

How-to Guide
SAP CPM



How To Build the Carry Forward and Account Transformation Business Rules

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Applicable Releases:
SAP BPC 5.1 Microsoft

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1 Scenario

This “How to Guide” will focus on the fundamentals of building two different Business Rules, the Carry Forward Rule (CopyOpening), and the Account Transformation Rule (CalcAccount). Business Rules provide the mathematical foundation for the BPC application, and allows the clients to manage both management and legal consolidation reporting.

2 Introduction

This How -To guide leverages BPC 5.1 and the application set called ApShell. ApShell is currently the default application set that is loaded with the BPC software and is often the beginning point for most customer designs. If this application set is not available at your customer, please discuss gaining access to a copy of this application set for development purposes.

There are six types of Business Rules that can be used in an application. They are as follows:

TYPE	PROCESS
Account Transformation	Performs a straight summarization of a group of accounts
Carry – Forward	Summarizes a group of activity accounts and copies the value into an opening balance account
Currency Translation	Performs standard currency translation
Intercompany Eliminations	Performs intercompany eliminations
US Eliminations	Controls where in an Entity dimension member the results of eliminations are stored
Validation	Allows user to check integrity and correctness of entered values

This Guide will provide step by step procedures and screen shots to successfully build and execute simple Carry-Forward and Account Transformation examples.

3 Carry – Forward Business Rule

The Carry - Forward Business Rule gives you the ability to generate the Opening Balance of any category. This procedure is often used to initialize a new reporting period, copying the closing balances from the last period of the previous year, and loading them into the opening balances of the current period of the current year.

The Carry – Forward Rule is handled by the stored procedure called SPCOPYOPENING. The following pages provide an example of setting up the requirements necessary to have this Business Rule complete successfully. The example

will demonstrate the proper setup that is required to bring the value of Account CASH for Dec 1996, to the Account CF_BEGIN (Cash Flow Beginning Balance), for Jan 1997.

Step 1 – Modify Application to contain Business Rules. Log into BPC Administration and highlight the application to which you need to add Business Rules. Select “Modify Application”

Server name: STAMFORDS1

Application - Finance information

Dimension

AppSet Dimension	Type
Account	A
AccountL	A
AccDetail	S
Category	C
DataSrc	D
Entity	E
Flow	S
Groups	R
InputCurrency	R
IntCo	I
IntCoL	I
LegalEntity	E
OwnAccount	A
Rate	E
RateEntity	E
RateSrc	E
RptCurrency	R
Time	T

Application Dimensions

AppSet Dimension	Type	Y	Y
Account	A		
Category	C	Y	Y
DataSrc	D		
Entity	E	Y	
Flow	S		
IntCo	I		
RptCurrency	R		
Time	T		

Set Dimension Option: Secured R/W

Once this screen appears, select “Change Application Type”

Session Information: Logon: Administrator - CBBR

Applications: Modify Application - Finance

Select Source Application: Finance

Application Description: Financial Application

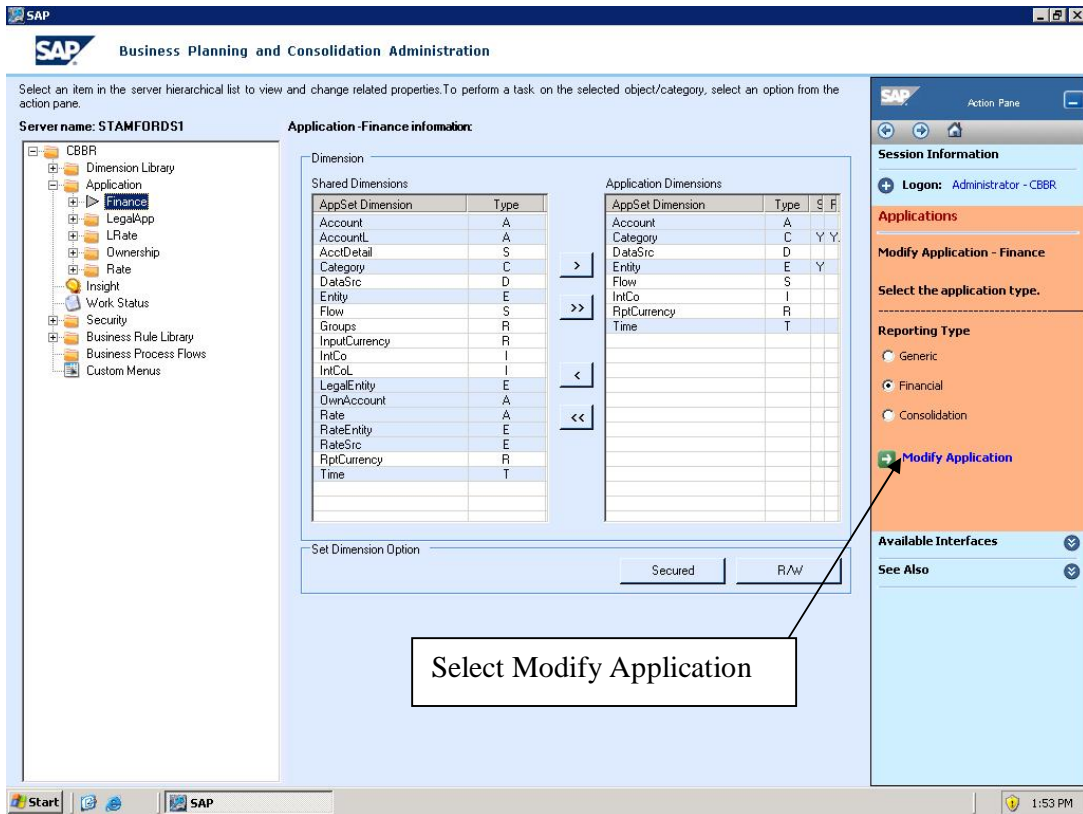
Application Rebuild Option: Reassign SQL Index Process Application

Modify Application

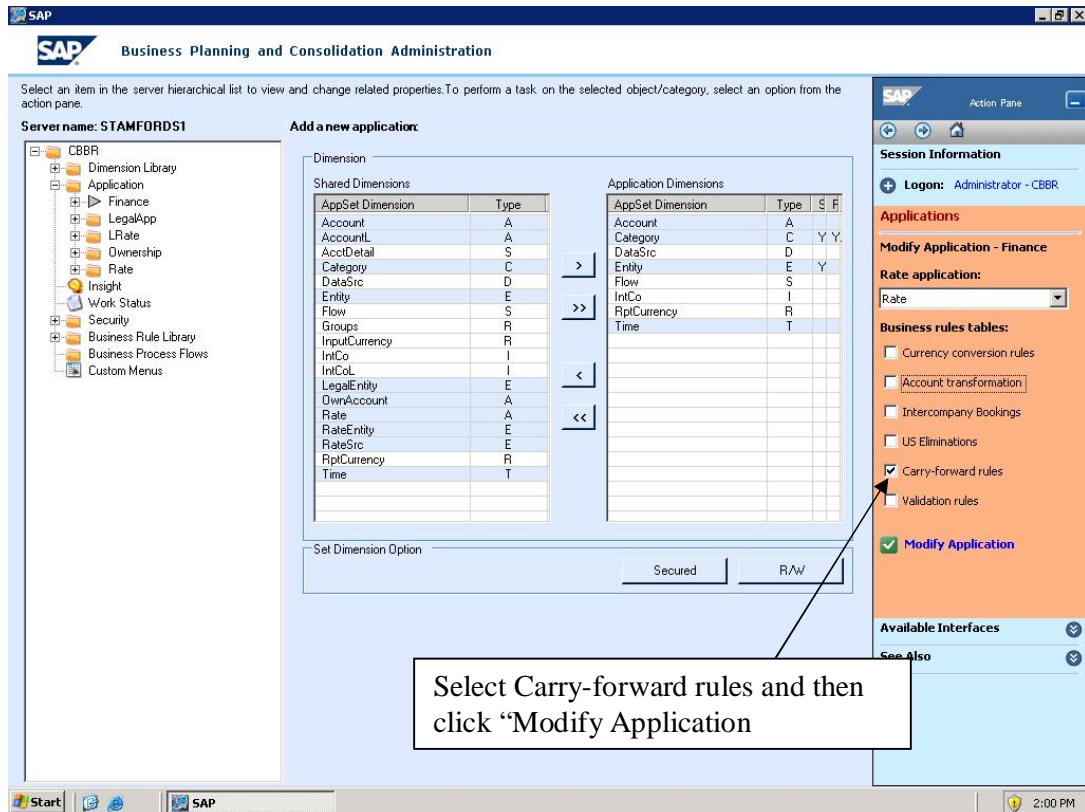
Change Application Type

Available Interfaces: See Also

The following screen appears select “Modify Application” again.



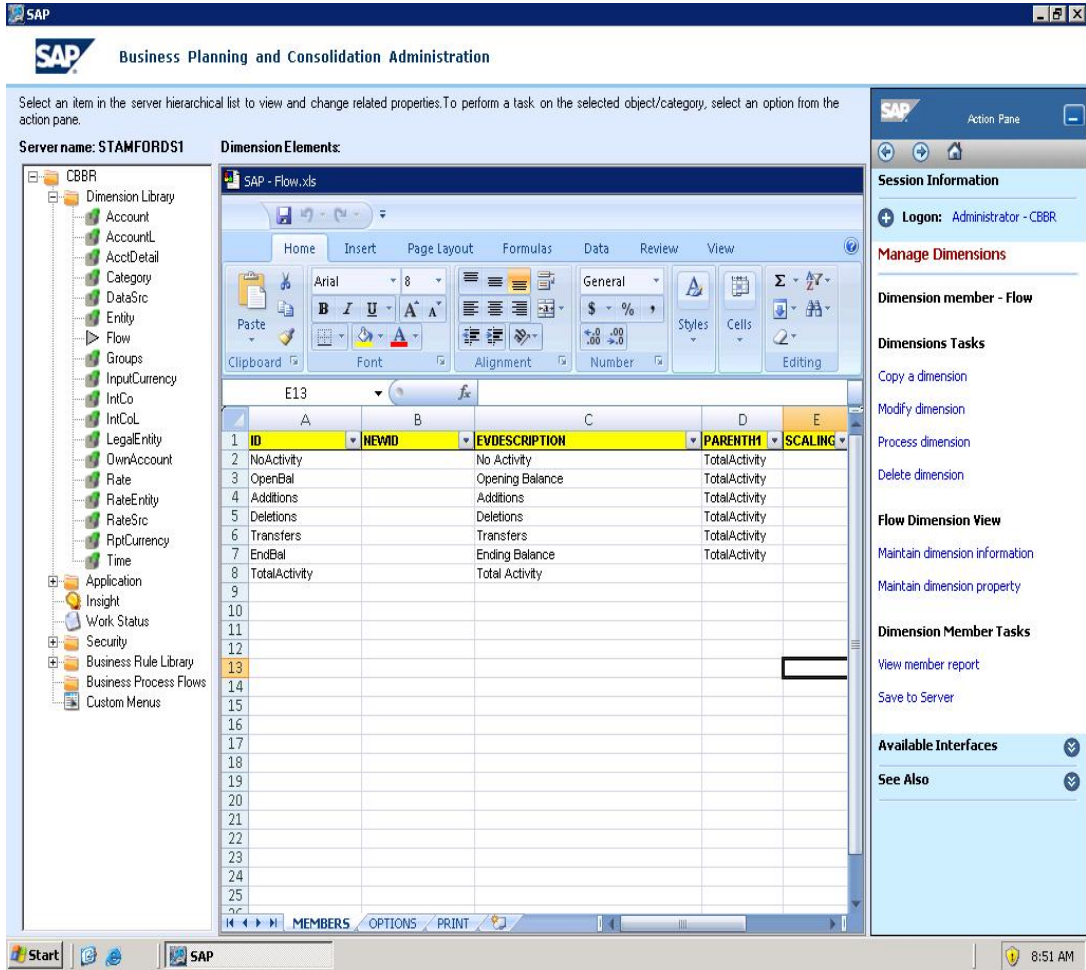
The following screen appears with selection choices for any of the business rules you need to set up. For this example select “Carry-forward rules”, and then “Modify Application”.



Step 2 – *NOTE* - When using the Carry-forward business rule, a Flow dimension (or Subtable dimension) is required. The Flow dimension is not included in the ApShell appset that is standard with the software. The Flow dimension has been added to the Finance Application within ApShell for purposes of this How to Guide.

This dimension is needed for business rules calculations to breakdown account activity or flow. For example, some accounts, like Fixed Assets, have a Subtable dimension which contains Opening Balances, Additions, Deletions, Transfers and Ending Balances.

For purposes of this example, the Flow dimension has been built to look like the following:



After the Flow dimension has been successfully processed, add it to the application which contains the Business Rules. In this example we have added it to the Finance Application.

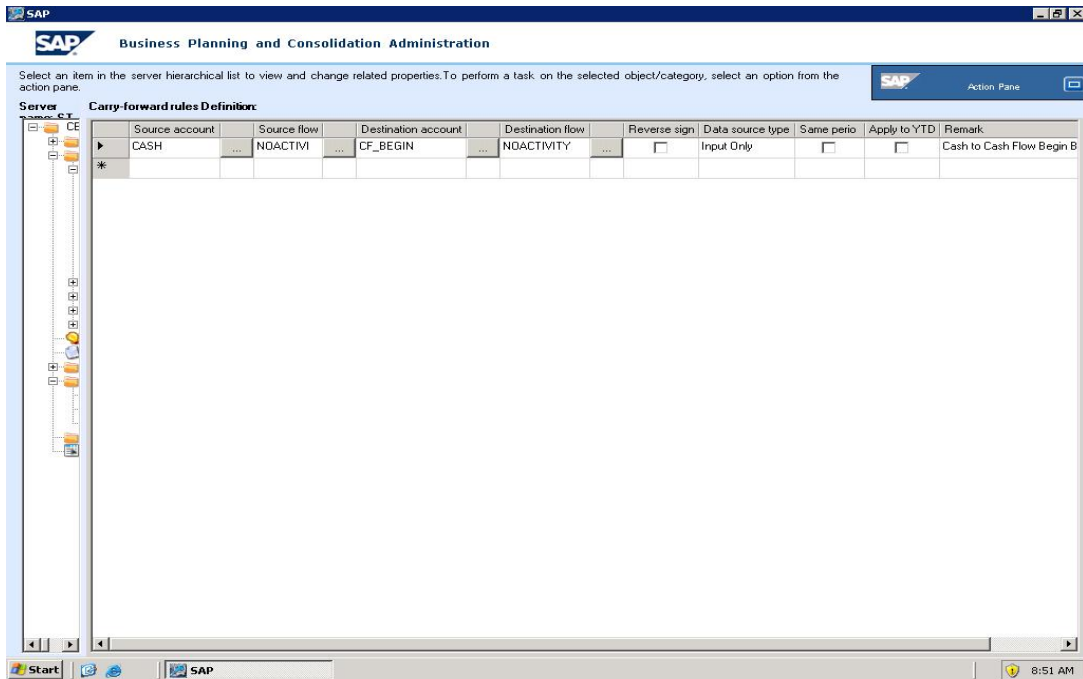
Step 3 – The next step is to fill in the Carry-forward rules table. The following table displays the values for this table:

Field Name	Description
Source account	Controls the rule to apply to a given account. This field is driven by a drop-down menu choice and may contain either of the following: 1) A valid base or parent level member ID from the Account type dimension. Or 2) A list of members defined filtering the members using a value of the DIMLIST property (or any property whose name begins with DIMLIST) in this same Account type dimension.
Source flow	Controls the applicability of the rule from a given member ID of the Flow dimension. This field is driven by a drop-down menu choice and may contain either of the following: 1) A valid base or parent level member ID from the Subtable type dimension. Or 2) A list of members defined filtering the members using a value of the DIMLIST property (or any property whose name begins

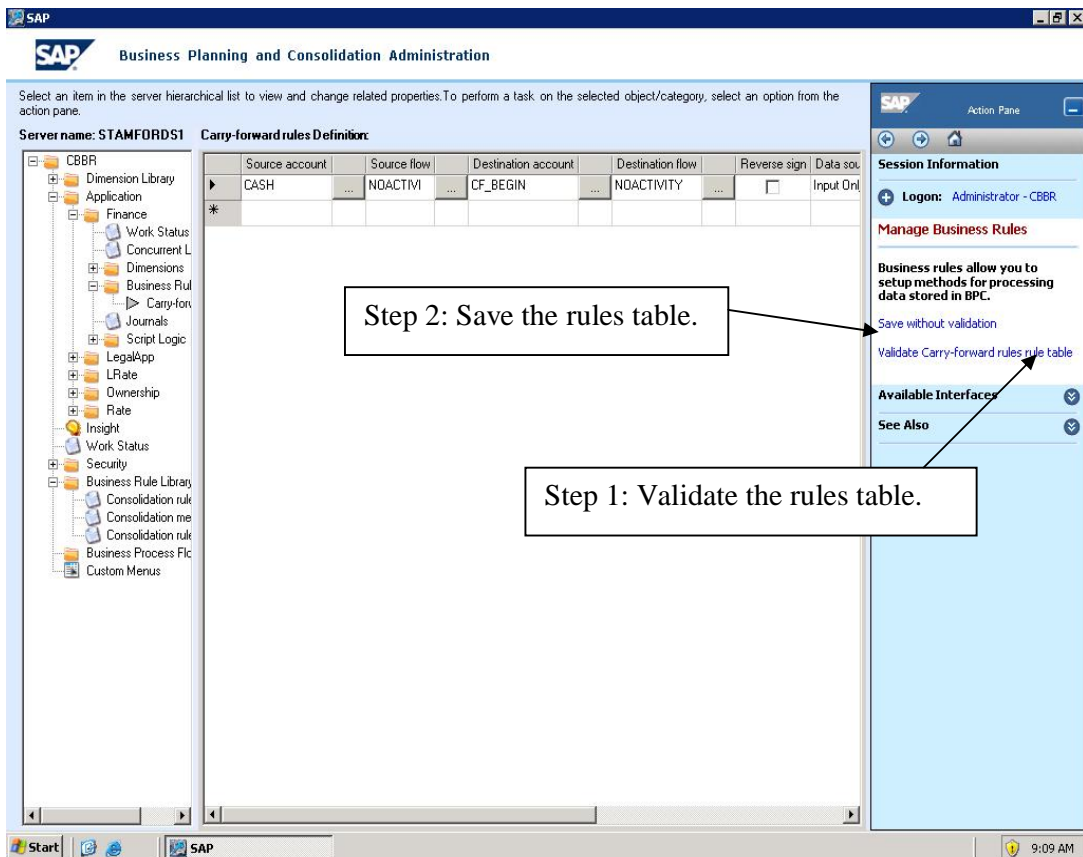
	with DIMLIST) in this same Subtable type dimension.
Destination account	This is the new Account that the rule is copying the data to. This field is driven by a drop-down menu choice containing all base level members of the Account type dimension.
Destination flow	This field controls the destination member ID of the Flow dimension. This field is driven by a drop-down menu choice containing all base level members of the Subtable type dimension.
Reverse sign	Check this box if you would like the amount in the source account to be reversed when it is
Data source type	This field is driven by a drop-down menu choice, which contains just the choices of Input, Manual, or All. This corresponds to the dimension members flagged as "I" and "M" in the DataSrc_Type property in the DataSrc dimension. Any members in the DataSrc_Type that have an "A" for Automatic are taken care of during the consolidation procedure. IMPORTANT NOTE: The Carry-forward rule is limited to those DataSrc dimension members whose DataSrc_Type property has been set to "I" or "M" only.
Same period	If this check box is selected, the source Time period is the same as the destination Time period.
Apply to YTD	If this check box is selected, the YTD value of the account being copied is calculated if this is a Periodic application.
Remark	A description for this rule.

The following example shows how the Carry-forward rule is set up to copy the value in the account CASH, with a Source flow member of NOACTIVITY to destination account CF_BEGIN, with a Source flow member of NOACTIVITY. The Data source type is Input only and the amount of the value will not be reserved. Both the Same Period and Apply to YTD check boxes will remain empty as they do not apply in this example. The remarks field will contain a brief explanation.

The completed record for the above example is as follows:



Once the table has been completed with the rules that Administrator is building, the Administrator needs to Validate the Rules table, and then Save it. NOTE: This is a two step process. The Validation step does not save the table and the Save step does not validate the table.



Step 4 – The next step is to add the stored procedure to a logic file. For this example it will be added to the default logic file. The syntax for the Roll-forward rule is as follows:

```
RunCopyOpening(applicationname,currency,category)
```

The stored procedures logic file is maintained in the AppSetName\System Library\Logic Library\Stored_Procedure_wrapper.lgl file and is required in the logic file to run the stored procedures.

The following 3 lines have been added to the bottom of the default logic in the application which contains the business rule built in Step 3 above.

```
*SysLib Stored_Procedure_wrapper.lgl  
RunCopyOpening(FINANCE,USD,ACTUAL)  
*Commit
```

Notice that the Parameters have been set to have the rule run for the Finance Application, in US Dollars, for the Actual Category.

Before exiting the logic file, be sure to Validate and Save it.

Step 5 – At this time the Carry – Forward Rule is ready to be run. Log into BPC for Excel, Manage Data, Run a Data Management Package, then within the Company Folder of the Finance application, select System Administration, and then Default Formulas.

The user will then be prompted to fill in the following 3 parameters: Category; Entity and Time.

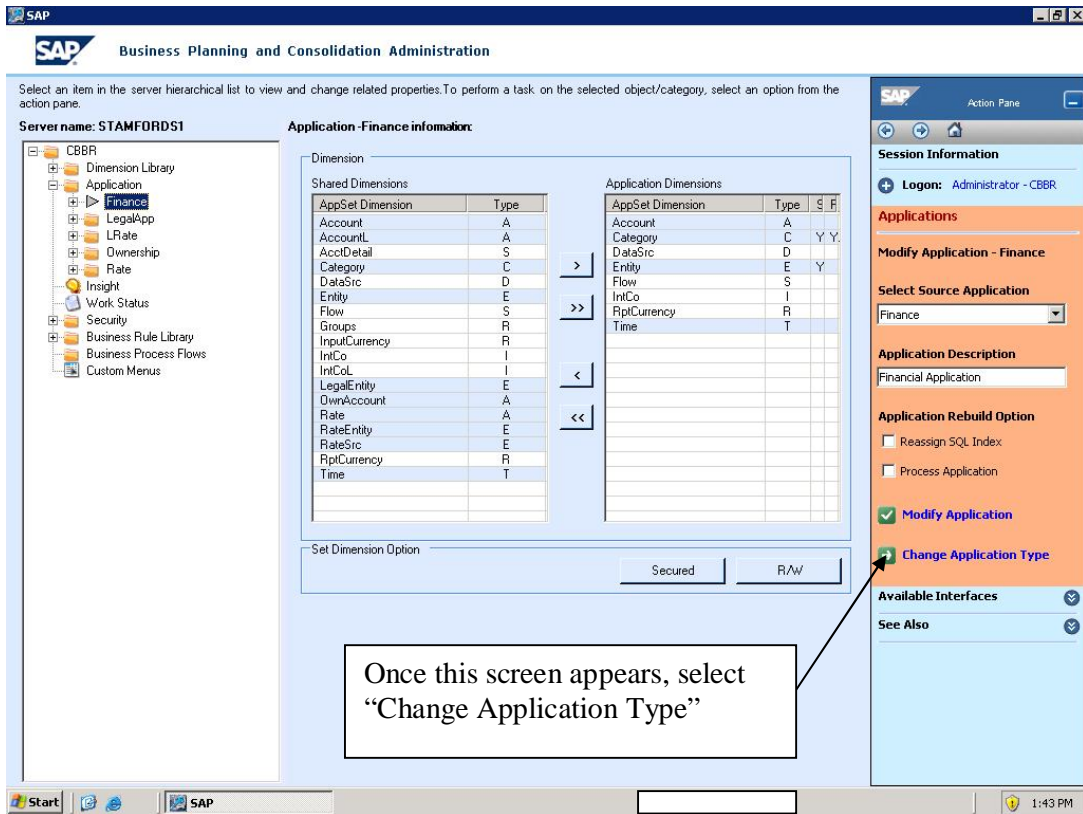
As with all Data Manager Packages, view the status to check if it completed successfully or not, and if not then be sure to review the log file which gives more information for errors that may have occurred during the running of the package.

4 Account Transformation Business Rule

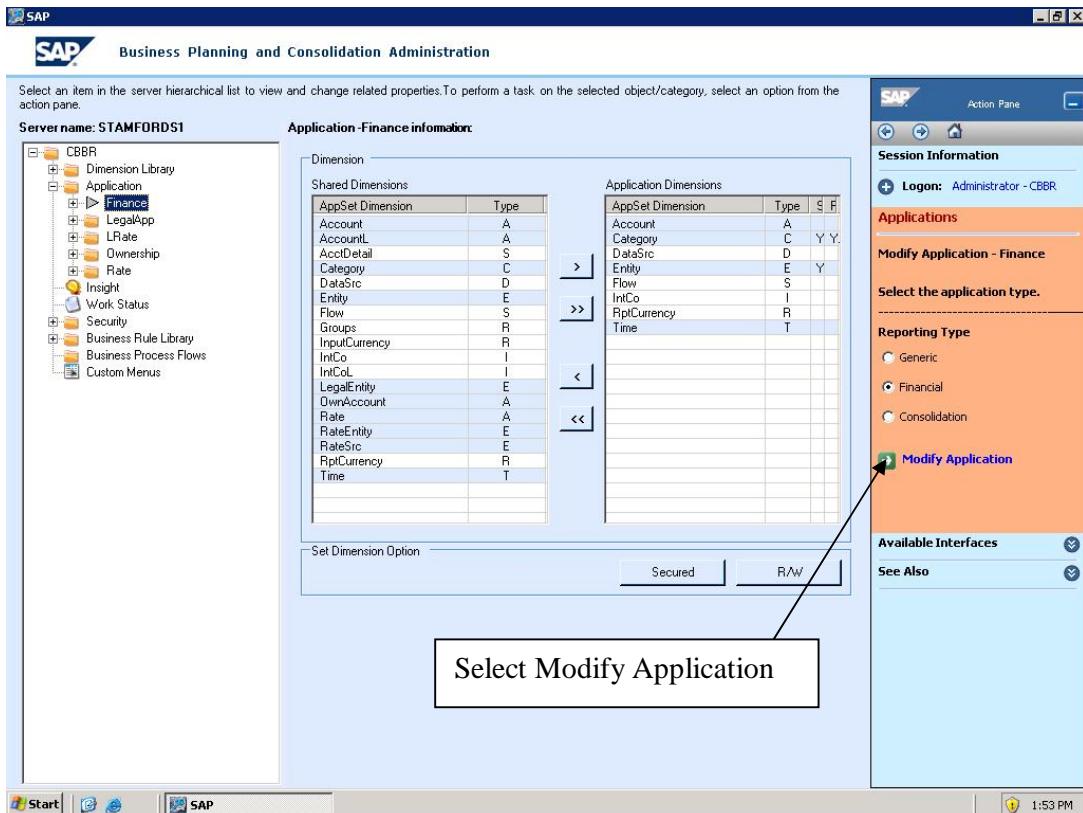
The Account Transformation Business Rule gives the client the ability to use the value of one account in a different area of their financial reports at another value.

The Account Transformation Rule is handled by the stored procedure called SPRUNCALCACCOUNT. The following pages provide an example of setting up the requirements necessary to have this Business Rule complete successfully. The simple example will demonstrate the proper setup that is required to bring the value of Account NetIncome (Net Income), to the Account CYNI (Current Year Net Income), for Dec. 1996.

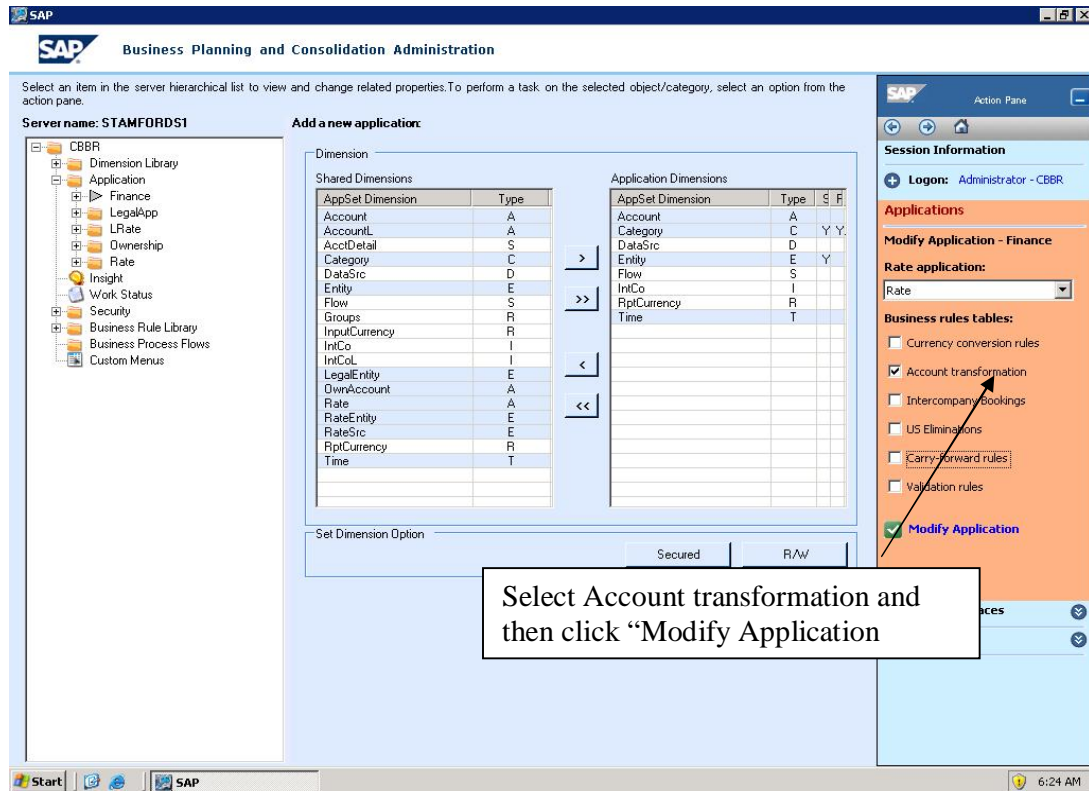
Step 1 – Modify Application to contain Business Rules. Log into BPC Administration and highlight the application to which you need to add Business Rules. Select “Modify Application”



The following screen appears select "Modify Application" again.



The following screen appears with selection choices for any of the business rules you need to set up. For this example select “Account Transformation”, and then “Modify Application”



Step 2 – The next step is to fill in the Account Transformation rules table. The following table displays the values for this table:

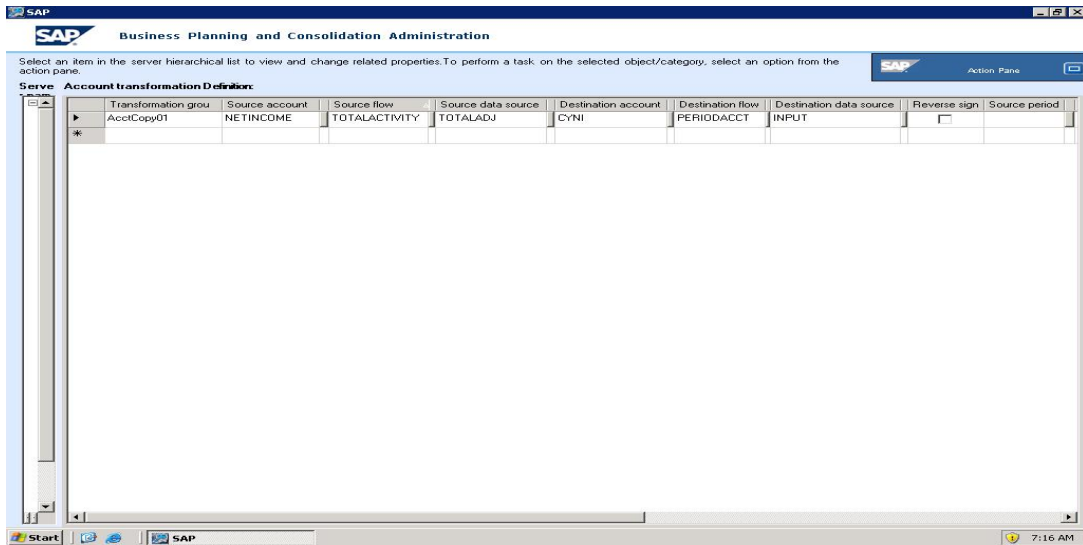
Field Name	Description
Transformation group	The identifier for a group of calculations.
Source account	Controls the rule to apply to a given account. This field is driven by a drop-down menu choice and may contain either of the following: 1) A valid base or parent level member ID from the Account type dimension. Or 2) A list of members defined filtering the members using a value of the DIMLIST property (or any property whose name begins with DIMLIST) in this same Account type dimension.
Source flow	Controls the applicability of the rule from a given member ID of the Flow dimension. This field is driven by a drop-down menu choice and may contain either of the following: 1) A valid base or parent level member ID from the Subtable type dimension. Or 2) A list of members defined filtering the members using a value of the DIMLIST property (or any property whose name begins with DIMLIST) in this same Subtable type dimension.
Source data source	The name of the source DataSrc member. This field is driven by a drop-down menu choice, containing all members of the DataSrc dimension.

Destination account	This is the new Account that the rule is copying the data to. This field is driven by a drop-down menu choice containing all base level members of the Account type dimension.
Destination flow	This field controls the destination member ID of the Flow dimension. This field is driven by a drop-down menu choice containing all base level members of the Subtable type dimension.
Destination data source	The name of the destination DataSrc member. This field is driven by a drop-down menu choice, containing the input members of the DataSrc dimension.
Reverse sign	Check this box if you would like the amount in the source account to be reversed when it is
Source Period	Enter the month to process from the drop-down menu. Leave blank to use the current month.
Same period	Enter the year to process from a drop-down menu. Leave blank for current year.
Apply to YTD	If this check box is selected, the YTD value of the account being copied is calculated if this is a Periodic application.
Remark	A description for this rule.
Level	Calculation Order for which the Rule should be Run. If blank, or 0, it will be calculated first. Level of 1 will be calculated second. Level of 2 will be calculated third, etc. This is similar to using the Solve Order function in Account formulas.

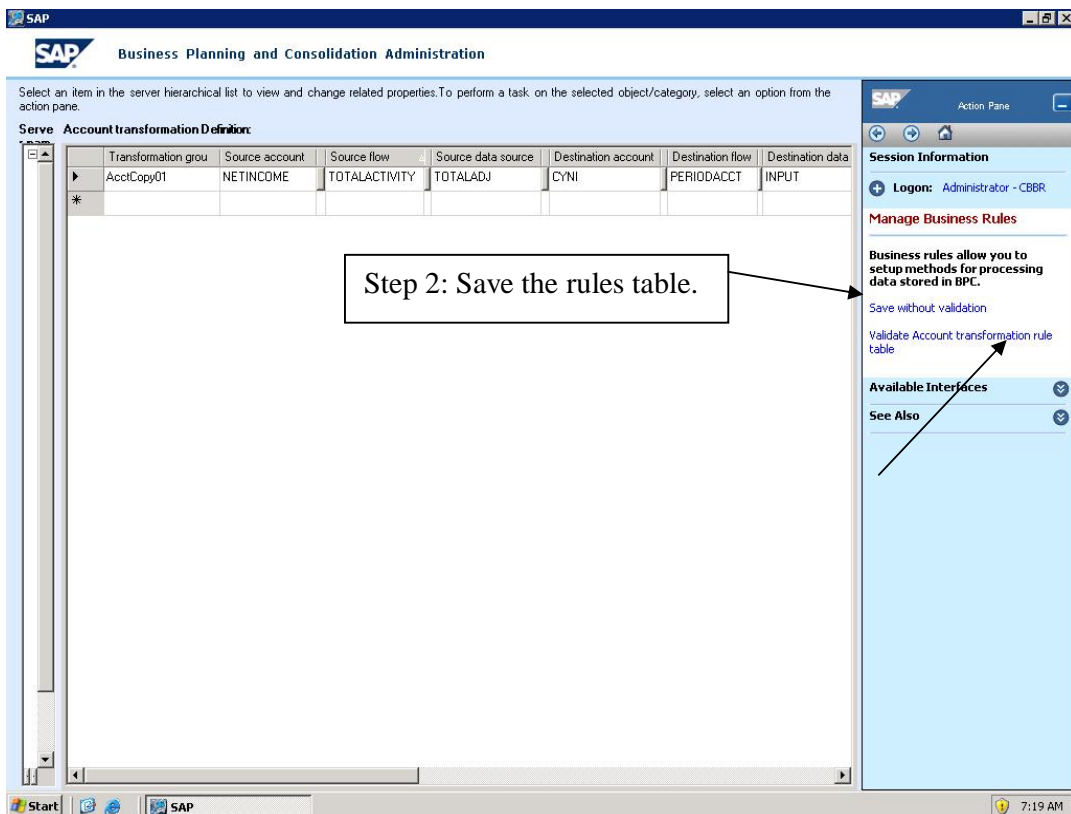
The following example shows how the Account transformation rule is set up to copy the value in the Account NetIncome, with a Source flow member of TOTALACTIVITY, and DataSrc member of TOTALADJ, to destination Account CYNI, with a Source flow member of NOACTIVITY, and Destination DataSrc member of INPUT. The Reverse sign check box will not be checked. Both the Source Period and Source Year will be left blank. The Apply to YTD boxes will be checked. The remarks field will contain a brief explanation.

NOTE - Unlike the Carry Forward Business Rule, the Flow dimension is not a requirement for the Account Transformation Rule. So, if the application does not contain either a Flow or DataSrc dimension, these fields in the table are to be left blank.

The completed record for the above example is as follows:



Once the table has been completed with the rules that Administrator is building, the Administrator needs to Validate the Rules table, and then Save it. NOTE: This is a two step process. The Validation step does not save the table and the Save step does not validate the table.



Step 3 – The next step is to add the procedure to a logic file. For this example it will be added to the default logic file. The syntax for the Roll-forward rule is as follows:

RunCalcAccount(applicationname,category,currency)

The stored procedures logic are maintained in the AppSetName\System Library\Logic Library\Stored_Procedure_wrapper.lgl file and is required in the logic file to run the stored procedures.

The following 3 lines have been added to the bottom of the default logic in the application which contains the business rule built in Step 2 above.

```
*SysLib Stored_Procedure_wrapper.lgl  
RunCalcAccount(FINANCE,ACTUAL,USD)  
*Commit
```

Notice that the Parameters have been set to have the rule run for the Finance Application, for the Actual Category, in US Dollars.

Before exiting the logic file, be sure to Validate and Save it.

Step 4 – At this time the Account Transformation Rule is ready to be run. Log into BPC for Excel, Manage Data, Run a Data Management Package, then within the Company Folder of the Finance application, select System Administration, and then Default Formulas.

The user will then be prompted to fill in the following 3 parameters: Category; Entity and Time.

As with all Data Manager Packages, view the status to check if it completed successfully or not, and if not then be sure to review the log file which gives more information about errors that may have occurred during the running of the package.