COPA Realignment

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Applies to:

Applies to all SAP R/3 and ECC versions.

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Summary

A normal phenomenon with business users is that data is posted with wrong assignments and they realized the incorrect assignments and corrected. Now they want to correct the posted data for accurate COPA reporting. I will explain a methodology in my article a function called " Realignment" to reflect changes to derivations and organizational assignments to update the existing transaction data without any customization .

Author: Sivaprasad R

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Author Bio

Sivaprasad R is a Senior Consultant with specialisation in SAP Financials .

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Introduction

Normally, it is a rule in SAP that data once posted cannot be changed. However, SAP has devised a tool in COPA wherein we can realign the Existing data in accordance with the changed derivations or data relationships.

Assume customer XYZ belongs to customer group XYZ initially and postings are generated. Afterwards, the customer XYZ has been regrouped under customer group- ABC. Now with this function, you can correct the Transaction data (Ex: Sales Order / Billing document) assignments. Now after realignment, the COPA reports reflect as if the customer XYZ belongs to Customer group-ABC. This is very useful especially when the data posted with wrong master data assignments. You simply correct the master data or derivation rules, then run the Realignment runs, your existing transaction records will be corrected and reflects correctly in the information system. Thus the realignment affects the master data assignments.

However, to protect data integrity, the original COPA line items posted with the earlier assignments / derivations will not be affected with the realignment.

Key Concept

A *realignment* makes organizational changes in your product, customer, or sales structure - such as a reassignment of sales districts to regions or products to product groups - effective for all past data. You can perform realignments periodically.

This makes it possible for you to apply changes in customer or material master records, in the SD customer hierarchy, or in CO-PA derivation rules to the data that has already been posted to Profitability Analysis. Following a realignment, only the new assignment is known in the information system and in planning. The characteristic values valid at the time the original posting was made can only be analyzed in line item reports. Because the existing profitability segments are changed to adhere to the new assignment, all objects assigned to those profitability segments - such as sales orders or projects - and all existing SAP documents - such as billing documents or FI documents - reflect the new assignment as well.

In this article, I will show you a report wherein error in assignment to customer group is detected and the same is rectified through COPA realignment. After the realignment, you can see that the report now correctly reflects the customer group.

How the Error Was Occurred

I have executed a report from transaction KE30 (This is a custom report used for this example). The report shows the Actual Invoice Qty, Revenue and Cost of goods sold with a comparison between 2 different years. You can drill down by 4 parameters Material group, Sales org, Period, Customer group. Notice that under customer group Public Sector, values appearing for the 2009 whereas the corresponding values for 2008 are Nil. Assuming there is no revenue from Public sector customer group, this gives rise to a data error.

Navigation Material Group Sales Org. Period	Invoice Qty		Revenue		Cost of goods sold	
Customer group Displayed in	2008 1 PC	2009 1 *	2008 1 EUR	2009 1 EUR	2008 1 EUR	2009 1 EUR
001 Industrial customers	12.000	63.000	17,053.80	28,352.00	18,317.16-	4,328.30
002 Trading companies	145.000	0.000	6,592.00	0.00	1,147.74	0.00
003 Development partners	136.000	0.000	35,224.00	0.00	24,480.00	0.00
006 Competition	18.000	0.000	22,118.20	0.00	4,140.36	0.00
007 Public sector	0.000	9.000	0.00	53,100.00	0.00	4,337.19
♦Result	311.000	72.000	80,988.00	81,452.00	11,450.94	8,665.49

Fig 1: Report executed with drill down on Customer group.

I clicked on the Line for Public sector and that gave me the following breakdown of the transaction line item. The customer 1032, COPA document # 100052485 and the reference Doc # 90036370

Cust.group	Customer	Period	Doc. no.	Ref.doc.no	ε	Inv. qty	Revenue	Cost of goods sold
07	1032	003.2009	100052485	90036370		9	53,100.00	4,337.19
					▪	9		

Fig 2 : Breakdown of the Transaction.

Document number	100052485	Item number	Re
Posting date	10.03.2009	Period	3	Fis

| Characteristics | Value fields | Origin data | Administrat.data |

Characteristic	Char. value	Text
Customer	1032	Institut fuer Umweltforschung
Product	P-101	Pump PRECISION 101
Company Code	1000	IDES AG
Plant	1000	Werk Hamburg
Sales Org.	1000	Germany Frankfurt
Distr. Channel	10	Final customer sales
Division	00	Cross-division
Customer group	07	Public sector
ProdHier01-1	00100	Machines
Material Group	001	Metal processing

Fig 3 : COPA document # 100052485 shows Customer / customer group.

You can see that Customer Group, material group has been derived from their respective Master data by clicking on the Integration". All the documents (Sales order / billing doc) etc will have the profitability segments as listed above.

You can check that the profitability segments attached to the Sales order/ Billing document have the customer group as 07. This happened as the user has wrongly entered the Customer group as 07 in the customer master data for Customer 1032.

Fig 4 : Display Customer Master data shows wrong customer group Assignment.

How the Error Was Rectified

Now the user has realized the mistake and corrected it in the master data. He will change as 01 instead of the earlier 07 in all sales areas.

Fig 5 : Customer master is corrected with right Customer group

But even after changing the assignment, the report in figure -1 will still display the customer group wrongly, as the profitability segments are already posted with doc # 100052485.

Now, we need to reset the Profitability segments which are already posted. To do that, we follow a procedure called Realignment, which I will explain now. After the realignment, the report in figure-1 will correctly show the customer group as per the changes you made in figure-5.

Bingo…Good news is that there are no customizing steps for this. All steps are from Application menu path only. Realignment is carried out in 3 steps:

1. Create Realignment Run & Realignment Request
2. Test the Realignment Run with sample data.
3. Execute the Realignment as a background Job.
4. Check the results.

Process Steps

1. Create Realignment Run & Realignment Request

Access the transaction using Application menu path: Controlling >Profitability Analysis >Master Data > Maintain Realignments or use transaction- **KEND** which directly takes you to the following screen.
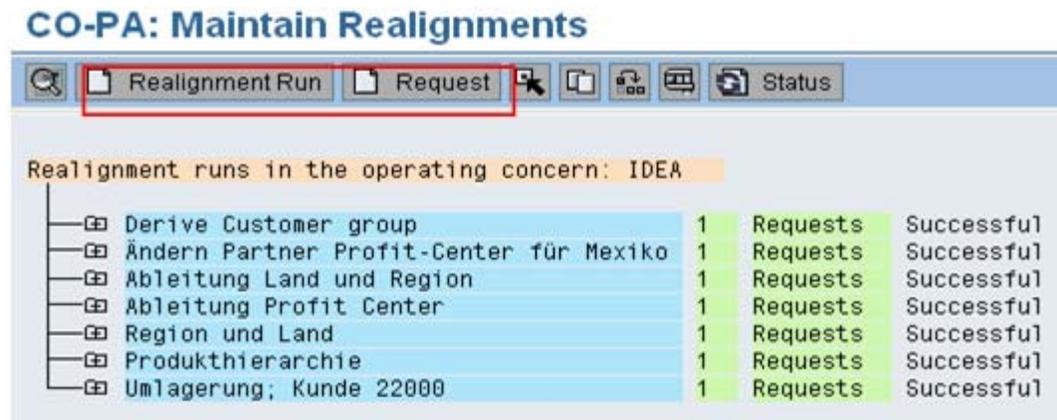

Fig 6 : Maintain Realignment Run & Request

Click on Create Realignment Run button and give text that clearly describes the content of the realignment run. We will maintain Realignment requests under this run. A realignment run consists of one or more realignment requests. A realignment request consists of a set of selection criteria, a conversion rule, and a description.

Next we will create a Realignment request under this Run. Keep the cursor on the run and click on Create Request Button as highlighted in Fig-6, which takes you to figure-7. Maintain the description for the Request.

The Realignment request has 2 tabs " Selection Conditions" and "Conversion Rule". Under tab Selection conditions, you can select the COPA characteristics, which needs realignment.
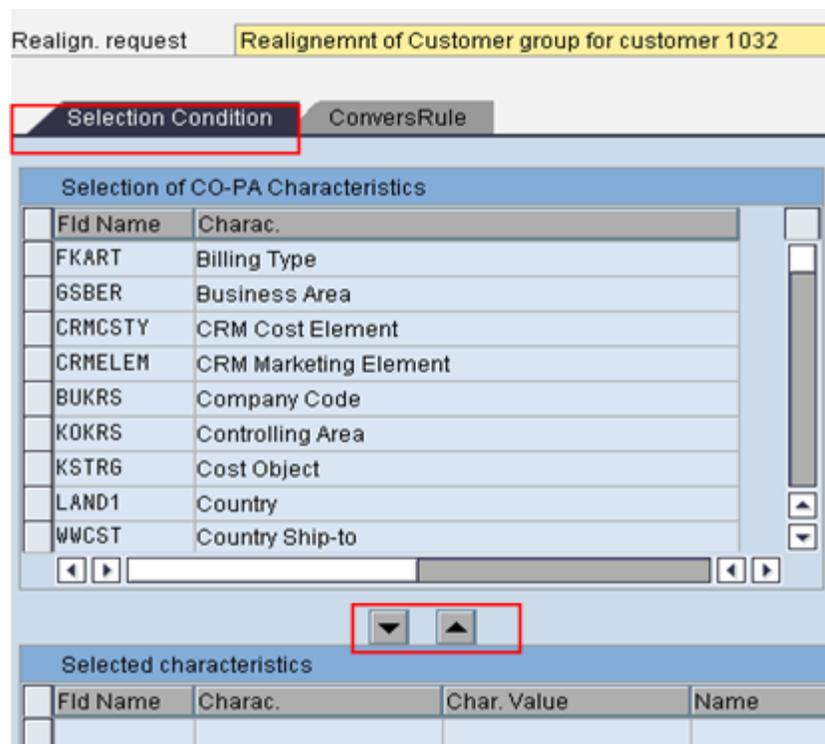

Fig-7 : Maintain Realignment Request (Selection conditions)

Since in our case, the company code is 1000 and Customer is 1032, I have selected these 2 characteristics. By doing this, I am telling the system to select all Profitability segments, which has company code 1000 and Customer as 1032 for further processing. In case, you change customer master data only for one sales area (i.e Comp code + sales orgn + Distribution channel + Division), in that case, you need to select them too. In my example, the customer group is 01 for all sales areas. After selecting the characteristics, you press the downward arrow button shown in fig-7, the characteristics will now move to Section Selected characteristics as shown in fig-8.

A realignment is only carried out on those profitability segments which meet the selection criteria for that request. All the selection criteria must be true for a profitability segment before it is changed by the realignment.

You can use the arrow buttons to move the selected characteristics back and forth between the two tables. For each characteristics in the lower table, you can enter a fixed value in the *Characteristic value* column. If you do not make any entries there or in the *More* column (arrow), the system selects profitability segments that do not contain a value for that characteristic.

Realign. request	Realignemnt of Customer group for customer 1032

Selection Condition   ConversRule

Selection of CO-PA Characteristics

Fld Name	Charac.
CRMELEM	CRM Marketing Element
KOKRS	Controlling Area
KSTRG	Cost Object
LAND1	Country
WWCST	Country Ship-to
PAREG	Country and region
KUKLA	Customer classific.
KDGRP	Customer group
HIE01	CustomerHierarchy01

Selected characteristics

Fld Name	Charac.	Char. Value	Name	Sele.
BUKRS	Company Code	1000	IDES AG	➡
KNDNR	Customer	1032	Institut fuer Umwelt	➡

Fig 8 : **Realignment Request (Selection conditions) after selecting COPA characteristics.**

Now we need to set the conversion Rule, that is what characteristics to be derived again etc. Go to tab " Conversion Rule".

A **conversion rule** specifies the system what to change by the realignment program: It has 3 sections.

1. Derive characteristic again. By pushing characteristics into this section, you specify that system derive them once considering changes in master data / derivation rules.

2. Do not change indicate the characteristics need not be derived again,

3. Replace with fixed value (value must also be specified)

Note: Characteristics such as controlling area, company code, sales order, sales order item etc cannot be derived again, so they always remain in Do not change section. They appear in blue colour for easy identification. Refer SAP notes 94458 to get more info on the conversion rule

You can use the arrow buttons to move the selected characteristics back and forth between the two tables.

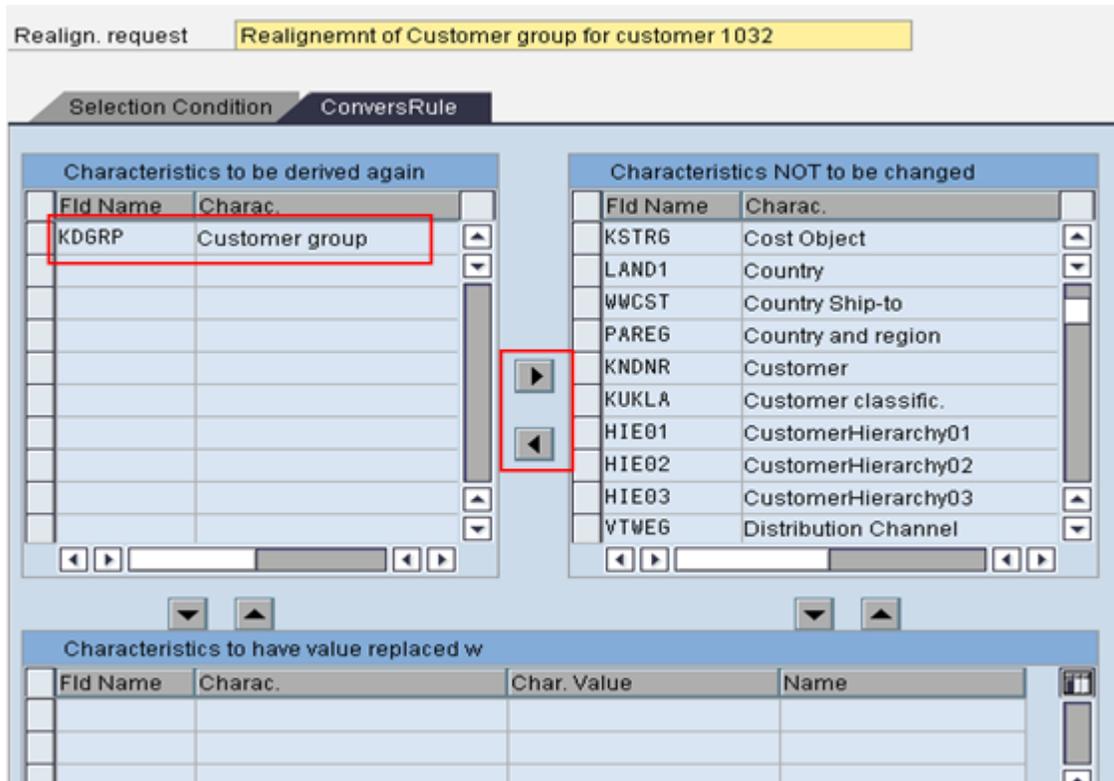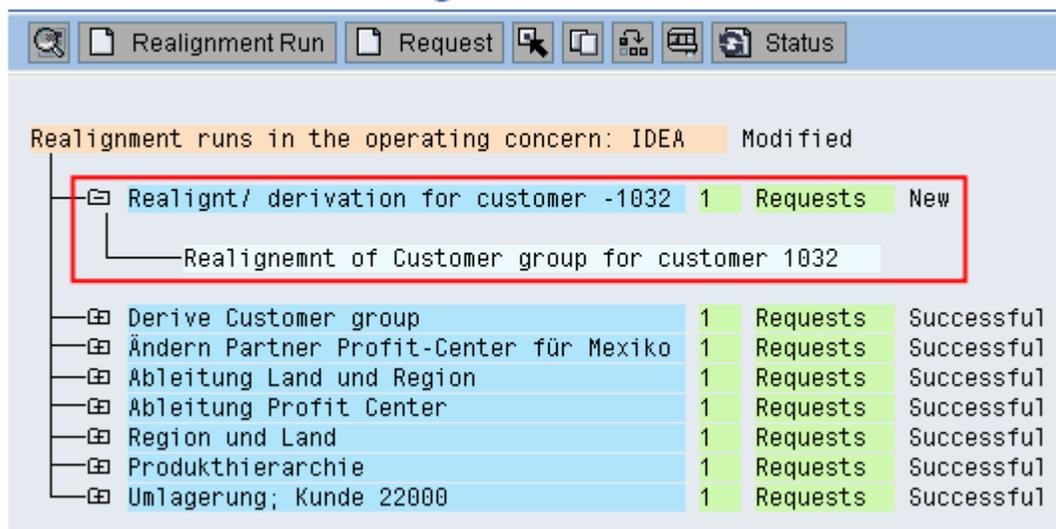**Fig 9: Field selection for characteristics to be derived again.**

Fig 10: Overview Screen after Maintaining Realignment Run and Request.

Save the realignment Run. Immediately after saving, the status is now shown as "New".

Note: You can copy realignment run/request or Move realignment request (within a realignment run or between realignment runs).

The sequence of Realignment request is very important here because, the system carries out changes to Profitability segments in the same order from top to bottom. For example, using Realignment request 1, customer group is changed to ABC, and using Request 2, Customer group is changed to XYZ, now the PA segment reflects customer group as XYZ. But if you execute the realignment request in reverse order (i.e First request 2 and then request 1), the customer group will be "ABC". Using move function, you can change their sequence.

2. Test the Realignment Run with sample data.

Now we are ready to execute the realignment run. First test in and then execute in background.
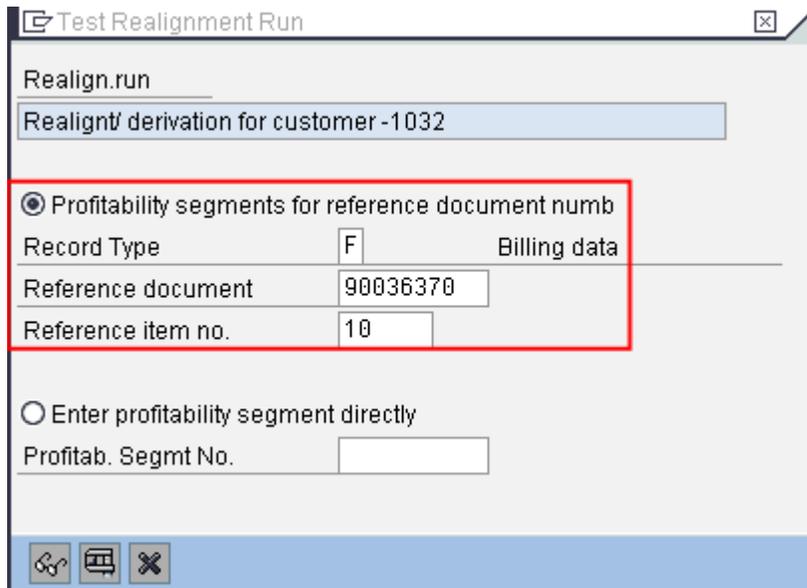

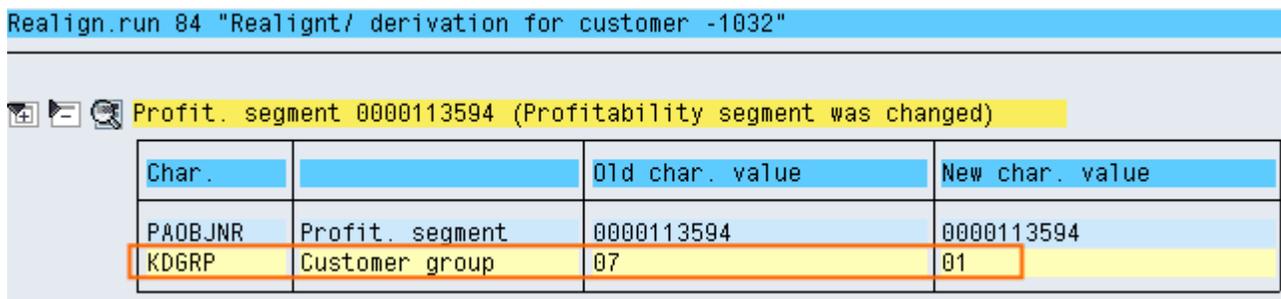**Fig 11: Popup window to inputting values for testing.**

Fig 12: Test result for Realignment Run shows customer group as 01.

3. Execute the Realignment as a background Job.

Go to menu: Run/ request- Execute- Without starting time / with starting time. Remove the Test mode check.
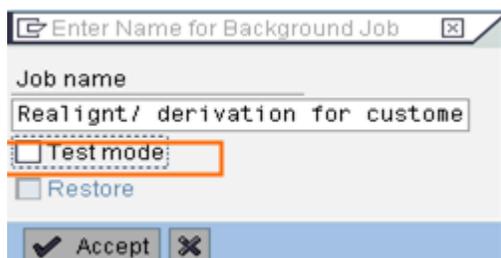

Fig 13: Maintain job details for Executing Realignment run as a background job.

Click on Accept and save the job. Now the job is scheduled as desired in background. Go to SM37 and select see the job overview as shown in figure-14.

Note: Larger realignments can therefore only be processed at a time when the system workload is low and - most importantly - when no postings are made to Profitability Analysis.

Job	Ln	Status	Start date	Start time	Duration(sec.)	Delay (sec.)
☐ DERIVE CUSTOMER GROUP	📠	Finished	09.03.2009	16:43:15	21	0
☐ REALIGNT/ DERIVATION FOR CUSTOME	📠	Finished	10.03.2009	18:43:54	3	0
☐ RECHERCHE_1000_0012000_0122009		Canceled	06.03.2009	15:37:21	13	1
☐ RKETRERU	📠	Finished	09.03.2009	16:41:07	4	0
*Summary					41	1

Fig 14: Job overview

Once the job status is finished, you can check the status of the Realignment run as Successful. In case there are any errors, it will show as Failed.

⊟ Realignt/ derivation for customer -1032	1	Requests	Successful
└─ Realignemnt of Customer group for customer 1032			
⊞ Derive Customer group	1	Requests	Successful
⊞ Ändern Partner Profit-Center für Mexiko	1	Requests	Successful
⊞ Ableitung Land und Region	1	Requests	Successful
⊞ Ableitung Profit Center	1	Requests	Successful
⊞ Region und Land	1	Requests	Successful
⊞ Produkthierarchie	1	Requests	Successful
⊞ Umlagerung; Kunde 22000	1	Requests	Successful

Fig 15 : Realignment run/request status after successful execution.

4. Check the results.

You can see the details of execution by double clicking on Realignment Run.

Display Detail Data on Realignment Run

Realignment run short text

Realignt/ derivation for customer -1032

Status of realignment run

Successful

Change History			
Start Date	Activity	Status	Details...
10.03.2009	Update run	Successful	🔍
10.03.2009	Changed	Scheduled	🔍
10.03.2009	Created	New	🔍

Fig 16: Details of Realignment Run Execution.

Once you executed a realignment run successfully, you cannot change or repeat it. If you realized that you have executed the realignment run by mistake or your realignment run is terminated abnormally, you can restore the data to the state it had prior to a specific realignment run. (System stores the Characteristics values of Profitability segments before execution of Realignment run in table CE4xxxx_KENC to get values

in case restore is executed) .But ensure that you restore only the last executed Realignment run. Otherwise, changes carried to profitability segment by subsequent Realignment runs are lost.

Access the restore function from menu path: Run / Request> Restore. If you want to execute the realignment run once again after restore, you can do it by copying the run and creating another run and executing it.

Note: With periodic and multiple Realignment runs, it is recommended to delete the contents of table CE4xxxx_KENC periodically for performance reasons. Contact your Basis administrator for more help.

Thus the realignment run can have the status " New" , "Scheduled", "Running", " Successful", "Terminated", "Restored".

With this, the realignment is complete and now my reports reflect the customer group correctly.

I have executed the report now and it gave me the output as shown in Fig-17. On comparing Figure-1 and figure-17, you can notice that

1. The Public sector Customer group has disappeared in figure17.

2. The value fields Invoice Qty, Revenue, Cost of Goods Sold against erstwhile Customer group 07 (Public sector) are now regrouped under Customer group 01.

3. The value field totals remain the same in both reports

Thus, the realignment now correctly reflects the correct picture.

Navigation						
Material Group						
Sales Org.						
Period						

	Invoice Qty		Revenue		Cost of goods sold	
Customer group Displayed in	2008 1 PC	2009 1 *	2008 1 EUR	2009 1 EUR	2008 1 EUR	2009 1 EUR
◊01 Industrial customers	12.000	72.000	17,053.80	81,452.00	18,317.16-	8,665.49
◊02 Trading companies	145.000	0.000	6,592.00	0.00	1,147.74	0.00
◊03 Development partners	136.000	0.000	35,224.00	0.00	24,480.00	0.00
◊06 Competition	18.000	0.000	22,118.20	0.00	4,140.36	0.00
◆Result	311.000	72.000	80,988.00	81,452.00	11,450.94	8,665.49

Fig 17: Execution of Drill down report after COPA realignment.

Thus ,a realignment changes the COPA characteristic values and thereby activate master data changes for all existing data in CO-PA.

After Realignment, characteristics values in Profitability segments are changed. But, the summarization levels and summarized data remains unchanged. Due to this, there is data inconsistency between segment level table and presummarized table. Therefore, after Realignment, you must run the transaction KEDU with radio button "Build new levels" to maintain consistency.

To protect data integrity, the original COPA document posted will still show the Previous Customer group. You can execute transaction KE24 to display the document. You have two radio button options when accessing KE24 under mode of access. While " Read according to Current structure" shows the document with changes whereas " Read as Posted" will show the document as originally posted. See the output in figure -18 & 19 below under both options.

Plan/Act. Indicator	0
Document number	100052485
Record Type	F
Currency type	B0
Number of line items	1
Mode of access	Read as posted
Op. concern currency	EUR

Cust.group	Customer	Period	Doc. no.	Ref.doc.no	Σ	Inv. qty	Revenue	Cost of goods sold
07	1032	003.2009	100052485	90036370		9	53,100.00	4,337.19
					▪	9		

Fig 18 : COPA document as originally posted.

Plan/Act. Indicator	0
Document number	100052485
Record Type	F
Currency type	B0
Number of line items	1
Mode of access	Read acc. to current structure
Op. concern currency	EUR

Cust.group	Customer	Period	Doc. no.	Ref.doc.no	Σ	Inv. qty	Revenue	Cost of goods sold
01	1032	003.2009	100052485	90036370		9	53,100.00	4,337.19
					▪	9		

Fig 19 : COPA document as per current structure (with COPA realignment)

References

http://help.sap.com/saphelp_erp60_sp/helpdata/en/7a/4c48c64a0111d1894c0000e829fbbd/frameset.htm

http://help.sap.com/printdocu/core/Print46c/en/data/pdf/COPA/COPA.pdf

http://www.sapfans.com/forums/viewtopic.php?f=16&t=181098

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