SAP CONTROLLING – CO-OM
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1. Initial settings and assumptions

The below scenario covers SAP CO-OM (Controlling – Overhead Management).

The exemplary enterprise, being the subject of the scenario deals with project development. In the University of Gdańsk demo system a following basic settings were maintained for this enterprise:

- Client: 550
- Users: IB01 – IB20
- Controlling area: UG01
- Chart of accounts: CAPL
- Company code: UG01
- Cost centers standard hierarchy: UG01
- Order type: UG01
- Cost elements were created for the accounts:
  - 411000 – 469400 – costs by origin (except asset depreciation)
  - 703000 - revenue
  - 713000 – cost of goods sold
- Cost element group – 4_ALL – groups all 4x cost elements

The company operations and its controlling requirements are reflected in SAP system as follows:

1) Company UG01 is currently doing 2 projects:
   a. Building a warehouse
   b. Renovating a hotel

   Revenues and direct costs are collected on internal orders of the type UG01

2) The work is done by one construction department, which costs (indirect costs) are collected on the cost center – DEPx. These costs are allocated to projects according to the workload in mandays using secondary cost element UG000000xx. Workload is reflected by the statistical key figure – UGMHxx

3) General costs are collected on cost center – GENxx

4) Costs from the orders are settled to G/L account to determine the cost of goods sold
2. SAP CO-OM – Overhead Management

2.1. Master data

2.1.1. Cost element maintenance

Primary cost elements

Primary cost elements are the link between SAP FI – Financials and SAP CO – Controlling. For each General Ledger account that is CO relevant a primary cost element should be created with the same number. This has a following consequences in the system:

- If a posting is done in FI to an account that has a cost element – a cost object (cost center, order, CO-PA object) has to be entered. The posting will be then visible in CO under that cost element.
- If a posting is done in FI to an account that does not have a cost element – it is irrelevant for CO and no cost object can be entered.

1) Check the cost element master data in the system

Transaction: KA03

Restrict the list:
Push “Enter” to display the list
Click “Master data” or “Enter” to display master data

**Secondary cost elements**

Secondary cost elements are used for repostings and assessments of costs and revenues inside the CO.

2) Create the secondary cost element: UG000000xx:
   a. Valid from: 01.01.2009
   b. Valid to: 31.12.9999
   c. Name: Dep. cost all. xx
   d. Description: Department cost allocation xx
   e. Cost element category: 42 – Assessment

Transaction: KA06
2.1.2. Cost centers maintenance

Cost centers are the basic CO object in CO-OM area. They reflect the enterprise’s structure and are usually used to collect indirect costs (costs which cannot be assigned to the production calculation objects such as production order or project).

They are grouped in Standard hierarchy.

1) Create cost centers for general costs and for construction department indirect costs in the standard hierarchy nodes - UGGENxx – general costs UGDEPxx – department costs:

   a. Cost center for general costs:
      i. Cost center: GENxx
      ii. Name: General costs xx
      iii. Person responsible: xx
      iv. Cost center category: W – Administration

   b. Cost center for department indirect costs:
      i. Cost center: DEPxx
      ii. Name: Department costs xx
      iii. Person responsible: xx
      iv. Cost center category: W – Administration

2) Browse the Organization and Indicators tabs to see the default settings that came from the cost center category.
2.1.3. Internal orders maintenance

Internal orders are CO objects used for different purposes, depending on the controlling requirements of an enterprise. Main purposes are:

1. Detailed analysis of costs, primarily posted to the cost center, for example to determine:
   a. Costs of marketing campaigns launched by the marketing department,
   b. Costs of incidental initiatives run by general departments

   For such purposes statistical orders are created. This means that costs are posted to the cost center in a real run and they are posted in parallel to the internal order only for analysis purposes.

2. Analysis of direct costs of projects, production or service orders. For such purposes real orders are created.

   1) Create internal orders for the projects performed by the enterprise UG01:
      a. Order type: UG01
      b. Order:
i. UG00000001xx – for building a warehouse xx
ii. UG00000002xx – for renovating a hotel xx

c. Description – as above
d. Settlement rule:
   i. Category: G/L
   ii. Settlement receiver: 711000
   iii. %: 100
   iv. Settlement type: PER
   v. Source assignment: COS
   vi. No.: 1

Transaction: KO04

Click: Create
Enter the master data as specified above
Click Settlement rule and enter the rule as above.

2) Check the Control data tab to see the order status and allowed transactions.

2.1.4. Statistical key figures maintenance
Statistical key figures are the base for cost allocation within controlling. They can be fixed, which means that they do not change frequently (ex. square meters, cubic meters, number of employees) or flexible, which means they change from period to period (ex. man hours, machine hours, number of products).
1) Create a statistical key figure master data for man hours used on projects:
   a. Statistical key figure: UGMHxx
   b. Name: Man hours xx
   c. Unit of measure: h
   d. Category: Total values

Transaction: KK01

2.2. Postings

2.2.1. Direct postings from FI

Any time a posting is done in FI on an account with a cost element, the costs flow to CO. The posting may be done directly in FI or can come from automatic postings in other areas of SAP system, such as for example:

- MM – Material management: purchase invoice, goods receipt, goods issue to production,
- SD – Sales and distribution: sales invoice, goods issue to customer,
- HR – payroll posting

After the costs flow to CO, they can be re-allocated within the CO objects and (optionally) settled back to FI.

In this scenario all the postings will be done via FI.
1) Post the following costs and revenues to the internal order created in the preceding step (corresponding account for all postings is: 134000)
   a. Costs to a warehouse order:

<table>
<thead>
<tr>
<th>G/L and cost element number</th>
<th>Cost by origin name</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>411100</td>
<td>Material consumption</td>
<td>300 000</td>
</tr>
<tr>
<td>429020</td>
<td>External services – building</td>
<td>150 000</td>
</tr>
<tr>
<td>431500</td>
<td>Production wages</td>
<td>100 000</td>
</tr>
</tbody>
</table>

   b. Costs to a hotel renovation order:

<table>
<thead>
<tr>
<th>G/L and cost element number</th>
<th>Cost by origin name</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>411100</td>
<td>Material consumption</td>
<td>120 000</td>
</tr>
<tr>
<td>431500</td>
<td>Production wages</td>
<td>90 000</td>
</tr>
</tbody>
</table>

   c. Revenues to a warehouse order: G/L account: 703000, amount 600 000
   d. Revenues to a hotel renovation order: G/L account: 703000, amount 300 000

Transaction: FB50

Adjust the enter screen by moving the cost center and order number fields after the tax code.
Create and save a variant UGxx:

Enter a posting and a document date: 01.01.2010
Enter the document and save it. Example below:
2) Post the following costs to the cost centers created in the preceding step
   (corresponding account for all postings is: 134000)

   a. Costs to department cost center:

<table>
<thead>
<tr>
<th>G/L and cost element number</th>
<th>Cost by origin name</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>411100</td>
<td>Material consumption</td>
<td>20 000</td>
</tr>
<tr>
<td>431100</td>
<td>Wages</td>
<td>100 000</td>
</tr>
<tr>
<td>469400</td>
<td>Other costs</td>
<td>230 000</td>
</tr>
</tbody>
</table>

   b. Administration costs to a general cost center:

<table>
<thead>
<tr>
<th>G/L and cost element number</th>
<th>Cost by origin name</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>411110</td>
<td>Small tools</td>
<td>50 000</td>
</tr>
<tr>
<td>429040</td>
<td>Telecommunications</td>
<td>20 000</td>
</tr>
<tr>
<td>431100</td>
<td>Wages</td>
<td>120 000</td>
</tr>
<tr>
<td>465000</td>
<td>Banking services</td>
<td>5 000</td>
</tr>
</tbody>
</table>
2.2.2. Posting of the statistical key figure

Except the posting of costs and revenues it is necessary to input the base for future cost allocation. In this scenario this base is a statistical key figure.

1) Post the number of man-hours used by the employees on the projects:
   a. Posting and document date: 30.01.2010
   b. Warehouse: 700
   c. Hotel renovation: 300

Transaction: KB31N
Change the screen variant to Order
Change the dates to 30.01.2010

Enter the receiving order, statistical key figure and quantity for each line.
2.3. **Information system**

Each sub-area of SAP CO has its own information system which allows you to analyze the cost/revenue information.

1) Analyze the cost information for your cost centers.

Run a report:
Input the selection criteria for the report:

Select your cost center on the left-hand side of the report:

Double click the line and choose the first report to see the line items
Double click a line to see a document that created that line
2) Analyze the cost information for your orders.

Run a report:

Proceed as for cost centers report

2.4. **Periodic allocations**

In most enterprises the costs should be allocated from one object to another to obtain the unit costs of production.
SAP supplies several allocation mechanisms, most popular of which are:

- Distribution,
- Assessment.

The difference between is as follows:

1. Distribution allocates costs under original cost elements. This allows detailed analysis of costs on the receiving object but creates many line items in the system.
2. Assessment sums up all the costs on the sender and allocates them to the receiver under one secondary cost element.

In this scenario the second option will be used to allocate indirect production costs from the department cost center to the project orders.

2.4.1. Creating of an assessment cycle

Assessment cycle defines how the costs will be automatically allocated. You define a sender, a receiver, cost elements to be allocated as well as the allocation basis.

1) Create an assessment cycle UGxx which would allocate all 4* costs (group 4_ALL) from a department cost center to project orders, according to man-hours used for each order, under the secondary cost element UG000000xx.

Transaction: KSU1
From the upper menu choose Extras -> Cycle -> Create

Enter cycle name and starting date:

On the header screen change the end date and enter a description of a cycle:
Push the Attach segment button

On the segment header tab input the allocation cost element, sender and receiver rule:

On the Senders/Receivers tab enter the sending cost center, cost element group to be allocated and receiving orders:
On the Receiver tracing factor tab enter the Statistical key figure:

Save a segment and then a cycle

2.4.2. Executing an assessment cycle

Once a cycle is created it must be executed by the end of each month to automatically allocate the costs.

1) Run the cycle for period 01.2010
Fill in the period and cycle. Run the cycle in the test run
After checking the cycle results run it in a real run.

2) Examine the result of running the cycle by running the reports for cost centers and orders.

2.4.3. Order settlement
In standard SAP solution orders cannot be senders in assessment or distribution cycles. However, costs from an order can be settled to one or many receivers. The rules for this settlement are stored in an order master data. The possible receivers and cost elements to be allocated are derived from the order type.

1) Check the settlement rule of your orders
Transaction KO04
Choose your order:

Master data will be displayed:
Click the Settlement Rule button

2) Execute a settlement of costs from your orders to the G/L account

Transaction: KO88
Enter your order and run the settlement in a test run.

If the results of the test run are satisfactory, execute the settlement in a real run.
2.5. **Planning**

SAP allows to plan costs and revenues on all CO objects. Planning layouts are grouped in called Planner profiles. Standard planner profiles delivered by SAP are:

- **SAPEASY** – containing basic planning layouts,
- **SAPALL** – containing more sophisticated planning layouts.

In this scenario a planner profile SAPEASY will be used.

1) Set the planner profile to SAPEASY

Transaction: KP04

<table>
<thead>
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<td>200 000</td>
</tr>
<tr>
<td>469400</td>
<td>Other costs</td>
<td>2 000 000</td>
</tr>
<tr>
<td>431100</td>
<td>Wages</td>
<td>1 000 000</td>
</tr>
</tbody>
</table>

Transaction: KP06
Choose planning layout 1-161

Enter periods, year, cost center and cost element group to be planned.

Choose form-based entry

Plan the costs and save the plan.

2) Check the result by running the cost centers report
2.5.2. Planning costs for orders

1) Plan costs for the building the warehouse order:

<table>
<thead>
<tr>
<th>G/L and cost element number</th>
<th>Cost by origin name</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
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<td>Material consumption</td>
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<td>600 000</td>
</tr>
<tr>
<td>431500</td>
<td>Production wages</td>
<td>500 000</td>
</tr>
</tbody>
</table>

Transaction: KPF6

Enter the necessary data on the initial screen:
Plan the costs and save

2) Check the result by running the orders report