certainly need to

modify the connection strings in order to allow for remote connections. Prismata also recommends that you use Windows authentication, not SQL authentication. Prismata has created an encryption / decryption tool for your use that will allow you to generate the appropriate connection strings. It is on the 'Encrypt / Decrypt' tab of the Prismata\_Utilities.exe file located in the Program Files\Prismata\Ver3\RGB directory.

## Chapter 13 - Reports

Once your model has been run, the Prismata CPS offers a number of customizable reporting capabilities for you to analyze the information at whatever level of detail makes the most sense for you. To generate reports, go to the 'Reports' page, 1<sup>st</sup> button from the right, with a 'Pages' icon. This will launch the CPS Reports tool (see screenshot, next page). Additionally, you can click on the CPS Reports icon on your desktop or Start Menu.



There are 6 main report categories:

- Custom Reports
- Intelligence Dashboard
- Cost / Profit / Margin Reports
- Model Structure Reports
- Master Download
- Validation Reports

## Custom Reports

The screenshot shows the 'CPS Reports Home' application window. The 'Design Report Template' tab is active. The interface is divided into several sections: 'Canned Reports' on the left, 'Custom Reports' on the right, and a 'Master Download' section at the bottom. The 'Canned Reports' section includes 'Intelligence Dashboard', 'Profit / Loss', 'Order Profile', 'Categorized Profitability', 'Comparison', 'Time Series', 'Model Structure', 'Validation', and 'Ledgeer'. The 'Custom Reports' section is further divided into 'Report Templates' and 'Pre Run Reports'. The 'Report Templates' section lists 'Gross Profit Report' and 'Net Profit Report Rpt:'. The 'Pre Run Reports' section lists 'High COGS GP' and 'Salesman GP'. A yellow callout box points to the 'Design Report Template' tab with the text: 'Step 1: Custom reports can be created by clicking the "Design Report Template" tab'. Another yellow callout box points to the 'New Report Using Template' button with the text: 'Step 2: After templates are created, you can run reports against them'. A third yellow callout box points to the 'View Pre Run Report' button with the text: 'Step 3: After custom reports are generated they can be shared or re-viewed without being regenerated'.

Step 1: Custom reports can be created by clicking the "Design Report Template" tab

Step 2: After templates are created, you can run reports against them

Step 3: After custom reports are generated they can be shared or re-viewed without being regenerated

To create custom templates, click on the “Design Report Template” button indicated in step 1 above. Custom reporting is really 3 step process: (1) You create a report template, in which you define the revenues, costs, profits, metrics and format that your report will have. (2) You use that template to generate reports. (3) You save those reports for review later or for distribution to other users.

The screenshot shows a software window titled "Gross Profit Analysis" with a design interface. On the left, there are three lists of fields: "Revenue and Cost Fields" (Sales\_Price, Revenue\_2, Revenue\_3, COGS1, COGS2, COGS3), "Activity Fields" (Accounting, Activity 2, Delivery, Inside Sales, Outside Sales, Overhead, Pneumatics), and "Subtotals / Metrics" (COGS, Gross Profit, Total Rev). Each list has a double arrow button to its right. Below these lists are buttons for "New SubTotal" and "New Metric", a "Calculated Field Name" input, and a "Formula" input. At the bottom left are buttons for "+", "-", "Add Calculated Field", "Cancel", and "Edit", along with a checkbox for "Make this calculate field global". On the right, a preview window shows a table with rows for Sales\_Price, Revenue\_2, Revenue\_3, Total Rev, COGS1, COGS2, COGS3, COGS, and Gross Profit. At the bottom right of the preview are buttons for "Up", "Down", "Insert Blank", "Delete Row", and "Save Template".

**Step 1:** Click here to start a blank template or open an existing template for modification.

**Step 2:** Click on the revenues, costs and metrics, then the double arrow, to add the field to your report template.

**Step 3:** Use the up, down, insert and delete buttons to format you template.

## Subtotals and Metrics

One of the most useful aspects of the Prismata reporting suite is the ability to add custom subtotals and metrics to ease and augment advanced analysis. **Subtotals** are designed to be used as category groupings. For instance, if you want to combine all of your sales activities into a single number for your reporting, you can use a subtotal to do that. The best way to add a subtotal is to click 'New Subtotal', and then click on the revenues and costs, being sure to click '+' or '-' between each activity to define if you want to add or subtract the activities from each other for your subtotal. This can be a bit more time consuming than simply typing in the fields, but will guarantee that they have proper syntax.

The screenshot shows the Prismata 'Subtotals / Metrics' dialog box. It features two lists of items: 'Inside Sales', 'Outside Sales', 'Overhead', and 'Pneumatics' on the left; and 'COGS', 'Gross Profit', and 'Total Rev' on the right. Below these lists are buttons for 'New SubTotal' and 'New Metric'. A 'Calculated Field Name' field contains 'Total Sales', and a 'Formula' field contains '[CFT].[Inside Sales] + [CFT].[Outside Sales]'. At the bottom are buttons for '+', '-', 'Add Calculated Field', 'Cancel', and 'Edit', along with a checkbox for 'Make this calculate field global, i.e. available for use in other reports'. Three yellow callout boxes provide instructions: Step 1 points to the 'New SubTotal' button; Step 2 points to the item lists and the '+' and '-' buttons; Step 3 points to the 'Add Calculated Field' button.

**Step 1:** Click 'New Subtotal' or 'New Metric'

**Step 2:** click on the revenues, costs or activities, then the '+' or '-' to create your equation

**Step 3:** Click 'Add Calculated Field' to save your subtotal. Making the calculated fields 'Global' allows you to use them in other reports without having to re-type them.

**Metrics** are similar in concept to subtotals, but are not constrained by the revenues, costs and activities in your model and are designed to give you the ability to add specific points of analysis to your reports. For instance, if you feel that average order size is a critical variable to customer profitability, you can add an 'Average Order Size' metric to your customer profitability reports. If you want to see average weight per line item for a product, you can add an 'Average Weight' metric to your product profitability and cost reports.

Metrics must be typed in manually, and you must understand transact SQL and basic database design in order to accurately put metrics together. Below is an example of a metric that would accurately calculate an average order size for a customer. (All metrics are calculated at the line\_file table – please refer to the appendix for a list of line\_file columns). Please refer to [www.prismata.com](http://www.prismata.com) for more examples, which are continuously updated based on user requests. Also, again, feel free to contact us at [information@prismata.com](mailto:information@prismata.com) or (888) PRISMATA (774-7628) if you need more specific assistance.

The screenshot shows the PRISMATA software interface. On the left is the PRISMATA logo. The main window is titled 'Subtotals / Metrics'. It features a list of metrics including 'Avg Order Size', 'COGS', 'COGS\_Total', 'Gross Profit', and 'Total Rev'. A blue button with '>>>' is next to the list. Below the list is a text box for 'Calculated Field Name' containing 'Avg Order Size' and a larger text box for 'Formula' containing the SQL expression:  $(\text{sum}(\text{revenue})) / (\text{count}(\text{distinct}(\text{order\_id})))$ . At the bottom, there are buttons for '+', '-', 'Add Calculated Field', 'Cancel', and 'Edit'. A checkbox at the bottom left is labeled 'Make this calculate field global, i.e. available for use in other reports'.

## Generating Custom Reports

Once a template has been created, you can generate reports against it by clicking on the ‘New Report Using Template’ button on the home page. This will open a new window in which you can run custom reports against your custom template.

**Step 1: Define the time period you are interested in**

**Step 2: Select the report category, e.g. costs / profits by customer, product, zip code...**

**Step 3: Define whether you want to select specific items (e.g. specific products or customers), or you want to the top or bottom 5 based on a sorting criteria (e.g. top 5 customers based on revenue, bottom 5 products based on net profit...).**

**Step 4: View and Save report**

	Offroad Tire	% / Rev	Road Tire	% / Rev
Sales_Price	-254.79	-100.00	-542.43	-100.00
Revenue_2	254.79	100.00	542.43	100.00
Revenue_3	254.79	100.00	542.43	100.00
COGS1	117.22	46.00	249.54	46.00
COGS2	-117.22	-46.00	-249.54	-46.00
COGS3	117.22	46.00	249.54	46.00
GP	137.57	53.99	292.89	53.99

### Understanding time periods

*It's important that you understand how time periods work on the custom reports – if you tell the report to run January 2009 through June 2009, the software will run all of the time periods loaded between January 2009 and June 2009. That will not be an issue if the only time periods loaded between January and June are February, March, April and May. However, if after March you loaded Q1 2009, that time period will also be included in this report. As a rule, it is best to load a time period that exactly matches your reporting requirements. For example, if you want to run reports for the first 6 months of the year, it is best to load that as a single time period and run reports against it.*

## Intelligence Dashboard

One of the most exciting elements off the CPS's analysis is the detailed intelligence visibility that it provides you through the 'Intelligence Dashboard'. The dashboard consists of 5 main reports:

1. Price Change Opportunities – this report shows you the incremental revenue potential from increasing price on your slow moving, small dollar items.



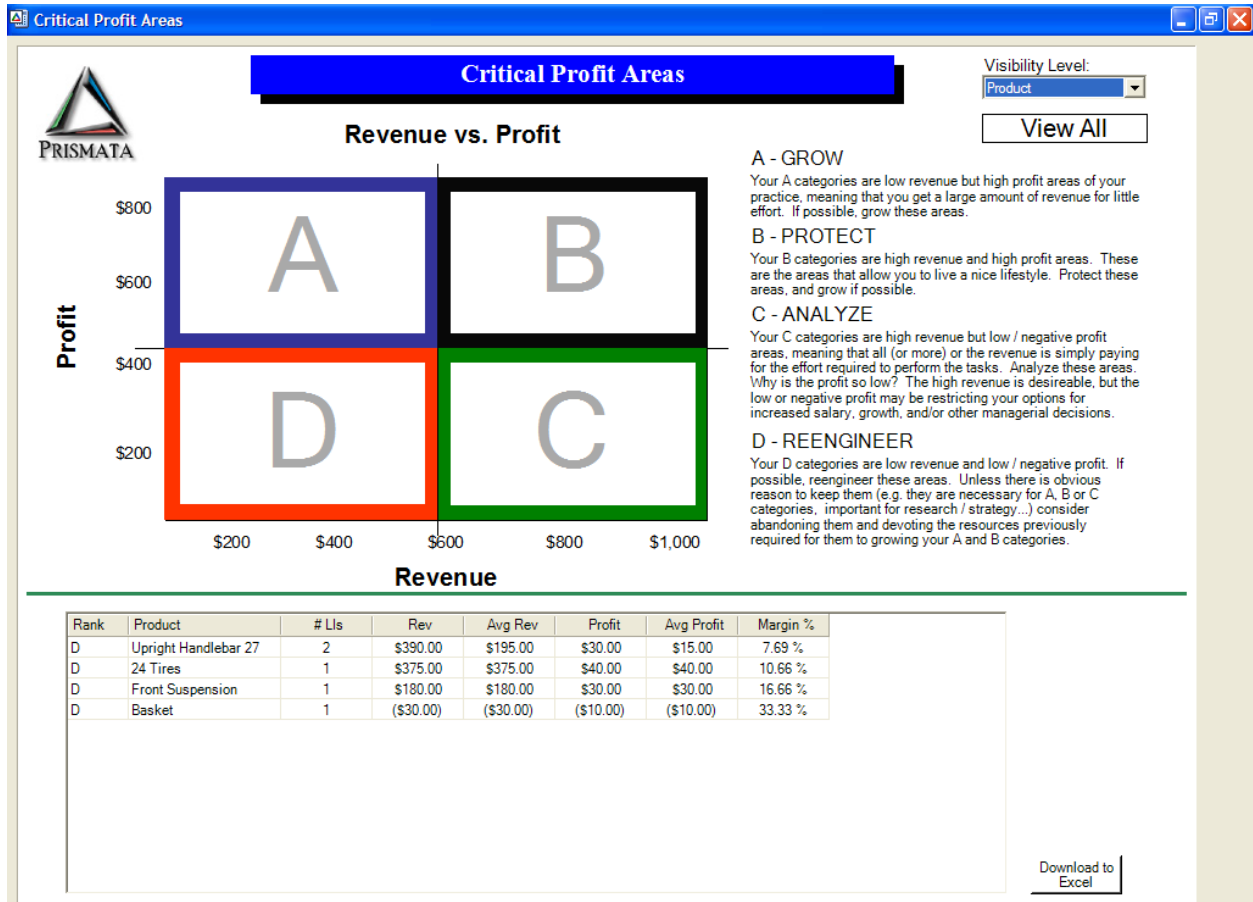
The screenshot displays a software window titled "Price Change Analysis". Inside the window, there is a PRISMATA logo on the left. A blue header bar contains the text "Price Change Opportunities". Below this, a table lists product data. To the right of the table is a text box explaining the report's purpose, and a "Download to Excel" button is located at the bottom right.

Product	Rev	# Lls	\$\$ / LI	Prop. Rev	Prop. Rev / LI	Incr. Rev
Basket	(\$30.00)	1	(\$30.00)	(\$31.50)	(\$31.50)	(\$1.50)

Currently there are 1 different products that each represent less than .5% of your total revenue. These products tend to be add-on goods or services that do not have as high a price sensitivity as higher volume or dollar per unit items. If you increased the price on these slow-moving and insignificant items by 5% (e.g. changed price per unit from \$1.00 to \$1.05) you could add (\$1.50) to your bottom line.

[Download to Excel](#)

2. Critical Profit Areas – this report shows you how to shape your organization in order to devote your resources to those areas that are worth the effort.



3. Product Snapshot – this report shows you detailed product metrics and allows you to drill into the customers associated with each product.

## Product Metrics

Product	Rev	% of Ttl	# Cust	% of Cust	# LIs	\$\$ / LI	Profit	Margin %
24 Tires	\$375.00	13.96 %	1	25.00 %	1.0000	\$375.00	\$40.00	10.66 %
Alum Frame 63	\$1,770.00	65.92 %	3	75.00 %	3.0000	\$590.00	\$150.00	8.47 %
Basket	(\$30.00)	-1.11 %	1	25.00 %	1.0000	(\$30.00)	(\$10.00)	33.33 %
Front Suspension	\$180.00	6.70 %	1	25.00 %	1.0000	\$180.00	\$30.00	16.66 %
Upright Handlebar 27	\$390.00	14.52 %	2	50.00 %	2.0000	\$195.00	\$30.00	7.69 %

Download to  
Excel

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Customer	Rev	% of Cust	% of Prod	# LIs	\$\$ / LI	Profit	Margin %
Jim & Son	\$770.00	81.05 %	43.50 %	1.0000	\$770.00	\$70.00	9.09 %
Three Brother	\$500.00	88.49 %	28.24 %	1.0000	\$500.00	\$50.00	10.00 %
Worldwide Sh	\$500.00	100.00 %	28.24 %	1.0000	\$500.00	\$30.00	6.00 %

4. Customer Snapshot – this report shows you detailed customer metrics and allows you to drill into the products associated with each customer.



## Customer Metrics

Customer	Rev	% of Ttl	# Orders	% of Ttl	\$\$ / Order	# LIs	\$\$ / LI	Profit
Allied	\$670.00	24.95 %	2.0000	33.33 %	\$335.00	3.0000	\$223.33	\$55.00
<b>Jim &amp; Son</b>	<b>\$950.00</b>	<b>35.38 %</b>	<b>1.0000</b>	<b>16.66 %</b>	<b>\$950.00</b>	<b>2.0000</b>	<b>\$475.00</b>	<b>\$100.00</b>
Three Brothers	\$565.00	21.04 %	2.0000	33.33 %	\$282.50	2.0000	\$282.50	\$55.00
Worldwide Shipping	\$500.00	18.62 %	1.0000	16.66 %	\$500.00	1.0000	\$500.00	\$30.00

This table shows detailed customer metrics.

Product	Rev	% of Cust	% of Prod	# LIs	\$\$ / LI	Profit	Margin %
Alum Frame 63	\$770.00	81.05 %	43.50 %	1.0000	\$770.00	\$70.00	9.09 %
Front Suspension	\$180.00	18.94 %	100.00 %	1.0000	\$180.00	\$30.00	16.66 %

This table shows metrics for the products.

5. What If Analysis: (Professional Version Only) This report utilizes the fixed / variable breakdown that you defined on the Ledger page and allows you to estimate the affects that making certain decisions will have on your profitability. If you're interested in knowing how dropping a customer will affect your profit, this is the report for you.

## **Profit / Loss Reports**

The Profit / Loss reports contain the business intelligence information that makes Prismata unique in the healthcare world.

- Order Profile – Shows you the details behind what makes an order profitable or unprofitable, and give suggestions on improving order profitability.
- Categorized Profitability – This report allows you to view profit and cost at whatever level makes sense for you, e.g. profit by Customer, Zip Code, Day of the Week... and allows you to drill into the profitability of all customers and products associated with the category
- Comparison – This report allows you to compare the efficiencies of different categories by examining them side – by – side on the same report. If you'd like to see how much it costs to fill an order in Boise vs. Salt Lake City, this is your report. By looking at the Activity cost breakdown per Line item, you can analyze the details of each Line item's Activity Costs and identify problem areas
- Time Series – This report allows you to analyze cost or profit across time to give you insight into your financial trends.

## Order Profile

The Order Profile report shows you the details behind what makes an order profitable or not so that your inside sales team can recognize a profitable order as it is coming in and work to bring the order above the threshold of profitability.

Order Profile Report

Time Period: Demo Time Period View Report

### ORDER PROFILE FOR Demo Time Period

Overall Analysis

Avg Order Size	Avg Gross Profit	Avg Gross Margin	Avg Net Profit	Avg Net Margin
\$ 543.00	\$ 50.00	9.20%	\$ 50.00	9.20%

Profitable vs. Unprofitable Orders

The size of the average *unprofitable* order is \$ 0.00

The size of the average *profitable* order is \$ 543.00

The size of the average *break-even* order is \$ 0.00

**Consider this...**

The average net profit percentage on your *profitable* orders is 9.20%, meaning that for every \$54.30 over your break even of \$0.00 you add approximately \$5.00 dollars of profit to your bottom line.

Minimum Order Sizes

Based on your cost structure, ways of doing business and current volume, the cost to fill your *smallest* orders is \$0.00. That

Current Page No: 1 Total Page No: 1 Zoom Factor: 100% Print Report

## Categorized Profitability

The Category Profitability Reports show you the cost or profit of every item in a Category, e.g. you can see Profit per Customer or Product Line or City... The report can be filtered and sorted, and allows for drill-down visibility.

## Comparison Reports

The Comparison Reports allow you to put up to 3 different categories side by side for analysis. Essentially, the Comparison Report shows comparative efficiencies among different categories. For example, if you'd like to see how much an order costs when Boise fills it vs. when Salt Lake City fills it, then the Comparison Report is ideal.

Time Period: Demo Time Period    Category: Diagnosis\_Code    Activity Groups (selected)    Activity Detail    View Report

Clear All    Cri du chat Syndrome    Hypotonia    Plagiocephaly

Clear    Clear    Clear

	Total	Avg	%	Total	Avg	%	Total	Avg	%
REVENUE	\$172.70	\$172.70	100.00	\$1,574.13	\$112.44	100.00	\$17,783.61	\$118.56	100.00
COGS	\$0.00	\$0.00	0.00 %	\$0.00	\$0.00	0.00 %	\$0.00	\$0.00	0.00 %
GROSS PROFIT	\$172.70	\$172.70	100.00	\$1,574.13	\$112.44	100.00	\$17,783.61	\$118.56	100.00
COST TO SERVE									
Misc	\$153.50	\$153.50	88.89 %	\$1,413.42	\$100.96	89.79 %	\$13,927.81	\$92.85	78.32 %
PROFIT	\$19.20	\$19.20	11.11 %	\$160.71	\$11.48	10.20 %	\$3,855.80	\$25.71	21.68 %

Export to Excel

## Time Series Report

The Time Series Report allows you to view changes in cost or profit of a Category across time. It is ideal for trending analysis, and shows you where problem areas or opportunities are developing.

The screenshot shows the 'Time Series Report' application window. The title bar reads 'Time Series Report'. Below the title bar, there are window control buttons (minimize, maximize, close). The main interface is divided into several sections:

- Time Periods To Compare:** A list box on the left contains 'Demo Time Period'.
- Category Type:** A dropdown menu is set to 'Diagnosis\_Code'.
- Category List:** A scrollable list of medical diagnosis codes is shown, with 'Parapsoriasis' selected and highlighted in blue.
- Report Title:** The word 'Parapsoriasis' is displayed in a large, bold font in the center of the report area.
- Activity Selection:** Two radio buttons are present: 'Activity Groups' (which is selected) and 'Activity Detail'. A 'View Report' button is located to the right of these options.
- Table Headers:** The table has three main columns for time periods, each labeled 'Demo Time Period'. Each of these columns has a 'Clear' button below it. A 'Clear All' button is also present on the left side of the table area.
- Table Data:** The table displays financial metrics for 'Parapsoriasis' across three time periods. The metrics include Revenue, COGS, GROSS PROFIT, COST TO SERVE, and PROFIT, each with sub-rows for 'Rev', 'Avg', and '%'.
 

	Rev	Avg	%	Rev	Avg	%	Rev	Avg	%
REVENUE	\$97.24	\$97.24	100.00	\$97.24	\$97.24	100.00	\$97.24	\$97.24	100.00
COGS	\$0.00	\$0.00	0.00 %	\$0.00	\$0.00	0.00 %	\$0.00	\$0.00	0.00 %
GROSS PROFIT	\$97.24	\$97.24	100.00	\$97.24	\$97.24	100.00	\$97.24	\$97.24	100.00
COST TO SERVE									
Misc	\$65.43	\$65.43	67.29 %	\$65.43	\$65.43	67.29 %	\$65.43	\$65.43	67.29 %
PROFIT	\$31.81	\$31.81	32.71 %	\$31.81	\$31.81	32.71 %	\$31.81	\$31.81	32.71 %
- Download To Excel:** A button is located at the bottom right of the report area.

## Model Structure Reports

These reports give you snapshot views of the General Ledger, Resources and Activities to help you understand how the dollars are flowing through the Prismata CPS.

There are 3 main Model Structure Reports

- Ledger Report – shows the General Ledger as it is defined for a specific time period
- Resource Cost Report – shows the Resources and how they are receiving expenses from the General ledger
- Activity Cost Report – shows the Activities and how they are receiving expenses from the Resources

Below is an example of the Resource Cost report.

The diagram illustrates the flow of data from a ledger account to a resource cost report. A blue box labeled "These Ledger Accounts..." has an arrow pointing to the "P - Sales" header of a table. The table lists four categories: Automobile, Rent, Salary, and Utilities, each with a percentage and a dollar amount. A second blue box labeled "...contribute to this Total Resource Cost" has an arrow pointing to the total amount of \$ 55,000.00 at the end of the table.

P - Sales			<b>\$ 55,000.00</b>
Automobile	20.00 %	\$ 2,000.00	
Rent	25.00 %	\$ 11,250.00	
Salary	30.00 %	\$ 37,500.00	
Utilities	25.00 %	\$ 4,250.00	

## Master Download Report

If you require custom analysis of your organization, Prismata makes the raw costing data very accessible for you to analyze however is most appropriate for your situation. The Master Download Report exports the data that you imported into the CPS, along with the activity cost, to a *comma delimited text file* that you will find in the Exports subfolder of the Prismata Data folder. This text file can then be imported into Excel or any other spreadsheet or database that you have for custom analysis.

## Validation Reports

Based on Prismata's experience, intelligence has been built into the CPS to review Data Imports and Model Run results to let you know if Prismata thinks that there may be problem areas or inaccuracies in your model.

Use the Validation Reports as guides to *potential problems* only. The issues listed with \*\* below are critical errors – the data will not be imported if Prismata finds any of those issues in your data (the CPS will inform you of this upon import). The other items are directional only – perhaps they represent problems and perhaps not. Their meaningfulness is contingent on the kind of model that you build. For example, if you are building a costing model only and are not importing revenue, then you can ignore the portion of the Model Run Validation report that informs you that the Cost is Too High Compared to Revenue. Similarly, if you are not allocating or 'Trickling down' costs based on Revenue, then you can ignore the portion of the Line Import Validation report that informs you that Total Revenues per XXXX = 0.

The Validation Reports are all 'Drill – Down' Reports, i.e. you can double click on any of the rows on the cover page to see the details.

**Ledger Validation**

Error Type	Description	# Occurrences
Critical Error	Duplicate Account Name	1
Critical Error	Duplicate Account Numbers	1
Critical Error	Non Numeric Account Amount	1

Double Click to See the Details

↓

Description	Account Number	Account Name	Account Amount
Duplicate Account Name	N/A	Linen	N/A

### Ledger Import Validation

Upon importing your General Ledger, Prismata reviews the data and looks for the following problems:

- **\*\* Duplicate Account Name (CRITICAL ERROR)**
  - Account Names must be unique if the name is defined as key. If you import your data and there are 2 different accounts, both with the name of 'Salaries', you will get this error
- **\*\* Null Account Name (CRITICAL ERROR)**

- Account Names must have a value if the account\_name has been defined as key.
- **\*\* Duplicate Account Numbers (CRITICAL ERROR)**
  - Account Numbers must be unique if the account number has been defined as key. If you import your data and there are 2 different accounts, both with the number of '130-00-01', you will get this error
- **\*\* Null Account Numbers if Account Number is defined as Key (CRITICAL ERROR)**
  - If you have defined for the CPS that your account number remains constant across time periods, then Account Numbers must have a value
- **\*\* Non-Numeric Account Amount (CRITICAL ERROR)**
  - Account Amounts must be numbers. If you import a General Ledger with 'XXXXX' in the account amount column, you will get this error.

### **Line Import Validation**

Upon importing your Line item data, Prismata reviews the data and looks for the following problems:

- **\*\* Non-Numeric Amounts in any of the following fields: (CRITICAL ERROR)**
  - Sales\_Price
  - Revenue\_2
  - Revenue\_3
  - COGS1
  - COGS2
  - COGS3
  - Num\_Units
  - Weight
- **Null Values in any of the following fields**
  - Customer\_ID
  - Order\_ID
- **0 Total Revenue Per Category (These findings mean that when Prismata sums up the Revenue for each Line item associated with the following categories, it sums up to zero)**
  - Customer
  - Order
  - Product

### **Model Run Validation**

Upon calculating the model, Prismata reviews the results and looks for the following potential problems:

- **Unallocated Ledger Dollars** – This signifies that not all of your expenses are flowing from the Ledger to the Resources.
- **Unallocated Resource Dollars** – This signifies that not all of your expenses are flowing from your Resources to your Activities

- Unallocated Activity Dollars – This signifies that not all of your expenses are flowing from your Activities to your Line items
- Disproportionately Dominant Activity – This signifies that a single Activity accounts for an incredibly large percentage of an Line item’s total Activity Cost. For example, assume that an Line item is receiving a total of \$100 of Activity Cost. If \$93 of those \$100 are coming from a single activity, Prismata feels that there may be an issue with how the dominant Activity is being allocated.
- Cost Too Low Compared to Revenue – This signifies that the total Cost is too low compare to the revenue received for the Line item. For example, if the Revenue for a certain Line item = \$10,000 and the total Activity Cost to perform that Line item = \$100, Prismata feels that there may be an issue with how the Activity Costs are being allocated.
- Cost Too High Compared to Revenue – Opposite of above. For example, if the Revenue for a certain Line item = \$38 and the total Activity Cost to perform that Line item = \$750, Prismata feels that there may be an issue with how the Activity Costs are being allocated.
- Activity Cost = 0 – This signifies that an Line item is not receiving any cost from any Activities.

**APPENDIX**

### **Data Fields for Import**

The following is a list of the data fields and types, and lengths, along with precision and scale where appropriate, defined in the Prismata import table. If you are creating an import from a CSV file, please use this as your guide. Remember, the import is pre-configured to look for 61 columns, so be sure to put the column header in your CSV even if the field is blank.

<b>Name</b>	<b>Data Type</b>	<b>Length</b>	<b>Precision</b>	<b>Scale</b>
Salesman_ID	varchar	50		
Salesman_Name	varchar	100		
Customer_ID	varchar	50		
Customer_Name	varchar	100		
Customer_Type	varchar	20		
Customer_Account_Type_1	varchar	50		
Customer_Account_Type_2	varchar	50		
Customer_Zip	varchar	50		
Product_ID	varchar	50		
Product_Name	varchar	100		
Weight	float	8	53	0
Num_Units	float	8	53	0
Unit_Of_Measure	varchar	50		
Product_Custom_1	varchar	50		
Date_Of_Order	smalldatetime	4		
Place_Of_Order	varchar	100		
Order_Type	varchar	100		
Order_ID	varchar	50		
Order_Line_Number	varchar	50		
Ship_Date	smalldatetime	4		
Route_ID	varchar	50		
Route_Distance	float	8	53	0
Vendor_ID	varchar	50		
Vendor_Name	varchar	100		
Sales_Price	money	8	19	4
Revenue_2	money	8	19	4
Revenue_3	money	8	19	4
Customer_Payment_Type	varchar	50		
COGS1	money	8	19	4
COGS2	money	8	19	4
COGS3	money	8	19	4
User_Def_Col_01	varchar	200		
User_Def_Col_02	varchar	200		
User_Def_Col_03	varchar	200		
User_Def_Col_04	varchar	200		
User_Def_Col_05	varchar	200		

User_Def_Col_06	varchar	200		
User_Def_Col_07	varchar	200		
User_Def_Col_08	varchar	200		
User_Def_Col_09	varchar	200		
User_Def_Col_10	varchar	200		
User_Def_Col_11	varchar	200		
User_Def_Col_12	varchar	200		
User_Def_Col_13	varchar	200		
User_Def_Col_14	varchar	200		
User_Def_Col_15	varchar	200		
User_Def_Col_16	varchar	200		
User_Def_Col_17	varchar	200		
User_Def_Col_18	varchar	200		
User_Def_Col_19	varchar	200		
User_Def_Col_20	varchar	200		
User_Def_Col_21	varchar	200		
User_Def_Col_22	varchar	200		
User_Def_Col_23	varchar	200		
User_Def_Col_24	varchar	200		
User_Def_Col_25	varchar	200		
User_Def_Col_26	varchar	200		
User_Def_Col_27	varchar	200		
User_Def_Col_28	varchar	200		
User_Def_Col_29	varchar	200		
User_Def_Col_30	varchar	200		