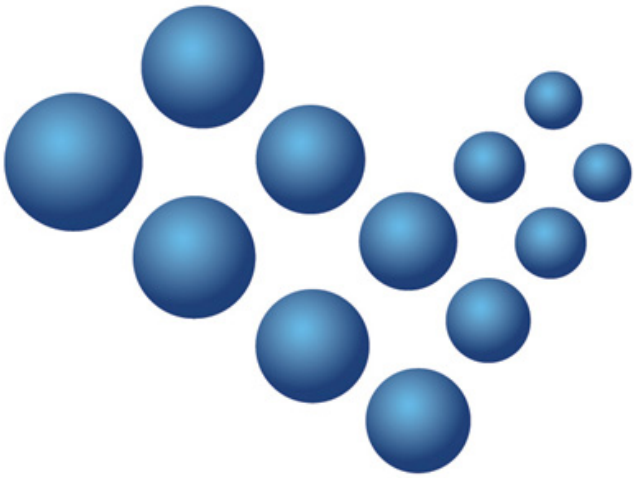
Sales Performance Management

VARICENT®

Incentive Compensation Management 1



October 12, 2010

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Introduction

Learning Objectives

By the end of this chapter, you will be able to:

- Describe the ICM1 Course learning objectives and learning methodology

Varicent Incentive Compensation Management 1

Welcome to the Varicent Incentive Compensation Management 1 course. ICM1 is the first offering in the Varicent learning path and is a pre-requisite to all other training offerings.

Course objectives

The goal of this course is to prepare you to actively participate in your implementation of the Varicent SPM solution. After completing this course, you will be able to:

- Identify the components of the Varicent SPM solution.
- Describe at a high level the Varicent Perform Implementation Process for Varicent Incentive Compensation Management.
- Navigate the Varicent SPM Administrative and Web clients.
- Create tables and calculations to support ICM business requirements.
- Create a web enabled commission statement and other compensation reports.
- Validate calculation results.
- Describe how ICM information can be accessed, shared, and tracked amongst sales management and sales teams.

Prerequisites

As a participant, you are expected to already to be:

- Proficient in Windows XP.
- Experienced in using Internet Explorer.
- Knowledgeable about database design and relational databases.
- Proficient in Microsoft Excel and Microsoft Word.

Methodology

This course is delivered using a combination of lectures, demonstrations and hands-on exercises using a training environment that simulates both of the Varicent SPM clients.

You are encouraged to participate by asking questions, through group activities and through class discussions. Your instructor will keep track of any questions that require more information than what is available and answers will be provided as soon as possible.

Table 2-1: Agenda

Day 1	Topic
9:00am to 9:15am	Introduction
9:15am to 9:30am	Varicent SPM Overview
9:30am to 10:30am	Varicent Admin and Web Clients
10:30am to 10:45am	Break
10:45am to 11:00am	Introduction to the Rivacent Case Study
11:00am to 12:00pm	Data Modeling
12:00pm to 1:00pm	Lunch
1:00pm to 2:30pm	Data Modeling
2:30pm to 2:45pm	Break
2:45pm to 5:00pm	Data Modeling

Day 2	Topic
9:00 am to 9:15am	Review
9:15am to 10:30am	Calculations
10:30am to 10:45am	Break
10:45am to 12:00pm	Calculations
12:00pm to 1:00pm	Lunch
1:00pm to 2:30pm	Calculations
2:30pm to 2:45pm	Break
2:45pm to 3:45pm	Calculations
3:45pm to 4:30pm	Compensation Plans
4:30pm to 5:00pm	Workflow

Day 3	Topic
9:00am to 9:15am	Review
9:15am to 9:30am	Tailored Reports
9:30am to 10:30am	Tools and Automation
10:30am to 10:45am	Break
10:45am to 12:00pm	Inside Sales Representative Lab
12:00pm to 1:00pm	Lunch
1:00pm to 1:45pm	Inside Sales Representatives Lab
1:45pm to 2:00pm	Break
2:00pm to 4:30pm	Inside Sales Representatives Lab
4:30pm to 5:00pm	Components and Connectors

Day 4	Topic
9:00am to 9:15am	Review
9:15am to 10:30am	Case Study
10:30am to 10:45am	Break
10:45am to 12:00pm	Case Study
12:00pm to 1:00pm	Lunch
1:00pm to 2:30pm	Case Study
2:30pm to 2:45pm	Break
2:45pm to 3:30pm	Case Study
3:30pm to 4:30pm	Presentations
4:30pm to 5:00pm	Wrap-up

Chapter 1

Varicent SPM Overview

Learning Objectives

By the end of this chapter, you will be able to:

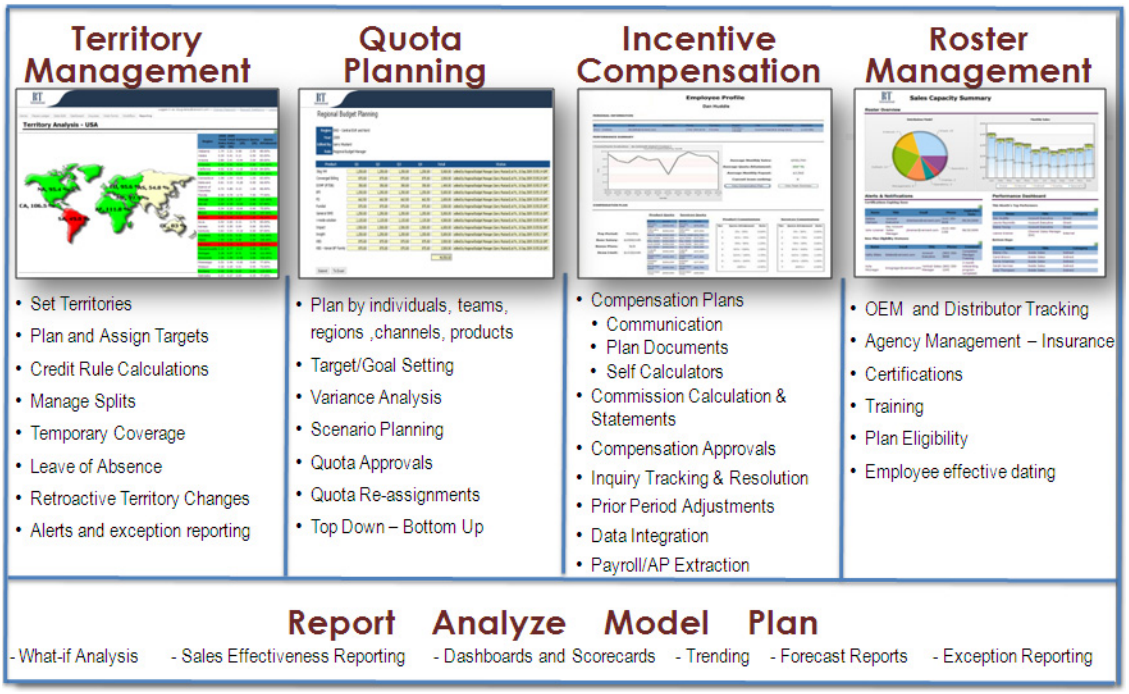
- Describe the Varicent Sales Performance Management (SPM) solution.
- Describe the key functionalities and benefits of the Varicent Incentive Compensation Management (ICM).
- Describe the Varicent Perform! implementation methodology at a high level.

Varicent SPM Solution

Varicent is the leading provider of complete Sales Performance Management (SPM) solutions that help you effectively manage and improve the performance of your sales organization. Using Varicent, you can efficiently track, manage and report on sales related data and processes.

The Varicent SPM solution encompasses Incentive Compensation Management, Territory Management, Quota Planning, and Roster Management.

Figure 1-1: The Varicent SPM Solution

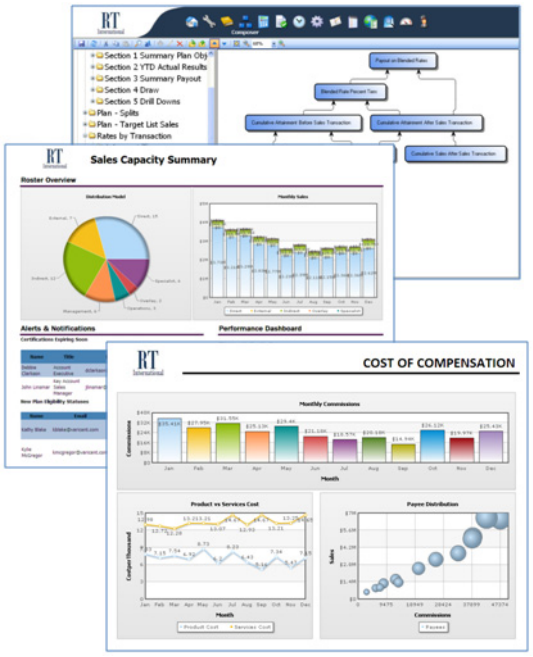


Benefits of Varicent SPM

Varicent SPM enables innovation so you can manage complex business requirements today and tomorrow.

Speed

- Managed by the Business Owners
- Modeling, Reporting and Analytics
- Self-calculators, statements, workflow



Flexibility

- Composer – Visual Application Manager
- Extensible Data Model
- Customizable Workflow
- MBOs, Targets, Goals and Commissions

Visibility

- Plan and Organizational Changes
- Audit Capabilities
- Inquiry/Dispute Resolution

Varicent Incentive Compensation Management

Varicent allows business users to easily create, model and administer pay-for-performance programs. Varicent enables to design and manage even the most complex compensation programs including sales commissions, MBOs and no-cash rewards.

With Varicent, you can:

- Automate commission calculations and save administrative time.
- Align sales behavior with corporate objectives by quickly modifying or creating incentive programs and compensation plans to support corporate goals.
- Deliver a single view of total compensation by integrating MBOs and non-cash rewards.

- Automate, track and control payment disputes with configurable workflows.
- Control compensation costs by modeling and forecasting the impact of variable pay programs.

How does Varicent work?

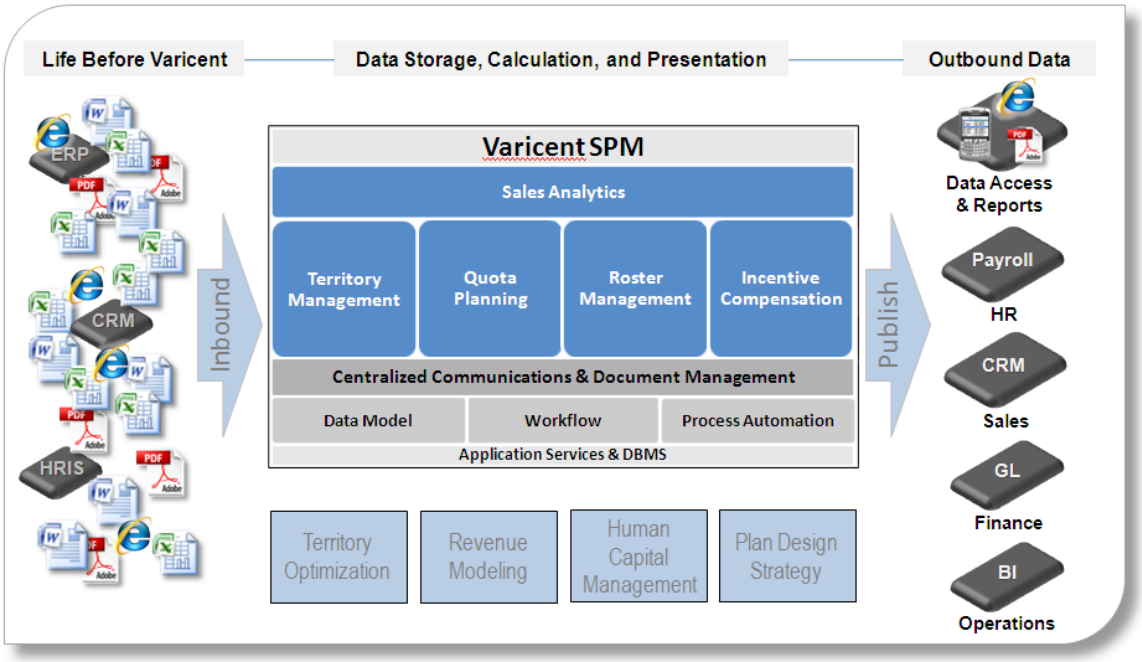
Varicent Incentive Compensation Management (ICM) has been designed with flexibility and ease of use in mind. After defining your compensation plan requirements, you import supporting data into a customized model that is specifically designed to meet your business requirements and create compensation calculations unique to your commission payout strategy.

The Varicent Data Import Wizard provides step-by-step instructions on how to import data from many data sources (see Figure 1-2). Varicent SPM also integrates with Salesforce.com and Microsoft CRM Dynamics.

Once the Varicent model is populated with the appropriate data, the Varicent Calculation Wizard helps you to build calculations that will be used to derive the final compensation plan(s). Results are used to create reports within Varicent or exported to Payroll, Financial, or other system.

The following illustration depicts the Varicent architecture.

Figure 1-2: Varicent SPM Architecture



Implementing the Varicent SPM Solution

The Varicent team works with you to determine the optimal implementation scenario in your environment. This is achieved through our “Perform!” methodology.

This methodology is divided in six phases.

Prepare

You work with our consultants to scope the implementation project and determine what resources are required to achieve your objectives.

Discover

Varicent consultants assist you in drafting your specific business requirements for this project. You must be able to clearly articulate your current compensation plans, processes, and policies.

Design

You will receive training on how Varicent works to prepare you to actively participate in the implementation. Your precise design specifications will be finalized, prior to the development of Varicent models or compensation plans.

Build

You work in a team with our consultants to create your Varicent model, importing data, creating calculations, reports, and automating tasks.

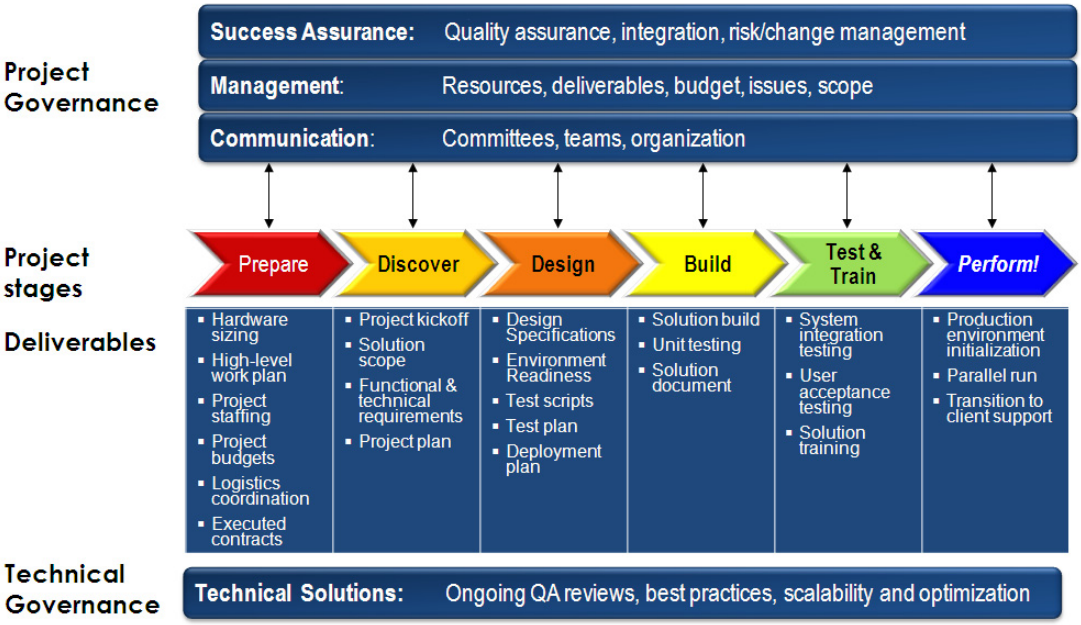
Test and Train

You will conduct system integration and user acceptance testing. You will finalize your deployment plans and provide specific training to your employees.

Perform!

Your implementation is complete and you begin to assume full control of your model.

Figure 1-3: Varicent Perform! Methodology



Summary

Varicent enables Sales Performance Management (SPM) by providing a single solution that encompasses Incentive Compensation Management, Quota Planning, Territory Management, and Roster Management.

Managing or automating any SPM element requires careful up-front design and planning. A critical success factor for your ICM project is to clearly define your compensation plan requirements and the supporting data sources, tables, calculations, and workflows.

Review Questions

Each chapter should contain between 3 to 10 review questions, used to reinforce key concepts.

1. What are the three benefits of using the Varicent SPM solution?

2. What are the four pillars of the Varicent SPM solution?

3. At which step of the Varicent Perform! methodology does your model get created?

Chapter 2

Admin and Web Clients

Learning Objectives

By the end of this chapter, you will be able to:

- Describe the purpose of the Varicent SPM model.
- Explain the purpose of accessing Varicent SPM through the Admin or Varicent Web clients.
- Access a Varicent SPM model through the Admin client.
- Describe the Varicent Admin Client user interface.
- Log into the Varicent Web client and review the menu structure presented on the Home Page.

Varicent Model

A Varicent Model contains all the tables, transactional data and components related to one or more compensation plans. The purpose of this model is to effectively calculate the compensation of your work force.

The number of models created depends on your company's organization. For example, a company can have one model with many different compensation plans, or it can have multiple models with compensation plans in each model.

When logging into the admin client, you are required to either access an existing model or create a new one. You do not have to specify a model when logging in through the web client.

Accessing Varicent SPM

There are two different types of clients used to access a Varicent SPM components. Your user role, and use of Varicent, will determine the appropriate access method. Table 1-1 outlines the purpose of each client type, typical tasks and the associated user roles.

Table 2-1: Purposes of the Admin and Web clients

Varicent Client	Tasks	User Roles
Admin	Create and maintain Varicent SPM model Create calculations Create compensation plans Manage payees Administer security	Sales Operations Compensation Analysts Report Writers
Web	View reports Approve plans View compensation plan results Create inquiries Submit approvals	Executives Managers Salespeople

Varicent SPM Administrative Client

Administrators need to have access to the Varicent SPM Admin Client to create and maintain all the components of your sales performance solution. Access to the Varicent SPM Admin Client is granted through Manage Roles by creating and assigning an administrator role to a user account. A role can be assigned to multiple users.

Accessing the Admin Client

You access the Admin Client using an icon on your desktop.

1.Double-click the Varicent shortcut on your desktop.

The admin client launches and displays the **Welcome to Varicent** dialog.

Figure 2-1: The Welcome to Varicent dialog

2. Select the existing model you want to log into from the **Model Name** list.
3. Enter your **User ID** and **Password**.
4. Click **Login**.
5. The Admin client launches and displays the Home page.

Home Page

The Home page gives you the ability to launch the various admin client modules and tools that you use to populate your model:

Figure 1-2 shows where the items are located on the Home page as well as provides a basic description of the 7 Admin client modules.

Another option is to launch from the Start menu.

You can change the language of the client interface by clicking **Language**.

Figure 2-2: The Admin client Home Page

Menu Bar

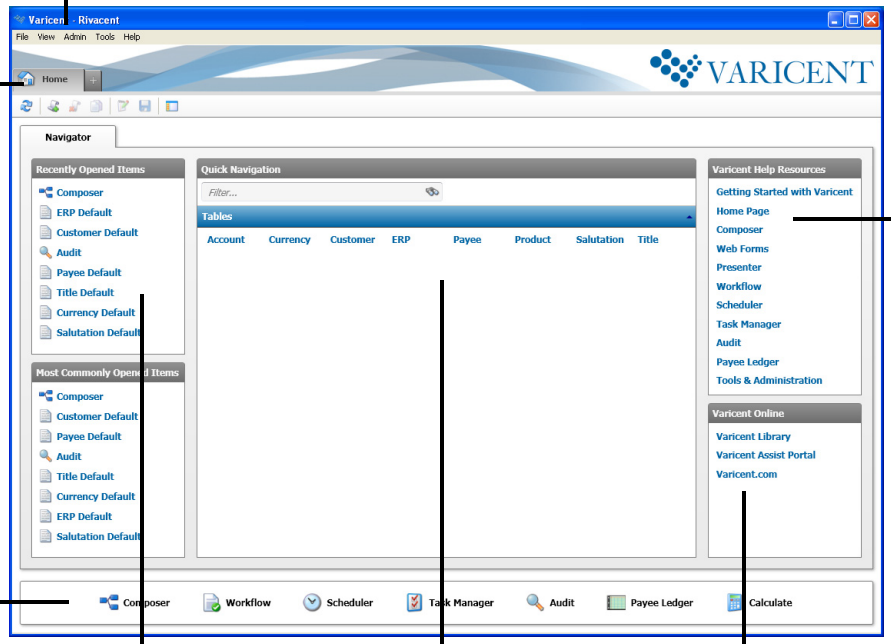
Gives access to menu items and options.

Module Bars

Intuitive method to navigate to the various modules in the Admin client.

You can reach individual modules by clicking on the icons at the bottom of the screen or clicking on the **+ sign** at the top of the screen.

Modules can alternatively be accessed using the **View** menu in the Menu Bar.



Help Resources

Easy access to module specific help files.

Opened Items

Quickly access recently or commonly opened items.

Tables

Quickly view and edit tables in your model.

Varicent Online

Access online resources provided by Varicent.

Composer	Workflow	Scheduler	Task Manager	Audit	Payee Ledger	Calculate
View, create and organize tables, calculations, compensation plans, reports and other components.	Post compensation results to Varicent Web, as well as define web access and review responsibilities.	Schedule model maintenance tasks, such as data imports, calculations or tasks generation.	Generate list of model maintenance and workflow tasks to be completed based on defined criteria.	Create an Audit Log that monitors all database modifications (including creation and deletion) by all users.	Displays compensation plan results and tailored reports as well as provides a link between calculated results and transactional data.	Calculate the results of various elements in the application including: calculations, reports, and compensation plans.

Menu System

Use the menu bar at the top of the Home page to access menu items and options relevant to your model.

File Menu	View Menu	Admin Menu	Tools Menu	Help Menu
Allows you to create a new model, open an existing model and exit the program.	Allows you to switch from one module to another.	Provides many administrative tasks, such as managing users, managing roles and changing passwords.	Provides access to the document archive, optimize model and migration tools.	Provides access to help files.

Module Navigation

Once inside a module, specific tools and navigation elements are available to you. Figure 1-3 shows an example of a module navigation scheme.

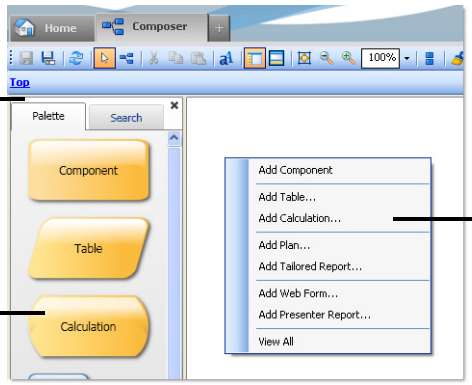
Figure 2-3: Sample module navigation scheme

Toolbar

Module specific toolbars help you to quickly perform tasks.

Tabs

Tabs with model elements and tools.



Right Click

You can right-click anywhere within a module for specific menu commands.

Varicent Web

Varicent Web is the interface that your payees use to view reports, web forms, and review compensation plan payouts. The payees can also launch inquiries, sign off on items and view documents and messages from the administrators.Administrators grant access to Varicent Web and configure the specific items available to different groups of payees.i

The interface is compatible with most web browsers.

Logging into Varicent Web

Using your preferred web browser, open the link provided by your Varicent administrator. The Varicent Web client login screen appears.

Figure 2-4: Varicent Web Login Screen

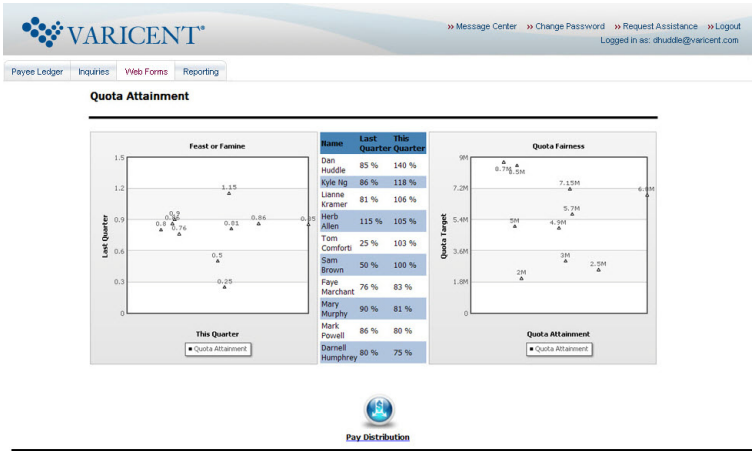
1. Enter your **User ID** and **Password**.
2. Click **Login**.
3. You log into Varicent Web and the Home page is displayed

Varicent Web Home Page

Varicent Web opens at the Home page. The following items are displayed:

- Messages posted by the administrator.
- Any inquiries that are currently assigned to the payee, any unassigned inquiries for the workflow group they belong to, and the status of inquiries they have submitted.

Figure 2-5: The Varicent Web Client



The following is a description of the key components of the Web client interface:

Payee Ledger	Inquires Tab	Web Forms Tab	Reporting Tab	Message Center
Displays compensation plans and any tailored reports that payees have been given access to.	Displays the inquiries a payee has created or has been assigned.	Displays the web forms that the payee has been given access to.	Displays the Presenter reports that the payee has access to.	Displays messages posted by the administrator or any workflow related tasks that need to be taken care of.

Summary

In this chapter, you have learned how a Varicent model contains all the tables, transaction information, calculations, etc. required to manage your compensation plans. Access to Varicent is provided via the Admin and Web clients.

Review Questions

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1. Which client can you use to create reports in Varicent SPM?

2. Using the Admin client, which module would you select to create calculations?

3. What are examples of user roles that would be associated to the Varicent Web client?

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Chapter 3

Rivacent Overview

Learning Objectives

By the end of this chapter, you will be able to:

- Describe the Rivacent compensation plans for account executives and inside sales representatives.
- Identify the Rivacent SPM business requirements.

Rivacent Case Study

We will use a fictitious company called "Rivacent, Inc." throughout the class to facilitate instructor walk-thrus and student exercises. Many of the exercises build on each other and you will need to complete all activities to achieve the objectives established for Rivacent.

Products

Rivacent sells a mix of hardware (network equipment) and services (business solutions and Voice Over IP) designed to meet their customer's network hardware needs.

Customers

Rivacent sells to customers in North America, spanning 14 regions. Customers are broken down by region and by vertical key (for reporting purposes).

Employees

Rivacent employs two groups of dedicated sales professionals:

- 15 Account Executives (AE) responsible for the well being and satisfaction of a group of Rivacent customers within a region.
- 15 Inside Sales Representatives (ISR) assigned to sell and upgrade products and services to customers in a set region as well as provide assistance as required.

Rivacent's Business Challenges

Rivacent is faced with a number of ICM challenges:

- Coping with increasingly complex calculations.
- Difficulties calculating timely and accurate commission payouts.
- Tracking and auditing the compensation plans.
- Modifying compensation plans to align behavior with corporate objectives

Accounting at Rivacent

The Rivacent fiscal year is January 1 to December 31.

Compensation Planning at Rivacent

The AEs and ISRs have separate compensation plans.

- Account Executives have commissions and bonuses based on sales and monthly quotas. They are guaranteed a minimum ICP payout regardless of their actual performance.
- Inside Sales Representatives have commissions based on product sales, a tiered monthly sales bonus and a monthly services bonus.

The details outlining the business rules for these compensation plans are contained in the sections that follow.

Reporting Requirements at Rivacent

Rivacent requires that commission reports for the Account Executives and Inside Sales Representatives are available on-line. In addition, two additional reports are required:

- Sales by Product Report
- Top Performing AE Report

AE Compensation Plan 2010

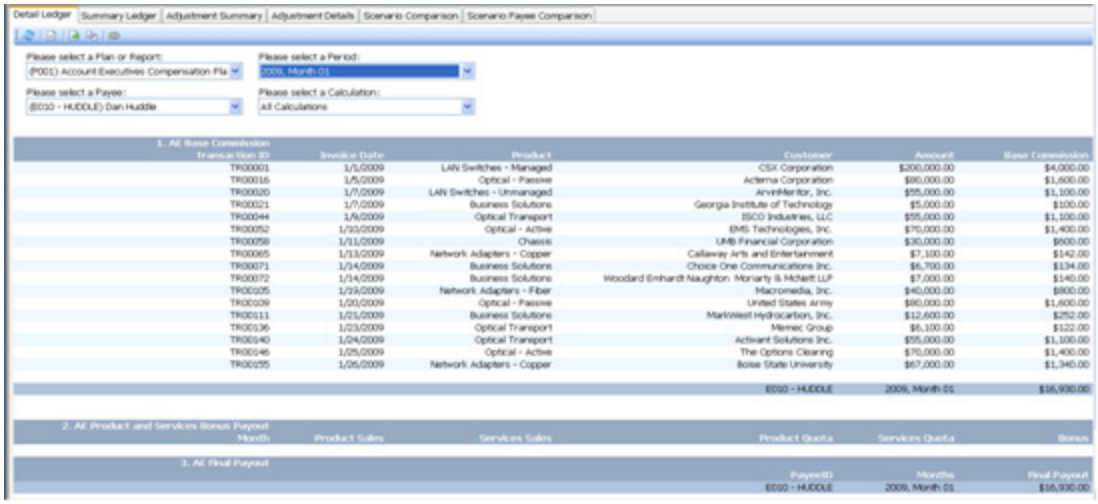
This compensation plan is intended for Rivacent's Account Executives (AEs) for the 2010 fiscal year (January 1, 2010 to December 31, 2010).

There are three components to the Account Executives plan, all calculated on a monthly basis:

- Monthly base commission paid on all sales transactions.
- Monthly product sales bonus for meeting or exceeding their monthly hardware and services quotas.
- Rolling sales attainment bonus, for meeting or exceeding their rolling 3 month averaged hardware and services sales attainment. The rolling 3 month attainment bonus is paid on a tiered scale.

A monthly ICP guarantee of ofa percentage of base salary is paid to AEs who do not attain a minimum earned commission.

Figure 3-1: Sample AE Compensation plan



AE Monthly Base Commission

A base commission of a percentage of sales invoiced during the month is awarded to each AE. . The commission rate varies by title.

Example: An AE makes a sale of $40,000 and the applicatble commission rate is 2%. The AE receives a commission of **$800** (800 = $40,000 *2%).

AE Monthly Hardware and Services Sales Bonus

AEs are assigned a monthly hardware and services quota.

An AE who attains both hardware and services quotas receive a single payout of $1,000.

Table 3-1: Monthly Hardware and Services Quotas for Dan Huddle

Account Executive	Month	Hardware Quota	Services Quota
Dan Huddle	January	$100,000	$35,000
Dan Huddle	February	$100,000	$38,000
Dan Huddle	March	$100,000	$40,000

Rolling 3 Month Sales Attainment

AEs are compensated based on an average of sales over the past 3 months. This value is compared to the current month's sales to calculate their attainment. The attainment percentage determines the payout, which is tier structured.

Table 3-2: Rolling 3 Month Quota

Tier	Range	Payout
1	70% - 89%	$100
2	90% - 99%	$150
3	100% - 109%	$200
4	110% - 119%	$250
5	120%+	$275

Example:

Dan Huddle had sales of $800.00 in January, $1,200.00 in February, $1,000.00 in March, and $1,150.00 in April. The averaged sales attainment for Dan's sales for the 3 previous months is $1000.00. Therefore Dan's rolling 3 month sales attainment for March is 115% (1,150/1,000). Dan receives a payout of **$250** since he achieved Tier 4.

AE Monthly ICP Guarantee

Rivacent offers a guarantee that each AE will receive a minimum payout that is a percentageof monthly salary.The percentage varied by title.

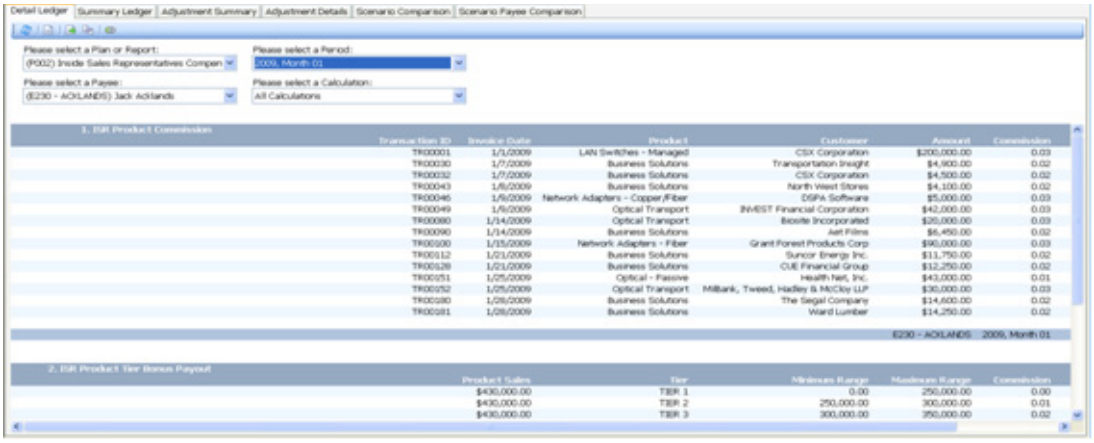
ISR Compensation Plan 2010

This compensation plan is intended for Rivacent's Inside Sales Representatives for the fiscal year of 2010 (January 1, 2010 to December 31, 2010).

Inside Sales Representatives receive a monthly commission and a monthly bonus. The three plan components are:

- Monthly commission, paid on all transactions. Commission rate varies by product.
- Hardware sales attainment bonus. Tiered scale.
- Monthly Services sales growth bonus. Tiered scale.

Figure 3-2: Sample ISR Compensation Plan



Monthly Commission by Product

ISRs are paid a commission for each transaction. Each product has a specific commission percentage, as displayed in Table 3-3. The ISR receives the total sale amount multiplied by the appropriate commission percentage for the specific product.

Table 3-3: Product Commission Percentages

Product	Commission Rate
LAN Switches - Managed	3.00%
LAN Switches - Unmanaged	2.00%
Chassis	4.00%
Optical - Active	2.00%
Optical - Passive	1.00%
Optical Transport	2.75%
Network Adapters - Fiber	3.25%
Network Adapters - Copper	2.00%
Network Adapters - Copper/Fiber	2.50%
Voice over IP	5.00%
Business Solutions	2.00%

Example:

An ISR completes a sale for $40,000 worth of P08 - NETWORK ADAPTERS - COPPER and receivesa commission of **$800** (800 = 40,000 * 2%).

Monthly Hardware Sales Bonus

ISRs are compensated based on total monthly sales of all hardware products

This monthly bonus gives the ISR an additional percentage for each achieved tier, as outlined in Table 3-4. The ISR is compensated by multiplying the amount of total sales within the tier by the tier percentage.

Table 3-4: ISR Tiered Monthly Bonus

Range	Commission
0-250,000	.25%
250,000-300,000	.50%
300,000-350,000	1.50%
350,000-450,000	2.00%
450,000-750,000	2.50%
750,000-1,000,000	4.00%

Example:

An ISR has monthly revenue of $500,000. The ISR has achieved the entire first, second, third and fourth tiers and receives the full amount for those tiers. The ISR receives a commission based on the portion of the sales amount that falls intotier 5.

Tier	Applicable Sales Revenue	Commission Rate	Commission
1	250,000 - 0 = 250,000	0,25%	$625
2	300,000 - 250000 = 50,000	0.50%	$250
3	350,000 - 300,000 = 50,000	1.50%	$750
4	450,000 - 350,000 = 100,000	2.00%	$2,000
5	500,000 - 450,000 = 50,000	2.50%	$1,250
		Total Commission	$4,875

Monthly Services Sales Growth Bonus

The monthly services sales bonus is based on a month over month growth matrix.

The matrix comprises growth and total sales. Growth is calculated by [(Current Month - Last Month) / Last Month] and is expressed as a percentage.

Table 3-5: Services Growth Matrix

Total Sales	Commission %			
50,000 +	0.00%	15.00%	20.00	25.00
30,000 - 50,000	0.00%	7.00	8.00	20.00
15,000 - 30,000	0.00%	2.50	6.00	15.00
0 - 15,000	0.00%	0.00	5.00	10.00
Growth	< 10%	10% - 40%	40% - 80%	80% +

Example:

An ISR's sales for the current month are $35,000. The ISR's sales last month were $20,000. That is a growth of 75%; therefore the ISR earns 8% commission ($35,000 in sales and 75% growth). The ISR receives a commission of **$2,800** (2,800 = 35,000 * 8%).

Summary

In this course, you will use the AE Compensation Plan 2010 for all instructor led walk-thrus and for some of your lab exercises. The requirements for the ISR Compensation Plan 2010 will be used for your lab exercises.

It is important that you properly understand both sets of requirements and complete all walk-thrus and exercises.

Chapter 4

Data Modeling

Learning Objectives

By the end of this chapter, you will be able to:

- Describe the structure of a relational database
- List the Varicent SPM table types
- Describe how Pick List columns are used
- Create a Varicent SPM model
- Modify the structure of a Varicent SPM table
- Create tables and import data
- Modify data in a table.

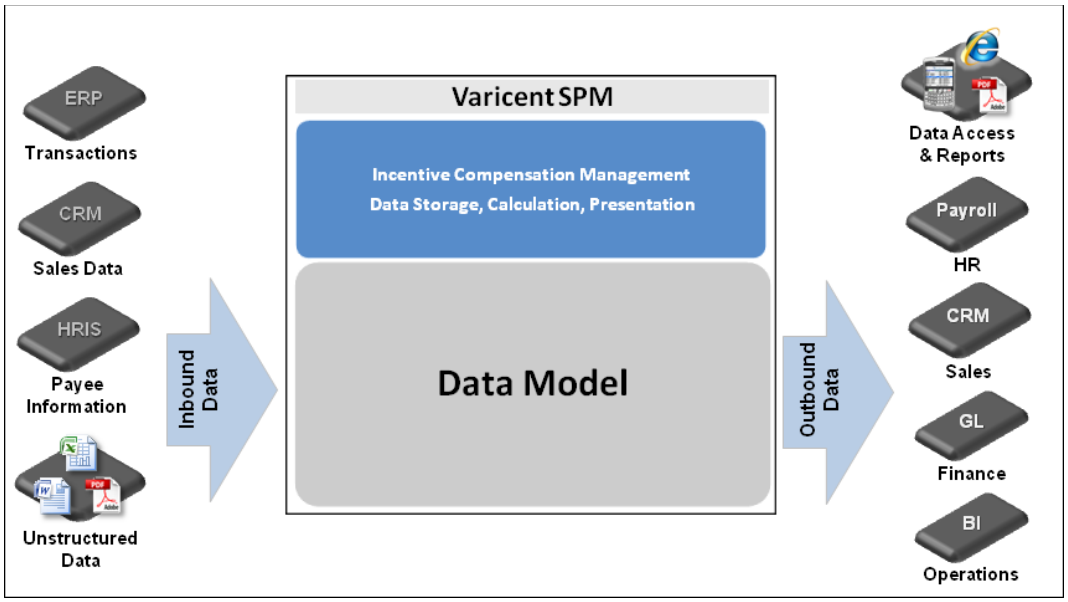
Data in Varicent SPM

All the data used to calculation compensation results is stored in the Varicent SPM database. The database stores data imported from external systems, such as payee information and sales transactions, and data that is maintained exclusively in Varicent SPM, such as commission rate tables, for example.

It is assumed that data imported into Varicent SPM has already been validated. Varicent SPM performs error checking when data is imported, but only to ensure that the data is structurally valid.

The results of compensation calculations are made available to external systems via data exports and database views.

Figure 4-1 The flow of data through Varicent SPM



Relational Databases

Varicent SPM uses a relational database to store the information required for compensation calculation and reporting. To effectively work with the data in Varicent SPM, you need to understand the basic concepts of a relational database.

A relational database stores data in numerous separate but linked tables. One of the advantages of a relational database is that duplication of entries is reduced or even eliminated, allowing for the efficient management of larger databases.

Tables

A table in a relational database is much like a table on paper or data in a spreadsheet.

Different tables store different types of data. For example, there are separate tables for sales data, customer data, and employee data. Tables consist of columns and rows.

Columns

Columns are used to organize the data into separate items. For example, a table that stores customer data would have separate columns for the customer name, address, and phone number.

The number of columns in a table is fixed, and each column has a name.

Each column has a data type that specifies the types of values that can be stored in that column. For instance, a numeric column cannot store text data.

Rows

Each row (also known as “record”) in the table contains all the information about one specific item. A single row in the Customer table, for example, stores all the information about a specific Customer. The number of rows in a table is variable -- it reflects how much data is stored in the table at a given moment.

Primary Keys

Relational databases require that you be able to uniquely identify each row in a table using an identifier known as a **primary key**. The primary key consists of one or more columns in each table.

In Figure 4-2 the Customer table has a primary key consisting of one column. The CustomerID is unique for each customer. The MonthlyQuota table uses a primary key consisting of two columns: PayeeID and Month; both these values are required to uniquely identify each quota amount.

Figure 4-2: Example of primary keys

Customer Table	
CustomerID	Name
C10014	Optican
C10015	Rossum Corporation
C10016	Simeon
C10017	Acme
C10018	Abstergo Industries

MonthlyQuota Table		
PayeeID	**Month**	Quota
E1000	**Jan 2010**	45,000
E1000	**Feb 2010**	50,000
E1000	**Mar 2010**	52,000
E1001	**Jan 2010**	37,000
E1001	**Feb 2010**	40,000

Relationships Between Tables

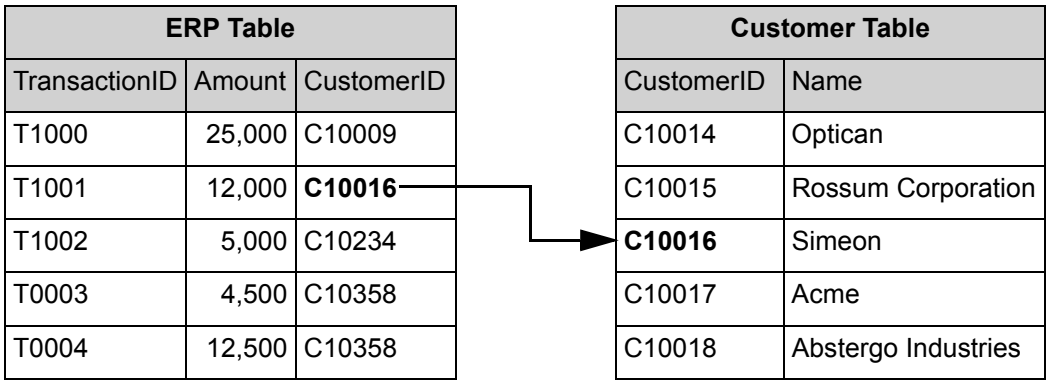
A primary key column used to link to another table is called a **foreign key**.

The tables in a relational database can be linked in order to connect relevant sets of data.

For example, a sales table is linked to the customer table, so that for each sale, you can retrieve all relevant information about the customer.

The links between tables are done using primary keys. Figure 4-3 shows the relationship between an ERP (sales) table and a Customer table. The CustomerID column in the ERP table contains a primary key identifier from the Customer table.

Figure 4-3: Example of related tables



ERP Table		
TransactionID	Amount	CustomerID
T1000	25,000	C10009
T1001	12,000	**C10016**
T1002	5,000	C10234
T0003	4,500	C10358
T0004	12,500	C10358

Customer Table	
CustomerID	Name
C10014	Optican
C10015	Rossum Corporation
C10016	Simeon
C10017	Acme
C10018	Abstergo Industries

A diagram that shows the relationships between tables in a relational database is called an **Entity Relationship Diagram**.

Walk Thru: Create an ERD

Create an ERD based on business requirements

1. Organize data into tables
2. Identify primary keys
3. Establish relationships between tables

Varicent SPM table types

There are several different types of tables in Varicent SPM. Each type of table serves a specific purpose and has different properties.

System Tables

System tables are created automatically during the creation of a Varicent SPM model.

- You cannot create system tables of your own
- You cannot delete system tables.

The three system tables are listed in Table 4-1.

- Can be used as the destination table of a Pick List column.

Table 4-1: System tables

Salutation	Currency	Title
Stores salutations. Initially contains common salutations. You can add more salutations to the table.	Stores the currencies that are used in the Varicent SPM implementation. The initial values in this table are the currencies selected during model creation. You can add currencies.	Stores job titles. This table is empty in a new model. You must import the titles from your organization.

Hierarchy Tables

The data in a hierarchy table has a parent-child relationship with data in the same table. In a hierarchy, each item has a single parent and zero or more children.

In Varicent SPM, for example, the Payee table contains data for all payees at all levels of the organizational structure, such as sales staff, managers, regional managers, and vice presidents. In order to establish a hierarchy in the table that represents the organization structure of a company, the Payee table includes a “Reports To” column with the ID of a payee’s superior.

The Product table is also a hierarchy table. You can use the Parent column to organize products into categories. By organizing data in a hierarchy you can create summary level reports as well as detail level reports.

Figure 4-4 shows a three level reporting structure in the form of an organization chart. Figure 4-5 shows how the organization chart is implemented as a hierarchy table. In Figure 4-5, the **Reports To** column for Dan Huddle and Herb Allen contains the **PayeeID** of Doug Karey, their manager. Similarly, Doug Karey’s **Reports To** value shows he reports to Kim Dawson.

Figure 4-4: Three level reporting structure

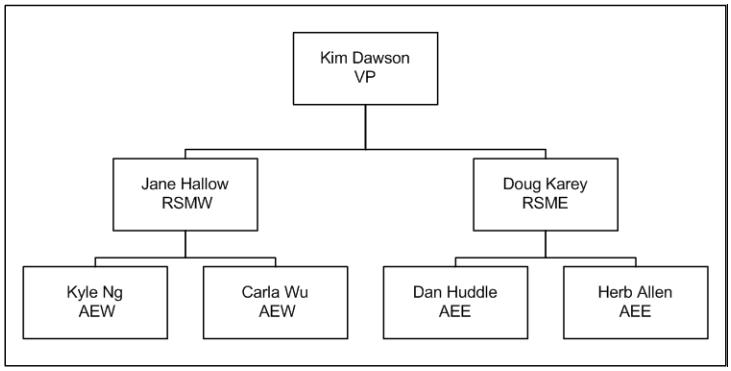


Figure 4-5: Reporting structure implemented in a hierarchy table

PayeeID	Name	TitleID	Reports To
E1014	Kim Dawson	VP	E1038
E1016	Jane Hallow	RSMW	E1014
E1015	Doug Karey	RSME	**E1014**
E1010	Kyle Ng	AEW	E1016
E1011	Carla Wu	AEW	E1016
E1000	Dan Huddle	AEE	**E1015**
E1004	Herb Allen	AEE	**E1015**

Hierarchy tables

Varicent SPM uses Hierarchy tables to store hierarchical data.

- Can only be created when creating a new model.
- Cannot be deleted.
- Primary key can consist of only one column
- Can be used as the destination table of a Pick List column.
- Are viewable as tree structures in Varicent SPM.

Table 4-2 shows the three default hierarchy tables that are created when a new model is created. When you create a new model, you can choose to create other hierarchy tables.

If you need a new table to store hierarchical data after you have created the model, you can create a **Structural** table.

Table 4-2: Default Hierarchy tables

Payee	Accounts	Time
Stores information related to payees. Initially empty.	Stores the GL accounts relevant to compensation plans. Initially empty.	Stores the calendars used in calculations and compensation plans. Initially contains the calendar selected during model creation.

Structural Tables

Structural tables are similar to Hierarchy tables, except that you create structural tables after the model has been created.

- Created after the model has been created.
- Primary key can consist of only one column.
- Can be used as the destination table of a Pick List column.
- Cannot be viewed as trees.

For data tables, it is a best practice to use only one column as the primary key, such as a TransactionID or InvoiceNum.

Data Tables

Data tables generally store transaction data, such as sales records, sales volumes, etc.

- Default table **Data** is created during model creation.
- Can be created after the model has been created.
- Must have a date column that is used for period locking.
- Primary key can consist of one or more columns.

Custom Tables

Custom tables are used to store any non-transactional data that is necessary to calculate a compensation plan, such as quotas and commission rates.

- Are created after the model has been created.
- Primary key can consists of one or more columns.
- Cannot be linked to via a Pick List column.

Territory Tables

Territory tables are used to assign territories.

- Are created after the model has been created.
- Used with Web Forms

Views

Views are used to join two or more tables in order to display data as a single set. Views are frequently used as the source of a data export to an external system.

- Are created after the model has been created.
- Typically used to export data

Varicent Column Types

You can use the following seven column types in Varicent SPM tables:

Numeric	Stores number data such as sales amounts and quotas. Numeric columns are used in calculation formulas.
Text	Stores any alphanumeric or symbol data. Can store a maximum of 100 characters. Text columns cannot be used in calculation formulas.
Date	Stores date information.Data can be imported in one of three formats: mm/dd/yyyy, dd/mm/yyyy, or Jan 1, 2009.
Pick List	Creates a join to a Hierarchy, System, or Structural table. The value stored in the Pick List column links to the primary key column in the joined table.
Email	Stores email addresses with validation to ensure the data corresponds to an email address.
Comment	Stores any alphanumeric or symbol data. Can store a maximum of 1000 characters.
URL	Stores alphanumeric data with validation to ensure a URL format.

Using Pick List Columns

You use Pick List columns to ensure data integrity and to provide access to columns in related tables.

Ensuring data integrity

When a table has a Pick List column linking to another table, you can only enter values into the Pick List column that exist in the joined table, which ensures data integrity. For example, in Figure 4-5 on page 31 the **Reports To** column would be implemented in Varicent SPM as a Pick List column. This ensures that you can only use an existing PayeeID for a person's manager.

Providing access to columns in related tables

It is often the case that the data in two tables is frequently used together. Pick List columns provide default joins between tables; this is handy when creating calculations and reports.

The data integrity rule applies to data that is entered manually into a table and data imported from an external source.

In Figure 4-3 on page 28, the CustomerID column in the ERP table would be a Pick List column. This means that when working with sales data, you automatically have access, via the Pick List column, to all information about the related customer.

Without the Pick List column, you would have to explicitly join the second table to the first when creating calculations.

Walk Thru: Create an Entity Relationship Diagram (ERD) based on Business Requirements

In this walk thru we are going to define the Rivacent data model based on the business requirements (i.e. the compensation calculations) and the available data, in the form of Excel spreadsheets.

To create the ERD we will:

- Identify tables to create based on available data in Excel files
- Identify tables to create for which no data currently exists
- Identify each table's type (Data, Structural, Custom)
- Identify column(s) to use as the primary key
- Identify columns to create, including column types
- Identify Pick List columns and linked tables
- Create a diagram to represent the model

Creating a Varicent SPM Model

The first step to implementing your Varicent SPM solution is to create a model based on the ERD. Once the model exists, you create additional tables as required, import data into the tables, create calculations to produce compensation results, and create reports to display the results.

You can rename the model at a later date; this does not change the name of the database.

To create a new model you need to supply the following information:

Model Name	Identifies the model. The model name appears in the title bar of the Varicent SPM Admin client window.
Fiscal Year Start Date	Used to create the default calendar for your model.
Number of Payroll Periods	Used to create the default calendar for your model. You can choose from Weekly, Biweekly, Semi-monthly, and Monthly.
Currency	Defines the currencies used to calculate compensation plans.
Hierarchy tables	You can choose to create a default **Product**, or **Customer** hierarchy. You can also create custom hierarchies.

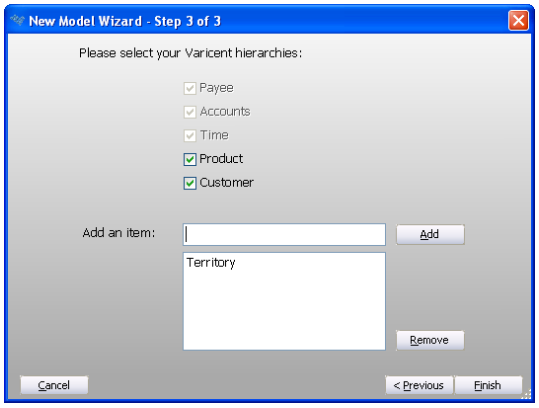
You create the first new module from the Admin client login screen. Once at least one model exists, you can create a new model from the Admin Client Home page. The New Model Wizard walks you through the process of creating a model.

Walk Thru: Create a Model

Based on the Rivacent business requirements we are going to create a Varicent SPM model. The model requirements are listed below.

Model Name	Rivacent
Fiscal Year Start Date	Jan 2010
Number of Payroll Periods	12
Currency	US Dollars
Hierarchy tables	Product, Customer, Territory

To create a new model:



1. Start the Varicent SPM Admin client.
2. On the login screen click **New Model**.
3. In Step 1, name the model **Rivacent**, accept the default fiscal year starting date of **Jan 2010**, and select **12** payroll periods. Click **Next**.
4. In step 2, select the **US Dollars** check box. Click **Next**.
5. In step 3, select the **Product** and **Customer** hierarchies so that these tables get created.
6. To create a Territory hierarchy table, enter **Territory** in the **Add an item** box and click **Add**.
7. Click **Finish** to create the model.

On the Home page you can see that the following tables were created:

- Account
- Currency
- Customer
- Data
- Payee
- Product
- Salutation
- Territory
- Title

Normally you would only edit data that originates in Varicent SPM. If corrections to data received from external sources (e.g. ERP transactions) is required, the data should be corrected at the source and re-imported into Varicent SPM.

Editing Tables

You may find it necessary to edit the structure of an existing table. This is often the case when you have chosen to create Hierarchy tables during model creation and you need to add or delete columns to these tables to meet your data requirements.

When editing tables:

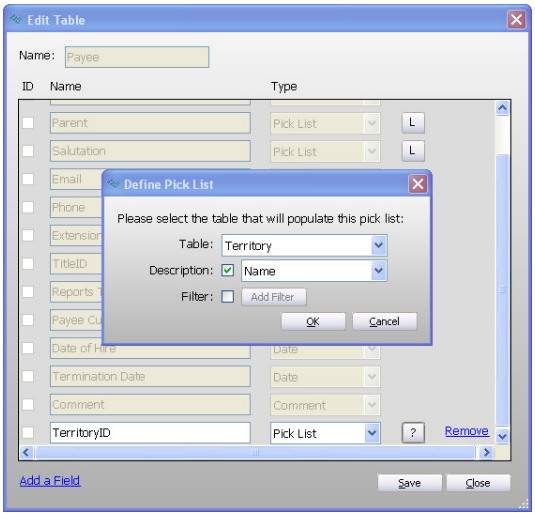
- You cannot modify the primary key
- You cannot modify or delete any columns used to create the primary key
- You cannot delete certain columns in automatically generated tables, such as hierarchy tables.
- You can add new columns
- You can delete columns that are not part of the primary key.

NOTE: If you want to change a table's primary key or modify the columns used to create the table's primary key, you must delete the table and recreate it.

Walk Thru: Edit a Table

The Rivacent ERD specifies that the Payee table has a TerritoryID column. The default structure of the Payee table does not have this column, so you need to add it to the table. You want to ensure that only valid values are stored in this column, so you will use a Pick List column linking to the Territory table to enforce data integrity.

To edit a table:



1. Open a **Composer** tab.
2. Right-click the **Payee** table and select **Edit Table**.
3. Click **Add a Field**.
4. Name the new column **TerritoryID**.
5. Select **Pick List** as the column type.
6. Click the question mark to the right of the column type to choose the linked table.
7. Select **Territory** in the **Table** list.
8. Select the **Description** check box and select **Name** from the list.

   If you do not enable the **Description** for a pick list column, only the primary key value appears when you use the column. With **Description** enabled, both the primary key value and the description of the item appears; this makes using the Pick List column easier to use.
9. Click **OK**. The question mark changes to an **L** to indicate that the linked table has been chosen.
10. Click **Save**. Click **Close**.

Exercise 4-1: Edit Tables

Edit the structure of the following tables:

Customer			
Action	**Column Name**	**Type**	**Linked Table**
Add column	AccountExecutive	Pick List	Payee
Add column	InsideSalesRep	Pick List	Payee
Add column	SetUpDate	Date	
Add column	Status	Text	
Remove column	Industry		

Product			
Action	**Column Name**	**Type**	**Linked Table**
Add column	ProductType	Text	

Importing Data

An Import Data wizard walks you through the steps of importing data into Varicent SPM. You can choose to run an import right away, or you can save the import in order to scheduled it to run at predetermined times.

You can automate data imports using the **Scheduler** module.

Possible Sources of Data

You can import data into Varicent from the following sources:

- Text files
- Microsoft Excel
- ODBC compliant databases
- Salesforce.com
- Microsoft Dynamics CRM
- EBCDIC text files
- TerrAlign

The Import Data wizard steps vary according to the type of data source.

Order of Importing Data

Tables that contain values used in Pick List columns must be populated before tables that contain Pick List columns. Pick List columns enforce data integrity and the imported Pick List column values are validated as part of the data import process.

Figure 4-3 on page 28 shows two related tables. If the CustomerID column of the ERP table is implemented in Varicent SPM as a Pick List column linking to the Customer table, the Customer table must be populated before you can import data into the ERP table.

Walk Thru: Import Data from an Excel File

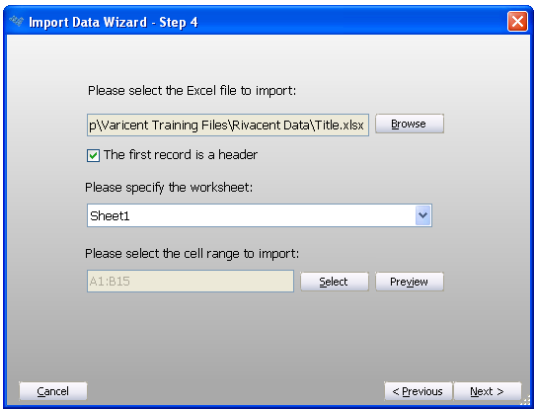
If the data import is not successful, you can use the Import log to determine the cause of the error.

The first table into which you will import data is the **Title** table.

In this course, all source data is in Excel files stored locally on your computer.

To import data into a table from an Excel file:

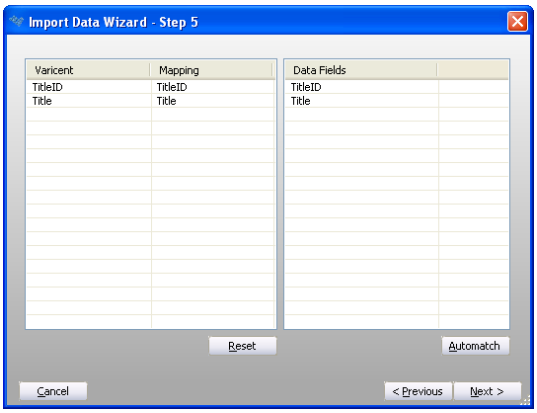
1. In the Composer module, right-click the **Title** table and select **Import Data**.
2. Ensure that **Import from my computer** is selected and click **Next**.
3. In Step 2 select **Microsoft Excel** as the data source. Click **Next**.
4. Click **Browse** to select the data file. From the Desktop, choose Varicent Training Files \ Rivacent Data \ Title.xlsx.



5. The Excel data includes a header row, so select **The first record is a header.**
6. Click **Select** to choose the data in the Excel file. The source file opens in Excel.

Make sure that Excel is not already running when importing data from Excel files.

7. Use the mouse or shortcut keys to select all the data, including the header row.
8. On the taskbar, click the **Varicent** button to return to the Admin client.
9. The **Select** button has changed to **Confirm**. Click **Confirm**. The data range you selected appears in the box to the left of the button. Click **Next**.
10. In step 5 of the Import Data Wizard you map the source data columns to the Varicent SPM table columns. If the column names in both sources are similar, you can use **Automatch** to map the columns. If Automatch does not successfully map all columns, you can drag the source data columns on the right to the matching Varicent columns on the left.



   When you import date columns, you must specify the date format.

   Click **Automatch**. Click **Next**.
11. In step 6 select the following two options and click **Finish**.

    Update existing rows When this option is selected, data in the source file will overwrite corresponding rows already in the table. When this option is not selected, new data does not overwrite existing data.

    Run this import now You would clear this option if you are configuring the data import to be run at a later time, such as a scheduled event.
12. Double-click the table to open it to verify that the data was loaded.

Exercise 4-2: Import Data

Import data into the tables listed below.

The tables are listed in alphabetical order, not the order in which they should be imported. You need to determine the order in which you should perform the imports.

Order	Table Name	Excel File
	Account	Accounts.xlsx
	Customer	Customer.xlsx
	Payee	Payee.xlsx
	Product	Product List.xlsx
	Territory	Territories.xlsx

Creating Varicent SPM tables

In addition to the System and Hierarchy tables created when the model was created, you probably need to create tables to store other data required to calculate compensation results. Is is best practice to perform a data analysis, create an ERD, then create the tables based on the ERD.

When creating tables, you need to consider:

- Table type
- Required columns and column types
- Pick List relationships between tables

You can delete tables that you no longer need, except for System or Hierarchy tables. Right-click the table and choose **Delete**. Deleting a table is irreversible.

Walk Thru: Create a Table

In this walk thru you create the **ERP** table that is used to store the Rivacent sales transactions. The specifications for the table are as follows:

ERP: Data			
Primary Key	**Column Name**	**Type**	**Linked Table**
✓	TransactionID	Text Box	
	InvoiceDate	Date	
	CollectionDate	Date	
	AccountExecutive	Pick List	Payee
	RevenueAccount	Numeric	
	ProductID	Pick List	Product
	CustomerID	Pick List	Customer
	Amount	Numeric	
	SplitToAE	Pick List	Payee
	PercAE1	Numeric	
	PercAE2	Numeric	
	InsideSalesRep	Pick List	Payee

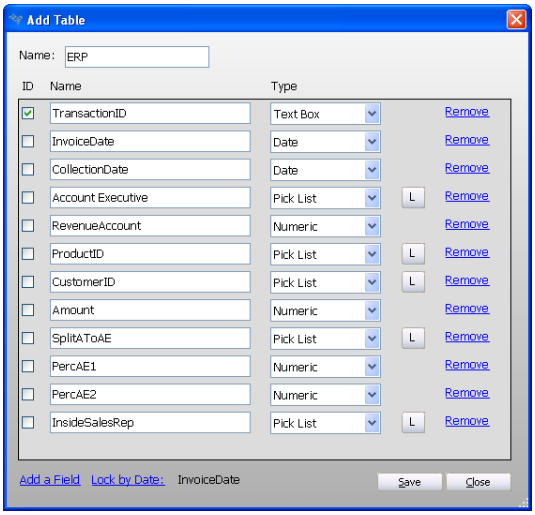
Since this is a data table, you must choose a date column for period locking. The ERP table uses the **InvoiceDate** column for this purpose.

The **ID** check box indicates that the column is used to define the table's primary key.

To create a table:

1. In the Composer module, right-click a blank area and choose **Add Table**.
2. Select **Data** in the **Table Type** list.
3. Name the table **ERP**.
4. Click **Add a Field** 11 times to create all the columns you need.
5. Change the name of the first column to **TransactionID**, and the type to **Text Box**.
6. Ensure that the **ID** check box is selected for the TransactionID column
7. Add the rest of the columns.

   Refer to "Edit a Table" on page 39 for a review of how to create a Pick List column.
8. Click **Lock by Date** and select the **InvoiceDate** column as the column to lock. Click **OK**.
9. Click **Save**.



Exercise 4-3: Create Tables and Import Data

Create the following tables:

AESalary: Custom			
Primary Key	**Column Name**	**Type**	**Linked Table**
✓	PayeeID	Pick List	Payee
✓	Date	Date	
	Salary	Numeric	

AEQuotas: Custom			
Primary Key	**Column Name**	**Type**	**Linked Table**
✓	PayeeID	Pick List	Payee
✓	Date	Date	
	HardwareQuota	Numeric	
	ServicesQuota	Numeric	

AECommissionRates: Custom			
Primary Key	**Column Name**	**Type**	**Linked Table**
✓	RateName	Text Box	
✓	TitleID	Pick List	Title
✓	StartDate	Date	
	EndDate	Date	
	CommissionRate	Numeric	

AERollingQuotaTiers: Custom			
Primary Key	**Column Name**	**Type**	**Linked Table**
✓	TierName	Text Box	
✓	StartDate	Date	
	EndDate	Date	
	RangeMin	Numeric	
	RangeMax	Numeric	
	Payout	Numeric	

Import data using the following specifications:

Table Name	Excel File
ERP	ERP.xlsx
AESalary	Salary.xlsx (Located in the Account Executives subfolder)
AEQuotas	AEQuotas.xlsx (Located in the Account Executives subfolder)

Viewing and Editing Data

You can open a table to view its contents and modify its data.

When viewing data, you can:

- Filter any column to view a subset of the data
- Link to a related table via a Pick List column

When modifying data, you can:

- Modify an existing row's data
- Add a row
- Delete a row

Walk Thru: View Data in a Table

In this walk thru you are going to:

- Open the ERP table to view the contents.
- Filter a column to view a subset of the data.
- Use a Pick List column to go to the linked table.

To view data in a table:

1. In the Composer module, double-click the ERP table to open it for viewing. All the data is displayed.

To filter data in a table:

1. To view the data for only one product, place the mouse over the column heading for **Product**. Click the small button that appears in the upper right corner of the column heading. A list of all ProductIDs appears.
2. Select a ProductID from the list. Only the records that contain the selected ProductID are displayed. Note that there is a small indicator in the upper right corner of the column heading to indicate that a filter is in effect.
3. To remove the filter, click the indicator in the Product column heading and select **All**.

To view related data in a linked table via a Pick List column:

1. The Customer column is a Pick list column. Right-click a CustomerID, click **Jump To**, then click **Customer Default.CustomerID**.
2. The relevant row from the Customer table appears.
3. To close the table, right-click on the table's tab and select **Close**.

You can filter data by multiple columns at the same time.

Walk Thru: Add Data to a Table

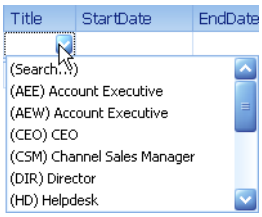
In this walk thru you are going to manually enter the following data to the **AECommissionRates** table.

RateName	TitleID	StartDate	EndDate	CommissionRate
AE BASE COMMISSION	AEE	1/1/2010	12/31/2010	0.02
AE BASE COMMISSION	AEW	1/1/2010	12/31/2010	0.025
AE SALARY GUARANTEE	AEE	1/1/2010	12/31/2010	0.10
AE SALARY GUARANTEE	AEW	1/1/2010	12/31/2010	0.105

To add data to a table:

1. Double-click the **AECommissionRates** table.

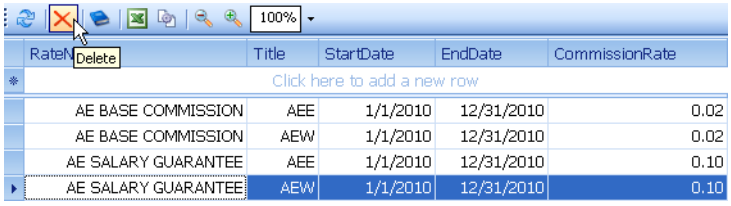
2. Click under the **RateName** column heading. Enter **AE BASE COMMISSION** as the RateName.
3. The **Title** column is a Pick List column. To enter data, select an existing value from the list. You cannot enter a value that does not already exist in the Title table.



4. Finish entering the data for the first record.
5. Press **ENTER** when you are finished entering the data for the first record. The record is saved, and a new empty row appears so that you can enter the next record.
6. Close the table when you are finished entering data.

To delete data from a table:

1. Open the table.
2. Select a row of data by clicking on the row header at the left.
3. Click the red **X** on the toolbar.
4. Confirm the deletion.



Exercise 4-4: Add Data to the AERollingQuotaTiers Table

Add the following data to the AERollingQuotaTiers table:

TierName	StartDate	EndDate	RangeMin	RangeMax	Payout
TIER1	1/1/2010	12/31/2010	0.70	0.90	100.00
TIER2	1/1/2010	12/31/2010	0.90	1.00	150.00
TIER3	1/1/2010	12/31/2010	1.00	1.10	200.00
TIER4	1/1/2010	12/31/2010	1.10	1.20	250.00
TIER5	1/1/2010	12/31/2010	1.20	9999.99	300.00

Summary

In this chapter you learned how the Varicent SPM database stores the data relevant to a company's compensation plans. You analyzed data requirements and implemented those requirements in Varicent SPM by creating tables of the right type, editing table structure by adding and deleting columns, and creating links between tables using Pick List columns. You learned how to import data into tables and how to enter and modify data manually.

Review Questions

1. What uniquely identifies each row in a relational database table?

2. Which types of Varicent SPM tables can only have one column as the primary key?

3. What type of column must a Data table have?

4. Which system tables are automatically created when you create a model?

5. Which hierarchy tables are automatically created with you create a model?

6. What type of tables can you only create when creating a new model?

7. Name three sources of data that you can use for a data import.

Chapter 5

Creating Calculations

Learning Objectives

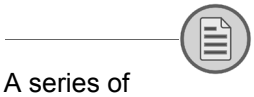
By the end of this chapter, you will be able to:

- Describe the purpose of calculations in Varicent SPM
- Describe the different calculation types
- List the five steps to creating a User-Defined calculation
- Create User-Defined and Time Shift calculations
- Create a copy of a calculation and modify it
- Create calculations that use multiple data sources

Using calculations in Varicent SPM

The process of transforming your company's data into compensation results begins with calculations. You use calculations to select records from source data, perform operations on the data, segment the results, define inclusions or exclusions, and produce a set of results.

Complex calculations are often broken down into a series of smaller calculations as can be seen in Figure 5-1, with the results of one calculation serving as the data source for another. A series of calculations is often easier to document and troubleshoot than a single, complex calculation. This also allows you to reuse components of the calculations.



A series of calculations used to produce a final result is called a **calculation stream**.

The Composer Module

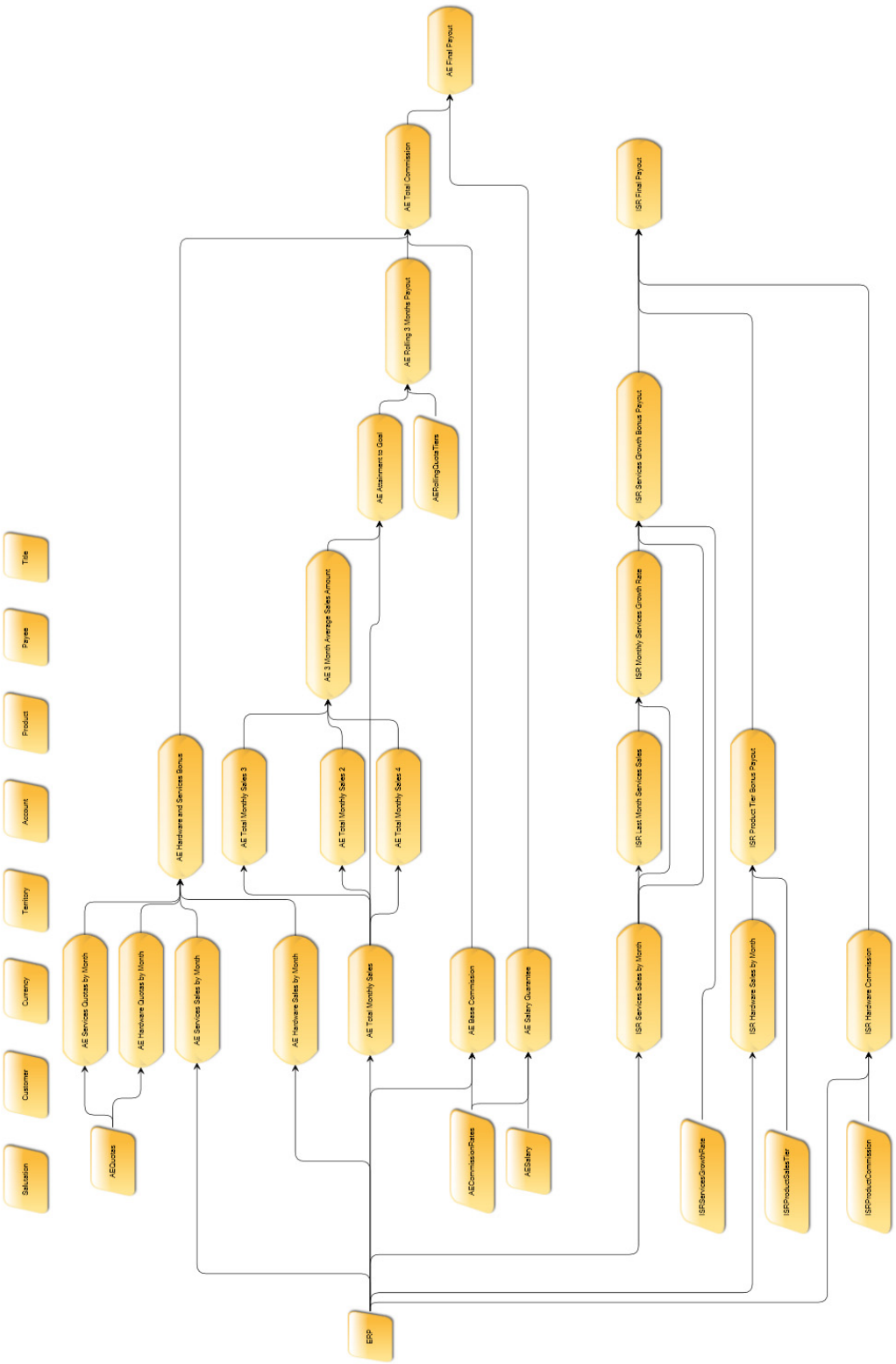
You create and maintain calculations in the Composer module. Composer shows the relationships between tables and calculations. Figure 5-1 shows the completed Rivacent Account Executive calculations in Composer.

Calculation Types

There are four different types of calculation that you can use.

User-Defined	Performs mathematical operations on data. You can use simple operators (+ - * /) and a variety of built-in functions to create formulas that act on the source data. User-Defined calculations are the most commonly used calculation type.
Sort	Applies an ascending or descending sort to the data. You can limit the number of results returned after the sort has been applied, to produce, for example, a list of top performers.
Time Shift	Offsets the results by a specified number of time periods. You would use this type of calculation to compare the results from a previous period with those from the current period, such as when calculating period to period growth.
Territory	Divides transactions into territories. Used for territory and quota management applications.

Figure 5-1: Composer view of the completed Rivacent Account Executive and Independent Sales Representative calculations



Creating a User-Defined Calculation

The first step to creating a calculation is to analyze the business requirement to determine the data you need to perform the calculation, the formula you need to apply to the data, how you want to group the results, and whether you want to include or exclude any data.

Once you have analyzed the business requirement, you use the Calculation Wizard to create a calculation. The Calculation Wizard has the following five steps:

1. Name, Type, Description	Name the calculation, choose one of the calculation types, and provide a description to document the calculation.
2. Define Data Sources	Select the data you want to use in the calculation. Data sources can be tables or the results of other calculations. A calculation can have one or more data sources.
3. Define Formula	Use arithmetic operators and built-in functions to create a formula that performs a calculation on the source data.
4. Define Partitions	Group the results. For example, show totals by month by salesperson.
5. Define Restrictions	Include or exclude a subset of the data. For example, you can exclude any sales activity attributed to the house account from the calculation results.

Previewing Calculation Results

You can preview the calculation results at each step of the wizard. By previewing the results of the calculation as you create it, you can determine that:

- The data sources are correct
- The formula is valid and produces the correct results
- The data is appropriately partitioned
- Restrictions are retrieving the correct subset of data

Walk Thru: Create a User-Defined Calculation

In this walk through you create a calculation that retrieves all sales by account executives. The results are grouped by month and by account executive.

The first step is to define the parameters for the five calculation wizard steps.

1. Name, Type, Description

2. Define Data Sources

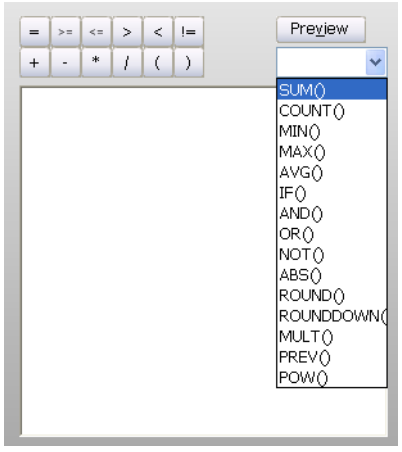
3. Define Formula

4. Define Partitions

5. Define Restrictions

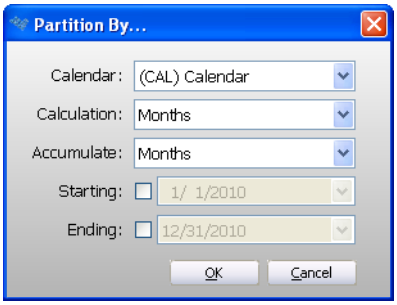
To create a calculation:

1. Right-click a blank area in the Composer module and select **Add Calculation**.
2. Enter the name of the calculation.
3. Select the **User-Defined** calculation type.
4. Enter the description for the calculation.
5. Click **Next**.
6. In the **Source** list, select the **ERP** table. Click **Next**.
7. To create a formula that enables subtotaling of the sales amount, select **SUM()** from the function list.
8. Drag the **Amount** column from the left pane to the right pane.
9. Click the right parenthesis **)** button to close the function.
   The completed formula is **SUM(ERP.Amount)**.
10. Click **Next**.
11. To group the results by account executive, drag the **AccountExecutive** column from the left pane to the right pane.



Click **Preview** in steps 2 through 5 to test your calculation as you create it.

12. To further group the results by time period, drag the **InvoiceDate** column to the right pane. When you partition by a Date column, you must specify the Calendar to use, time interval to group by (Calculation) and when to reset the accumulated values to zero (Accumulate). For this calculation, you want to use the **CAL** default calendar, group by **Month** and reset the grouping each **Month**.
13. Click **OK**, then **Next**.
14. This calculation has no restrictions, so click **Finish** in step 5 of the wizard.



Restrictions

You use restrictions to limit the data set to only those records that meet your current requirements or to join records from two or more data sources (tables). You can use restrictions when creating:

- Views
- Single Source Calculations
- Multi-Source Calculations
- Workflow Groups
- Task Manager Groups
- Web Forms
- Presenter Reports

Using Restrictions in Single Source Calculations

Restrictions are specified in Step 5 of the Calculation Wizard and allow you to identify the data that should be included in your final calculated result. Restrictions are placed on one source (a table or a calculation). You can restrict based on specific values contained within the column. There is no practical limit to the number of restrictions that can be placed on a data source. Each restriction will require you to define a data source, a business operator, and a value to determine if the restriction should be applied. For example, you could choose to exclude House Sales from a commission calculation by applying a restriction on the sales data to exclude product sales when the product category equals House Sales.

Restrictions are read on a row by row basis. Individual rows must meet the criteria in order to be included in the calculation's final data source.

The Operators that can be used when defining restrictions are:

- = (equals)
- <> (does not equal)
- < (is less than)
- <= (is less than or equal to)
- > (is greater than)
- >= (is greater than or equal to)
- is empty
- is not empty

Single Source Restriction Examples

Figure 5-2: Monthly Sales Data

PayeeID	TitleID	Months	Sales
E057	AEE	Month 01, 2010	39,750
E059	AEW	Month 01, 2010	41,660
E060	AEW	Month 01, 2010	28,330
E061	ISRW	Month 01, 2010	33,420
E062	AEE	Month 01, 2010	48,750
E063	ISRW	Month 01, 2010	18,250
.....	.....	.....	.....

In order to display only the results for your Account Executives in the West, you would place a restriction on the TitleID column where **TitleID = AEW**. Any results that do not meet this criteria will be hidden from the data set where you are currently using it. Records are not removed from the original source. The resulting data set is:

Figure 5-3: Monthly Sales Data - Restricted to AEW

PayeeID	TitleID	Months	Sales
E059	AEW	Month 01, 2010	41,660
E060	AEW	Month 01, 2010	28,330
.....	.....	.....	.....

As another example using the same data source, your current requirement concerns only those employees who have monthly sales of $35,000 or greater. In this case you would restrict on the Sales column where Sales >= 35000. The resulting data set is:

Figure 5-4: Monthly Sales Data - Restricted to Sales >= $35,000

PayeeID	TitleID	Months	Sales
E057	AEE	Month 01, 2010	39,750
E059	AEW	Month 01, 2010	41,660
E062	AEE	Month 01, 2010	48,750
.....	.....	.....	.....

Multiple restrictions can be placed to meet more complex requirements. Combine the two examples above, where TitleID = AEW and Sales >= 35000, and the resulting data set is:

Figure 5-5: Monthly Sales Data - Restricted to AEW and Sales >= $35,000

PayeeID	TitleID	Months	Sales
E059	AEW	Month 01, 2010	41,660
.....	.....	.....	.....

Pick List column types link tables together. They are built-in restrictions and enable a table to have access to all columns in another table without explicitly including them in the table. Using the above data source, the PayeeID column is a Pick List to the Payee table. On the surface the table appears to have only 4 columns; PayeeID, TitleID, Months and Sales. The Pick List on PayeeID give access to every column in the Payee table which means you can place restrictions on any column in the Payee table.

Walk Thru: Create a User-Defined Calculation with a Restriction

In this walk through you create a calculation that retrieves only the hardware sales. Like the previous calculation, the results are grouped by month and by account executive. The only difference is that in step 5 you restrict the data to hardware sales.

The first step is to define the parameters for the five calculation wizard steps.

1. Name, Type, Description

2. Define Data Sources

3. Define Formula

4. Define Partitions

5. Define Restrictions

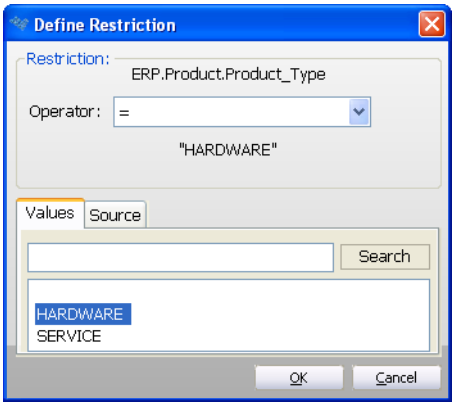
Click **Preview** in steps 2 through 5 to test your calculation as you create it.

To create a calculation with a restriction:

1. Right-click a blank area in the Composer module and select **Add Calculation**.
2. Enter the name of the calculation, select the type, and type a description
3. Use the **ERP** table as the data source
4. Create the formula **SUM(ERP.Amount)**.
5. Partition by **AccountExecutive** and **InvoiceDate** using the **CAL** calendar, calculate by **Months** and accumulate by **Months**.

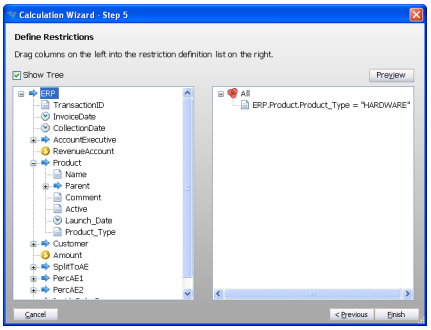
6. In step 5, you want to restrict the data by **Product Type**. Drag the **Product Type** column to the right pane. A windows appears that lists the possible values for Product Type.
7. Specify that you want only the data where the Product Type = **HARDWARE** using one of these methods:
   - Double-click **HARDWARE**.
   - Drag **HARDWARE** on top of the question mark near the top of the window.

   Click **OK.**



8. The applied restriction appears in the right pane of step 5.

   Preview the results of the calculation. The values returned are different from the previous calculation, AE Monthly Sales.
9. Click **Finish** to complete the wizard.



Exercise 5-1: Create Calculation AE Services Sales by Month

Create a calculation that retrieves all services sales from the ERP table. Group the results by account executive and by month.

1. Name, Type, Description

2. Define Data Sources

3. Define Formula

4. Define Partitions

5. Define Restrictions

Walk Thru: Create a Calculation that Formats Dates as a Varicent SPM Partition

Examine the contents of the AEQuotas table. The dates for the quotas are **month end**. In order to use this data with other calculations, the quota dates must be converted to the Varicent SPM partition format, e.g. 2010, Month 01. Additionally, there are two quotas in the data file: hardware and services. A calculation can only return one result column; in this calculation you choose the Hardware Quota column.

1. Name, Type, Description

2. Define Data Sources

3. Define Formula

4. Define Partitions

5. Define Restrictions

To create the AE Hardware Quotas by Month calculation:

1. Right-click a blank area in the Composer module and select **Add Calculation**.
2. Enter the name of the calculation, select the type, and type a description
3. Use the **AEQuotas** table as the data source
4. Create the formula **SUM(AEQuotas.Hardware_Quota)**.
5. Partition by **PayeeID** and **Date** using the **CAL** calendar, calculate by **Months** and accumulate by **Months**.
6. There are no restrictions.

Click **Preview** in steps 2 through 5 to test your calculation as you create it.

Exercise 5-2: Create Calculation AE Services Quotas by Month

Create a calculation that retrieves the services quota from the AEQuotas table and partitions the results by account executive and month.

1. Name, Type, Description

2. Define Data Sources

3. Define Formula

4. Define Partitions

5. Define Restrictions

Using Restrictions in Multi-Source Calculations

As with single-source restrictions, Restrictions in Multi-Source calculations can be specified in Step 5 of the Calculation Wizard to limit the data shown in your final result. In addition, you will use Restrictions during Step 2 of the Calculation Wizard as the way of “joining” two or more tables or calculations together. The Restriction will define the commonality used to join the tables together. You can also insert additional restrictions in Step 2 in the Calculation Wizard to limit the data shown for the calculation.

Multi-Source Restrictions (Join) by Add Columns

Add Columns is the default treatment when combining data from multiple sources. Add columns appends the columns from one table to the right of another to create a single table. All columns from each table appear in the resulting table. In Varicent, add columns is typically used when the data from two or more tables will be compared against each other, or used in a formula.

Add Columns Example

You need to calculate each Payee's earnings for each month, based on their Sales * Commission Rate. The two data sources required are located in the Sales table and the Commission table. Since we want to multiply each Payee’s Sales amount for a particular month by the Payee’s Commission amount for the same month, you need to connect the data sources with the Add Columns option. The You need to specify how to join the two types of data by defining the Restriction used to join the data from multiple tables.

In our example, we want to multiply each Payee's Sales amount for a particular month by that Payee's Commission amount for the same month. For our data sources to reflect this requirement, we join the 2 tables with restrictions.

Figure 5-6: Examples of Data Sources

Sales Table

Payee ID	Month	Value
001 -- Joe	Month 1	2200
001 -- Joe	Month 2	2500
001 -- Joe	Month 3	2800
002 -- Mary	Month 1	3000
002 -- Mary	Month 2	3100
002 -- Mary	Month 3	3200

Commission Table

Payee ID	Month	Value
001 -- Joe	Month 1	2%
001 -- Joe	Month 2	2.50%
001 -- Joe	Month 3	2.75%
002 -- Mary	Month 1	2.50%
002 -- Mary	Month 2	2.75%
002 -- Mary	Month 3	3%

In a situation where we don't place any restrictions, every row in the Sales table will create a new row with every row in the Commissions table.

Figure 5-7: Table Join with No Restrictions

Payee ID	Month	Value	Payee ID	Month	Value
001 -- Joe	Month 1	2200	001 -- Joe	Month 1	2%
001 -- Joe	Month 1	2200	001 -- Joe	Month 2	2.50%
001 -- Joe	Month 1	2200	001 -- Joe	Month 3	2.75%
001 -- Joe	Month 1	2200	002 -- Mary	Month 1	2.50%
001 -- Joe	Month 1	2200	002 -- Mary	Month 2	0.0275
001 -- Joe	Month 1	2200	002 -- Mary	Month 3	3%
001 -- Joe	Month 2	2500	001 -- Joe	Month 1	2%
001 -- Joe	Month 2	2500	001 -- Joe	Month 2	2.50%
001 -- Joe	Month 2	2500	001 -- Joe	Month 3	2.75%
001 -- Joe	Month 2	2500	002 -- Mary	Month 1	2.50%
001 -- Joe	Month 2	2500	002 -- Mary	Month 2	0.0275
001 -- Joe	Month 2	2500	002 -- Mary	Month 3	3%
001 -- Joe	Month 3	2800	001 -- Joe	Month 1	2%
001 -- Joe	Month 3	2800	001 -- Joe	Month 2	2.50%
001 -- Joe	Month 3	2800	001 -- Joe	Month 3	2.75%
001 -- Joe	Month 3	2800	002 -- Mary	Month 1	2.50%
001 -- Joe	Month 3	2800	002 -- Mary	Month 2	0.0275
001 -- Joe	Month 3	2800	002 -- Mary	Month 3	3%
002 -- Mary	Month 1	3000	001 -- Joe	Month 1	2%
002 -- Mary	Month 1	3000	001 -- Joe	Month 2	2.50%
002 -- Mary	Month 1	3000	001 -- Joe	Month 3	2.75%
002 -- Mary	Month 1	3000	002 -- Mary	Month 1	2.50%
002 -- Mary	Month 1	3000	002 -- Mary	Month 2	0.0275
002 -- Mary	Month 1	3000	002 -- Mary	Month 3	3%
002 -- Mary	Month 2	3100	001 -- Joe	Month 1	2%
002 -- Mary	Month 2	3100	001 -- Joe	Month 2	2.50%
002 -- Mary	Month 2	3100	001 -- Joe	Month 3	2.75%
002 -- Mary	Month 2	3100	002 -- Mary	Month 1	2.50%
002 -- Mary	Month 2	3100	002 -- Mary	Month 2	0.0275
002 -- Mary	Month 2	3100	002 -- Mary	Month 3	3%
002 -- Mary	Month 3	3200	001 -- Joe	Month 1	2%
002 -- Mary	Month 3	3200	001 -- Joe	Month 2	2.50%
002 -- Mary	Month 3	3200	001 -- Joe	Month 3	2.75%
002 -- Mary	Month 3	3200	002 -- Mary	Month 1	2.50%
002 -- Mary	Month 3	3200	002 -- Mary	Month 2	0.0275
002 -- Mary	Month 3	3200	002 -- Mary	Month 3	3%

Most of the rows of data in this source are irrelevant - we do not need to see 001 - Joe's sales results with 002 - Mary's commission rate, nor do we need to see Month 1's sales with Month 02's commission rate.

Figure 5-8: Resulting Table from Add Columns with Restrictions
Sales PayeeID equal Commission Payee ID
Sales Month equals Commission Month

Payee ID	Month	Value	Payee ID	Month	Value
001 -- Joe	Month 1	2200	001 -- Joe	Month 1	0.02
001 -- Joe	Month 2	2500	001 -- Joe	Month 2	0.025
001 -- Joe	Month 3	2800	001 -- Joe	Month 3	0.0275
002 -- Mary	Month 1	3000	002 -- Mary	Month 1	0.025
002 -- Mary	Month 2	3100	002 -- Mary	Month 2	0.0275
002 -- Mary	Month 3	3200	002 -- Mary	Month 3	0.03

Because we placed restrictions on our join, the resulting data set only includes 6 rows of data, 1 for each instance in which the Payee ID & Month in the Sales table contain the same values as the Payee ID & Month in the Commission table. All the remaining rows are relevant to the current business requirement.

All vs Any

By default, all restrictions are applied to the data. In the example above, both (all) the restrictions are applied: PayeeID = PayeeID and Month = Month.

You can choose to retrieve data where any of the restrictions are true. For example, Hardware Sales > Hardware Quota or Services Sales > Services Quota.

You can use a combination of All and Any to create restrictions.

Add Rows (Unions)

Add rows does not use restrictions. Add rows appends data from one table to the bottom of another to create 1 table. It requires each source to have the same column types, but they do not need to have the same name. You will map the columns in the secondary data source to those in the primary, resulting to all columns being referred to by the primary source's column names. When adding by rows in calculations, the operators used are typically SUM, MIN, MAX and AVG.

Add Rows Example

You need to calculate what each Payee's Salary + Bonus is for each month. The 2 data sources are the Salary table and the Bonus table.

Since the Value columns from both tables will eventually be ADDED together, the best way to connect the data sources is with the Add Rows option.

Figure 5-9: Sample Data

Salary Table

Payee ID	Month	Value
001 -- Joe	Month 1	2200
001 -- Joe	Month 2	2500
001 -- Joe	Month 3	2800
002 -- Mary	Month 1	3000
002 -- Mary	Month 2	3100
002 -- Mary	Month 3	3200

Bonus Table

Payee ID	Month	Value
001 -- Joe	Month 1	1000
001 -- Joe	Month 2	1000
001 -- Joe	Month 3	0
002 -- Mary	Month 1	0
002 -- Mary	Month 2	1000
002 -- Mary	Month 3	1000

Figure 5-10: Resulting Table from Add Rows

Payee ID	Month	Value
001 -- Joe	Month 1	2200
001 -- Joe	Month 2	2500
001 -- Joe	Month 3	2800
002 -- Mary	Month 1	3000
002 -- Mary	Month 2	3100
002 -- Mary	Month 3	3200
001 -- Joe	Month 1	1000
001 -- Joe	Month 2	1000
001 -- Joe	Month 3	0
002 -- Mary	Month 1	0
002 -- Mary	Month 2	1000
002 -- Mary	Month 3	1000

Examples of Restrictions

Figure 5-11: Sample Data

Payee Monthly Sales Table

PayeeID	Month	Value
E001	Month 01	88,361
E001	Month 02	92,738
E001	Month 03	75,372
E002	Month 01	32,623
E002	Month 02	63,672
E002	Month 03	53,852
.....	.....	.....

Payee Monthly Quota Table

PayeeID	Month	Value
E001	Month 01	85,000
E001	Month 02	90,000
E001	Month 03	90,000
E002	Month 01	50,000
E002	Month 02	55,000
E002	Month 03	55,000
.....	.....	.....

Example 1 Business Requirement

You need to compare each Payee's monthly sales amount with each Payee's monthly quota. On each row, each PayeeID and each Month must match in order to do this.

Restriction:

- All
  - Payee Monthly Sales.**PayeeID** = Payee Monthly Quota.**PayeeID**
  - Payee Monthly Sales.**Month** = Payee Monthly Quota.**Month**

Figure 5-12: Resulting Data Set

Payee Monthly Sales Table			Payee Monthly Quota Table		
PayeeID	**Month**	**Value**	**PayeeID**	**Month**	**Value**
E001	Month 01	88,361	E001	Month 01	85,000
E001	Month 02	92,738	E001	Month 02	90,000
E001	Month 03	75,372	E001	Month 03	90,000
E002	Month 01	32,623	E002	Month 01	50,000
E002	Month 02	63,672	E002	Month 02	55,000
E002	Month 03	53,852	E002	Month 03	55,000
.....	.....	.....	.....	.....	.....

Example 2 Business Requirement:

You are manipulating Payee's sales data for Month 01 only. As this requirement only concerns sales, there is no need to include the Payee Monthly Quota Table in the data source.

Restriction:

- All
  - Payee Monthly Sales.Month = Month 01

Figure 5-13: Resulting Data Set

Payee Monthly Sales Table

PayeeID	Month	Value
E001	Month 01	88,361
E002	Month 01	32,623
.....	.....	.....

Example 3 Business Requirement:

You are manipulating Payee's sales data for only those Payees whose TitleID is either SENW (Sales Executive North West) or SENE (Sales Executive North East). As this requirement only concerns sales, there is no need to include the Payee Monthly Quota Table in the data source.

By virtue of the Pick List from the Payee column in our Payee Monthly Sales table to the Payee table, we can access the TitleID by expanding the PayeeID column.

Restriction:

- All
  - Any
  - Payee Monthly Sales.PayeeID.TitleID = SENW
  - Payee Monthly Sales.PayeeID.TitleID = SENE

Resulting Data Set

As the sample data set provided does not show the TitleID column, we have no way to tell what the resulting data set would be from the information provided.

Figure 5-14: Sample Data

Sales Data Table

TransID	Date	Payee	Customer	Product	Amount
T001	1/5	E001	C0352	P005	3,563
T002	1/19	E001	C0264	P011	6,390
T003	1/20	E001	C0231	P006	9,200
T004	1/21	E001	C0392	P005	2,437
T005	1/28	E001	C0254	P006	8,500
.....	.....	.....	.....	.....	.....

Commission Rates Table

StartDate	EndDate	Rate
1/1	1/20	0.025
1/21	12/31	0.03

Example 4 Business Requirement:

Payees get a commission for each sale made. Commission rates used are those in effect on the date the sale is made. Tip - Start and End date ranges typically do not overlap.

Restriction:

- All
  - SalesData.Date >= CommissionRates.StartDate
  - SalesData.Date <= CommissionRates.EndDate

Figure 5-15: Resulting Data Set

Sales Data Table / Commission Rates Table

TransID	Date	Payee	Customer	Product	Amount	StartDate	EndDate	Rate
T001	1/5	E001	C0352	P005	3,563	1/1	1/20	0.025
T002	1/19	E001	C0264	P011	6,390	1/1	1/20	0.025
T003	1/20	E001	C0231	P006	9,200	1/1	1/20	0.025
T004	1/21	E001	C0392	P005	2,437	1/21	12/31	0.03
T005	1/28	E001	C0254	P006	8,500	1/21	12/31	0.03
.....	.....	.....	.....	.....	.....			

Figure 5-16: Sample Data

Payee Monthly Sales Table

PayeeID	Month	Value
E001	Month 01	88,361
E001	Month 02	92,738
E001	Month 03	75,372
E002	Month 01	32,623
E002	Month 02	63,672
E002	Month 03	53,852
.....	.....	.....

Sales Tiers Table

Tier	MinRange	MaxRange	Rate
Tier1	0	40,000	0.005
Tier2	40,000	60,000	0.015
Tier3	60,000	80,000	0.02
Tier4	80,000	100,000	0.025
Tier5	100,000	999,999	0.035

Example 5 Business Requirement:

Payees get one commission rate for their total monthly sales. The commission rate is determined by the one tier the sales amount falls into. Tip - Min and Max ranges typically overlap.

Restriction:

- All
  - PayeeMonthlySales.Value >= SalesTiers.MinRange
  - PayeeMonthlySales.Value < SalesTiers.MaxRange

Figure 5-17: Resulting Data Set

Payee Monthly Sales Table			Sales Tiers Table			
PayeeID	**Month**	**Value**	**Tier**	**MinRange**	**MaxRange**	**Rate**
E001	Month 01	88,361	Tier4	80,000	100,000	0.025
E001	Month 02	92,738	Tier4	80,000	100,000	0.025
E001	Month 03	75,372	Tier3	60,000	80,000	0.02
E002	Month 01	32,623	Tier1	0	40,000	0.005
E002	Month 02	63,672	Tier3	60,000	80,000	0.02
E002	Month 03	53,852	Tier2	40,000	60,000	0.015
.....	.....	.....				

Min and Max ranges typically overlap.

Example 6 Business Requirement:

Payees receive multiple commission rates for their total monthly sales. The commission rates are determined by the all the tiers the sales amount achieves.

- All
  - PayeeMonthlySales.Value >= SalesTiers.MinRange

Figure 5-18: Resulting Data Set

Payee Monthly Sales Table

PayeeID	Month	Value
E001	Month 01	88,361
E001	Month 01	88,361
E001	Month 01	88,361
E001	Month 01	88,361
E001	Month 02	92,738
E001	Month 02	92,738
E001	Month 02	92,738
E001	Month 02	92,738
E001	Month 03	75,372
E001	Month 03	75,372
E001	Month 03	75,372
E002	Month 01	32,623
E002	Month 02	63,672
E002	Month 02	63,672
E002	Month 02	63,672
E002	Month 03	53,852
E002	Month 03	53,852
.....	.....	.....

Sales Tiers Table

Tier	MinRange	MaxRange	Rate
Tier1	0	40,000	0.005
Tier2	40,000	60,000	0.015
Tier3	60,000	80,000	0.02
Tier4	80,000	100,000	0.025
Tier1	0	40,000	0.005
Tier2	40,000	60,000	0.015
Tier3	60,000	80,000	0.02
Tier4	80,000	100,000	0.025
Tier1	0	40,000	0.005
Tier2	40,000	60,000	0.015
Tier3	60,000	80,000	0.02
Tier1	0	40,000	0.005
Tier1	0	40,000	0.005
Tier2	40,000	60,000	0.015
Tier3	60,000	80,000	0.02
Tier1	0	40,000	0.005
Tier2	40,000	60,000	0.015
.....	.....	.....	.....

Sample Data for Exercises

Figure 5-19: Sample Data

SR Monthly Sales

PayeeID	Month	Value
E001	2010, Month 1	59350
E001	2010, Month 2	67500
E001	2010, Month 3	81425
E002	2010, Month 1	43225
E002	2010, Month 2	48700
E002	2010, Month 3	47210
.....	.....	.....

SR Monthly Quota

PayeeID	Month	Value
E001	2010, Month 1	60000
E001	2010, Month 2	65000
E001	2010, Month 3	70000
E002	2010, Month 1	45000
E002	2010, Month 2	45000
E002	2010, Month 3	45000
.....	.....	.....

Sales Data

TransID	Date	SalesRep	Customer	Product	Amount
T001	1/6/2010	E001	C226	P02	8800
T002	1/31/2010	E002	C044	P05	450
T003	2/23/2010	E002	C118	P11	11500
T004	3/2/2010	E001	C226	P05	1950
T005	4/9/2010	E001	C118	P02	3330
.....	.....	.....	.....	.....	.....

Base Commission Rates

Start Date	End Date	Rate
1/1/2010	1/31/2101	0.02
2/1/2010	3/14/2010	0.0225
3/15/2010	1/1/2015	0.025

Tiered Commission Rates

Tier	Min_Range	Max_Range	Rate
Tier 1	0	50000	0.005
Tier 2	50000	60000	0.01
Tier 3	60000	70000	0.015
Tier 4	70000	80000	0.2
Tier 5	80000	999999	0.3

Exercise 5-3: Sales Quotas

For every month, each Sales Representative (SR) has a sales quota they are trying to meet or exceed. Each Sales Representatives' monthly sales needs to be compared with their monthly quota.

The following restrictions have been applied to join the data:

- SRMonthlySales.PayeeID=SRMonthlyQuota.PayeeID
- SRMonthlySales.Month=SRMonthlyQuota.Month

What is the resulting data set?

Do these restrictions meet the business requirement? If not, what should the restrictions have been?

Exercise 5-4: Tiered Quota

Sales Representatives receive a commission based on the commission tier their total monthly sales achieved. The total monthly sales amount is multiplied by the commission rate associated with the tier they achieved.

The resulting data set is:

SR Monthly Sales

PayeeID	Month	Value
E001	2010, Month 1	59350
E001	2010, Month 2	67500
E001	2010, Month 3	81425
E002	2010, Month 1	43225
E002	2010, Month 2	48700
E002	2010, Month 3	47210
.....	.....	.....

Tiered Commission Rates

Tier	Min_Range	Max_Range	Rate
Tier 2	50000	60000	0.01
Tier 3	60000	70000	0.015
Tier 5	80000	999999	0.3
Tier 1	0	50000	0.005
Tier 1	0	50000	0.005
Tier 1	0	50000	0.005
.....	.....	.....	.....

What restrictions were placed on this data join?

Exercise 5-5: Multiple Tier Quota

Sales Representatives receive one commission rate for each portion of their monthly sales that falls into a particular tier. The commissions earned for each tier is then summed.

The following restrictions have been applied to join the data:

- SRMonthlySales.Value>=TieredCommissionRates.Min_Range
- SRMonthlySales.Value<=TieredCommissionRates.Max_Range

What is the resulting data set?

Do these restrictions meet the business requirement? If not, what should the restrictions have been?

Exercise 5-6: Date Ranges

Each sales transaction receives one commission rate. Commission rates change over time.

The resulting data set is:

Sales Data						Base Commission Rates		
TransID	Date	SalesRep	Customer	Product	Amount	Start Date	End Date	Rate
T001	1/6/2010	E001	C226	P02	8800	1/1/2010	1/31/2101	0.02
T002	1/31/2010	E002	C044	P05	450	1/1/2010	1/31/2101	0.02
T003	2/23/2010	E002	C118	P11	11500	2/1/2010	3/14/2010	0.0225
T004	3/2/2010	E001	C226	P05	1950	2/1/2010	3/14/2010	0.0225
T005	4/9/2010	E001	C118	P02	3330	3/15/2010	1/1/2015	0.025
.....	.....	.....	.....	.....	.....	.....	.....	.....

What restrictions were placed on this data join?

Walk Thru: Create a Calculation with Multiple Data Sources

In this walk through we will create a calculation that determines which account executives receive their Monthly Quota Bonus, based upon meeting or exceeding both the hardware sales quota and the services sales quota.

1. Name, Type, Description

2. Define Data Sources

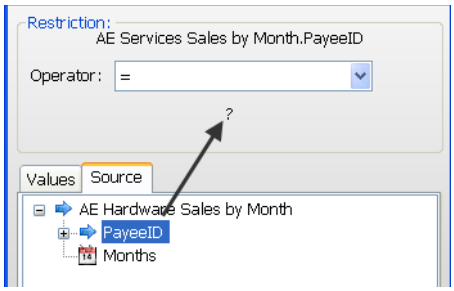
3. Define Formula

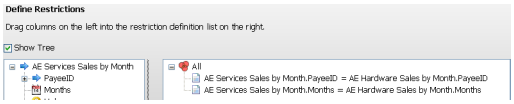
4. Define Partitions

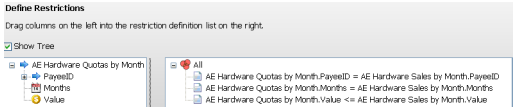
5. Define Restrictions

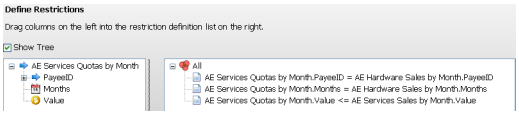
To create a calculation with multiple data sources:

1. Right-click a blank area in the Composer module and select **Add Calculation**.
2. Name the calculation **AE Hardware and Services Bonus**.
3. Select the **User-Defined** calculation type.
4. Enter the description of **Account Executives receive a bonus for meeting or exceeding both their Hardware Quota and their Services Quota**.
5. Click **Next**.
6. In the **Source** list, select the **AE Hardware Sales by Month** calculation.
7. Click **Add**.
8. In the **Source** list, select the **AE Services Sales by Month** calculation.
9. Click **Next**.
10. Drag **PayeeID** from the left to the right.
11. Select **=** from the **Operator** list.
12. Click the **Source** tab.
13. Drag **PayeeID** to the **?**.
14. Click **OK**.
15. Drag **Months** from the left to the right.
16. Select **=** from the **Operator** list.
17. Click the **Source** tab.
18. Drag **Months** to the **?**.
19. Click **OK**.
20. Click **Finish**.
21. Repeat steps 7-19 for the **AE Hardware Quotas by Month** calculation.
22. Drag **Value** from left to right.
23. Select <= from the **Operator** list.
24. Click the **Source** tab.
25. Drag **AE Hardware Sales by Month.Value** to the Question mark.
26. Click **OK**.
27. Click **Finish**.
28. Repeat for the **AE Services Quotas by Month**, making sure to join the **AE Services Quotas by Month.Value** with the **AE Services Sales by Month.Value**
29. Select **SUM()** from the function list.
30. Type **1000**.
31. Close the function by clicking the right parenthesis **)** button.
32. The completed formula is **SUM(1000)**.
33. Click **Next**.
34. Drag **AE Hardware Sales by Month.PayeeID** from left to right.
35. Drag **AE Hardware Sales by Month.Months** from left to right.
36. Set the calendar to **CAL**, calculation to **Months** and accumulate to **Months**.
37. Click **OK**.



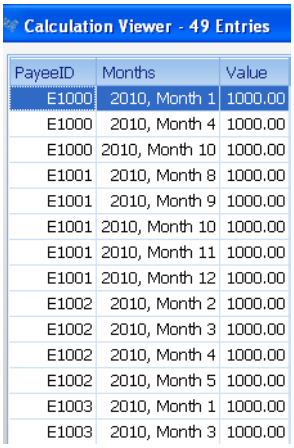






38. Click **Next**.
39. Click **Finish**.
40. Click **Save**.

Figure 5-20: Preview of AE Hardware and Services Bonus



Calculation Viewer - 49 Entries

PayeeID	Months	Value
E1000	2010, Month 1	1000.00
E1000	2010, Month 4	1000.00
E1000	2010, Month 10	1000.00
E1001	2010, Month 8	1000.00
E1001	2010, Month 9	1000.00
E1001	2010, Month 10	1000.00
E1001	2010, Month 11	1000.00
E1001	2010, Month 12	1000.00
E1002	2010, Month 2	1000.00
E1002	2010, Month 3	1000.00
E1002	2010, Month 4	1000.00
E1002	2010, Month 5	1000.00
E1003	2010, Month 1	1000.00
E1003	2010, Month 3	1000.00

Exercise 5-7: Create Calculation AE Base Commission

Calculate the commission earned for each account executive on a monthly basis. The applicable commission rate depends on the account exective's title. Sales data is stored in the **ERP** table, and commission rates are in the **AECommissionRates** table.

1. Name, Type, Description

2. Define Data Sources

3. Define Formula

4. Define Partitions

5. Define Restrictions

Exercise 5-8: Create Calculation AE Salary Guarantee

Calculate the salary guarantee for each account executive on a monthly basis. The rate applied to the salary depends on the account exective's title. The salary values are stored in the **AESalary** table and the rate is stored in the **AECommissionRates** table.

1. Name, Type, Description

2. Define Data Sources

3. Define Formula

4. Define Partitions

5. Define Restrictions

Creating a Time Shift Calculation

You use Time Shift calculations when you need to compare the results of one period with the results of another. A Time Shift calculation uses the results of another calculation as its source, and shifts each period by a specified number of periods.

For example, to determine the variance between the current period's results and the prior period's results, you need to:

1. Create a User-Defined Calculation that retrieves the current period's results
2. Create a Time Shift calculation that uses the first calculation as the data source and shifts the time periods forward by one period.
3. Create a User-Defined Calculation that compares the results of the first calculation with the results of the Time Shift calculation.

There are only two steps to creating a Time Shift calculation:

1. Name, Type, Description	Name the calculation, choose one of the calculation types, and provide a description to document the calculation.
2. Add Time Shift	Select the source calculation and specify the number of periods by which to shift the data.

Walk Thru: Create a Time Shift Calculation

In this walk through we will create a calculation that shifts the **AE Monthly Sales** calculation results forward one period in time.

The first step is to define the parameters for the two calculation wizard steps.

1. Name, Type, Description

2. Add Time Shift

To create a Time Shift calculation:

1. Right-click a blank area in the Composer module and select **Add Calculation**.
2. Name the calculation **AE Rolling Monthly Sales 1**.
3. Select **Time Shift** from the Type list.
4. Enter a description for the calculation.
5. Click **Next**.
6. Select **AE Monthly Sales** from the Source list.
7. Select **1** from the Shift list.
8. Click **Finish**.
9. **Save** the calculation.

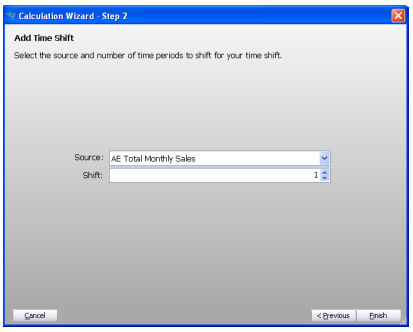


Figure 5-21: Preview of AE Monthly Sales calculation

PayeeID	Months	Value
E1000	2010, Month 1	866100.00
E1000	2010, Month 2	580300.00
E1000	2010, Month 3	551900.00
E1000	2010, Month 4	584600.00
E1000	2010, Month 5	504500.00
E1000	2010, Month 6	642300.00
E1000	2010, Month 7	400850.00
E1000	2010, Month 8	645800.00
E1000	2010, Month 9	618200.00
E1000	2010, Month 10	678700.00
E1000	2010, Month 11	558350.00
E1000	2010, Month 12	517900.00
E1001	2010, Month 1	18950.00
E1001	2010, Month 2	31200.00

Figure 5-22: Preview of AE Monthly Sales 2 calculation

PayeeID	Months	Value
E1000	2010, Month 1	0.00
E1000	2010, Month 2	866100.00
E1000	2010, Month 3	580300.00
E1000	2010, Month 4	551900.00
E1000	2010, Month 5	584600.00
E1000	2010, Month 6	504500.00
E1000	2010, Month 7	642300.00
E1000	2010, Month 8	400850.00
E1000	2010, Month 9	645800.00
E1000	2010, Month 10	618200.00
E1000	2010, Month 11	678700.00
E1000	2010, Month 12	558350.00
E1001	2010, Month 1	0.00
E1001	2010, Month 2	18950.00
E1001	2010, Month 3	31200.00

Exercise 5-9: Create Calculation AE Rolling Monthly Sales 2

Create a calculation that shifts the **AE Monthly Sales** calculation results forward two periods in time.

1. Name, Type, Description

2. Add Time Shift

Exercise 5-10: Create Calculation AE Rolling Monthly Sales 3

Create a calculation that shifts the **AE Monthly Sales** calculation results forward three periods in time...

1. Name, Type, Description

2. Add Time Shift

Exercise 5-11: Create Calculation
AE 3 Month Average Sales Amount

Calculate the average monthly sales for each account executive based on the results of the three Time Shift calculations.

1. Name, Type, Description

2. Define Data Sources

3. Define Formula

4. Define Partitions

5. Define Restrictions

Exercise 5-12: Create Calculation AE Attainment to Goal

Calculate **AE Monthly Sales** as a ratio of **AE 3 Month Average Sales Amount**. Group the results by account executive and month.

1. Name, Type, Description

2. Define Data Sources

3. Define Formula

4. Define Partitions

5. Define Restrictions

Exercise 5-13: Create Calculation AE Rolling 3 Months Payout

Calculate the payout using the **AE Attainment to Goal** calculation and the **AERollingQuotaTiers** table.

1. Name, Type, Description

2. Define Data Sources

3. Define Formula

4. Define Partitions

5. Define Restrictions

Walk Thru: Create a Calculation that Combines Data Sources by Rows

To arrive at the total commission amount, you need to add the results of the three components of the account executives' compensation plan. You can do this by creating a calculation with multiple data sources (the three compensation components) and combining the results by rows, rather than columns, so that totals are generated when partitioning the results.

1. Name, Type, Description

2. Define Data Sources

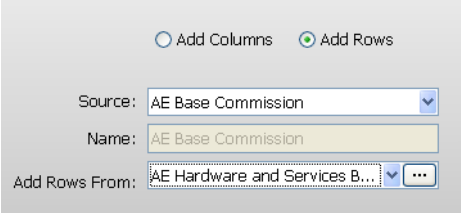
3. Define Formula

4. Define Partitions

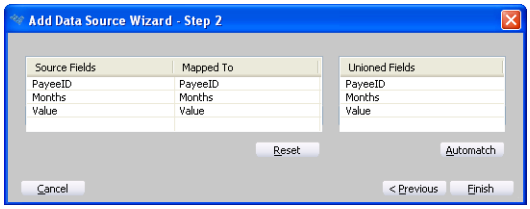
5. Define Restrictions

To create the AE Total Commission calculation:

1. Right-click a blank area in the Composer module and select **Add Calculation**.
2. Enter the name of the calculation, select the type, and type a description
3. Use the **AE Base Commission** calculation as the first data source.
4. Add **AE Hardware and Services Bonus** as the second data source and choose **Add Rows**.
5. Click **Next**.



6. Click **Automatch** to map the columns from the second table to the first table.
7. Click **Finish**. Note that the original source has a red arrow beside it to indicate that at least one more source has been added using **Add Rows**.



8. Add the **AE Rolling 3 Months Payout** calculation as a data source using **Add Rows.**
9. Create the formula **SUM(AE Base Commission.Value)**.
10. Partition by **PayeeID** and **Months** using the **CAL** calendar, calculate by **Months** and accumulate by **Months**.
11. There are no restrictions.

When you use **Add Rows**, it appears as if you are using only the original data source when you create the formula.

Exercise 5-14: Create Calculation AE Final Payout

Hint Think of how you would do this in Excel.

Determine whether an account executive should receive **AE Total Commission** or **AE Salary Guarantee** as their monthly payout.

Hint: Think of how you would do this in Excel.

1. Name, Type, Description

2. Define Data Sources

3. Define Formula

4. Define Partitions

5. Define Restrictions

Summary

In this chapter you have learned how to use Varicent SPM calculations to determine compensation results. You have combined data from multiple sources using Add Columns and Add Rows. You have used restrictions to produce relevant results. You have used both tables and other calculations as data sources.

Chapter 6

Creating Compensation Plans

Learning Objectives

By the end of this chapter, you will be able to:

- Describe the purpose of a Compensation Plan.
- Describe the purpose of the Payee Ledger.
- Identify all the components of a Compensation Plan.
- Construct a Compensation Plan for a group of Payees.
- Calculate the results of a Compensation Plan.
- Use the Payee Ledger to view the results of a Compensation Plan.
- Describe how Compensation Plans can be created using Presenter reports.
- Describe the purpose of a Payee Group.

Overview of Compensation Plans

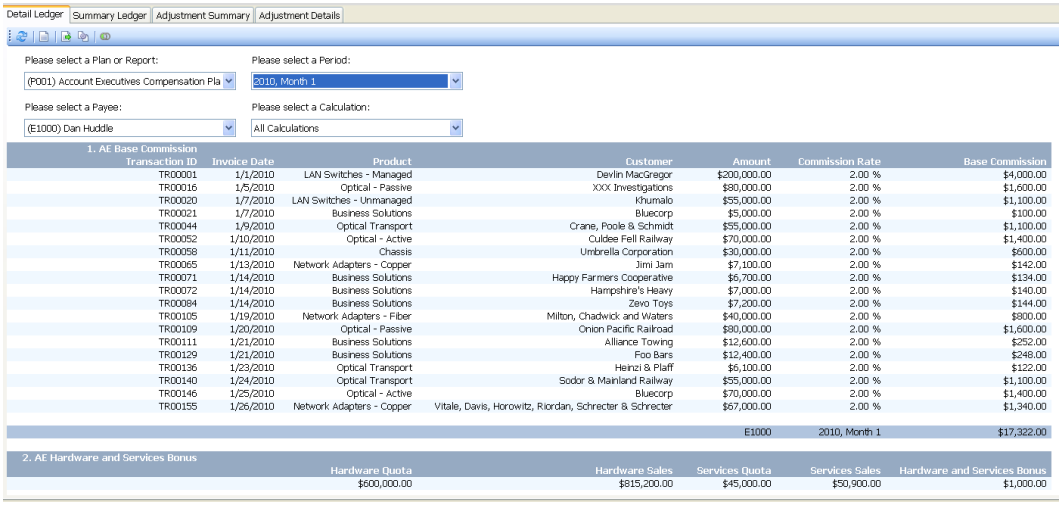
Compensation Plans are created for one **Payee Group**

Now that the Account Executive's compensation has been calculated, we need to provide the results in a compensation statement. Compensation Plans offer an easy way to configure a report display summary and detail information related to a payee's compensation. To create a Compensation Plan you need to identify the calculations that hold the compensation results.

A Compensation Plan can be viewed in the Payee Ledger. The Payee Ledger offers payees a detail view and a summary view of the Compensation Plan. Figure 1-1 shows the detail view of the Account Executives Compensation Plan in the Payee Ledger.

There should be at least two values listed under **Accounts** before creating a Compensation Plan.

Figure 6-1: Compensation Plan viewed in the Payee Ledger



Compensation Plans and the Payee Ledger

Compensation Plans and Payee Ledger work hand in hand in Varicent SPM. The calculations added to a Compensation Plan are viewed using Payee Ledger. Payee Ledger is a fixed format reporting tool that makes it easy to create Compensation Statements. You would create a Compensation Plan if you are viewing the results in Payee Ledger.

When viewing a Compensation Plan in Payee Ledger payees can create inquiries related to their compensation. The time periods the payee can select will reflect the visibility set by you in the Admin Client. Payees, Managers and Sales people, can approve the compensation payout through the sign off process. Managers can approve the compensation results for the sales people that report to them, while Sales person can approve their own compensation.

Compensation Plan Visibility is accessed by right clicking on the compensation plan under the **Assignment** tab in the **Workflow** module.

You can publish a Compensation Plan as an Excel spreadsheet, a text file or a PDF file. You can also schedule the publishing of the Compensation Plan on a regular basis. For example you can create individual PDF files for each of your Sales people on a monthly basis. Payees can also create their own Excel spreadsheets using the information in the Compensation Plan.

The Payee Ledger provides detail and summary views of a Compensation Plan. The detail view shows all detail records that you have made available when creating the Compensation Plan. The summary view shows the payee an overview of their compensation that has been calculated for the year.

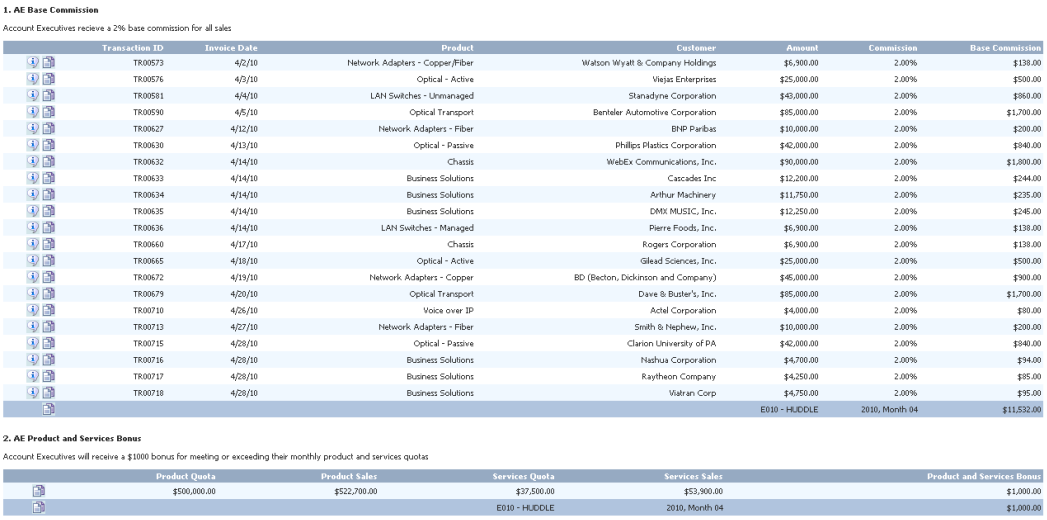
There are a number of display properties for the Payee Ledger.

Table 6-1: Display Properties for Payee Ledger

Show calculation results in Payee Ledger	Shows a time period, for example a month, to be tracked in the Payee Ledger for each payee.
Show Results by Payee ID	Shows the calculation results by payee. The calculation must have Payee ID as a partition.
Result Name	Name of the total amount column that shows on the far right side of the Compensation Plan.
Show Transactional Details in Payee Ledger	Shows the individual transactions in the calculation for the time period selected.
Show Prior Periods	Shows the prior periods leading up to the selected time period.
Suppress Empty Reports	Suppresses any Compensation Plan that does not have data for the time period selected.
Show Description as Header	Shows the description in the calculation as a header in the Varicent Web.
Suppress Summary Rows	Suppresses the Summary row.

For this course we will be creating Compensation Plans to be viewed in the **Payee Ledger**

Figure 6-2: Compensation Plan viewed in Varicent Web



1. AE Base Commission

Account Executives recieve a 2% base commission for all sales

	Transaction ID	Invoice Date	Product	Customer	Amount	Commission	Base Commission
	TR00573	4/2/10	Network Adapters - Copper/Fiber	Watson Wyatt & Company Holdings	$6,900.00	2.00%	$138.00
	TR00576	4/3/10	Optical - Active	Viejas Enterprises	$25,000.00	2.00%	$500.00
	TR00581	4/4/10	LAN Switches - Unmanaged	Stanadyne Corporation	$43,000.00	2.00%	$860.00
	TR00590	4/5/10	Optical Transport	Benteler Automotive Corporation	$85,000.00	2.00%	$1,700.00
	TR00627	4/12/10	Network Adapters - Fiber	BNP Paribas	$10,000.00	2.00%	$200.00
	TR00630	4/13/10	Optical - Passive	Phillips Plastics Corporation	$42,000.00	2.00%	$840.00
	TR00632	4/14/10	Chassis	WebEx Communications, Inc.	$90,000.00	2.00%	$1,800.00
	TR00633	4/14/10	Business Solutions	Cascades Inc	$12,200.00	2.00%	$244.00
	TR00634	4/14/10	Business Solutions	Arthur Machinery	$11,750.00	2.00%	$235.00
	TR00635	4/14/10	Business Solutions	DMX MUSIC, Inc.	$12,250.00	2.00%	$245.00
	TR00636	4/14/10	LAN Switches - Managed	Pierre Foods, Inc.	$6,900.00	2.00%	$138.00
	TR00660	4/17/10	Chassis	Rogers Corporation	$6,900.00	2.00%	$138.00
	TR00665	4/18/10	Optical - Active	Gilead Sciences, Inc.	$25,000.00	2.00%	$500.00
	TR00672	4/19/10	Network Adapters - Copper	BD (Becton, Dickinson and Company)	$45,000.00	2.00%	$900.00
	TR00679	4/20/10	Optical Transport	Dave & Buster's, Inc.	$85,000.00	2.00%	$1,700.00
	TR00710	4/26/10	Voice over IP	Actel Corporation	$4,000.00	2.00%	$80.00
	TR00713	4/27/10	Network Adapters - Fiber	Smith & Nephew, Inc.	$10,000.00	2.00%	$200.00
	TR00715	4/28/10	Optical - Passive	Clarion University of PA	$42,000.00	2.00%	$840.00
	TR00716	4/28/10	Business Solutions	Nashua Corporation	$4,700.00	2.00%	$94.00
	TR00717	4/28/10	Business Solutions	Raytheon Company	$4,250.00	2.00%	$85.00
	TR00718	4/28/10	Business Solutions	Viatran Corp	$4,750.00	2.00%	$95.00
					E010 - HUDDLE	2010, Month 04	$11,532.00

2. AE Product and Services Bonus

Account Executives will receive a $1000 bonus for meeting or exceeding their monthly product and services quotas

	Product Quota	Product Sales	Services Quota	Services Sales	Product and Services Bonus
	$500,000.00	$522,700.00	$37,500.00	$53,900.00	$1,000.00
			E010 - HUDDLE	2010, Month 04	$1,000.00

Using Presenter for Compensation Statements

You can also create Compensation Statements using Presenter in the same way you would create any other Presenter report. Creating Compensation Statements in Presenter allows you greater flexibility for displaying compensation results. You can have detail information, summary information, charts, links to other reports and any kind of formatting you would need

Presenter report do not inherit the hierarchy of an **Access tree**. All payees in the tree see the same data.

for your compensation results. You can also create a set of reports where a summary Presenter report is linked to a detailed Presenter report. The payee would view the summary report and be able to click on the link value, such as a time period, and see the detail information.

Payees can also export the contents of the report to an excel spreadsheet or a PDF file. Payees will also be able to create inquiries about their compensation through a Presenter report. The ability to perform online sign off (approval) by the payees of their compensation cannot currently be done on a Presenter report. However you can use Web Forms to create a custom approval process for your payees.

Presenter is a great option for your Compensation Statements if you have specific requirements concerning branding and overall layout. While Presenter is very user friendly, it will take additional time and effort given the flexibility of Presenter to configure a Presenter report over a Compensation Plan in Payee Ledger.

Figure 6-3: Compensation Plan created in Presenter

Select a Payee: 0.00 Select a Time Period: Submit

Transaction ID	Invoice Date	Product	Customer	Amount	Commission
TR00001	1/1/2010	LAN Switches - Managed	Devlin MacGregor	$200,000.00	$4,000.00
TR00016	1/5/2010	Optical - Passive	XXX Investigations	$80,000.00	$1,600.00
TR00020	1/7/2010	LAN Switches - Unmanaged	Khumalo	$55,000.00	$1,100.00
TR00021	1/7/2010	Business Solutions	Bluecorp	$5,000.00	$100.00
TR00044	1/9/2010	Optical Transport	Crane, Poole & Schmidt	$55,000.00	$1,100.00
TR00052	1/10/2010	Optical - Active	Culdee Fell Railway	$70,000.00	$1,400.00
TR00058	1/11/2010	Chassis	Umbrella Corporation	$30,000.00	$600.00
TR00065	1/13/2010	Network Adapters - Copper	Jimi Jam	$7,100.00	$142.00
TR00071	1/14/2010	Business Solutions	Happy Farmers Cooperative	$6,700.00	$134.00
TR00072	1/14/2010	Business Solutions	Hampshire's Heavy	$7,000.00	$140.00
TR00084	1/14/2010	Business Solutions	Zevo Toys	$7,200.00	$144.00
TR00105	1/19/2010	Network Adapters - Fiber	Milton, Chadwick and Waters	$40,000.00	$800.00
TR00109	1/20/2010	Optical - Passive	Onion Pacific Railroad	$80,000.00	$1,600.00
TR00111	1/21/2010	Business Solutions	Alliance Towing	$12,600.00	$252.00
TR00129	1/21/2010	Business Solutions	Foo Bars	$12,400.00	$248.00
TR00136	1/23/2010	Optical Transport	Heinzi & Plaff	$6,100.00	$122.00
TR00140	1/24/2010	Optical Transport	Sodor & Mainland Railway	$55,000.00	$1,100.00
TR00146	1/25/2010	Optical - Active	Bluecorp	$70,000.00	$1,400.00
TR00155	1/26/2010	Network Adapters - Copper	Vitale, Davis, Horowitz, Riordan, Schrecter & Schrecter	$67,000.00	$1,340.00

Month	Account Executive	Hardware Quota	Hardware Sales	Services Quota	Services Sales	Hardware and Services Bonus
2010, Month 1	Dan Huddle	$600,000.00	$815,200.00	$45,000.00	$50,900.00	$1,000.00

Month	Account Executive	Attainment	Rolling Bonus

Month	Account Executive	Salary Guarantee

Payee Groups need to exist in the Varicent application before a **Compensation Plan**.

Overview of Payee Groups

Payee Groups are a collection of payees who will be paid by the same compensation plan. The members of a Payee Group usually have something in common, other than being paid by the same compensation plan. For example the Rivacent company has a group of Account Executives working for them. All of the Account Executives have their compensation calculated the same way. Since they all follow the same payment rules you can group them into one Payee Group and assign this payee group to a compensation plan.

Payee Groups and Compensation Plans

Payee Groups are associated with Compensation Plans. When you create a Compensation Plan one of the properties you define is the Payee Group associated with the plan.

A payee that is not assigned to a Compensation Plan through a Payee Group cannot view their compensation results in Varicent Web. Also anyone administering the Compensation Plan in the Admin Client cannot select the payee in the Payee Ledger.

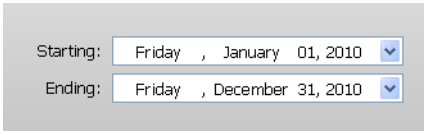
Walk Thru: Create a Payee Group

For this walk thru you will be creating an Account Executives Payee Group using the following steps:

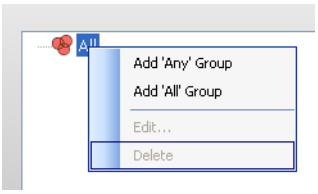
1. Click **Tools > Payee Groups**.
2. Click **Add**.

3. Enter **Account Executives** for **Group Name**.
4. Click **Next**.

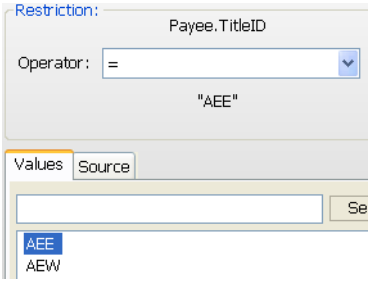
5. Select a **Starting** and **Ending Date**.
6. Click **Next**.
7. Click **Next**.



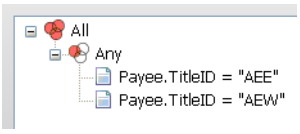
8. Right click on All and select **Add Any Group** so that you can add multiple restrictions that are combined with “OR” logic.



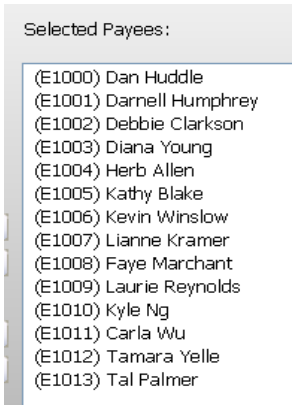
9. Drag the **TitleID** onto the **Any** to restrict by title.
10. Double click on the **AEE** value to select the Account Executives East.
11. Click **OK**.



12. Drag the **TitleID** onto the **Any**.
13. Double click on the **AEW** value.
14. Click **OK**.
15. Click **Next**.

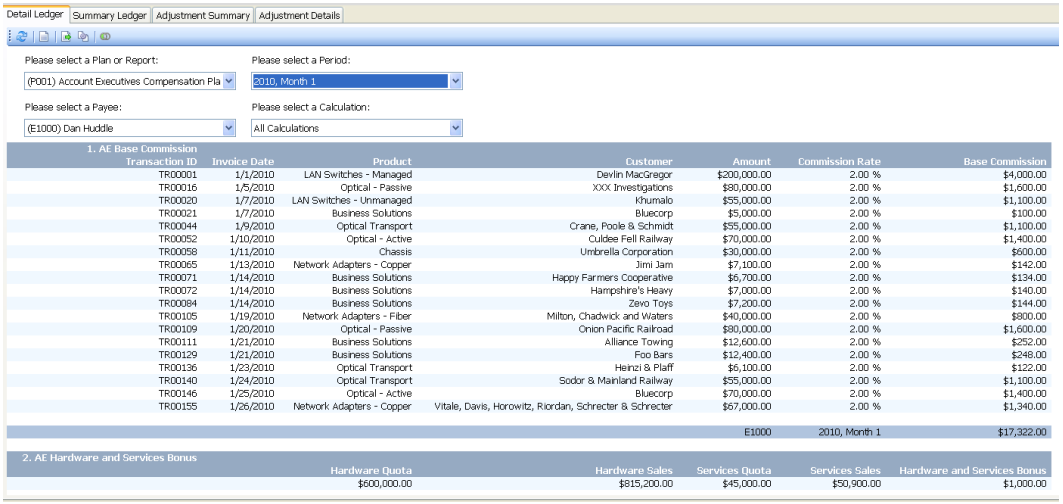


16. Click **Finish**.



Walk Thru: Create a Compensation Plan

In this walk thru you will be creating the Account Executives Compensation Plan. The Compensation Plan will show detail information for their base commission, hardware and services bonus and rolling 3 months bonus. The Compensation Plan will also show the final payout.


Detail Ledger | Summary Ledger | Adjustment Summary | Adjustment Details

Please select a Plan or Report: (P001) Account Executives Compensation Pla
Please select a Period: 2010, Month 1
Please select a Payee: (E1000) Dan Huddle
Please select a Calculation: All Calculations

1. AE Base Commission

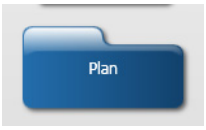
Transaction ID	Invoice Date	Product	Customer	Amount	Commission Rate	Base Commission
TR00001	1/1/2010	LAN Switches - Managed	Devlin MacGregor	$200,000.00	2.00 %	$4,000.00
TR00016	1/5/2010	Optical - Passive	XXX Investigations	$80,000.00	2.00 %	$1,600.00
TR00020	1/7/2010	LAN Switches - Unmanaged	Knumalo	$55,000.00	2.00 %	$1,100.00
TR00021	1/7/2010	Business Solutions	Bluecorp	$5,000.00	2.00 %	$100.00
TR00044	1/9/2010	Optical Transport	Crane, Poole & Schmidt	$55,000.00	2.00 %	$1,100.00
TR00052	1/10/2010	Optical - Active	Culdee Fell Railway	$70,000.00	2.00 %	$1,400.00
TR00058	1/11/2010	Chassis	Umbrella Corporation	$30,000.00	2.00 %	$600.00
TR00065	1/13/2010	Network Adapters - Copper	Jimi Jam	$7,100.00	2.00 %	$142.00
TR00071	1/14/2010	Business Solutions	Happy Farmers Cooperative	$6,700.00	2.00 %	$134.00
TR00072	1/14/2010	Business Solutions	Hampshire's Heavy	$7,000.00	2.00 %	$140.00
TR00084	1/14/2010	Business Solutions	Zevo Toys	$7,200.00	2.00 %	$144.00
TR00105	1/19/2010	Network Adapters - Fiber	Milton, Chadwick and Waters	$40,000.00	2.00 %	$800.00
TR00109	1/20/2010	Optical - Passive	Onion Pacific Railroad	$80,000.00	2.00 %	$1,600.00
TR00111	1/21/2010	Business Solutions	Alliance Towing	$12,600.00	2.00 %	$252.00
TR00129	1/21/2010	Business Solutions	Foo Bars	$12,400.00	2.00 %	$248.00
TR00136	1/23/2010	Optical Transport	Heinzi & Plaff	$6,100.00	2.00 %	$122.00
TR00140	1/24/2010	Optical Transport	Sodor & Mainland Railway	$55,000.00	2.00 %	$1,100.00
TR00146	1/25/2010	Optical - Active	Bluecorp	$70,000.00	2.00 %	$1,400.00
TR00155	1/26/2010	Network Adapters - Copper	Vitale, Davis, Horowitz, Riordan, Schrecter & Schrecter	$67,000.00	2.00 %	$1,340.00
				E1000	2010, Month 1	$17,322.00

2. AE Hardware and Services Bonus

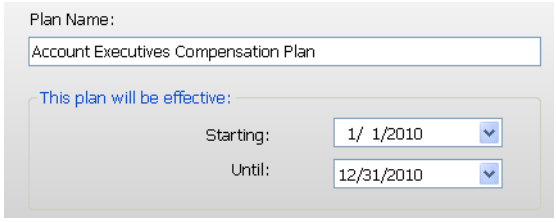
Hardware Quota	Hardware Sales	Services Quota	Services Sales	Hardware and Services Bonus
$600,000.00	$815,200.00	$45,000.00	$50,900.00	$1,000.00

Complete the following steps the create the Account Executives Compensation Plan:

1. Drag a **plan** element into the workspace.

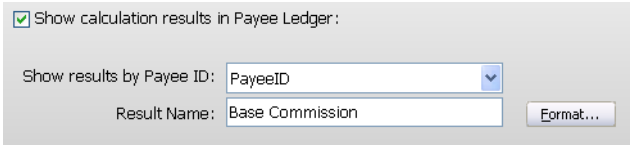


2. Enter **Account Executives Compensation Plan** in the name field.
3. Click **Next**.



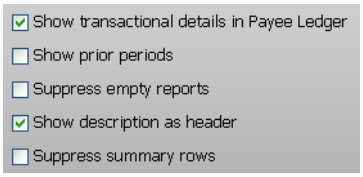
4. Click **Add**.
5. Select the **AE Base Commission** calculation.
6. Click **OK**.

7. Select the **Show calculation results in Payee Ledger** checkbox.
8. Select **PayeeID** in the **Show Results by PayeeID** dropdown.

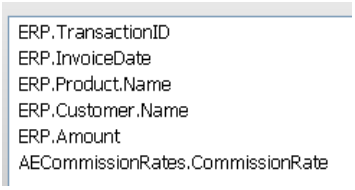


9. Enter **Base Commission** as a **Result name**.
10. Click **Format**.
11. Select **Dollars** for **Style** and **2** for **Decimal Places**.

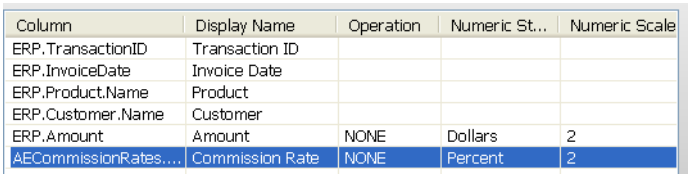
12. Click **OK**.
13. Select the **Show Transactional Details in Payee Ledger** checkbox.
14. Select the **Show Description as Header** checkbox.
15. Click **Next**.



16. Add the **TransactionID**, **InvoiceDate**, **Product Name**, **Customer Name**, **Amount** and **CommissionRate** fields to the right pane.
17. Click **Next**.

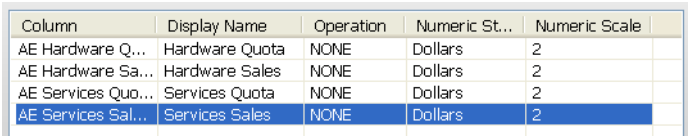


18. Double click on the **Display Name** values and change them to be user friendly.
19. Click **Finish**.



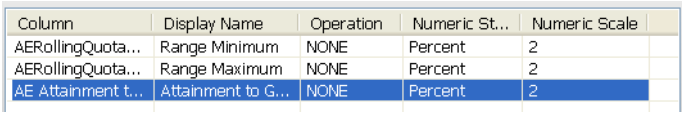
Column	Display Name	Operation	Numeric St...	Numeric Scale
ERP.TransactionID	Transaction ID			
ERP.InvoiceDate	Invoice Date			
ERP.Product.Name	Product			
ERP.Customer.Name	Customer			
ERP.Amount	Amount	NONE	Dollars	2
AECommissionRates....	Commission Rate	NONE	Percent	2

20. Add the **Hardware and Services Bonus** calculation.
21. Show the calculation with a **Result Name** of **Hardware and Services Bonus**.
22. Show in the details the **Hardware Quotas**, **Hardware Sales**, **Services Quota** and **Services Sales**.



Column	Display Name	Operation	Numeric St...	Numeric Scale
AE Hardware Q...	Hardware Quota	NONE	Dollars	2
AE Hardware Sa...	Hardware Sales	NONE	Dollars	2
AE Services Quo...	Services Quota	NONE	Dollars	2
AE Services Sal...	Services Sales	NONE	Dollars	2

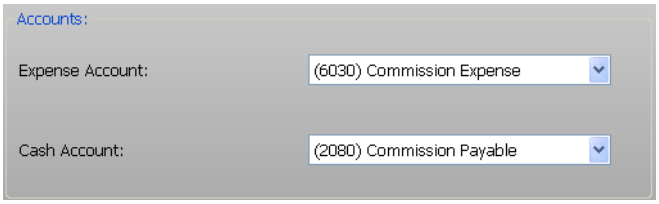
23. Add the **Rolling 3 Months Bonus Payout** calculation.
24. Show the calculation with a **Result Name** of **Rolling Quota Bonus**.
25. Show in the details the **Range Minimum**, **Range Maximum** and **Attainment to Goal**.



Column	Display Name	Operation	Numeric St...	Numeric Scale
AERollingQuota...	Range Minimum	NONE	Percent	2
AERollingQuota...	Range Maximum	NONE	Percent	2
AE Attainment t...	Attainment to G...	NONE	Percent	2

26. Add the **AE Salary Guarantee** calculation.
27. Show the calculation with a **Result Name** of **Salary Guarantee**.
28. Add the **AE Final Payout** calculation.
29. Show the calculation with a **Result Name** of **Final Payout**.
30. Click **Finish**.
31. Click **Next**.

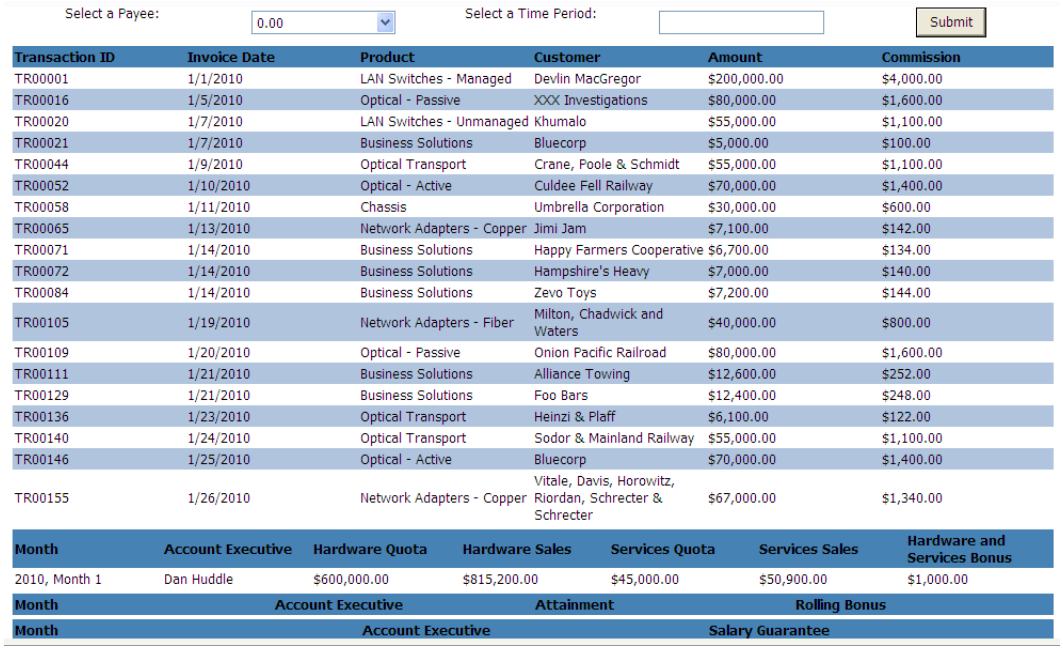
32. Select the **Commission Expense** for the **Expense Account**.
33. Select the **Commission Payable** for the **Cash Account**.
34. Click **Finish**.



Presenter Demonstration

The following instructor demonstration will show you a Compensation Statement created using Presenter.

Figure 6-4: Compensation Statement created using Presenter



Select a Payee: 0.00 Select a Time Period: Submit

Transaction ID	Invoice Date	Product	Customer	Amount	Commission
TR00001	1/1/2010	LAN Switches - Managed	Devlin MacGregor	$200,000.00	$4,000.00
TR00016	1/5/2010	Optical - Passive	XXX Investigations	$80,000.00	$1,600.00
TR00020	1/7/2010	LAN Switches - Unmanaged	Khumalo	$55,000.00	$1,100.00
TR00021	1/7/2010	Business Solutions	Bluecorp	$5,000.00	$100.00
TR00044	1/9/2010	Optical Transport	Crane, Poole & Schmidt	$55,000.00	$1,100.00
TR00052	1/10/2010	Optical - Active	Culdee Fell Railway	$70,000.00	$1,400.00
TR00058	1/11/2010	Chassis	Umbrella Corporation	$30,000.00	$600.00
TR00065	1/13/2010	Network Adapters - Copper	Jimi Jam	$7,100.00	$142.00
TR00071	1/14/2010	Business Solutions	Happy Farmers Cooperative	$6,700.00	$134.00
TR00072	1/14/2010	Business Solutions	Hampshire's Heavy	$7,000.00	$140.00
TR00084	1/14/2010	Business Solutions	Zevo Toys	$7,200.00	$144.00
TR00105	1/19/2010	Network Adapters - Fiber	Milton, Chadwick and Waters	$40,000.00	$800.00
TR00109	1/20/2010	Optical - Passive	Onion Pacific Railroad	$80,000.00	$1,600.00
TR00111	1/21/2010	Business Solutions	Alliance Towing	$12,600.00	$252.00
TR00129	1/21/2010	Business Solutions	Foo Bars	$12,400.00	$248.00
TR00136	1/23/2010	Optical Transport	Heinzi & Plaff	$6,100.00	$122.00
TR00140	1/24/2010	Optical Transport	Sodor & Mainland Railway	$55,000.00	$1,100.00
TR00146	1/25/2010	Optical - Active	Bluecorp	$70,000.00	$1,400.00
TR00155	1/26/2010	Network Adapters - Copper	Vitale, Davis, Horowitz, Riordan, Schrecter & Schrecter	$67,000.00	$1,340.00

Month	Account Executive	Hardware Quota	Hardware Sales	Services Quota	Services Sales	Hardware and Services Bonus
2010, Month 1	Dan Huddle	$600,000.00	$815,200.00	$45,000.00	$50,900.00	$1,000.00

Month	Account Executive	Attainment	Rolling Bonus

Month	Account Executive	Salary Guarantee

Summary

In this chapter you saw how the results of a calculation for a compensation payout can be displayed to a variety of audiences such as; Sales people, Managers and Compensation Analysts. We also discussed the options for creating a Compensation Plan. In the Payee Ledger you have inquiry ability, sign off ability and a way to limit the visibility of the Compensation Plan. In a Presenter report you can include graphics, drill through the data and format the data any way imaginable.

In this chapter you also discussed what a Payee Group is and how it works with a Compensation Plan. You saw how a Payee Group contains a list of payees that have results in a particular Compensation Plan.

Review Questions

1. Describe a Compensation Plan in Varicent SPM.

2. Where does the Result column appear in a Compensation Plan?

3. What does the Show transactional details in Payee Ledger allow you to do?

4. If there is no data showing in your Compensation Plan what should you do?

Chapter 7

Managing Workflow

Learning Objectives

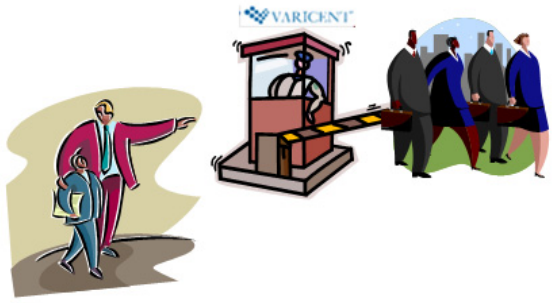
By the end of this chapter, you will be able to:

- Describe how Workflow manages access to reports in Varicent Web.
- Create a set of Workflow Groups using restrictions.
- Manage the web access for members of workflow groups.
- Create an Access Tree.
- Assign an Access Tree to a Compensation Plan for visibility in Varicent Web.

Overview of Workflow

You use Workflow to define access to components such as compensation plans, manage access for payees to login to Varicent Web and manage who can make adjustments for other payees. You can also use Workflow to manage the inquiry and sign off process for your payees. These tasks are accomplished using workflow groups and trees.

Figure 7-1: Workflow Groups



Workflow Groups

To be added to a **Workflow Group** the payee must exist in the **Payee** table

Workflow groups are groups of payees who have a common link. For example you can create a workflow group for all the account executives who work for your company, in order to grant them access to the same components. Most workflow groups are based on title or reporting structure within a company, so your group of account executives could be two workflow groups, one group for the account executives in the east and another group for the account executives in the west. Creating two separate workflow groups for the account executives gives you greater flexibility to define access to components.

Managing Web Access

Speak to your **implementation team** about **LDAP** or **Single Sign On** configuration

Once you have created the workflow groups you can set up the members access to Varicent Web. Without access to Varicent Web your payees will cannot login and view their compensation plans, reports and any other items you have given them access too.

By default Varicent uses the email address in the payee table as the payee's Varicent Web username. You do have the option to integrate Varicent in with your company's LDAP or single sign on so that your payees have seamless access to the Varicent Web.

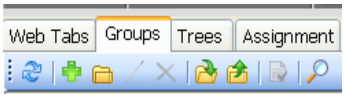
Who Can Do Adjustments On The Web?

You also use Workflow Groups to grant payees the ability to create adjustments in a Compensation Plan in Payee Ledger.

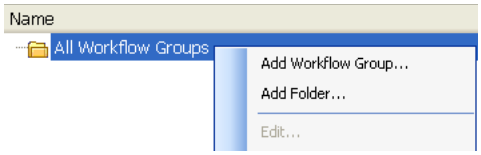
Walk Thru: Create a Workflow Group

In this Walk Thru you will be creating the All Payees workflow group and managing the members web access.

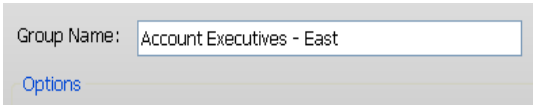
1. Click the **Groups** tab.



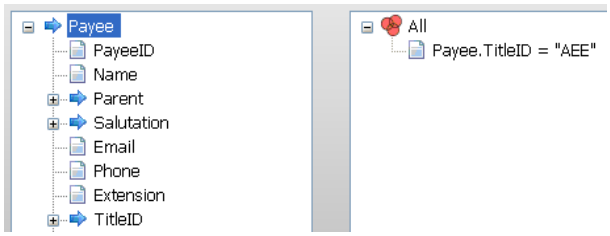
2. Right click the **All Workflow Groups folder** and select **Add Workflow Group**.



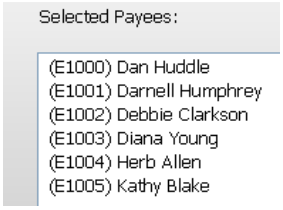
3. Enter a **Group Name** of **Account Executives - East**.
4. Click **Next**.



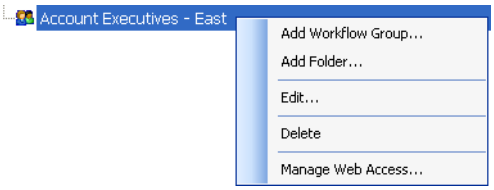
5. Click **Next**.
6. Drag the **TitleID** over to the right pane.
7. Double click on the **AEE** value.
8. Click **OK**.



9. Click **Next**.
10. Click **Finish**.

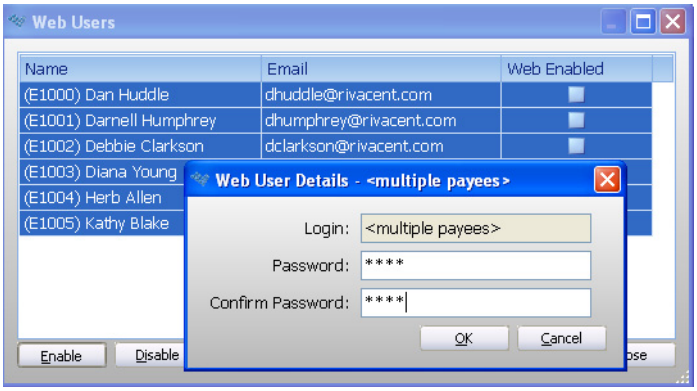


11. Right click the **Account Executives - East** Workflow Group and select **Manage Web Access**.



12. Select all the Account Executives - East.
13. Click **Enable**.

14. Enter and Confirm a password of **1234**.
15. Click **OK**.



Exercise 7-1: Create Workflow Groups

1. Create the following Workflow Groups:

TitleID	Workflow Group Name
AEW	Account Executives - West
RSME	Regional Sales Manager - East
RSMW	Regional Sales Manager - West
VPS	VP of Sales

2. For each of the Workflow Groups enable all members for login to Varicent Web.

Web Tabs

You use Web Tabs to customize the appearance of Varicent Web for Workflow Groups. You can create Web Tab Groups and Web Tabs to organize items payees will see when they login to Varicent Web. Web Tabs can be created to show a particular module like the Payee Ledger, Web Forms or Inquiries. You can also create Web Tab Groups and have Web Tabs within the group showing as sub tabs. If you have a list of Tailored Reports for the account executives you can create a Web Tab Group called Tailored Reports and then create a Web Tab as sub tab for each of the Tailored Reports.

When you create a Web Tab Group you have to assign access for payees to see the tab. When you create a Web Tab and associate it with a particular item you need to assign access to the item, such as a compensation plan, for the payees to see the tab.

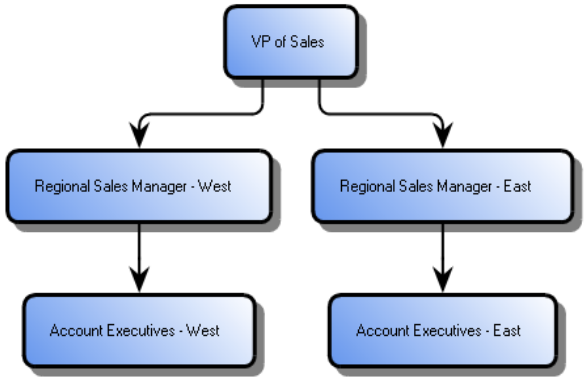
Access Tree and Assignment

In this chapter we will only be granting access to Varicent Web.

Once you have created all the workflow groups you can create Access trees. Access trees determine what each payee is allowed to see when they log into Varicent Web. Access trees also determine whose data the payee is allowed to see. Once an Access tree has been created, you can assign it to various components to make them viewable in Varicent Web. Without an Access tree payees would not have access to any reports in Varicent Web.

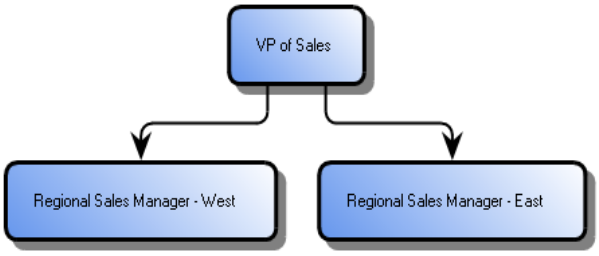
You can have multiple Access trees. The number of Access trees you create depends on the different levels of access needed. For example, account executives and regional sales managers require access to the Account Executive Compensation Plan. This means that all of the account executive and regional sales manager workflow groups would be in the access tree. Now let's say there is an additional requirement to allow the Vice President of Sales to see the Account Executive Compensation Plan. This would mean that the VP Sales workflow group would also be in the tree. The Access tree could look like the one you see in Figure 1 -2.

Figure 7-2: Access Tree for the Account Executive Compensation Plan



Now let's say you have a group of reports that have been designed for the regional sales managers and the vice president of sales. Since the account executives do not need access to this group of reports you would need to create an Access tree without the account executives workflow groups. This Access tree could look like the one you see in Figure 1 - 3.

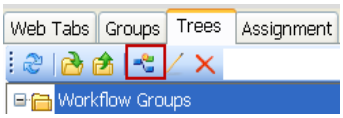
Figure 7-3: Access Tree for Regional Sales Managers and VP of Sales Reports



Walk Thru: Create an Access Tree and Assignment

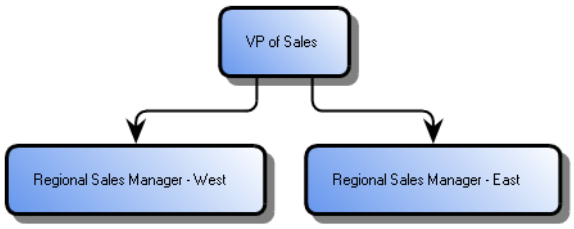
In this Walk Thru you will create an Access Tree for the Account Executives.

1. Click the **Trees** tab.
2. Click the **New Tree** icon.

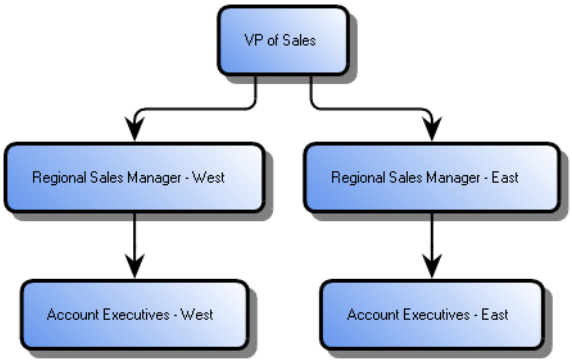


3. Enter a **Tree Name** of **Account Executives - Access**.
4. Click **OK**.

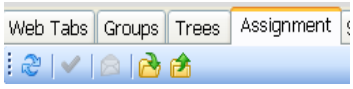
5. Drag the **VP of Sales** Workflow Group to the right hand side.
6. Drag the **Regional Sales Manager - East** on top of the VP of Sales.
7. Drag the **Regional Sales Manager - West** on top of the VP of Sales.



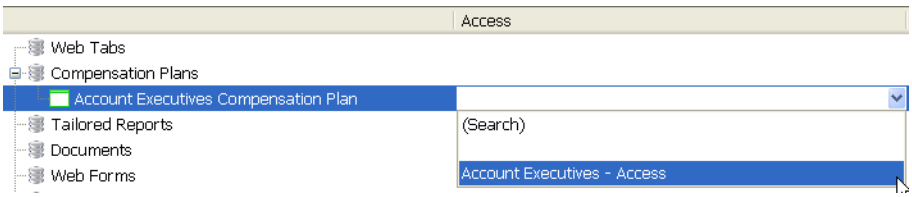
8. Drag the **Account Executives - East** on top of the Regional Sales Manager - East.
9. Drag the **Account Executives - West** on top of the Regional Sales Manager - West.



10. Select the **Assignment** tab.



11. Select the **Account Executives Compensation Plan**.
12. Click the highlight area under the **Access** heading.
13. Select the **Account Executives - Access** tree.



Summary

In this chapter we saw how you can control access to Varicent Web. Through the use of Workflow Groups you can grant access to Varicent Web. We also saw how you can use these Workflow Groups to create Access trees. Access trees allow you to control which items a payee will see when they login to Varicent Web. Access trees also allow you to control who can see who when they login. We saw how the higher groups in the Access tree are able to see information related to payees in Workflow Groups lower in the tree.

Review Questions

1. Describe the purpose of an Access tree.

2. Describe the purpose of a Workflow Group.

3. What is the most likely field to be used as a restriction for a Workflow Group?

Chapter 8

Tailored Reports

Learning Objectives

By the end of this chapter, you will be able to:

- Identify the components of a Tailored Report.
- Construct the calculation(s) for a Tailored Report.
- Create a Tailored Report.
- Use the Payee Ledger to view the results of a Tailored Report.
- Assign access to a Tailored Report for Payees to view on Varicent Web.

Overview of Tailored Reports

Tailored Reports are created using the Composer module. This report type shares a lot of similarities with Compensation Plans. Like Compensation Plans, Tailored Reports are viewable in the Payee Ledger, so they have the same display options and they are based on calculations. One difference between Tailored Reports and Compensation Plans is the design of the calculations. A calculation for a Tailored Report does not need to have a Payee ID partition.

Figure 8-1: Tailored Report in the Payee Ledger

1. Product Sales by Month Transaction ID	Invoice Date	Account Executive	Customer	Inside Sales Rep	Product Sales
TR00001	1/1/2010	Dan Huddle	Devlin MacGregor	Jack Acklands	$200,000.00
TR00002	1/1/2010	Diana Young	Hilmar Cheese	Sam Brown	$60,000.00
TR00006	1/1/2010	Laurie Reynolds	Ecumena	John Rodriguez	$35,000.00
TR00054	1/10/2010	Diana Young	Brown Streak Railroad	Carol Brown	$45,000.00
TR00104	1/18/2010	Lianne Kramer	North Western Railway	John Rodriguez	$35,000.00
			P0001	2010, Month 1	$375,000.00
TR00020	1/7/2010	Dan Huddle	Khumalo	John Rodriguez	$55,000.00
TR00051	1/9/2010	Laurie Reynolds	N.E.R.D. - Nucleic Exchange, Research and Development	Paul McNeil	$38,000.00
TR00059	1/11/2010	Diana Young	Tricell	Tom Comforti	$25,000.00
TR00061	1/11/2010	Laurie Reynolds	Goodman, Lieber, Kurtzberg and Holloway	Julia Thompson	$62,000.00
TR00101	1/16/2010	Diana Young	Mid Sodor Railway	Tom Comforti	$25,000.00
TR00110	1/20/2010	House account	Northern & Southern Railway	House account	$60,000.00
TR00156	1/26/2010	Lianne Kramer	Sudden Pacific Railroad	Sam Brown	$38,000.00
			P0002	2010, Month 1	$303,000.00
TR00007	1/1/2010	Laurie Reynolds	d'Anconia Copper	Dorra Wiseman	$40,000.00
TR00017	1/5/2010	Faye Marchant	Warbucks Industries	Tom Comforti	$60,000.00
TR00058	1/11/2010	Dan Huddle	Umbrella Corporation	Sam Brown	$30,000.00
TR00064	1/12/2010	Laurie Reynolds	Union Aerospace Corporation	Elaine Chu	$40,000.00
TR00096	1/15/2010	Diana Young	Rossum Corporation	Carol Brown	$10,000.00
TR00119	1/21/2010	Laurie Reynolds	Murdock and Nelson	Dorra Wiseman	$65,000.00
TR00142	1/24/2010	Diana Young	Skarloey Railway	Sam Brown	$5,000.00

Creating Calculations for Tailored Reports

When you are creating calculations for your Tailored Report you need to keep your end goal in mind. For example, let's say you have to create a Tailored Report to show the sales for each product on a monthly basis. First thing you need to determine is what information needs to be shown in the report. For the monthly product sales report you would want to show the month, the product and sales at a minimum. You also want to show when the item was sold, who made the sale and the customer who purchased the item. Once you have determined what needs to be shown and calculated go through the five steps for creating a calculation to determine sources, formula, partitions and restrictions.

Figure 8-2: Creating Calculations for Tailored Reports

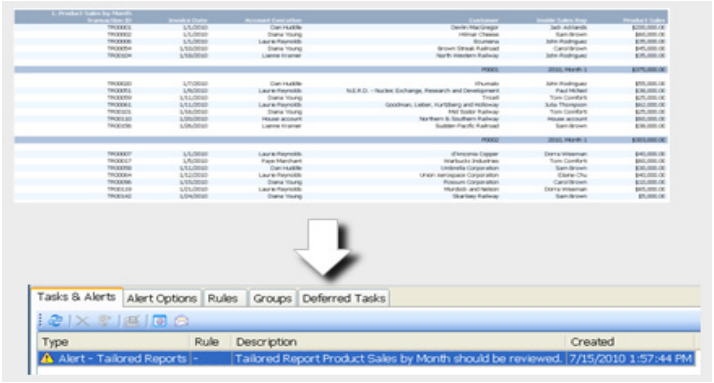
Tailored Reports and Alerts

Tailored Reports can be used to alert you to situations or information that will help you administer the Varicent application. Once you have decided on a particular type of alert that you would like to have follow the steps listed below.

To Setup a Tailored Report as an Alert

1. Determine where the information you need is located. Is it in a calculation or a table.
2. Create the calculation using the five steps.
3. Create the Tailored Report.
4. Check **Create an Alert when this Report is not empty**.
5. Enable the **Specified Tailored Reports generate one or more rows** alert.

Figure 8-3: Figure of Tailored Report and Alerts



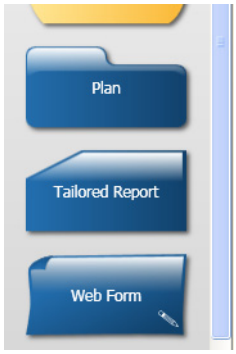
Walk Thru: Create a Tailored Report

In this Walk Thru you will create the Product Sales by Month Tailored Report. The Report will show detail transactions of product sales. The intended audience for this report are the Account Executives.

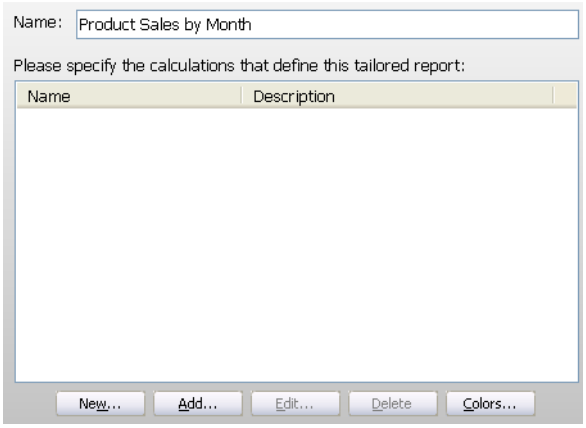
1. Product Sales by Month Transaction ID	Invoice Date	Account Executive	Customer	Inside Sales Rep	Product Sales
TR00001	1/1/2010	Dan Huddle	Devlin MacGregor	Jack Acklands	$200,000.00
TR00002	1/1/2010	Diana Young	Hilmar Cheese	Sam Brown	$60,000.00
TR00006	1/1/2010	Laurie Reynolds	Ecumena	John Rodriguez	$35,000.00
TR00054	1/10/2010	Diana Young	Brown Streak Railroad	Carol Brown	$45,000.00
TR00104	1/18/2010	Lianne Kramer	North Western Railway	John Rodriguez	$35,000.00
			P0001	2010, Month 1	$375,000.00
TR00020	1/7/2010	Dan Huddle	Khumalo	John Rodriguez	$55,000.00
TR00051	1/9/2010	Laurie Reynolds	N.E.R.D. - Nucleic Exchange, Research and Development	Paul McNeil	$38,000.00
TR00059	1/11/2010	Diana Young	Tricell	Tom Comforti	$25,000.00
TR00061	1/11/2010	Laurie Reynolds	Goodman, Lieber, Kurtzberg and Holloway	Julia Thompson	$62,000.00
TR00101	1/16/2010	Diana Young	Mid Sodor Railway	Tom Comforti	$25,000.00
TR00110	1/20/2010	House account	Northern & Southern Railway	House account	$60,000.00
TR00156	1/26/2010	Lianne Kramer	Sudden Pacific Railroad	Sam Brown	$38,000.00
			P0002	2010, Month 1	$303,000.00
TR00007	1/1/2010	Laurie Reynolds	d'Anconia Copper	Dorra Wiseman	$40,000.00
TR00017	1/5/2010	Faye Marchant	Warbucks Industries	Tom Comforti	$60,000.00
TR00058	1/11/2010	Dan Huddle	Umbrella Corporation	Sam Brown	$30,000.00
TR00064	1/12/2010	Laurie Reynolds	Union Aerospace Corporation	Elaine Chu	$40,000.00
TR00096	1/15/2010	Diana Young	Rossum Corporation	Carol Brown	$10,000.00
TR00119	1/21/2010	Laurie Reynolds	Murdock and Nelson	Dorra Wiseman	$65,000.00
TR00142	1/24/2010	Diana Young	Skarloey Railway	Sam Brown	$5,000.00

Follow the steps below to create the Product Sales by Month Tailored Report:

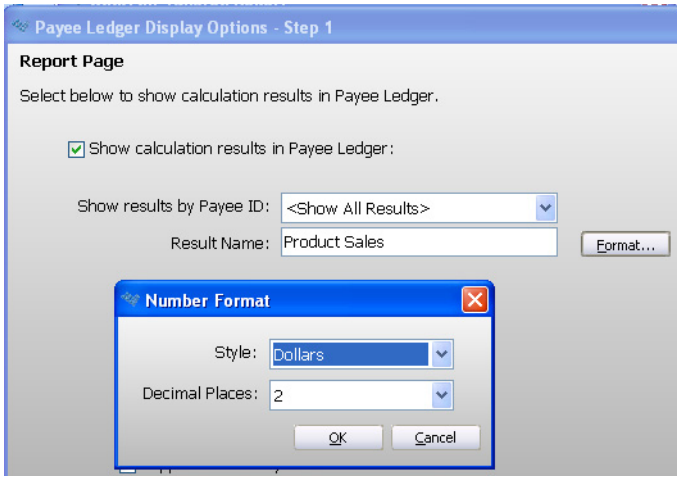
1. Create the **Product Sales by Month** calculation with the following parameters:
   - **Name**: Product Sales by Month
   - **Type**: User Defined
   - **Source**: ERP
   - **Formula**: SUM(ERP.Amount)
   - **Partitions**: ERP.ProductID, ERP.InvoiceDate (CAL/Months/Months)
   - **Restrictions**: None
2. Drag a **Tailored Report** element into the workspace.



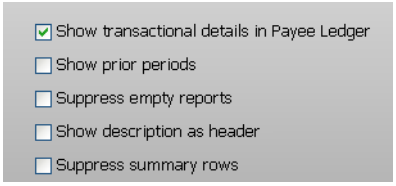
3. Enter a **Name** of **Product Sales by Month**.
4. Click **Add**.



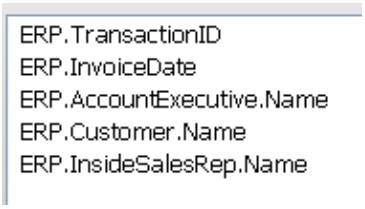
5. Select the **Product Sales by Month** calculation.
6. Select the **Show calculation results in Payee Ledger** check box.
7. Enter a **Result Name** of **Product Sales**.
8. Format the result with a dollar sign and two decimals.



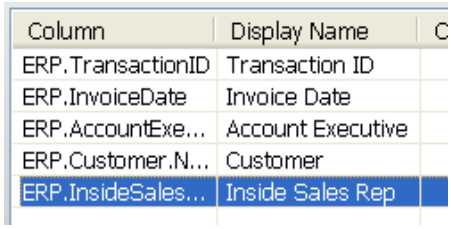
9. Select the **Show transactional details in Payee Ledger** checkbox.
10. Click **Next**.



11. Add the following fields for the details:
    - ERP.TransactionID
    - ERP.InvoiceDate
    - ERP.AccountExecutive.Name
    - ERP.Customer.Name
    - ERP.ProductID.Name
12. Click **Next**.

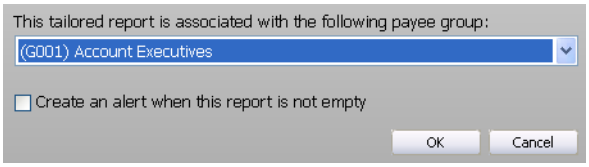


13. Change the **Display Names** to the following:
    - Transaction ID
    - Invoice Date
    - Account Executive
    - Customer
    - Product



14. Click **Finish**.

15. Select the **(G001) Account Executives** from the **Payee Group** list.
16. Click **OK**.



17. Navigate to **Workflow > Assignment**.
18. Select the **Product Sales by Month** Tailored Report.
19. Click under the Access heading and select the **Account Executives - Access** tree.

Exercise 8-1: Create Tailored Report Top Performers

Create the Top Performers Tailored Report. This report shows all Account Executives who have a final monthly payout of $12,000.00 or more. The details of the report should show the following:

Grant access to the report in Varicent Web.

- Account Executive Name
- Reporting Manager Name
- Date of Hire
- Territory
- Month
- Final Payout

Figure 8-4: Top Performers Tailored Report

1. AE Top Performers Account Executive	Reporting Manager	Date of Hire	Territory	Month	Final Payout
Dan Huddle	Doug Karey	1/15/1992	Atlanta	2010, Month 1	$18,322.00
Dan Huddle	Doug Karey	1/15/1992	Atlanta	2010, Month 2	$11,606.00
Dan Huddle	Doug Karey	1/15/1992	Atlanta	2010, Month 3	$11,138.00
Dan Huddle	Doug Karey	1/15/1992	Atlanta	2010, Month 4	$12,942.00
Dan Huddle	Doug Karey	1/15/1992	Atlanta	2010, Month 5	$10,340.00
Dan Huddle	Doug Karey	1/15/1992	Atlanta	2010, Month 6	$12,946.00
Dan Huddle	Doug Karey	1/15/1992	Atlanta	2010, Month 8	$13,016.00
Dan Huddle	Doug Karey	1/15/1992	Atlanta	2010, Month 9	$12,514.00
Dan Huddle	Doug Karey	1/15/1992	Atlanta	2010, Month 10	$14,674.00
Dan Huddle	Doug Karey	1/15/1992	Atlanta	2010, Month 11	$11,417.00
Dan Huddle	Doug Karey	1/15/1992	Atlanta	2010, Month 12	$10,608.00
Diana Young	Doug Karey	3/15/1992	Las Vegas	2010, Month 1	$17,370.00
Diana Young	Doug Karey	3/15/1992	Las Vegas	2010, Month 3	$17,340.00
Diana Young	Doug Karey	3/15/1992	Las Vegas	2010, Month 8	$11,632.00
Diana Young	Doug Karey	3/15/1992	Las Vegas	2010, Month 10	$11,242.00
Herb Allen	Doug Karey	4/4/1992	Los Angeles	2010, Month 7	$12,818.00
Herb Allen	Doug Karey	4/4/1992	Los Angeles	2010, Month 10	$11,996.00
Lianne Kramer	Jane Hallow	6/23/1992	Nashville	2010, Month 6	$12,445.00
Lianne Kramer	Jane Hallow	6/23/1992	Nashville	2010, Month 7	$11,053.00
Lianne Kramer	Jane Hallow	6/23/1992	Nashville	2010, Month 8	$11,828.00
Lianne Kramer	Jane Hallow	6/23/1992	Nashville	2010, Month 10	$12,442.00
Faye Marchant	Jane Hallow	7/13/1992	New York	2010, Month 1	$11,004.00
Faye Marchant	Jane Hallow	7/13/1992	New York	2010, Month 4	$11,190.00
Laurie Reynolds	Jane Hallow	8/2/1992	San Francisco	2010, Month 1	$21,650.00
Laurie Reynolds	Jane Hallow	8/2/1992	San Francisco	2010, Month 2	$19,014.00

Summary

In this chapter we discussed a particular type of report available in the Varicent application called a Tailored Report. You saw through the creation of the Product Sales by Month report how to consider what information needs to be calculated and what information needs to be shown in the details of a report. You also saw with the Product Sales by Month how a Tailored Report can be used to alert you to information in the Varicent application.

Review Questions

1. Describe the difference between a Compensation Plan report and a Tailored Report.

   _____

2. Where are Tailored Reports created?

   _____

3. Where are Tailored Reports viewed?

   _____

Chapter 9

Varicent SPM Tools and Automation

Learning Objectives

By the end of this chapter, you will be able to:

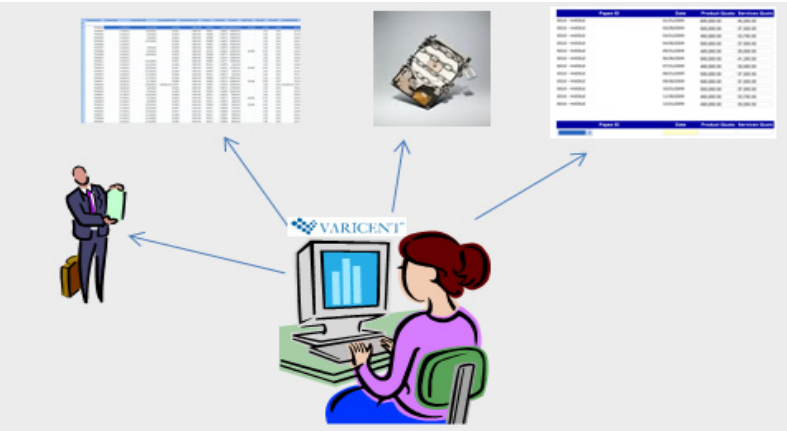
- Describe how to automate recurring tasks using Task Manager and Scheduler.
- Describe how to access and use the Audit Log
- Identify how to lock time periods and create adjustments.
- Describe how to use Web Forms to maintain data.

Overview of Varicent SPM Tools and Automation

Varicent offers a number of tools to help automate such day to day tasks as:

- Maintaining Payee and Workflow Groups.
- Importing, publishing and calculating data on a regular basis.
- Tracking changes to data by users in the Admin client.
- Lock time periods and make adjustments.
- Capture data from payees using Varicent Web.

Figure 9-1: Working with Varicent



Task Manager

Task Manager allows you to automate the maintenance of your payee and workflow group members through the use of group definitions and rules. Task Manager will determine who belongs to which payee or workflow group. On a daily basis Task Manager can produce a list of tasks to be reviewed by you and either run, dismissed or deferred. Tasks that can be configured in Task Manager include the following:

- Adding payees to a Payee Group.
- Removing payees from a Payee Group.
- Adding payees to a Workflow Group.
- Enabling payees for Varicent Web access.
- Removing payees from a Workflow Group.

Task Manager also allows you to configure Alerts to notify you of certain situations. Alerts are enabled under the Alert tab in Task Manager and will be listed under the Tasks & Alerts tab.

Table 9-1: List of Alerts:

Payees exist in more than one plan	Notify if a payee is added to more than one Compensation Plan.
Payees not in a plan	Notify if there are payees who do not belong to a Compensation Plan.
Terminated payees still active in a Payee Group	Notify when a payee's termination date in the payee table does not match their end date in a Payee Group.
Specified Tailored Reports generate one or more rows	Notify when a selected Tailored Report generates one or more rows of data.
Payees termination date is before their plan end date	Notify when a payee's end date in a Payee Group does not match their termination date in the payee table.

Task Manager Groups

Task Manager Groups are used to maintain the members of a Payee Group.

A **Payee or Workflow Group** can have multiple **Task Manager Rules**.

To create a Task Manager Group:

1. Select the **Groups** tab under Task Manager.
2. Right Click on the **Task Manager Group** folder and select **Add Task Manager Group**.

Task Manager Rules

Task Manager Rules are used to maintain the members of the Payee Group and Workflow Group by defining the actions that are applied against the group. Actions can include who should belong to the group and changing end dates for members of the group.

To create a Task Manager Rule:

1. Select the **Rules** tab under Task Manager.
2. Right click on the **Task Manager Rules** folder and select **Add Rule**.

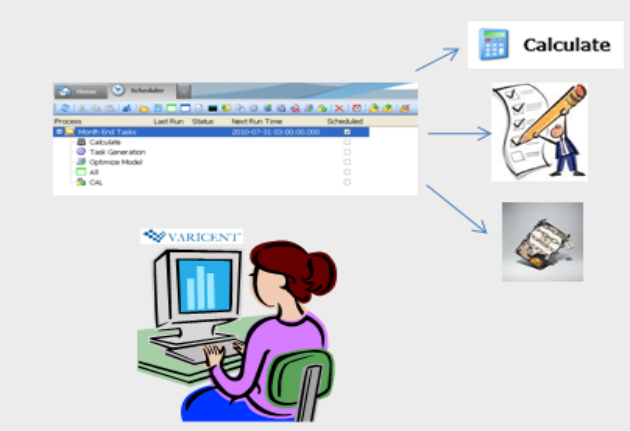
Figure 9-2: Working with Payee and Workflow Groups with Task Manager

Task Manager Rules are configured to a specific **Payee** or **Workflow Group**.

Scheduler

The Scheduler allows you to automate the day to day maintenance of your data. You can schedule processes such as importing data, publishing data, task list generation and full calculations. Processes are grouped into process folders to run sequentially.

Figure 9-3: Working with the Varicent Scheduler



To create a Process Folder:

1. Click the **Add Process** icon.
2. Enter a **Name** for the process.
3. Click **OK**.

To create a Process:

1. Select the process folder the process will reside in.
2. Click on the icon for the process to be scheduled.

To Schedule a Process:

1. Select the process or process folder to be scheduled.
2. Click on the **Schedule Item** icon.
3. Select the time, day of month or day of week and month the process will run.
4. Click **OK**.

Audit

The Audit module allows you to view activities that have occurred in Varicent. You will see under the Audit module a number of tabs related to different log files. Each of these log files will contain information to help you in the day to day administration of Varicent.

Table 9-2: Log Files available under Audit

Audit	Stores all the activities done in the application from web users logging on and off, to data changes done through the tables.
Computation	Stores information related to the calculation engine. When you calculate an item in the application the amount of time required for each calculation and the overall time will be displayed.
Error	Stores information related to errors that occur in the application. This log will store errors such as being unable to connect to the database.
Service Error	Stores information related to errors that occur with the Varicent Service. This log will store errors related to logging into the application.
Import	Stores information related to errors with the importing of data into the tables of the Varicent model.
Export	Stores information related to errors with the exporting of data out of the tables in the Varicent model.
Scheduler	Stores information related to the running of scheduled processes. This log file will show regular running of the task and any errors that may occur.
Task	Stores information related to errors that occur with the generation of the task list for the Task Manager

Web Forms

Web Forms allow you to display and capture data from payees using Varicent Web. Forms that payees fill in such as an inquiry form, request for split, or quota management, can all be created as a Web Form. The data being captured from a Web Form can be placed directly into the table in the database, or can be set for Administrator Approval. Web Forms can be created using any of the Web Form Tools available.

Table 9-3: Web Form Tools:

Add Source	Displays the contents of a source. A source can be calculations, tables, or a combination of both.
Add Value	Displays a single value from a calculation or table. The value can then be used to calculate another value such as an average, total, etc.
Add Row Form	Displays a blank record for data capture. Can input data into a custom or data table.
Add Web Resource	Displays an image, such as a company logo, or a URL link.
Add Multi-Select	Displays information stored in a Territory table.
Add Admin Form	Used to approve or reject data being captured in the web form.

Period Locking and Adjustments

Period Locking gives you the ability to lock a time period, or time periods for a calendar. When a time period is locked the results of any Compensation Plan and transactional data connected with the calendar will also be locked. If you lock the Month 1, 2010 time period in the Monthly Calendar, the Account Executives Compensation Plan and ERP data table for Month 1, 2010 will also be locked.

Once the data in the Compensation Plan and data tables has been locked changes can still be made. Changes to data would happen because of incorrect sales amounts, sales given to the wrong payee or splits not given out correctly. You can make these changes through Adjustments. Adjustments are the delta, either positive or negative, between the locked data and the changes made. There are two types of adjustments; manual and allocated.

Manual adjustments are created as needed. You can create a manual adjustment for a payee as an extra incentive for doing a good job for the month. Allocated adjustments are calculated as part of the Adjustments module in Varicent SPM.

Summary

In this chapter we discussed how Varicent offers you tools to help with the automation of day to day tasks such as maintenance of Payee Groups, importing of data into Varicent SPM, locking time periods, capturing data from payess and tracking activities performed by users in Varicent SPM.

The Task Manager will help you with maintenance of your Payee Groups and Workflow Groups. The Scheduler will help run processes such as importing data, calculating results and locking time periods. The Audit module will help you to see the activities of users in Varicent SPM and track any errors that may occur in the day to day use of Varicent SPM. And Web Forms can be used to capture and display data to payees using Varicent Web.

Review Questions

1. List three items you can accomplish with Varicent Tools and Automation.

2. List two tasks or alerts available in Task Manager.

3. Describe two tools you can use in Web Forms.

Chapter 10

Inside Sales Representatives Lab

Learning Objectives

By the end of this chapter, you will be able to:

- Analyze the business requirements to determine how to build the listed tables and calculations.
- Create tables and calculations required to construct the ISR compensation plan.
- Construct the ISR compensation plan.
- View the ISR compensation plan in Payee Ledger.

Inside Sales Representatives

The Inside Sales Representatives have three components that make up their compensation plan:

1. Base commission, paid on all transactions. Commission rate varies by product.
2. Hardware sales attainment bonus. Tiered scale.
3. Services sales growth bonus. Tiered scale.

Complete the following tasks to construct the ISR compensation plan.

Refer to Chapter 3 for a specific list of requirements.

Base Commission

ISRs receive a specific monthly commission rate depending on the product sold. To calculate the base commission, you need to create a:

- table that contains product commission rates
- monthly base commission calculation

ISRProductCommission table

Your source file is **ISRProductCommission.xlsx**.

Type	Custom			
Name	ISRProductCommission			
Fields	Name	Type	Join with	Primary Key (Y/N)

ISR Product Commission calculation

Name	ISR Product Commission
Type	User Defined
Description	Inside Sales Representatives receive a commission based on the product sold on a monthly basis.
Data Source(s)	
Formula	
Partitions	
Restrictions	

Hardware Sales Attainment Bonus

ISRs receive a monthly bonus based on the number of tiers their total monthly hardware sales satisfy. Each tier has a commission rate associated with it, along with a sales amount.

To calculate this base commission, you need to create a:

- table that contains the hardware sales commission tiers
- calculation that totals monthly hardware sales
- calculation that determines the correct tier

ISRHardwareSalesTier table

Your source file is the **ISRHardwareSalesTier.xlsx** MS Excel spreadsheet.

Type	Custom			
Name	ISRHardwareSalesTier			
Fields	Name	Type	Join with	Primary Key (Y/N)

ISR Hardware Sales by Month calculation

Name	ISR Hardware Sales by Month
Type	User Defined
Description	Inside Sales Representatives total hardware monthly sales.
Data Source(s)	
Formula	
Partitions	
Restrictions	

ISR Hardware Tier Bonus Payout calculation

Name	ISR Hardware Tier Bonus Payout
Type	User Defined
Description	Inside Sales Representatives receive tiered bonus based on their total monthly hardware sales; each tier receives a commission rate.
Data Source(s)	
Formula	
Partitions	
Restrictions	

Services Sales Growth Bonus

The monthly services bonus is based on a month over month growth rate for services sales. Once the ISRs growth rate has been determined, the total current monthly services sales and the growth rate are used to determine what commission rate the ISR is entitled to for this month. The payout is the total current monthly services sales multiplied by the commission rate.

To calculate this bonus, you need to create a:

- table that contains the growth commission rate
- calculation for monthly services sales
- calculation for previous monthly services sales
- calculation that determines the growth rate as a percentage of the previous month

  (current period - previous period) / previous period
- calculation that determines the payout

ISRServicesGrowthRate table

Your source file is **ISRServicesGrowth.xlsx**.

Type	Custom			
Name	ISRServicesGrowthRate			
Fields	Name	Type	Join with	Primary Key (Y/N)

ISR Services Sales by Month calculation

Name	ISR Services Sales by Month
Type	User Defined
Description	Inside Sales Representatives total services sales on a monthly basis.
Data Source(s)	
Formula	
Partitions	
Restrictions	

ISR Last Month Services Sales calculation

Name	ISR Last Month Services Sales
Type	Time Shift
Description	Inside Sales Representatives last month services sales.
Data Source(s)	
Formula	
Partitions	
Restrictions	

ISR Monthly Services Growth Rate calculation

Name	ISR Monthly Services Growth Rate
Type	User Defined
Description	Inside Sales Representatives monthly services growth rate based on current and last month sales.
Data Source(s)	
Formula	
Partitions	

Restrictions	

ISR Services Growth Bonus Payout calculation

Name	ISR Services Growth Bonus Payout
Type	User Defined
Description	Inside Sales Representatives receive a service commission payout based on their growth rate and current services sales.
Data Source(s)	
Formula	
Partitions	
Restrictions	

Final Payout

Using the three components you have just created, build the ISR final payout calculation.

ISR Final Payout calculation

Name	ISR Final Payout
Type	User Defined
Description	Inside Sales Representatives receive a Base Commission, an Hardware Sales Attainment Bonus and a Services Sales Growth Bonus.
Data Source(s)	
Formula	
Partitions	
Restrictions	

ISR Compensation Plan / Payee Ledger Report

Now that you have calculated the compensation for your Inside Sales Representatives, it is time to create their compensation plan so that they can view their results through the Varicent Web client.

The ISR should be able to view transaction details, which sales tiers they satisfied with their current monthly hardware sales, their services growth rate details, and their total monthly compensation payout.

Sample ISR Calculation Results

ISR Product Commission		
PayeeID	**Months**	**Value**
E1017	2010, Month 1	9,740.00
E1017	2010, Month 2	8,653.00
E1017	2010, Month 3	5,770.00

ISR Hardware Sales by Month		
PayeeID	**Months**	**Value**
E1017	2010, Month 1	344,000.00
E1017	2010, Month 2	213,000.00
E1017	2010, Month 3	185,100.00

ISR Hardware Tier Bonus Payout		
PayeeID	**Months**	**Value**
E1017	2010, Month 1	1,535.00
E1017	2010, Month 2	532.50
E1017	2010, Month 3	462.75

ISR Servkces Sales by Month		
PayeeID	**Months**	**Value**
E1017	2010, Month 1	65,000.00
E1017	2010, Month 2	122,150.00
E1017	2010, Month 3	65,900.00

ISR Last Month Servkces Sales		
PayeeID	**Months**	**Value**
E1017	2010, Month 1	0.00
E1017	2010, Month 2	65,000.00
E1017	2010, Month 3	122,150.00

ISR Monthly Services Sales Growth Rate		
PayeeID	**Months**	**Value**
E1017	2010, Month 1	0.00000000000000
E1017	2010, Month 2	0.87923076923077
E1017	2010, Month 3	-0.46049938600082

ISR Services Growth Bonus Payout		
PayeeID	**Months**	**Value**
E1017	2010, Month 1	0.00
E1017	2010, Month 2	30,537.50
E1017	2010, Month 3	250.00

ISR Final Payout		
PayeeID	**Months**	**Value**
E1017	2010, Month 1	11,275.00
E1017	2010, Month 2	39,723.00
E1017	2010, Month 3	6,232.75

Chapter 11

Using Components

Learning Objectives

By the end of this chapter, you will be able to:

- Describe the purpose of components
- Describe how to organize Varicent SPM elements using components
- Describe how security is used with components
- Describe how to enable teams to work independently using components
- Describe how to use component libraries

Overview of Components

Using components you can:

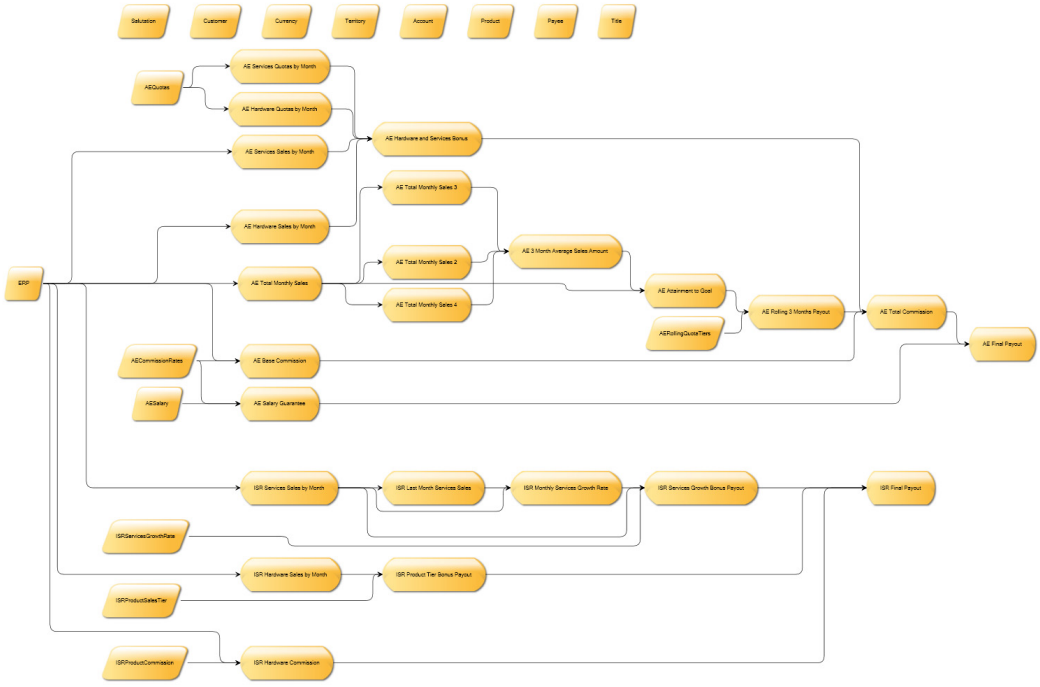
- Organize model elements into logical groups
- Apply security at a granular level to the elements of your implementation
- Enable different teams to work independently on a combined solution

Organizing Model Elements

A complex Varicent implementation could have hundreds of individual Composer elements created by multiple resources, making it difficult to view the implemented solution at a high level.

Figure 11-1 shows the Rivacent Account Executive and Internal Sales Representative solution in an implementation without components. The model elements are logically laid out on the screen, but you have no choice but to view the complete solution.

Figure 11-1: AE and ISR solution without components



There is no single “correct” way to organize your implementation into components. Two possible methods are:

Plan Based

Components are organized by the different compensation plans you have implemented.

Compensation Component Based

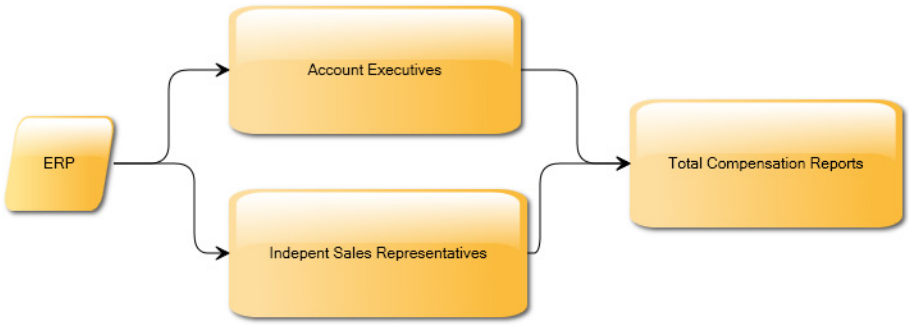
Components are organized by the individual compensation components that are ultimately combined into a compensation plan. For example, AE Base Commission is one component of the Rivacent Account Executive Compensation Plan.

Plan Based Organization

The Rivacent solution consists of two distinct sets of tables, calculations, and reports: the Account Executives compensation plan and the Inside Sales Representative compensation plan. You could base your components on these two plans, with one component containing all tables, calculations, and reports related to the Account Executives and another component containing the corresponding elements for the Independent Sales Representatives.

Figure 11-2 shows a plan based strategy with a component for each compensation plan. The ERP table, which is used by both plans, is in neither component and provides access to its data by means of connections to each component. An additional component has been added, that contains the calculations and reports needed to provide reports on total compensation paid. (These elements were not created in this course.) There is a connection from each compensation plan into this final component.

Figure 11-2: Plan based component strategy



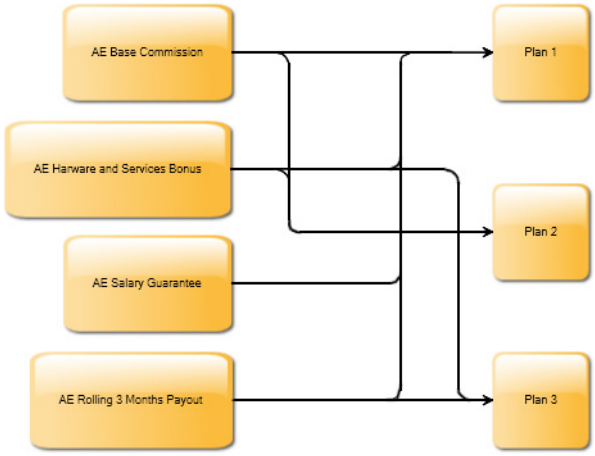
The links between components are called **connections.**

Compensation Component Organization

A company may have 30 compensation plans that are made up of various combinations of 12 compensation components, such as **Base Commission**, **Quota Bonus**, etc. Each of the 12 components consists of one or more calculations. In this situation, you can group the calculations and tables for each compensation component into Varicent SPM components. The Varicent SPM components can then be shared in various combinations to create the different compensation plans.

Figure 11-3 shows four compensation components being used in different combinations to create three different compensation plans. Each component on the left contains one or more calculations.

Figure 11-3: Compensation Component Organization



Applying Security to Components

Regardless of how you organize your model elements, you can apply security at the component level. You can specify View, Edit, and Delete rights for each component in your model.

For example, in the Rivacent model using plan based components, you could configure three roles granting the following access to components:

- One group of compensation analysts who can view only the Account Executives component and can modify the model elements it contains.
- Another group of compensation analysts who can view only the Inside Sales Representatives component and can modify the model elements it contains.
- A group of report creators who have access to only the Total Compensation Reports component.

You can also apply security to the individual elements contained within a component.

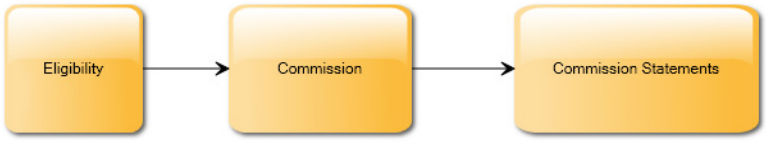
Working Collaboratively

You can use components and connections to enable independent teams to work collaboratively on a solution. Typically, a compensation calculation is the final result of a series of calculations, with one calculation depending on the results of a previous calculation.

For example, Figure 11-4 shows an implementation where one series of calculations determines who is eligible to participate in a particular compensation plan. The next series of calculations determines the commission amounts for the eligible payees. If you don't use components, you cannot create the commission calculations before the eligibility calculations are finished. You could also not start working on the commission statements until the commission calculations have been completed.

Using components, you can create **placeholder** connections between components that define the type of data each component produces. These placeholder connections are then used by dependent components as data sources. Once the data connections have been defined, each team can work at their own speed, without impeding the progress of other teams.

Figure 11-4: Using placeholder connections



Rapid Implementation Using Component Libraries

You can use prebuilt components when implementing a Varicent SPM solution. These components could contain frequently used calculations, standard reports, and other items that can be added to a Varicent SPM implementation.

Summary

Components and connectors allow you to organize model elements. Components can also be used to create a collaborative and secure work environment. Working with components and connectors is an advanced topic and is covered in other training classes. Prebuilt components consisting of frequently used calculations, reports, forms, etc. can reduce your implementation effort.

Review Questions

1. List three reasons you would use components.

2. What are two methods for organizing model elements into components?

3. Give an example of how you would apply security to a component?

4. Why would you use placeholder connections?

Chapter 12

Hardware Science Case Study

Learning Objectives

By the end of this chapter, you will be able to:

- Create a Varicent model based on business requirements
- Import source data
- Design and create calculations to arrive at compensation results
- Create reports according to business requirements

Hardware Science Case Study

In this case study you will use the knowledge and skills gained in the Incentive Compensation Management I course to analyze business requirements and produce a complete Varicent solution according to business requirements.

Hardware Science Overview

Hardware Science is a subsidiary company of Rivacent Inc. Rivacent purchased Hardware Science to expand their services offerings to include consulting. Rivacent has decided to engage Varicent to implement a solution for the consultant group at Hardware Science.

Services

Hardware Science sells consulting services to help clients with their implementations.

Customers

Hardware Science has many of the same clients as Rivacent.

Employees

Hardware Science currently employs 46 consultants. The consultants are divided into three regions: East, West and Central. All consultants report to a Regional Manager.

Accounting at Hardware Science

The Hardware Science fiscal year is July 1 to June 30.

Hardware Science Project Goals

Hardware Science is looking for the following functionality with their Varicent implementation:

- Accurate calculation of the consultants' compensation.
- Display the results to each individual consultant when they login to Varicent Web.
- Create the Consultant Utilization, Total Hours per Client, Manager Summary and A/R Collections reports.

Consultant Compensation Plan

This compensation plan is intended for Hardware Science consultants. The plan is aimed at encouraging the consultant to perform efficiently and with great regard for time lines and billing. There are two pieces to this compensation plan.

Monthly Base Commission

A base commission is awarded to each consultant at a rate of 3% per dollar of billable revenue.

Tiered Monthly Utilization Bonus

Consultants are paid a bonus if they achieve a certain tier of utilization. Utilization is calculated assuming 160 hours per month (hours worked / 160). There are no adjustments for vacation, holidays or overtime. The consultant receives a payout for the achieved tier.

Utilization%	Bonus
0 - 40	$0
40 - 50	$100
50 - 60	$150
60 - 70	$200
70 - 80	$250
80 - 90	$300
90 - 100	$350
100 - 125	$400
125 +	$450

Consultant Commission Statement

The commission statement must show:

- Base commission details
- Base commission total
- Utilization bonus amount
- Utilization bonus range
- Total payout

Reporting at Hardware Science

Four reports have been identified as requirements for the Hardware Science implementation.

Consultant Monthly Utilization Report

Shows the utilization of all consultants on a monthly basis.

The report includes:

- consultant name
- consultant's title
- consultant's manager
- number of hours worked for a month
- month
- consultant's utilization rate for the month

Figure 12-1: Consultant Monthly Utilization Report

1. Consultant Monthly Utilization Consultant	Reports To	Month	Hours Worked	Utilization
Willis Endsley	Booker Kistler	2010, Month 1	154.00	96.25 %
Willis Endsley	Booker Kistler	2010, Month 2	181.00	113.13 %
Willis Endsley	Booker Kistler	2010, Month 3	124.00	77.50 %
Willis Endsley	Booker Kistler	2010, Month 4	134.00	83.75 %
Willis Endsley	Booker Kistler	2010, Month 5	88.00	55.00 %
Margery Scott	Booker Kistler	2010, Month 1	115.00	71.88 %
Margery Scott	Booker Kistler	2010, Month 2	128.00	80.00 %
Margery Scott	Booker Kistler	2010, Month 3	73.00	45.63 %
Margery Scott	Booker Kistler	2010, Month 4	112.00	70.00 %
Margery Scott	Booker Kistler	2010, Month 5	67.00	41.88 %

Total Hours per Client Report

Shows the total number of hours worked on each client project.

The report includes:

- client name
- contract start date
- consultant name
- hours

Figure 12-2: Total Hours per Client Report

1. Total Hours per Client Client	Contract Start Date	Consultant	Hours
Devlin MacGregor	9/27/2004	Moss Patton	7.00
Devlin MacGregor	9/27/2004	Rhoda Fitzgerald	4.00
	C10000	2010, Month 1	11.00
Devlin MacGregor	9/27/2004	Porsche Hughes	2.00
Devlin MacGregor	9/27/2004	Terance Coughenour	10.00
	C10000	2010, Month 2	12.00
Devlin MacGregor	9/27/2004	Sheree Warner	11.00

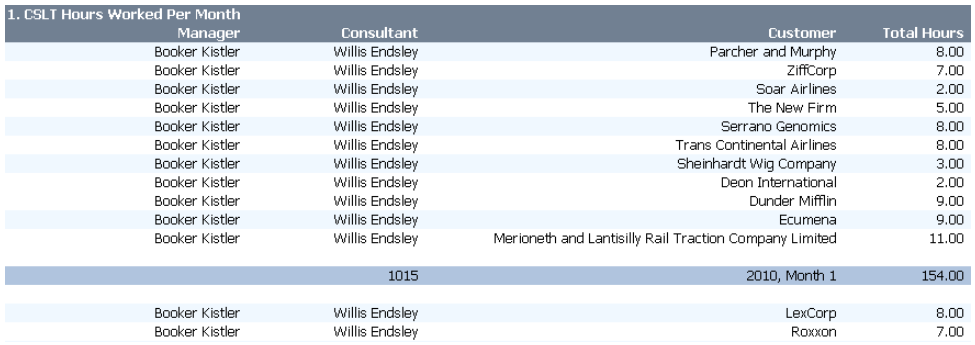
Manager Summary Report

Shows the details of all consultants' hours and the manager they report to.

The report includes:

- manager name
- consultant name
- client name
- hours worked

Figure 12-3: Manager Summary Report



1. CSLT Hours Worked Per Month			
Manager	Consultant	Customer	Total Hours
Booker Kistler	Willis Endsley	Parcher and Murphy	8.00
Booker Kistler	Willis Endsley	ZiffCorp	7.00
Booker Kistler	Willis Endsley	Soar Airlines	2.00
Booker Kistler	Willis Endsley	The New Firm	5.00
Booker Kistler	Willis Endsley	Serrano Genomics	8.00
Booker Kistler	Willis Endsley	Trans Continental Airlines	8.00
Booker Kistler	Willis Endsley	Sheinhardt Wig Company	3.00
Booker Kistler	Willis Endsley	Deon International	2.00
Booker Kistler	Willis Endsley	Dunder Mifflin	9.00
Booker Kistler	Willis Endsley	Ecumena	9.00
Booker Kistler	Willis Endsley	Merioneth and Lantisilly Rail Traction Company Limited	11.00
	1015	2010, Month 1	154.00
Booker Kistler	Willis Endsley	LexCorp	8.00
Booker Kistler	Willis Endsley	Roxxon	7.00

A/R Collections Report

Shows all the billable revenue generated by the consultants.

The report includes:

- client name
- number of hours worked
- billable rate
- billable revenue
- total billable revenue as a separate item at the bottom of the report

Figure 12-4: A/R Collections Report

1. AR Collections Report			
Customer	Hours	Rate	Total Billable
Devlin MacGregor	11.00	150.00	$1,650.00
Dharma Initiative	19.00	125.00	$2,375.00
Ecumena	11.00	175.00	$1,925.00
Hilmar Cheese	11.00	165.00	$1,815.00
Hanso Foundation	15.00	120.00	$1,800.00
InGen	7.00	150.00	$1,050.00
Khumalo	12.00	125.00	$1,500.00
Medical Mechanica	13.00	175.00	$2,275.00

Case Study Specifications

- The Hardware Science solution must be implemented in a new model.
- The Hardware Science source data is all stored in one Excel file. Each table's data is stored on a separate tab in the Excel file. The data file is:

  Desktop\Varicent Training Files\Hardware Science\Hardware Science Case Study Data.xlsx
- The commission statement and the reports must be accessible via Varicent Web. Instructions for reconfiguring the web server to use the Hardware Science model are below.

Reconfiguring the Web Server

To reconfigure the web server to use the Hardware Science model:

1. Double-click the **jdbc.properties** icon on the desktop. The file opens in WordPad.

   NOTE: If there is no **jdbc.properties** icon on the desktop, open this file with WordPad:

   C:\Program Files\Apache Software Foundation\Tomcat 6.0\webapps \varicent\WEB-INF\jdbc.properties
2. Locate the following line, which contains the name of the Varicent database:

   `jdbc.url=jdbc:jtds:sqlserver://localhost:1433/Rivacent`
3. Replace **Rivacent** with the name of your Hardware Science model.

   NOTE:

   - If your model name contains a space, the space is replaced with an underscore in the database name: Hardware Science > Hardware_Science
   - If your model name contains an underscore, the underscore is removed in the database name: Hardware_Science > HardwareScience
   - The database name is case sensitive.
4. Save the changes to the jdbc.properties file and close WordPad.
5. Navigate to **Start > Control Panel > Administrative Tools > Services**.
6. Right-click the **Apache Tomcat 6** service and select **Restart**. When the service restarts, close the **Services** window.
7. Open a web browser window; the Hardware Science login screen appears.

Sample Calculation Results

Monthly Base Commission		
PayeeID	**Months**	**Value**
1015	2010, Month 1	709.65
1015	2010, Month 2	807.45
1015	2010, Month 3	570.60

Tiered Monthly Utilization Bonus		
PayeeID	**Months**	**Value**
1015	2010, Month 1	350.00
1015	2010, Month 2	400.00
1015	2010, Month 3	250.00

Final Payout		
PayeeID	**Months**	**Value**
1015	2010, Month 1	1,059.65
1015	2010, Month 2	1,207.45
1015	2010, Month 3	820.60