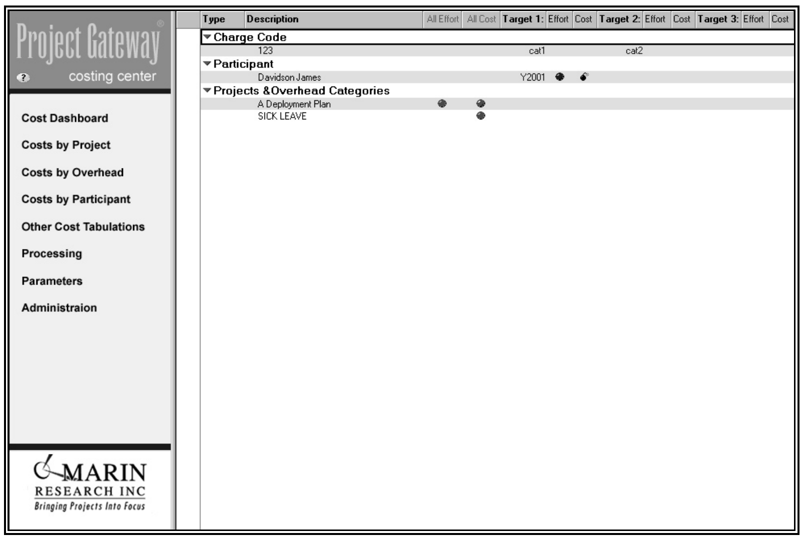
Using the Costing Center

Overview

Costing Center is a specialized database that computes and tabulates project and departmental costs from timesheets or charge slips reported in Repository Center. Costs are tabulated in a series of views. Selected projects, participants, and accounts are shown on the Costing dashboard.



Actual project cost information is reported to a Project Observatory system if one is provided.

Costing Center supports both Note clients and Web browsers.

The PG6 Costing implementation incorporates new override rules and the ability to insert adjustment records.

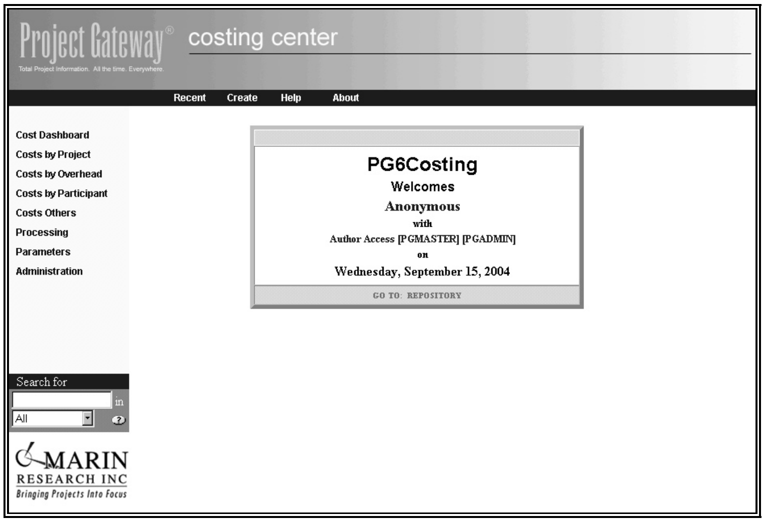
Administration

The Costing Administration Profile

Exactly one document of this type must exist in the database. It should be created when the database is first installed using the Create - Other command.

The instructions for completing this form are found in the Project Gateway Administration Manual.

Costing Workflow



Costing Center opened with a web browser

Repository Center has the original documents that are used to feed the Costing Center. These are:

1. Posted Timesheets
2. Approved ChargeSlips

The Repository Agent "PgCostingLink" processes these documents and creates new Billing Records in the Costing Center.

New billing records are processed by the "ProcessCosts" agent of the Costing Center application. Each Billing Record results in the creation of one or more Computed Cost Records.

A Billing record cannot be processed until the control documents for the specified project and participant have been prepared.

If either the Costing Category Profile or Participant Cost Rate Definition documents do not exist, they will be automatically created and marked for manual review.

When such manual intervention is required, the billing record is put into a "pending" status. It will be processed automatically when the required profiles are available. This manual intervention is required in order allow entry of the information needed for calculating the costs such as the account codes and hourly rates.

Computed Cost Records are the final result of the system and are tabulated in a variety of convenient views.

The UpdateDashboard agent will find all computed cost records for each project, participant and account and tabulate the total cost and the cost for selected periods.

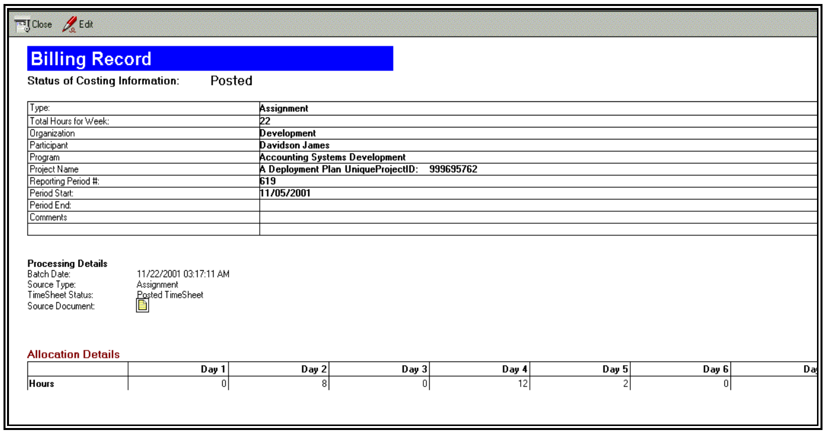
This agent sends email alerts to project owners if the actual cost exceeds one of the specified target (budget) amounts.

Data Records

Billing Records

These are produced from the repository timesheet or charge slips by a Repository Center agent. They are the input to the Costing Center application.

Here is an example of a billing record created from a timesheet by the Repository Center PGCostingLink Agent.


Close Edit

Billing Record

Status of Costing Information: Posted

Type:	**Assignment**
Total Hours for Week:	22
Organization	**Development**
Participant	**Davidson James**
Program	**Accounting Systems Development**
Project Name	**A Deployment Plan UniqueProjectID: 999695762**
Reporting Period #:	**619**
Period Start:	**11/05/2001**
Period End:	
Comments	

Processing Details
Batch Date: 11/22/2001 03:17:11 AM
Source Type: Assignment
TimeSheet Status: Posted TimeSheet
Source Document:

Allocation Details

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Da
Hours	0	8	0	12	2	0	

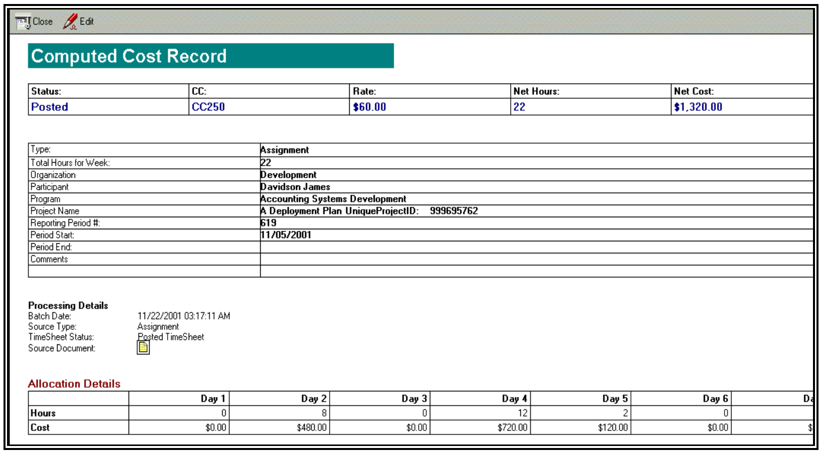
Note that the billing record contains all the details about the participant and project and a day by day summary of the hours reported on the timesheet from which the billing record was created.

Billing records also contain doclinks to the originate timesheet or charge slip. Because timesheets and ChargeSlips will eventually be deleted from the repository, the links may not always be valid.

Computed Cost Records

These are produced by the Costing Center agents. They are the output of the Costing Center application and are tabulated in a variety of views. Cost records are designed so that they can be processed using standard query tools such as Notes Reporter.

Here is an example of a cost record created from the billing record shown above. Note that daily costs are calculated, even though the records themselves are usually for week periods.



Control Documents

There are three kinds of control documents used in this database.

Account Definition

These documents define a cost account and specify which participant labor rate is used when calculating costs for that account.

You must manually create these documents.

Participant Cost Rate Definition

These documents identify an individual and specify one or more hourly cost rates for that individual.

These documents are automatically created but you must add cost rate information before they can be used to process billing records.

Costing Category Profile

These documents identify either a project or an overhead (non-project) category. They define how charges made to the entity are distributed to accounts.

These documents are automatically but you must add account information before they can be used to process billing records.

Within the profile, "Special Billing" subcodes can be defined. Costs made to this subclassification can be specially allocated and tabulated.

Using the Costing Center

The Costing Center Navigator provides access to the Costing Dashboard, which is displayed automatically when the view is opened.

Cost Dashboard

Each costing category, account code or participant can have targets for actual hours and actual costs set for specific time periods. These targets are defined using a table within each profile. An overall target can be defined for total hours and cost and up to 4 individual targets can be set for designated time periods. Agents tabulate the costs against these targeted periods and store their results in the profiles. All profiles that contain targets are shown on the costing dashboard view.

In the cost dashboard, green indicates that the actuals are less than or equal to the target, blue indicates that the actuals are between 100 and 115% of target, red indicates 115% to 150% of target, and the "bomb" symbol indicates an overrun of greater than 50%.

An option can be specified in each profile to send an email alert message when a change occurs that will cause the display of a red or bomb indicator.

Cost Tabulations

by Project

This groups costs for projects only by project and then by participant.

by Overhead

This groups costs for overhead categories only by category and participant.

by Participant

This groups costs by participant and then by project.

by project and year

This groups costs by project, then by year, then by date.

by date and category

This groups costs by Year, Quarter Program, Project, Participant and Account Code. Subtotals are created at every level of detail.

by date and account code

This groups cost records by Year, Quarter, Account Code, Category and Participant.

by date and participant

This groups cost records by Year, Quarter, Organization, Participant, Program, Project/OverheadCategory and Account Code.

by category and account code

This groups costs by Program/Project or OverheadCategory, Account code, Yea, Quarter, Organization and Participant.

by category and participant

This organizes cost records by Program/Project or Overhead Category, Organization and Participant, Year, Quarter and Account Code.

by account code and date

This organizes cost records by Account Code, Quarter, Category and Participant.

The Processing Navigator

Waiting for User Action

This view lists documents that require additional information before they can be used. It also lists billing records that require manual approval because of settings made in control documents being used for that record.

The administrator should edit each item in this list, provide the required information, then save the updated document so that it can be used for processing the billing record(s) that may be waiting for it.

Once all information is available, the processing agent will process the pending billing records on its next cycle.

Waiting for Information

This view shows the billing records that are "pending" because one or both of the required control documents are marked as Waiting for User Action.

All items in this view will be reevaluated each time the Process Costs agent is run to see if they can be processed.

Waiting for Processing

This view shows new, recently created billing records that have not yet been processed by the Process Costs agent.

Processed Billing Records

These three views show billing records that have been completely processed. They are retained to provide backup to the computed cost records.

Rejected Data

This view will show any billing records that could not be processed because of some invalid or missing information. It will normally be empty.

The Parameters Navigator

This provides access to the three kinds of control documents used in cost processing.

Costing Profiles

This lists the overhead categories and projects that have been established for cost calculation. Next to the name is a red X or green Checkmark depending upon whether the record is ready for use or not. New records created by the agents will be in the X status. You must fill in the required fields in order to enable them.

Next are columns showing the actual costs reported and target costs set for each item.

Participant Cost Rate Definitions

This lists the participants that have been established for cost calculation. Next to the name is a red X or green Checkmark depending upon whether the record is ready for use or not. New records created by the agents will be in the X status, you must edit them in order to enable them.

Next are columns showing the actual costs reported and target costs set for each item.

Account Definitions

This lists the accounts that have been defined and totals for each. One account may be shared by many or all projects.

All Documents In Database

This view provides access to all documents for support purposes.

Costing Center Control Documents

Costing Category Profiles

Project Name or Category Name

This will have been preset.

Unique ID (only for Projects)

This will have been preset.

Status

Incomplete - the default setting. You must change this to enable processing.

Ready to Distribute Costs - set this when you have completed defining the profile.

No Longer Used - set this when no more costs are to be accepted from this project or category.

Approval of incoming records

Approve Automatically - Default, costs are computed from each new billing record without any manual intervention.

Require Manual Approval - Each new billing record for this category will be put into the "Waiting for Manual Approval" list until it is manually approved for costing.

Standard Cost Allocation Table

This table lists from one to 20 account codes and the percentage of the labor hours or direct charges that should be allocated to each account.

You must insert at least one account code in this table and the total allocation must equal 100.00%.

Description

This is an optional description for the category.

Special Cost Allocation Table

Note: When opened for a non-project category the Special Cost Allocation Table is not shown.

This is a table that defines how special billing codes are handled when put on charge slips billed to this project. If you do not use charge slips or do not have any special codes for them, ignore this section.

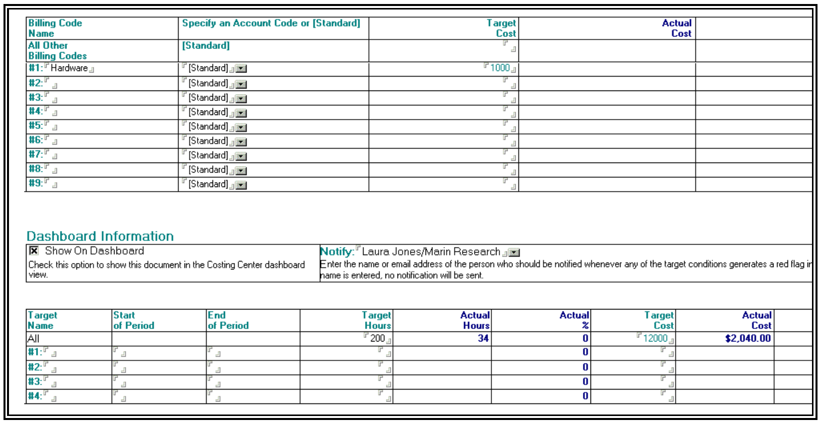
Special Billing Code Name: Enter the same name that will be used on project charge slips.

*Specify Account Code or [Standard] :*Select an specific account code or select [Standard] and the system will distribute to the accounts defined in the Standard Cost Allocation Table for this project.

Target Cost: Optional - enter a budget value for this subcategory of cost.

Actual Cost: The costing center agents will update this value periodically from the cost records in the database.

Actual Cost %: This is computed as the ratio of actual cost to the target cost.



Billing Code Name	Specify an Account Code or [Standard]	Target Cost	Actual Cost	
All Other Billing Codes	[Standard]			
#1: Hardware	[Standard]	1000		
#2:	[Standard]			
#3:	[Standard]			
#4:	[Standard]			
#5:	[Standard]			
#6:	[Standard]			
#7:	[Standard]			
#8:	[Standard]			
#9:	[Standard]			

Dashboard Information

☒ Show On Dashboard Check this option to show this document in the Costing Center dashboard view.	Notify: Laura Jones/Marin Research Enter the name or email address of the person who should be notified whenever any of the target conditions generates a red flag i[n] name is entered, no notification will be sent.

Target Name	Start of Period	End of Period	Target Hours	Actual Hours	Actual %	Target Cost	Actual Cost	
All			200	34	0	12000	$2,040.00	
#1:					0			
#2:					0			
#3:					0			
#4:					0			

Dashboard Information

Show On Dashboard: Set this checkbox to show this category on the Costing Dashboard

Notify: Enter a UserID or email address here and you will receive an email when any of your dashboard targets change to a "Red" State.

Dashboard Target Table

Target Name: Up to 4 custom targets can be specified. The target will appear in the Costing Dashboard view only if a "non-blank" name is entered in this column.

Start of Period: This is the start of the time period for this target (e.g. 1/1/98)

End of Period: This is the end of the time period for this target (e.g. 4/1/98)

Target Hours: This is your total cost budget for this period

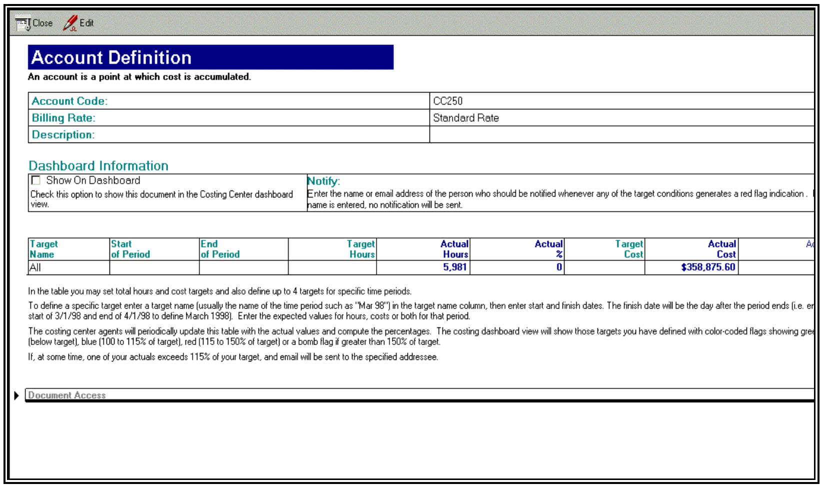
Actual Cost: The system will periodically update this field with the total of the cost records for this period.

Actual Cost %: This is computed as the ratio of actual cost to the target cost.

When your costing category profile is complete, it should have the status set to "Ready to Distribute Costs", and one or more account codes entered in the standard cost allocation table. All other fields are optional.

Account Definitions

Because account codes are required in order to complete Costing Category Profiles, you will need to create one or more of them using the "create a new account" item.



Account Code

Enter an account code name. You many optional precede it with a group name. You must ensure that each account name is unique.

For Example:

CC250

Engineering\CC250

Billing Rate

Select one of the five participant rates from the list. The standard rate is the first rate of each participant. The last rate is listed is always rate zero which means that a cost of zero will be computed. Note, if you use a rate, the participant must have that rate defined.

Description

Enter a description for this account

Dashboard Information

Show On Dashboard: Set this checkbox to show this account on the Costing Dashboard

Notify: Enter a UserID or email address here and you will receive an email when any of your dashboard targets change to a "Red" State.

Dashboard Target Table

Target Name: Up to 4 custom targets can be specified. The target will appear in the Costing Dashboard view only if a "non-blank" name is entered in this column.

Start of Period: This is the start of the time period for this target (e.g. 1/1/98)

End of Period: This is the end of the time period for this target (e.g., 4/1/98)

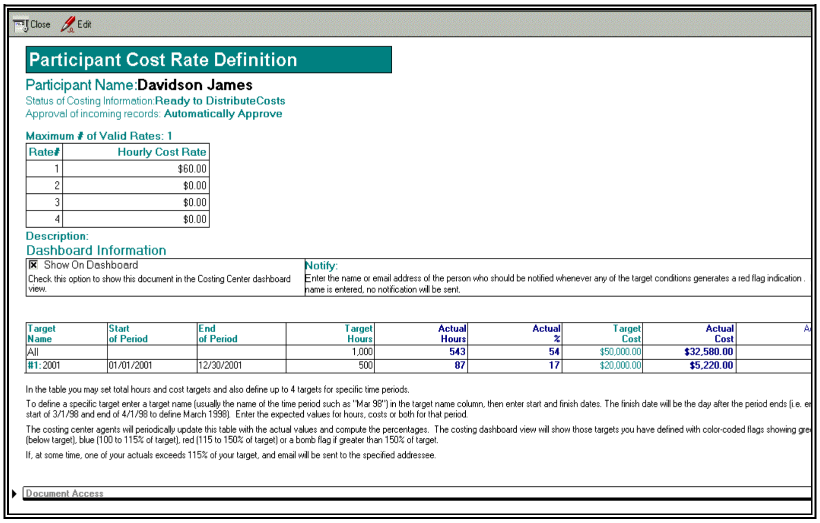
Target Hours: This is your total cost budget for this period for this account.

Actual Cost: The system will periodically update this field with the total of the cost records for this period for this account.

Actual Cost %: This is computed as the ratio of actual cost to the target cost.

Adjustment

Participant Cost Rate Definitions



Participant Name

This will be preset when the form was created.

Status of Costing Information

Incomplete - the default setting. You must change this to enable processing.

Ready to Distribute Costs - set this when you have completed defining the profile.

No Longer Used - set this when no more costs are to be accepted from this project or category.

Dashboard Target Table

Target Name: Up to 4 custom targets can be specified. The target will appear in the Costing Dashboard view only if a "non-blank" name is entered in this column.

Start of Period: This is the start of the time period for this target (e.g., 1/1/98)

End of Period: This is the end of the time period for this target (e.g., 4/1/98)

Target Hours: This is your total cost budget for this period

Actual Cost: The system will periodically update this field with the total of the cost records for this period.

Actual Cost %: This is computed as the ratio of actual cost to the target cost.

How Costs Are Calculated

This section describes the standard method for cost calculation. The following sections describe how to create *override rules* to change the cost rates for specific situations and *ledger adjustments* for correcting cost and hour totals.

Selecting Accounts for Non Project Costing Categories

The target account is defined by the Standard Cost Allocation Table in the Costing Category Profile. Up to ten account codes may be specified with percentages for each. Percentages must add to 100%.

Selecting Accounts for Project Costing Categories

Standard Case - If no special billing code is provided, then Standard Cost Allocation Table in the Costing Category Profile defines the target accounts to which costs will be assigned. Up to ten account may be specified with a percentage allocated for each. Percentages must add to 100%.

Special Case - If a special billing code has been provided, then the Special Cost Allocation Table is used. For each named billing code, the table can specify either to use the Standard Cost Allocation Table, or to a single specific account code for these costs. If the billing code is not listed in the Special Cost Allocation Table, then the Standard Cost Allocation Table is used.

Note: In the released version of Project Gateway, a special billing code can only be specified from a Charge Slip.

Calculating Account Cost for Labor

Labor hours for each participant are allocated on a percentage basis to one or more selected accounts.

For each account, the account code definition document designates which of the participant's labor rates is multiplied by the allocated hours to produce the cost.

Distributing Account Costs for Non-labor charges

Billed costs are allocated on a percentage basis to one or more selected accounts.

Billing records and the generated cost records can be examined using the views provided on the processing navigator.

Data Flow Example:

User Pat enters into their timesheet document in Repository Center 5 hours on November 15 on assignment "Write Spec" in "Project-17."

The PGCostingLink agent will read the posted timesheet in Repository Center database and create a billing record in the Costing Center database.

The Admin\ProcessCosts agent in the Costing Center will make sure that an approved Participant Cost record exists for "Pat" and that an approved Costing Category Profile exists for "Project-17."

Assume that the Participant Cost Rete Definition record for "Pat" contains the standard rate is $84/hour.

Assume that the Costing Category Profile record for "Project-17" Standard Cost Allocation Table allocates 60% of the cost to Account "CC1257" and 40% to Account "CC84."

Using this information, the Admin\ProcessCosts agent will create two new cost records from the billing record. In this example, one cost record would be 3 hours, $252 for CC1257 and the second cost record would be 2 hours, $168 for CC84.

Thus, the totals for both Pat and for Project-17 would be increased by $420 and 5 hours. The totals for the individual accounts would be increased by $252 and $168 respectively.

Override Rules

An "Override Rule" is a document that instructs the system to calculate costs in a nonstandard way for a particular project.

An Override Rule document is created by the "Override Rule" action on the Costing Category Profile document for a particular project.

This feature creates great flexibility in that you may set an arbitrary hourly rate for a particular person in a particular account for a particular project.

The Costing Override Rule Form

Participant:

This is a droplist that allows you to select a specific participant, or all participants.

Note, if you make an rule for a participant who is never billed to the project it will have no effect.

Account Code:

This is a droplist that allows you to select a specific account code used on the costing profile, or [Any] so that the rule applies to all account codes.

Note that, if you make a rule for an account code that is never used on the project, it will have no effect.

Billing Rate:

This is a droplist that allows you to specific one of the 4 standard participant cost rates, plus zero, plus the option to specify a custom rate If "Custom" is selected, you must enter that rate value on the next line.

How Override Rules are applied

Whenever a cost is to be calculated for the specified combination of category (project), participant, and account code, the system will apply the cost rate set by the rule form rather than use the default calculation

The system looks for an override rule starting from the most specific case and then moving to the more general case.

1. First, it looks for a rule for the specific account code, participant, and costing category.
2. Next, it looks for a rule for the specific participant and costing category (such a rule will have the account code field set to "Any")
3. Next, it looks for a rule for the specific account code and costing category (such a rule will have the participant field set to "Any")
4. Finally, it looks for a rule for the costing category wherein both the participant and account codes are set to "Any"

The first override rule that is found will be applied.

If no rule is found, the standard cost calculation will be used (i.e. the account code will set the rate# and the participant cost profile will set the rate)

The Costing Override Rule View

This view shows all rules grouped by project.

Information shown in the Cost Record.

Cost records that are based on override rules will be annotated and will contain a link to the rule used.

Creating Ledger Adjustments

The Costing Ledger Adjustment form allows an administrator to directly enter special cost records into the system to make positive or negative adjustments to the various category and dashboard totals. These special records are called "Cost Ledger Adjustment Records."

To create a Cost Ledger Adjustment Record, open the costing category and click on the "Ledger Adjustment" action.

The Costing Ledger Adjustment Form

Participant

This is required. You must select a participant. Note that since no calculation is done, the rates set on the participant have no effect.

Account Code

This required. You must select an account code. Note that since no calculation is done, the cost rate rule set on the account code has no effect.

Billing Date

Required. The billing period will begin on the Monday of the week that contains the billing date that you enter.

Reason

Required. You must explain the purpose of this adjustment.

Adjuster

The name of the creator of the adjustment is shown in this field.

Table of Hours and Costs

This seven column by two row table is where you enter the hours and costs for each workday in the billing period.

No calculation is done on these numbers. If you want hours and costs to be related by a common factor, you must manually compute it.

Hence, you can enter costs without hours and vice versa. You can put costs entirely on a single day if you want.

You can enter both positive and negative values for hours and costs. Negative values will be displayed in ( )'s in the cost views.

Cost Ledger Adjustment Records

Ledger Adjustments create *Cost Ledger Adjustment Records* that are totaled in views and in dashboard totals for participants, accounts, and costing categories in exactly the same way as Cost Records.

When a Cost Ledger Adjustment Record is opened, it will display its distinctive heading banner, the name of its creator, the date of creation and the reason given.