Effectively Using Allocations

Summary

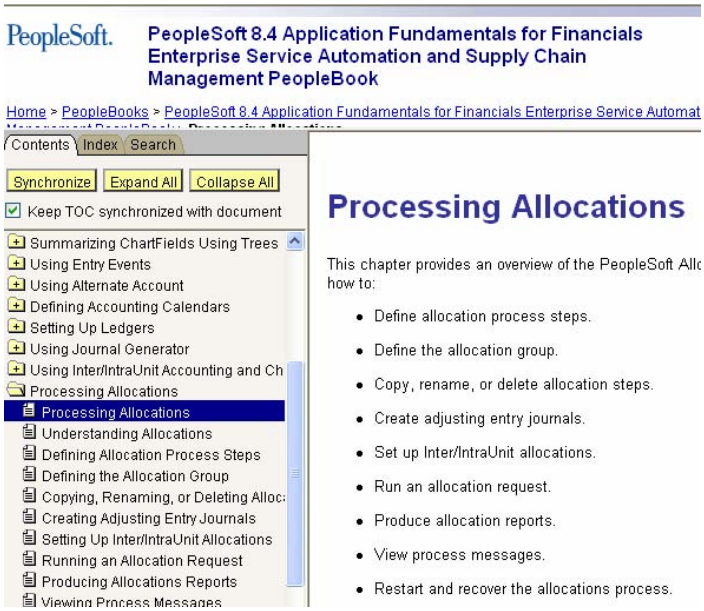
The allocation functionality in Peoplesoft General Ledger has significant functionality beyond merely allocating rental costs. There is a way to allocate department costs to other departments in two allocation steps regardless of the number of department codes. There is a way to calculate depreciation for departments based upon department volumes. There is a way to correct department coding of selected project codes. **By using creativity in the use of trees, additional chartfields, and applying the imbedded logic, the functionality can become an effective tool to generate journal entries.. In this presentation, learn about creative techniques to solve business problems.**

Introduction

The ALLOCATION function has been one of the surprises in the PEOPLESOFT application. At first it appeared to be a very basic method to allocate rental costs. But after examining its parts, it became clear that much was programmed into the function.

The addition of some creativity to the features in the application meant that many of our business processes could be solved.

The PEOPLEBOOKS (refer to Application Fundamentals for Financials PeopleBook) does not indicate how the functionality can be used. It describes the terms and provides the usual square footage example. There is another example which shows the effect of GROUP BY. It is through experimentation and following the calculations that the opportunities were discovered.



Petro-Canada acquired the General Ledger application in 1993 (Version 1). We added Accounts Payable in 1999 and have used the PEOPLETOOLS to create joint venture processes rather than acquiring additional modules. We are currently on Version 8.42 and in the process of upgrading to Version 9.0.

The following is about our journey in the use of ALLOCATIONS. If you are not familiar with the terms and structure of the allocation function, refer to Appendix A.

The Whole is Greater than the Parts

The individual parts are needed to do the usual allocation of costs. In the usual situation, there is a rental cost to be charged to departments based upon the occupied square footage. To do this the allocation functionality had to prorate the rental cost. It did this by the calculation of POOL (rental cost) X (arithmetic operation) cost centre square footage divided by total square footage (PRORATA BASIS).

To see that the functionality used a formula (POOL, OPERATION, BASIS, equals RESULT) means that anything that can fit the formula can be ‘allocated’. If the BASIS is a number then the calculation can transform the POOL. If the BASIS is one part divided

by the sum of the parts, then it is a PERCENTAGE (a percent is a special case where the sum is 100); and the calculation can apply any percentage to a POOL.

By defining the 'allocation' as a 'calculation', enables many business problems to be solved. The table below shows the business processes to which the allocation functionality has been applied. The numbers after each allocation refer to the discussion below.

Allocation	**Description**
Vehicle (1d)	Vehicle allocated vehicle account
Facility (1d)	Facilities allocated to same account
Fuel (1d)	Facility 6911310 allocated to specific account,
BC Gathering (1a)	Midstream revenue, 376078, transferred to expense, 600123
Mineral Tax (1a)	Expense 60_205 transferred to Revenue 301390
Financial Planning (1a)	Transfer Centre G30855, G30856 to Payroll Burden account
Jedney (1c)	Transfer department 4698275 based on clearing percentage
AFE Transfer (1b)	Transfer costs for identified projects from one department to another department code
AFE Accrual (2b)	Calculates the amount to be accrued for projects
Work in Progress (1a)	Transfer costs based on WIP_IND tree to Capital or Expense
Lease Amortization (2a)	Calculate depreciation on the unproved land
Volume setup (2c)	Set up the volume in the depreciation accounts
Unit of Production (2c)	Calculate the unit of production depreciation based on volume
East Coast (1c)	Transfer costs of DE5020 per clearing percentages
Administrative Costs (1c)	Transfer administrative costs from cost centre to budget cost centres
IT Allocation (1c)	Transfers costs of IT projects to business cost centres
North of 60 (1c)	Transfers costs from DE7291 based on clearing percentage
Exploration (1d)	Transfers administrative expenses to exploration expense
Alaska (1a)	Move costs from a business unit with one ledger group to a multibook business unit (another ledger group)

Moving Costs from the POOL to the TARGET (1)

In the beginning, ALLOCATION did not have all of the types that it does today. The types today are an evolution of the uses to which ALLOCATION was put.

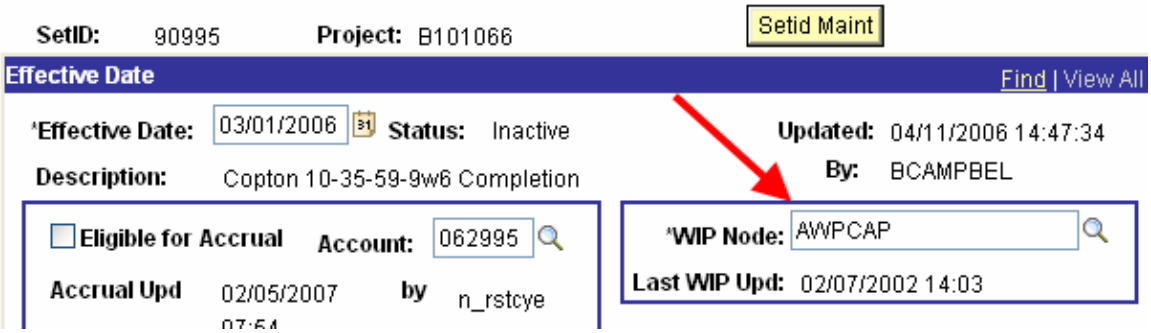
Our first use of ALLOCATION in a non allocation way was to enable reclassification of costs. Today, this is an example of COPY.

Moving All Costs to a Specified Target (1a)

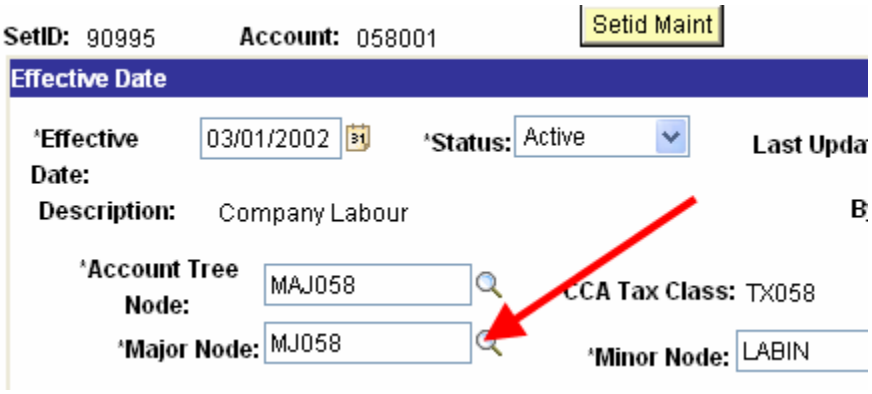
The problem was that a work (Construction) in progress project code would change from "in progress" to 'capitalized' or 'expensed'. We needed to move all of the costs out of the 'in progress' accounts (POOL) (OFFSET) and record them in the new account (TARGET) depending upon a project attribute. The capital or expense account depended upon the cost account (POOL). In order to use the ALLCOATION we needed to

1. Identify the projects that had changed status
2. Determine the TARGET account from the POOL

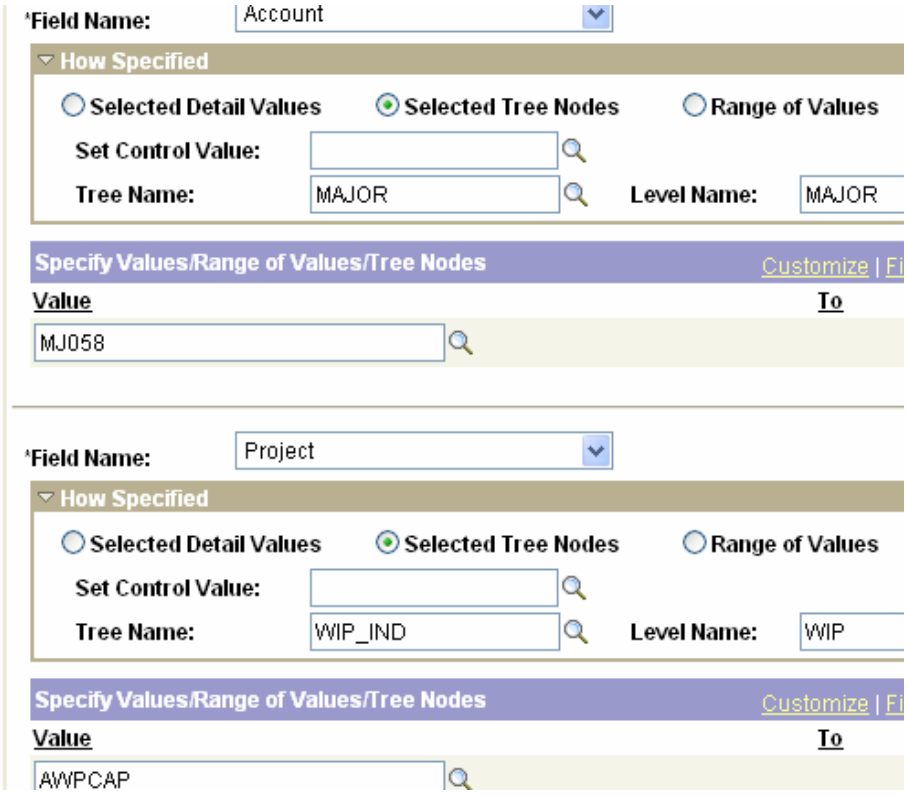
The project has an attribute for Work In Progress. The attribute is converted into a tree, WIP_IND. (We have an automated process as described in the Appendix, but it could be manual). When a project is initiated it is assigned AWIPWIP (remain in Work in Progress). When the criteria result in the project being capitalized, the attribute is changed to AWIPCAP. If it is to be expensed, the attribute is AWIPEXP. The POOL selects the nodes AWIPCAP and AWIPEXP.



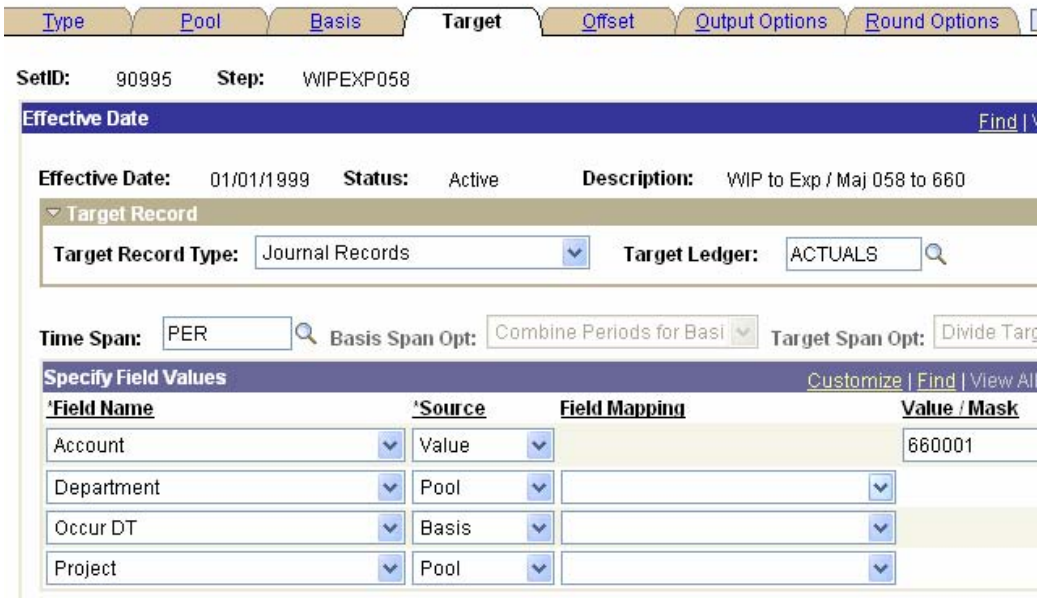
The Account has an attribute that identifies the major type of account. The major account groups are connected to the TARGET accounts. Major 058 is assigned to 091001 if it is capital and to 660001 if it is expense.



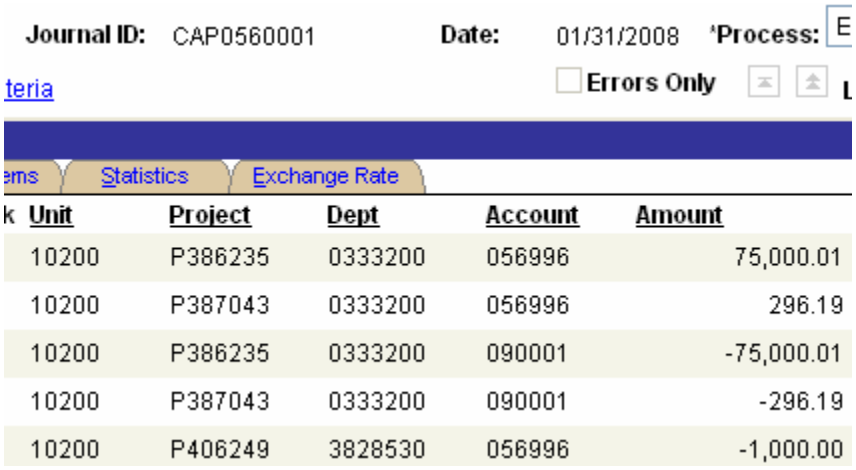
The POOL selects accounts based on MAJOR and projects based on WIP_IND. The TARGET and OFFSET use the POOL chartfields except that the account is a value. Before COPY was available, a BASIS record was created in the STATISTICS ledger. A value of 1 was entered into the amount field. Because there was only one record the BASIS was calculated as individual record / sum of all records, or 1/1, or 100%. We have retained this method because the BASIS has a value in another chartfield which is populated in the TARGET. These are the POOL criteria



The image below shows the TARGET with the account specified as a value. . Each combination of the POOL criteria created an allocation step. These were then grouped together and run as one process



The allocation creates this journal



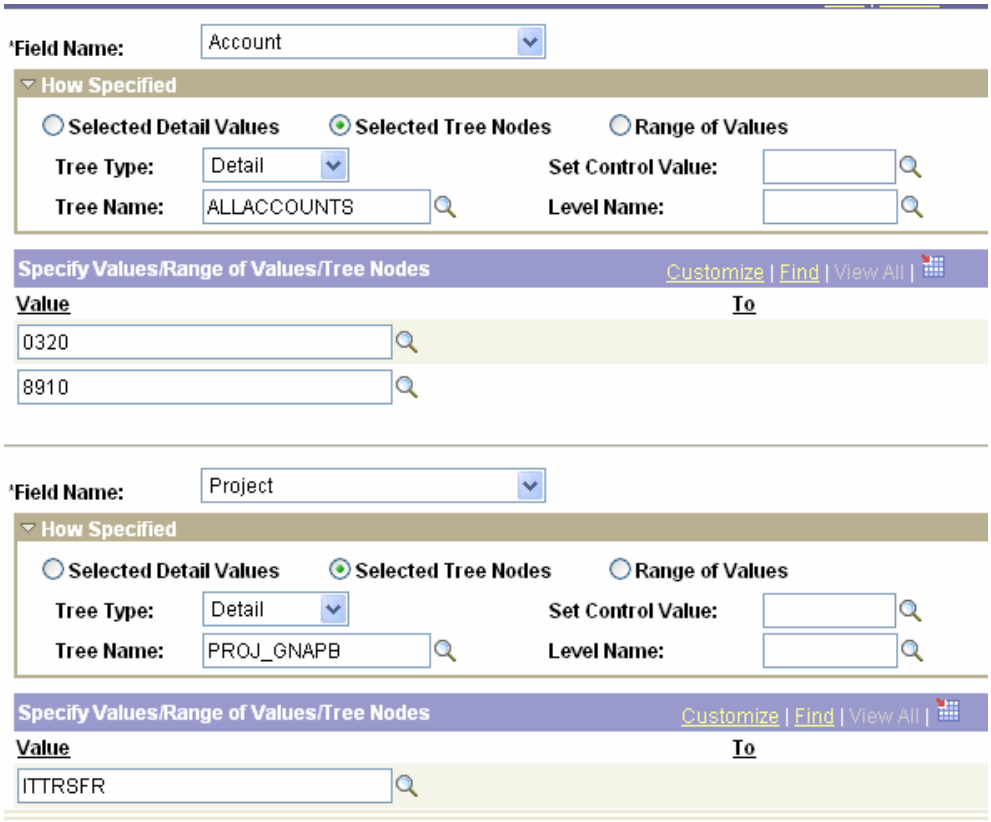
Unit	Project	Dept	Account	Amount
10200	P386235	0333200	056996	75,000.01
10200	P387043	0333200	056996	296.19
10200	P386235	0333200	090001	-75,000.01
10200	P387043	0333200	090001	-296.19
10200	P406249	3828530	056996	-1,000.00

Moving the Total of Costs to Several Cost Objects in Different Chartfields (1b)

There are situations in which costs are accumulated under one department / project combination; and the business determines that the costs need to be moved to another department / project combination.

Information Services accumulates costs for identifiable projects within their assigned department codes. These costs need to be transferred to the business that holds the budget for the project. The budgets may be shared.

To accomplish this transfer, the projects that are to have the costs transferred are saved in a PROJECT tree node. The POOL points at the node. The BASIS also points at the node. The one row identifies the new department code. The amount entered is 1 (resulting in a percentage of 100%, as above). This transfer needs one other feature in allocation.



The GROUP BY feature is needed to identify to the ALLOCATION how the POOL and BASIS are connected. Without the GROUP BY, the allocation would sum all costs in the POOL and prorate them across all BASIS records.

To make the transfer work, the projects are assigned to a tree node so that the POOL and BASIS can determine the projects. The percentages are entered into the STATISTICS ledger as amounts. The percentage of 15.35% is entered as 15.35. As long as the amounts add to 100, the BASIS will interpret 15.35/100 as .1535. The TARGET uses the department code from the BASIS. The OFFSET uses the department code from the POOL. The GROUP BY keeps the projects together.

Unit: 90995 Ledger: STATISTICS *Fiscal

Data By Period

Account	Dept	Project	Affiliate	*Per	Posted Total Amount
890974	DE1495	B913042	10	1	10.00
890974	DE7230	B913042	10	1	20.00
890974	DE7290	B913042	10	1	20.00
207171		B913042	10	1	10.00
890974	DE7410	B913042	10	1	40.00

To make it work you need to

1. Use a business unit that has access to all codes (all SETIDS), 90995 in our case
2. The project codes will have to be valid in all business units (affiliate)
3. Use the 'affiliate' for the business unit and map the affiliate to the business unit
4. Use visual verification (or a report) that the amounts add to 100 so that the prorate will convert them to percentages
5. Have the BASIS specify the business unit because the run control will run from the specific business unit where the costs are

The TARGET would appear as follows (editor note: read Business Unit below as Affiliate)

Time Span: PER Basis Span Opt: Combine Periods for Basi Target Spa

Specify Field Values Customiz

*Field Name	*Source	Field Mapping
Account	Basis	Business Unit
Business Unit	Basis	
Department	Basis	
Project	Group by	

We eliminated the problem by taking advantage of the next process.

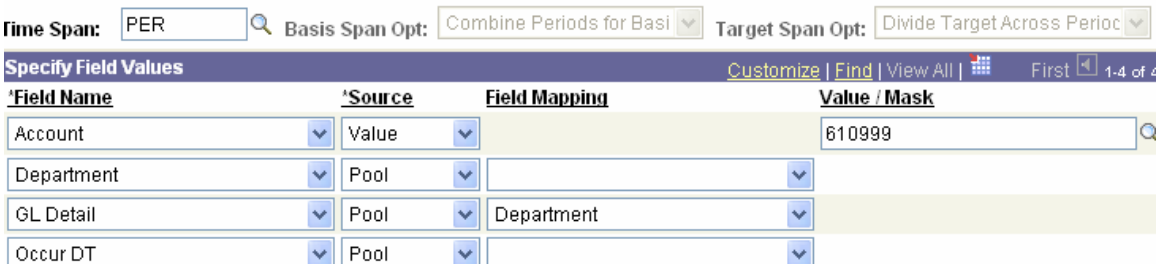
Moving the Total of Costs to Several Cost Objects in the same Chartfield (1c)

Then we have vehicle and facility costs that need to be transferred to leases. This sounds like the Information Services transfer. However, there is a significant difference, and it is a problem. The vehicle, facility, and lease codes are all department codes (the same Chartfield). The GROUP BY needs the same chartfield value in both the POOL and the BASIS, and these are different.

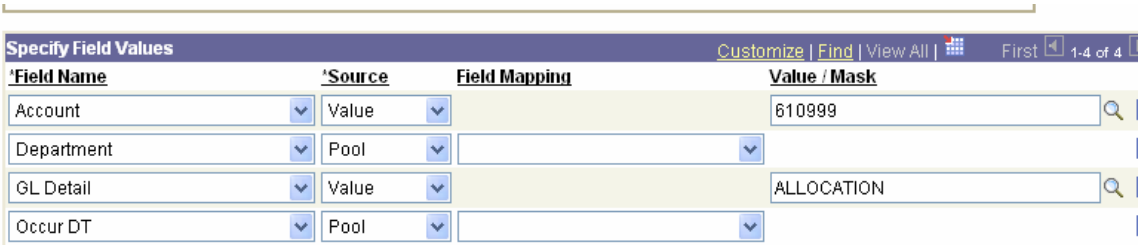
Using the process outlined above, there would need to be an allocation for each code. The POOL would specify the vehicle; and the BASIS would have to be coded within the allocation. This would require significant manual maintenance. We searched for an alternative.

To solve this problem, another chartfield is introduced. This chartfield will be used by the GROUP BY. We know what the values in the additional chartfield will be. This is the 'from' value in the allocation (the vehicle or the facility). We created a chartfield, GL_DETAIL, and entered the "from" value into this field (to make the coding valid). The vehicle code is therefore created as a chartfield value in the DEPT_TBL and the PCR_GL_DETAIL_TBL. The process needs the GL_DETAIL chartfield to be populated in the ledger in order for the POOL to find the costs that will apply to the GROUP BY. We accomplish this by a SETUP allocation. It is really another COPY. The costs are summed and the TARGET puts the costs into a specific account, the department of the POOL, and the GL_DETAIL is equal to the DEPTID (using the "mapping" The OFFSET puts the costs into the same account, the department of the POOL and a GL-DETAIL value of ALLOCATION.

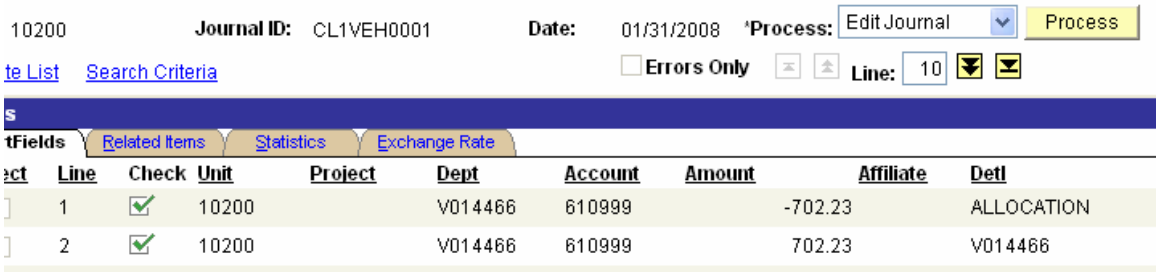
The TARGET



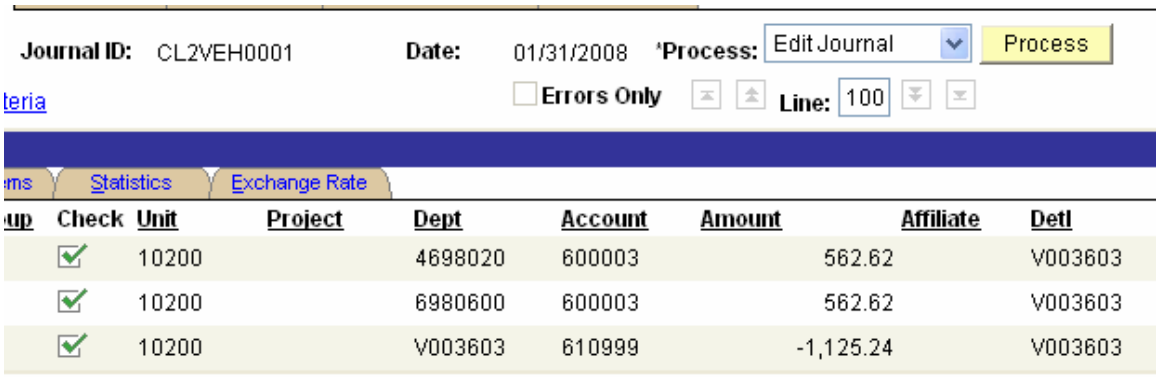
The OFFSET



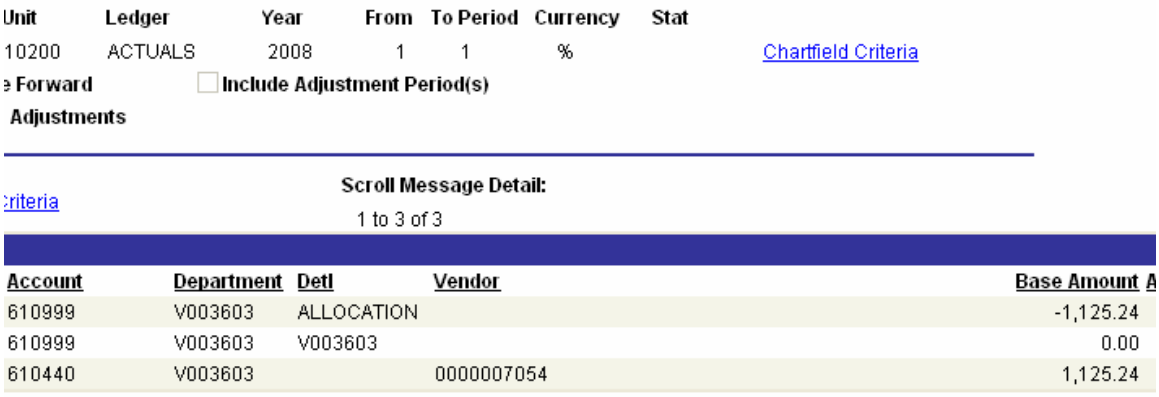
Creates the journal



Step 1 creates two GL_DETAIL values. Step 2 has a POOL and BASIS based upon the GL_DETAIL values created by the Step 1 TARGET. The percentages would be entered into the STATISTICS ledger as in the process above (1b). As they are the same value, the GROUP BY correctly calculates the percentages.



When Step 2 is posted, the sum of the costs for the vehicle is offset by the amount of the GL_DETAIL field value of ALLOCATION.



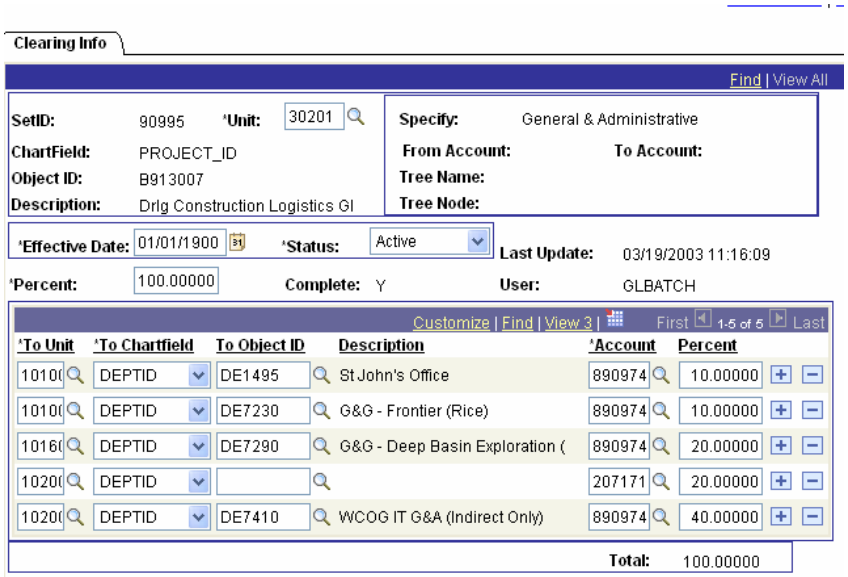
Moving Costs to the same Chartfield (1b) Revisited

The process changes in that there is a Step 1 that moves the costs to the PCR_GL_DETAIL Chartfield, and Step 2 clears the amounts. The advantage is that the PROJECT chartfield remains specific to the business unit, and one process is used.

Removing the STATISTICS Ledger

The use of the STATISTICS ledger works for the allocation. However, it is awkward for the user in terms of updating. The need to enter the percentage as a dollar amount is difficult to explain.

We created a table to store the BASIS codes and percentages. The allocation permits any table to be used (not just a ledger as it was in the beginning). The entry page allows the user to identify the FROM and the TO. Typical Chartfield validation is in effect. An additional edit ensures that the percentage adds to 100. The table is effective dated so that there is a historical record of the percentages. Because the allocation does not recognize effective dates (it takes all rows), a view is used so that only record is available to the allocation.



Transferring Costs Summary

At this point, the ALLOCATION function has been used to copy costs. The features used to do this are

1. Tree Nodes to provide the list of codes to be included in the POOL
2. The STATISTICS ledger to record the percentage of the cost to be transferred
3. The STATISTICS ledger entry can be used to identify new coding
4. The GROUP BY function enables many codes to be transferred by one allocation

5. The MAPPING option allowed the step 1 allocation to ‘flip’ the value into a chartfield that GROUP BY can use

We have used the PRORATA option (COPY is PRORATA using one record) to transfer costs in many different ways. These transfers show that the allocation function is useful in more ways than to divide the cost of rent.

Creating Journals From POOL Data (2)

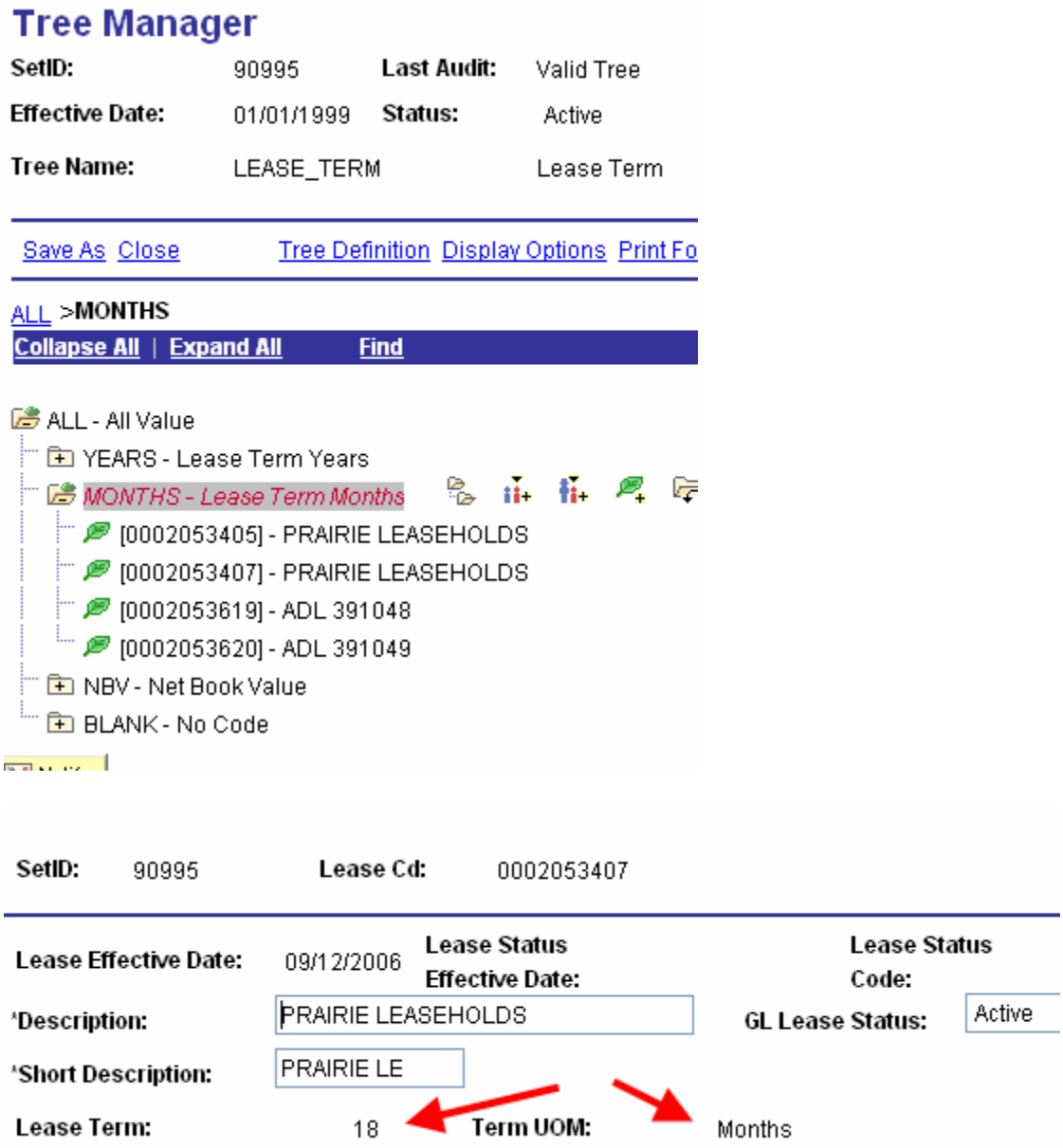
Creating a Straight Line Amortization Entry (2a)

The ALLOCATION function was created with another option, ARITHMETIC CALCULATION. We have taken this option to do other journal entries that are not allocations of cost. Rather they create new data from the POOL..

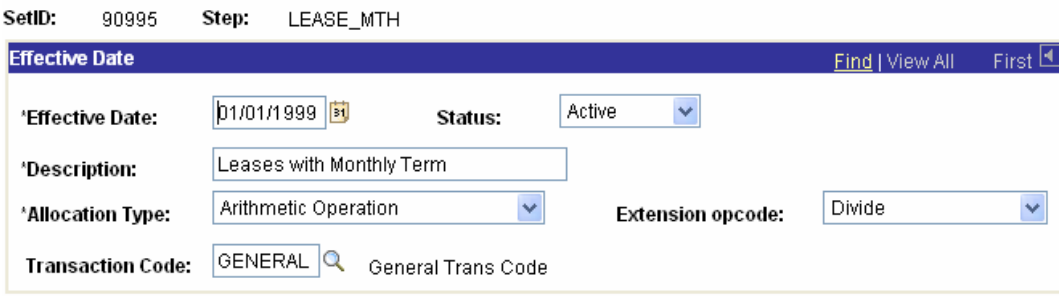
Lease costs are accumulated in a particular group (major). These costs need to be amortized equally over the months of the lease. However, there are two kinds of terms (years and months) and two states of amortization (unamortized cost is greater than monthly amortization, and less than monthly amortization).

The arithmetic operation is division.

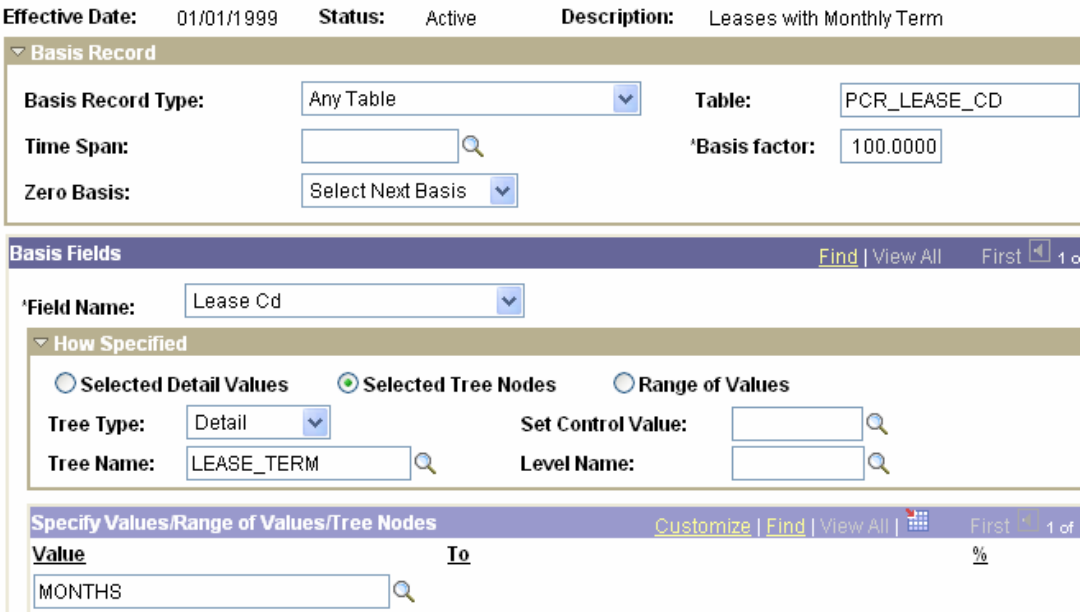
The numerator is the POOL, which is the cost from the ledger based on the account group in the MAJOR tree. The leases for each allocation are selected from the LEASE tree. An NVISION report is used to differentiate the leases into three nodes, YEARS, MONTHS, NBV (net book value). Each node is a different allocation.



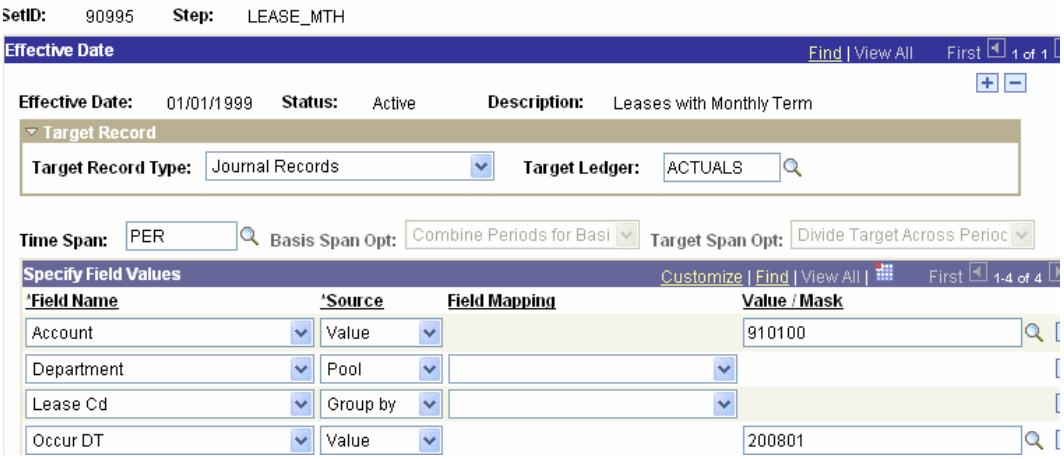
The denominator is the lease term from the LEASE chartfield. If the lease term is measured in months, then the allocation is POOL / BASIS. The TARGET is the depreciation expense account, and the OFFSET is the accumulated amortization account. The LEASE is used as the GROUP BY to connect the POOL and BASIS.



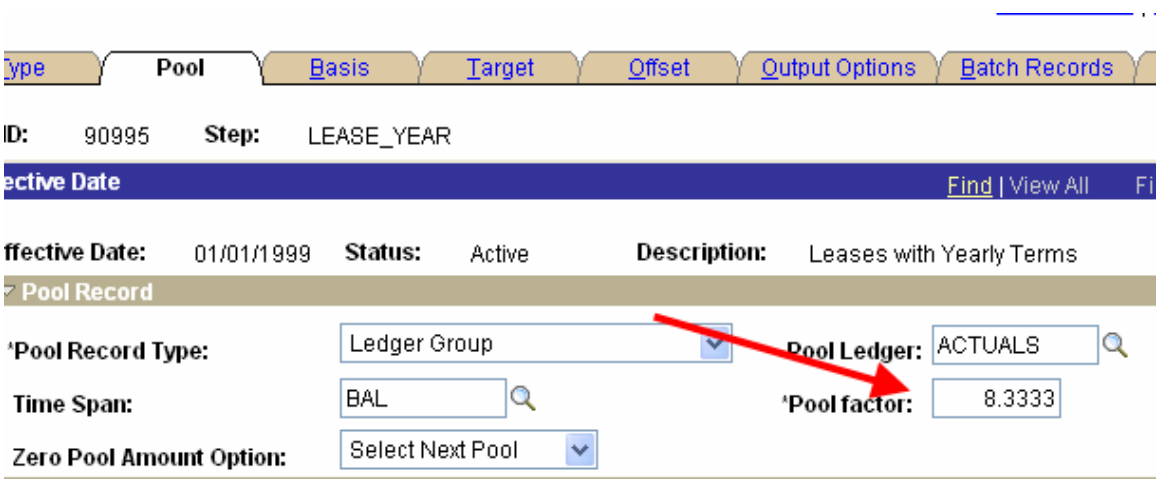
The BASIS (note the field selected is LEASE_TERM



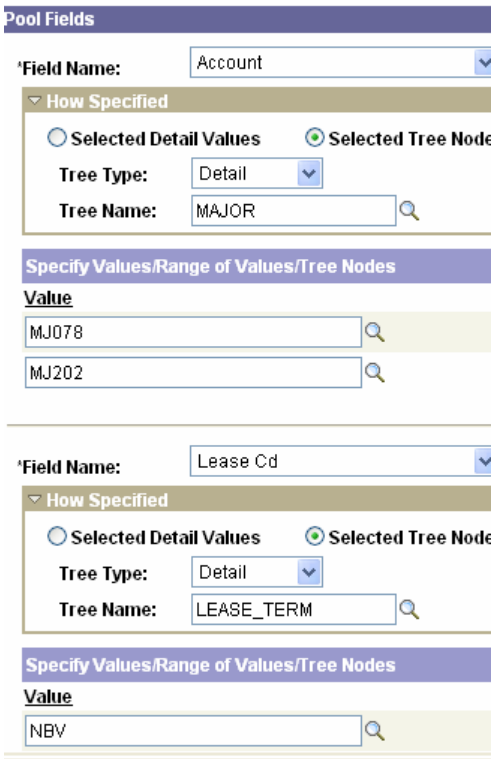
The TARGET (note the account is specified, and the GROUP BY is applied to the LEASE



If the term is years then the number of years has to be multiplied by 12. Since the term is the denominator, it is the same as multiplying by 1/12. The value of this is .08333 or 8.333%. There is a POOL (and a BASIS) factor which can be used. The TARGET and OFFSET are the same as above.



When the lease is categorized as NBV, it means that the remaining net book value is less than the monthly amortization. The allocation now becomes a COPY with the POOL being the major group of the costs and the accumulated amortization. The journal is the same as the other lease allocation. The result is the net book value will be zero.

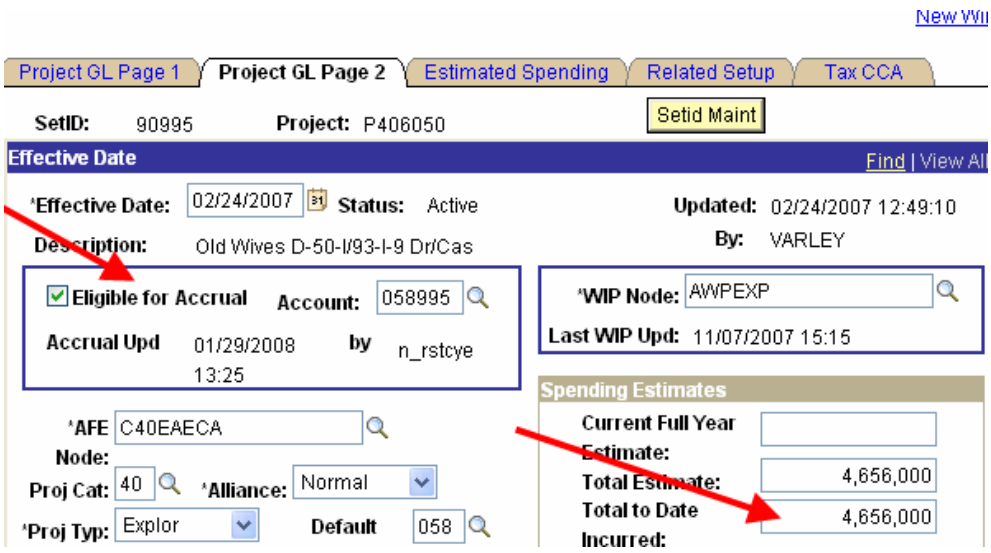


To check that the allocation is performing correctly an NVISION report is run after the allocation. The report shows the cost, the amount of the allocation, and the net book value.

Creating an entry to record committed project costs (2b)

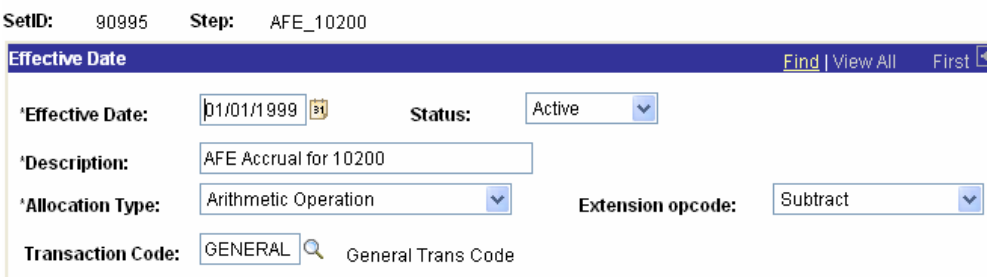
Each month, our capital analysts review the project codes for the degree of commitment. We are not using commitment accounting. From this review it is necessary to determine the amount to be accrued. The ALLCOATION function creates the entry.

Each project has attributes for the accrual process. A Yes/No value identifies whether the project is subject to accrual. Another field, INCURRED, identifies the amount to which the project is to be accrued. A third field identifies the account to which the accrual will be recorded.

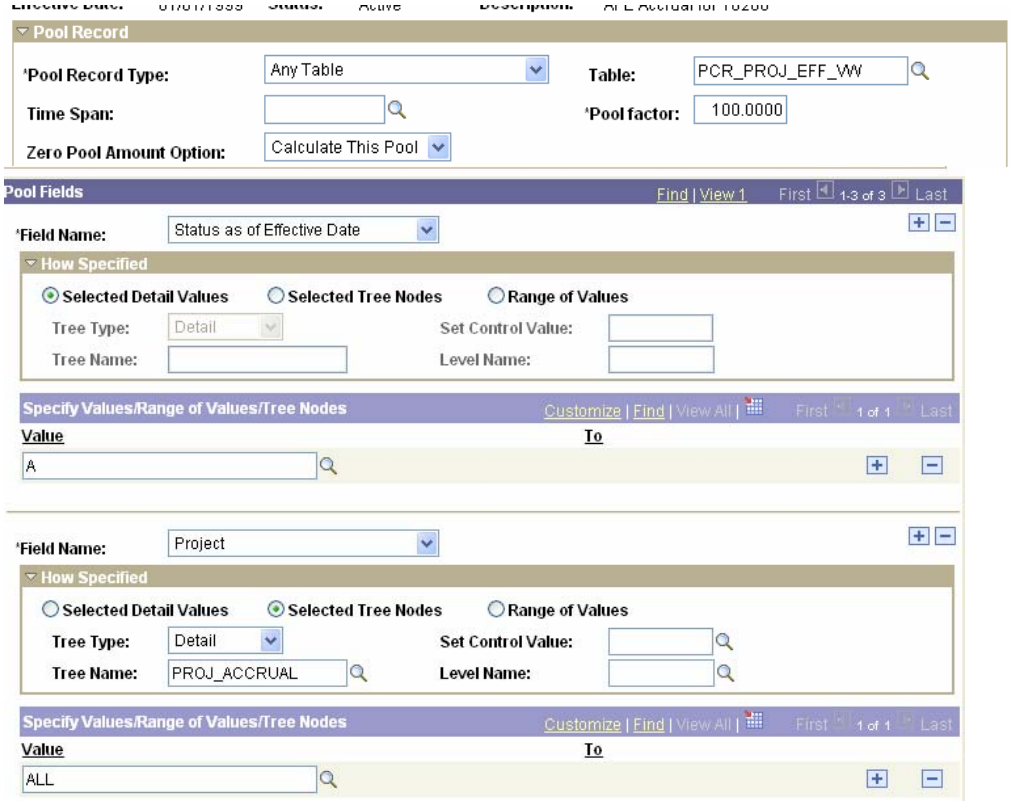


The arithmetic operation is subtraction. The projects that are to be accrued are updated to an accrual node on a tree.

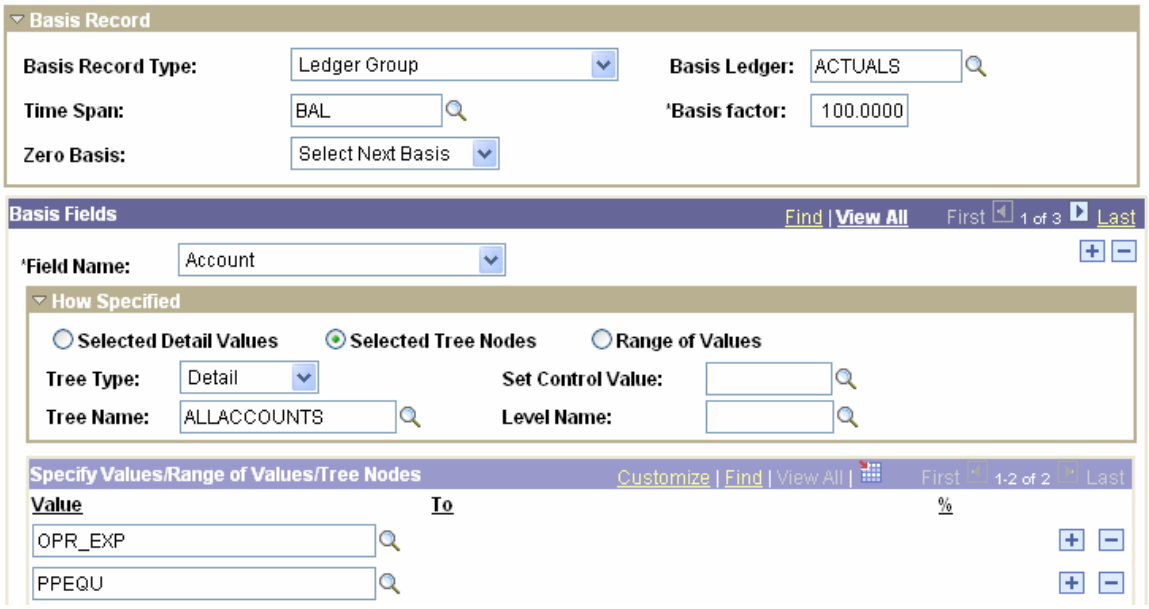
The POOL is the project chartfield record. Because the ALLOCATION does not recognize effective dates, a view is used so that only one record is available to the allocation.



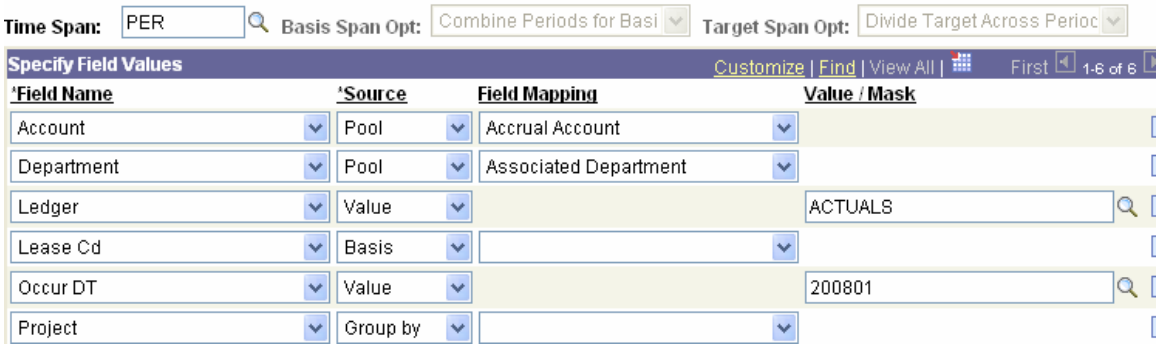
The POOL selects only the ACTIVE records and the ELIGIBLE for accrual based upon the Tree Node (the accrual tree only has projects eligible for accrual.)



The BASIS is the taken from the ledger based upon the accounts used to accumulate costs, and the projects in the ACCRUAL node. The TIMESPAN is BAL so that the total to date cost is included. If the AFE is an 'expense' AFE there is a balance because we created a special rollover program to carry forward P&L projects (rather than using the full P&L balance forward within CLOSE ledger)



The TARGET uses the ACCRUAL ACCOUNT from the POOL, (taking advantage of the mapping option) and the DEPTID also comes from the Project page via mapping. The GROUP BY option is used to match the POOL and BASIS



The OFFSET uses the liability account (a defined value).

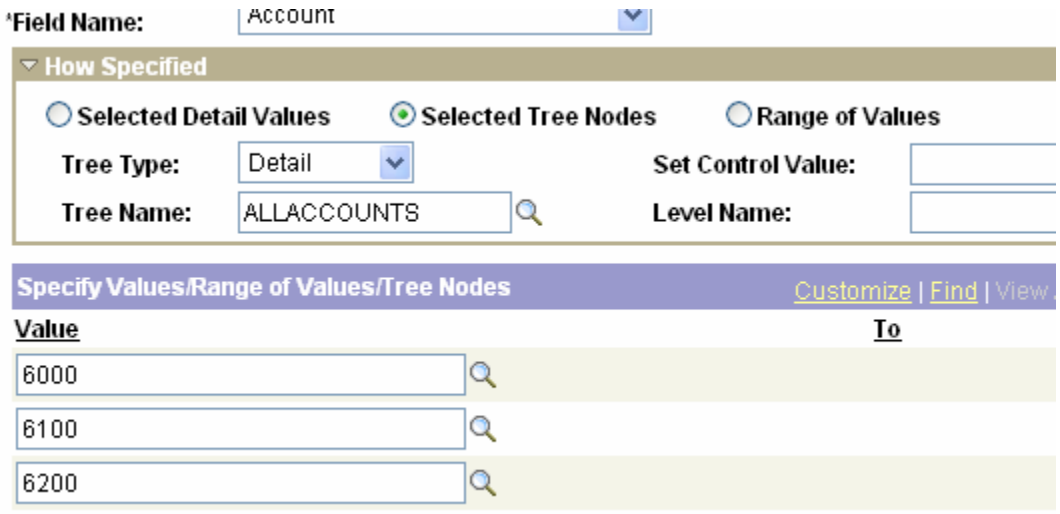
Create a Journal based upon Summary Chartfield and Statistics Values (2c)

Each month, there is a need to calculate the depreciation based on volume. The volume amounts are stored n the ledger using STATISTICS_CODE values. The GROUP BY requirements cause us to use the PCR_GL_DETAIL chartfield again. Our situation throws one more requirement at the allocation. The depreciation is based on the volume of a geographic area, and assigned to a specific code within the area.

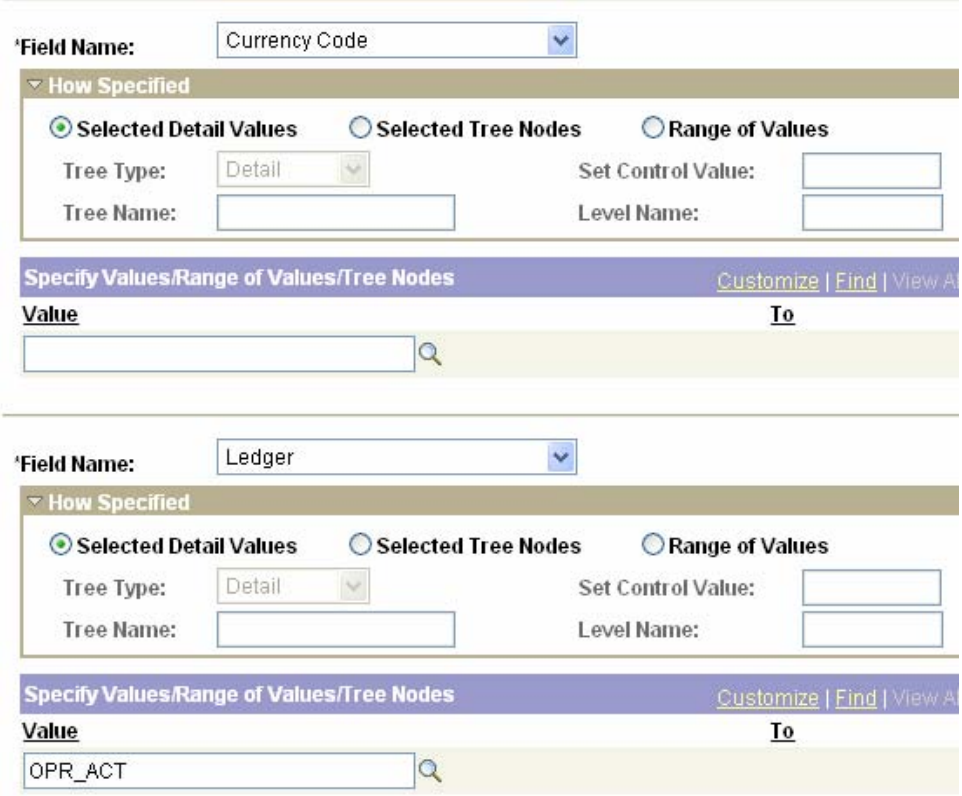
The first allocation uses subtraction to compute the current month volume. The POOL is the sum of the year to date volumes by STATISTICS_CODE for specific major groups.

The BASIS is the year to date volumes recorded in the depreciation account. This incremental amount is usually the current month volume, but if there were entries changing the volume after the last month allocation, these would be included. The PCR_GL_DETAIL chartifled is updated in the TARGET in order that it can be used in the second step by the GROUP BY

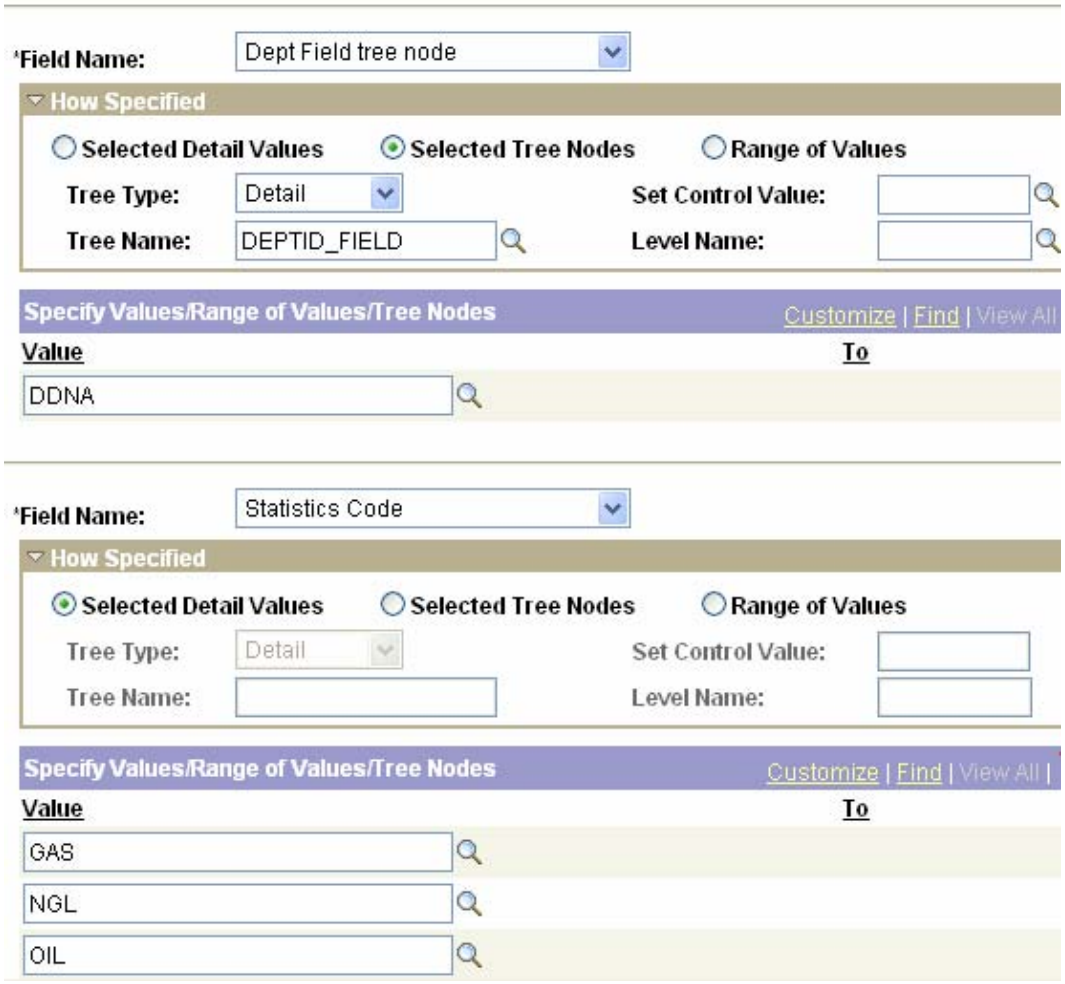
This criterion selects the accounts



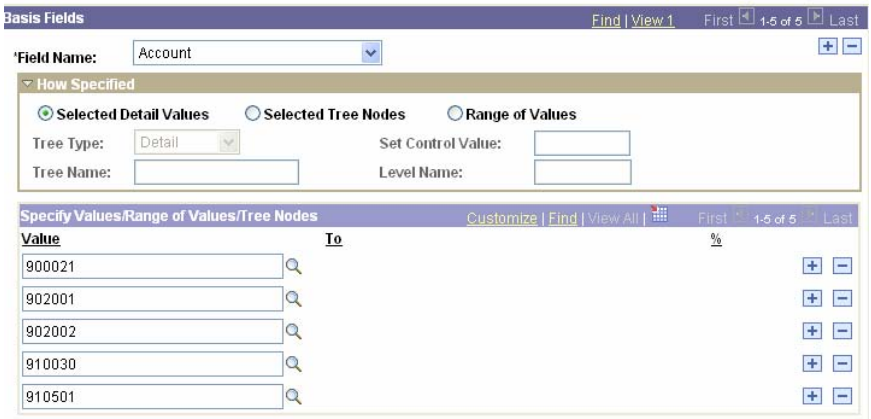
This criteria identifies the currency code and summary ledger



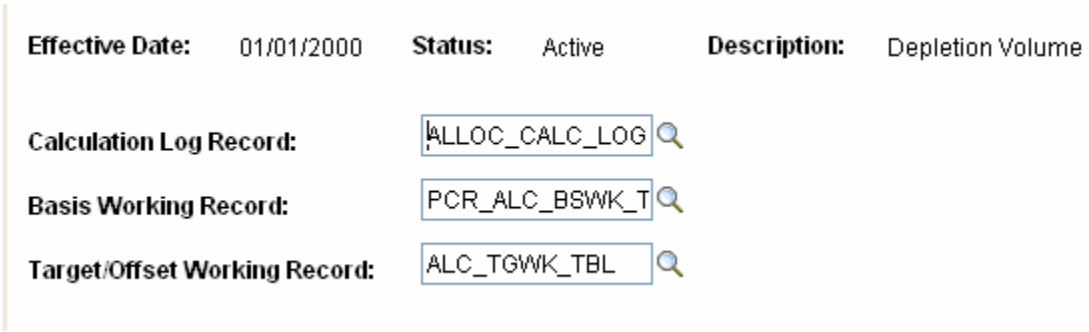
Then a tree node is identified to select only the codes that are subject to depreciation. This node is populated via the nightly tree update process. The final criteria identifies the statistics codes that identify the amounts as volumes



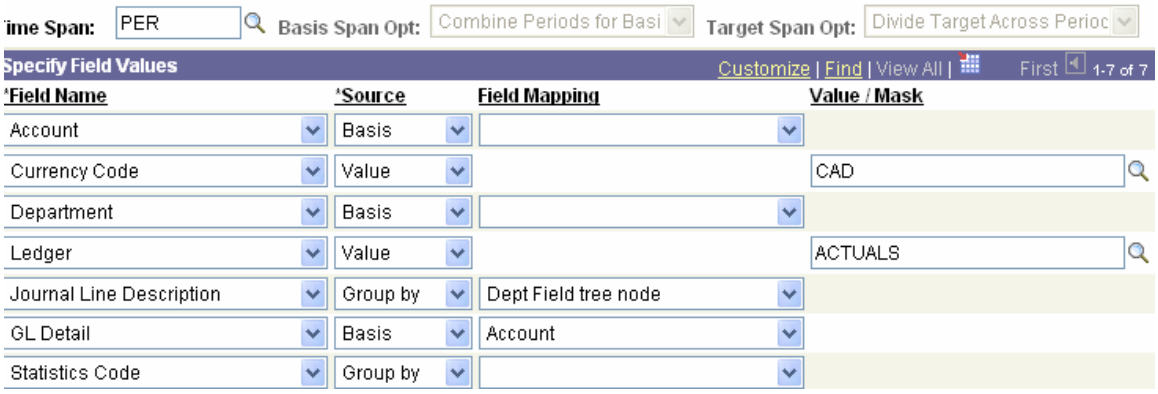
The BASIS record pulls the data from the ledger based on the depreciation accounts.



Because we are using the summary ledger and the fields are not the same as normal ledger structure, we created a BASIS WORKING RECORD (as is discussed in the PEOPLEBOOKS).

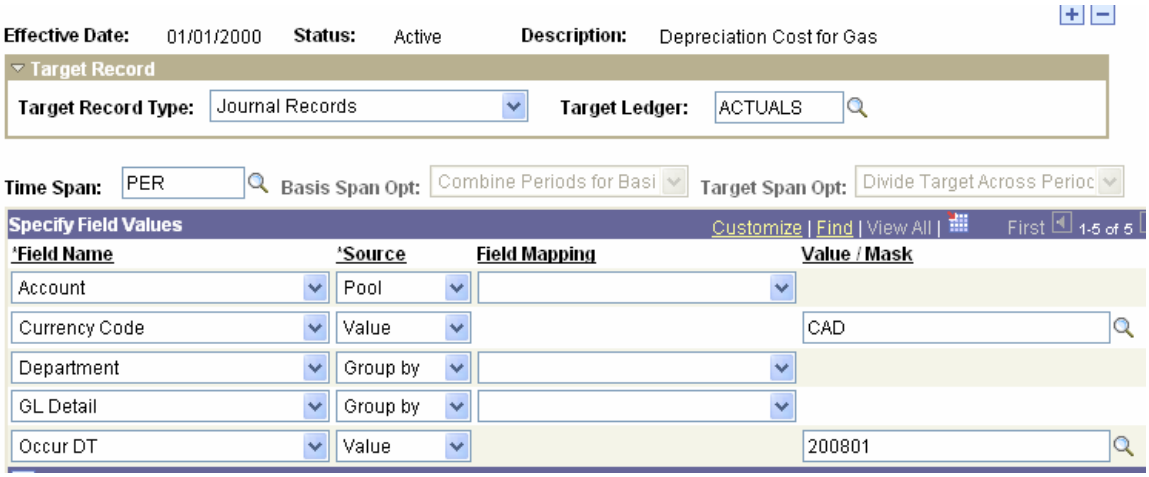


The TARGET uses the mapping feature to put the values into the correct place. It is important to note that a field cannot receive data from a field that is larger (number of characters) than itself. Because the tree nodes are twenty characters, we used the Journal Line Description as the field to store the information about the field. The GL_DETAIL field is populated for the GROUP BY in the second step.

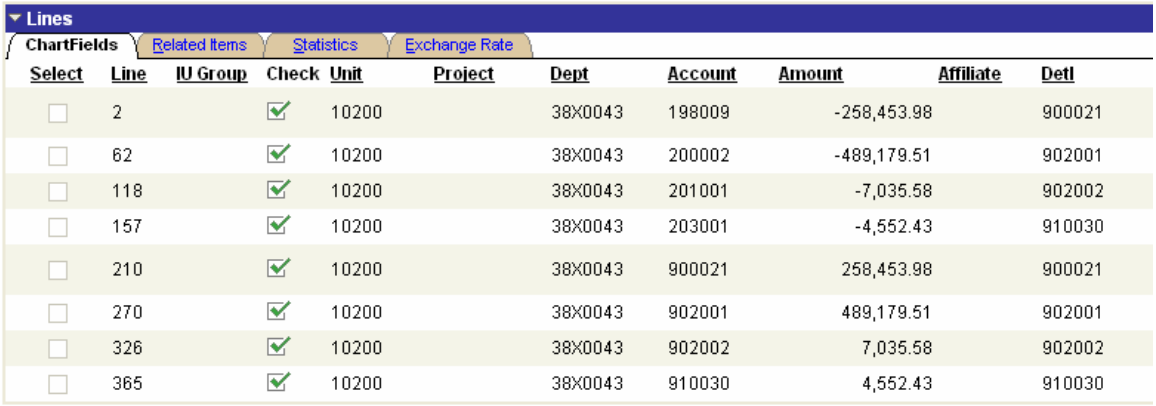


The second allocation needs the rate to be applied to the volume. The rate is saved into the STATISTICS ledger. A rate is entered for each field. One department code is assigned to hold the depreciation for each field. Because there is only one row, the PRORATA calculation creates one journal row for the field.

The allocation uses the volume for the month (calculated in Step 1) as the POOL, multiplication as the arithmetic operation, and the rates in the STATISTICS LEDGER as the BASIS. GROUP BY is use for the GL_DETAIL and the DEPARTMENT codes



The resulting journal entry records the depreciation expense and the updates the accumulated depreciation account.



Creating New Data Summary

At this point, the ALLOCATION function has been used to create new data. The features used to do this are

1. Tree Nodes to provide the list of codes to be included in the POOL
2. The STATISTICS ledger to record the depreciation rates of the cost to be transferred
3. Using a view so that there is only one effective dated row in the POOL
4. Creating a BASIS working table so that a summary ledger could be used
5. The GROUP BY function enables many codes to be transferred by one allocation
6. The MAPPING option puts data into the chartfields where the value can be used by the GROUP BY

These allocations show that the function can be creatively used to create accounting journals.

Conclusion

The ALLOCATION function was originally conceived to allocate rental costs based on square footage. The program functionality that is provided enables users to do much more. The functionality evolved to include budget calculations, and further evolved so that COPY is an allocation type.

By using the features in the ALLOCATION function we have been able to use the function to create journals for many business processes. The ability to allocate the costs of vehicles to other department costs by using two allocations is one creative solution. The use of the POOL factor to convert years into months and thereby enable lease amortization is another creative solution. The use of allocations to reclassify costs automates the process of generating many lines of monthly coding.

The ALLOCATION function is able to handle many of your business processes.

Appendix

Appendix A: CHARTFIELDS to TREES

By customizing the CHARTFIELD tables to add descriptive / attribute information, we are able to update tree structures on a nightly basis from the CHARTFIELD. This allows the update to be done by users without tree access. The procedure is to use an NVISION report with a TABULAR layout and NVISION INSTANCE HOOK to create a PRN file that is used by GLS9001 to update the tree.

Appendix B: The Delivered Parts

For detailed information about allocations, reference should be made to the PEOPLEBOOKS. The following is provided as a quick overview and to draw attention to the features used in our creative approach.

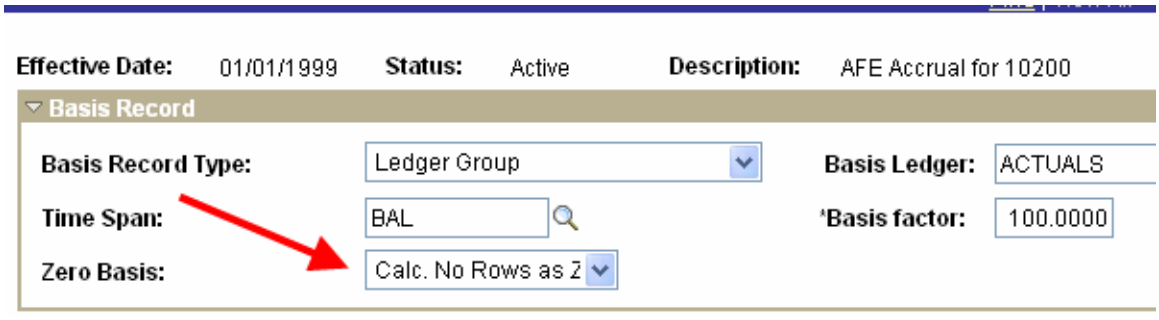
The terms used in ALLOCATION are the primary building blocks

Term	Explanation

Allocation	A calculation that creates journal entries from selected data
Type	The calculation method. There are four types, copy, prorate using fixed record, prorate using basis record, arithmetic operation
Pool	The data that is selected
Basis	The data used to change the pool (typically percentages)
Target	The data created by applying the type and the basis to the pool
Offset	The data with the opposite sign
Group By	The function that determines how the pool and basis are connected
Allocation Step	The data used by the system to perform the calculation
Allocation Group	Steps are executed in groups by run control
Clearing	Percentages entered by the user for use in allocations

Appendix C: No rows in the BASIS

Selected next pool when pool is zero requires the use of a set up entry.
The BASIS option to calc no rows as zero yields an error in Version 8.42. To avoid the error, a report is run to identify any accrual code that has had no spending. A spreadsheet journal is created from the report to initialize the code with a value.



PEOPLEBOOKS has the following information which suggests that it should work.

Calc No Rows as Zero - If no basis rows are selected based on the Time Span and selection criteria specified in the **Basis Fields**, the Allocations process processes these rows as zero Basis

amounts. For rows that exist in the database, the process processes these rows the same as it processes *Calculate This Basis*

When the allocation runs, this message appears in the message log

Instance: 868775 **Type:** Application Engine

Name: GL_ALLOC **Description:** PS/GL Allocations

Customize | Find | View All | First 1-7 of

everity	Log Time	Message Text
)	18:16:36	Allocation processing has begun.
)	18:16:37	Processing Step AFE_10200 in Group ADHOC for Business Unit 10200.
)	18:21:27	PSPSQLRT error in Allocations: GLPATREE - GN000 INSERT.
)	18:21:28	Step AFE_10200 in Group ADHOC for Business Unit 10200 was not processed due to errors.

It is hoped that it is corrected in Version 9.

Appendix D: Entering percentages into a ledger

If the percentage was 15.4235% then the amount entered would be 1542.35 and the sum would be 10000.00. The BASIS would calculate this as .154235. or expressed as percentage, 15.4235%