SAP PRESS

SAP for Utilities

SAP Activity Based Costing

POWERED BY SAP HANA

SAP S/4 HANA

A Business and Technical Roadmap to Deploying SAP

INTRODUCTION

Welcome to the fascinating world of SAP. This book helps you crack the tricks of mastering SAP HANA Customization

Activity-Based Costing

In the following IMG activities you make mandatory and custom default settings for the Activity-Based Costing component (CO-OM-ABC).

After completing the settings, save and check them.

Further notes

For more information on the following activities, see the Implementation Guide documentation (IMG) in the Application Help for Activity-Based Costing (CO-ABC) and the SAP Library under "CO - General System Administration: Overhead Cost Controlling".

Requirements

Before you make default settings for the Activity-Based Costing component (CO-OM-ABC), complete the following IMG activities:

Implementation Guide "Controlling: General"

Organization

Implementation Guide "Cost and Revenue Element Accounting"

Settings for cost elements

Implementation Guide "Cost Center Accounting"

Settings for cost centers

Activate Activity-Based Costing in Controlling Area

In this IMG activity you activate Activity-Based Costing using the indicator in the **Controlling area**.

You can use the **indicators** to activate or deactivate specific Controlling subfunctions related to the fiscal year.

The indicators are valid from the selected fiscal year. They are valid to the fiscal year for which you maintain the new indicator.

Requirements

Complete the IMG activity **Maintain Controlling Area**.

Activities

Select the controlling area in which you want to activate Activity-Based Costing.

Choose "Activate component/Control indicator".

Determine the fiscal year.

Activate Activity-Based Costing.

Notes for transport

To transport controlling area settings, see the IMG activity under "Controlling: General".

Further notes

For more information on how to activate subcomponents in the controlling area, see the SAP Library under "Controlling -> General Controlling > Organization of Controlling > Controlling Areas."

Maintain Standard Hierarchy for Controlling Area

In this IMG activity, you assign the highest node of a standard hierarchy of business processes to a controlling area.

The standard hierarchy of business processes displays the organizational grouping of business processes and serves moreover as a foundation for evaluations. When creating business processes during master data maintainence for the application menus, you must assign these to a previously defined profit center group.

In the event that a standard hierarchy is not yet available during the maintainance of assignments to a controlling area, the R/3 System will create the highest node.

You can set up the structure of the standard hierarchy by defining the business process groups in customising as well as in the application menus.

Direct assignment to the controlling area guarantees that all business processes of a controlling area are included in the standard hierarchy.

Requirements

You must first fully create a controlling area.

Activities

Assign your standard hierarchy to the controlling area by taking the following steps.

Find the controlling area in the list.

Enter the desired standard hierarchy of business processes for your controlling area.

Save your entries.

Note on transport

To transport controlling area settings, see the IMG activity under "Controlling: General".

Master Data

In these IMG activities you make default settings for the following master data:

Business processes and business process groups

Cost objects and cost object groups

Note

Keep in mind the effects of the structure of your business process and cost object groups on planning and reporting.

Business Processes

In this section you can

Define business process types

Determine business process allocation types

Determine the ranking order for value added

Define business process groups

Define business processes

Maintain Standard Hierarchy of Business Processes

In this IMG activity you maintain the corresponding standard hierarchy for your controlling area.

You can create a new hierarchy or change an existing one, as well as create or edit business processes and business process groups.

Prerequisites

Complete the IMG activity Maintain Controlling Area.

Activities

Structure the processes in your organization and use this structure to derive the business processes and the business process structures.

For more detailed documentation on processing possibilities, refer to the Application help or to the SAP Library under Financials -> Controlling -> Activity-Based Costing -> Master Data in Activty-Based Costing -> Business Process -> Standard Hierarchy of Business Processes.

Note on transport

For the transport of settings for Activity Based Costing, an individual function is available in the IMG for "General Controlling".

Define Attributes

In this IMG activity, you determine possible values for business process attributes.

The R/3 System offers the following attributes:

Process category

Cost behavior

Value added (external, internal)

Additional attribute

A later R/3 System release will support inherited attributes for allocation, including sender, receiver, or manually-set attributes. At this time, you can maintain time-based dependency, but not allocation.

In addition, you can maintain the text fields "First attribute" and "Second attribute". The R/3 System does not valuate these fields.

Activities

Process Category

Determine the criteria according to which your organization classifies business processes.

Check whether the standard process categories satisfy your requirements.

If necessary, create new process categories.

Choose "Process categories".

Choose "New entries".

Enter a number key and a name for each category.

Save your entries.

Cost Behavior

Determine which cost behaviour values you require.

Check whether the standard values satisfy your requirements.

If necessary, create new values.

Choose "Cost behavior".

Choose "New entries".

Enter a number key and a name for each value.

Save your entries.

Value Added

Determine how differentiated you wish to rank value added.

Check whether the standard values satisfy your requirements.

If necessary, create new values.

Choose "Value added ranking".

Choose "New entries".

Enter a number key and a name for each value.

Save your entries.

Note on transport

For the transport of settings for Activity Based Costing, an individual function is available in the IMG for "General Controlling".

Maintain Business Process Groups

In this step you create new business process groups or maintain existing groups.

You can define groups of similar business processes. Business process groups themselves can be combined into groups, resulting in a business process hierarchy.

The highest node of the standard hierarchy is normally the first business process group you created (see Maintain Standard Hierarchy of Business Processes). The groups you create thereafter form the remaining nodes of the standard hierarchy.

You can also create independent business process groups that are not part of the standard hierarchy. A business process can only be assigned to one hierarchy group. However, it can be assigned to any number of independent business process groups.

You can create independent business process groups only in this transaction or in the Activity-Based Costing menu under Master Data -> Business Process Groups -> Create.

You use business process groups in:

The information system

Processing multiple processes in one transaction (such as allocations)

Requirements

You must already have created a controlling area and fully defined it.

Activities

Structure the activities in your company and derive from them your business processes and the structure of the business processes.

Enter the group to be created or changed and choose "Enter".

In the structure screen, select the node from which the group is to be extended and choose "Same level" or "Lower level".

Data fields appear at the selected location in the tree structure.

Enter a name and a text for the new node.

Confirm by choosing "Accept changes".

To assign values to an end node, select the node and choose "Insert value". Data fields appear in the tree structure.

Enter a "From" value and, if necessary, a "To" value.

Confirm by choosing "Accept changes".

The selected values appear together with the name.

Notes on Group Maintenance

During group maintenance, you can take advantage of the following functions.

- Selection Variants

If you create or change groups of cost centers, cost elements, activity types, internal orders, business processes or WBS elements, you can also add a selection variant onto an end node. This end node is one that you already defined in the implementation guide (IMG) for the corresponding object type. To do this, place the cursor on the end node, then choose *Insert lower level* followed by .+<<)< Name of selection variant> (or choose the selection variant using input help).

By double-clicking, you can change each selection variant.

You cannot create new selection variants while processing a group.

You can reassign selection variants in the same way as groups.

You can display a list of the master data that belongs to one selection variant by placing the cursor on the selection variant and choosing *Extras -> Break down selection variant*. The system then displays a list of the corresponding master data in a dialog box.

Expand/collapse

You can open the entire hierarchy to the individual value level or hide it up to the second level. You can thus display and print different summarization levels of the hierarchy. Under *Edit*, you find *Expand all* and *Collapse all*.

Change node

You can change the location of subgroups or individual nodes in the hierarchy. To do so, select the highest subgroup node or individual node, select the reference node, and choose *Same level* or *Lower level*.

Remove nodes/values

You can remove subgroups or values from the structure. To do so, select the highest subgroup node, the value, or the value interval, and choose *Edit -> Selected entry -> Remove*. The affected node is thereafter no longer part of the complete group, but remains on the database.

Delete node from database

To delete nodes in a database structure, select the highest node and choose *Edit -> Selected entry -> Delete*.

You can only delete each node if it is not used elsewhere in the system. To check this, choose *Extras -> Where-used list group*. You then receive a selection of the areas for which you can create the Where-used list.

Find values

Within each group, you can search for particular values using *Edit -> Cost element, cost center, activity type, statistical key figure, business process, order or WBS structure -> Find*. The system expands the corresponding subgroup and highlights the single value.

Sort values

To sort values, choose *Edit -> Cost element/Cost center/Activity type/ Statistical key figure/Business process/Order WBS element ->* Sort in ascending order or *Sort in descending order*.

Display master data

You can branch to displaying master data. To do so, select the value and choose *Master data*.

If you entered a value interval, you cannot display master data.

Report info

To maintain report information, choose *Utilities -> Report settings* .

Maintain defaults

You can maintain the following defaults using *Utilities -> Defaults -> Structur, for:*

Master data

Node structures

You can make the following default settings to compare individual values with master data in the initial screen of group maintenance:

Display texts

Master data texts of individual values appear in the hierarchy.

Master data validation

Checks whether master data exists for the individual values of the hierarchy. If no master data exists, a warning message appears.

You can display individual values with existing master data by entering a search string in the individual value field.

Breakdown interval

Checks whether at least one individual value exists in master data within an interval of individual values. If no individual value exists, a warning message appears. If values exist in the master data, these appear instead.

Key date

Enter the test date for the master data. The current date is defaulted.

Notes on Copying Groups

To copy groups, you have the following options:

Copy Entire Group Structure

In the same controlling area/chart of accounts

To copy the group, you enter a supplementary key as a suffix. The copy receives a new name through the attachment of the suffix to the original name of the group node. If a suffix already exists, this will be replaced by the new suffix. Copy and original are two separate, independent structures.

Example:
CO area 0001, group HIER
-> CO area 0001, group HIER997

To a different controlling area/chart of accounts

In this case, you create a new group based on a reference group from another controlling area or chart of accounts.
The complete structure and name are copied from the current controlling area/chart of accounts.
Copy and original are two separate, independent structures.

Example:
CO area 0001, group HIER
-> CO area 9999, group HIER

This does not apply to order groups because they are not assigned to a controlling area or chart of accounts.

Copy Highest Group Node in Controlling Area/Chart of Accounts and Attach Existing Structure

In this case, you create a new group based on a reference group from the same controlling area or chart of accounts.
The highest node holds the given group name, and the existing structure attaches to the highest node. All changes in the original automatically affect the copy as well.

Example:
CO area 0001, group HIER --> CO area 0001, group NEW_HIER

| |
+-> Node 1 +-> Node 1
+-> Node 2 +-> Node 2

When copying groups, the system checks whether group nodes with the copy name exist in the system. If at least one exists, the system asks whether it should overwrite all existing group nodes or whether it should not carry out copying. The standard hierarchy is exempt from this overwriting function.

Copying groups is especially useful when you want to freeze the characteristics of a group with time-based dependencies for objects at a given time in order to make changes affecting the following fiscal year.

Example: Copy standard hierarchy for cost centers

Problem:
You are using planning functions for cost centers. You want to execute planning for the following fiscal year in the current fiscal year, based on the standard hierarchy.

However, in the new fiscal year, changes will take place in the structure for the standard hierarchy, due for example to the removal or addition of cost centers, or because the hierarchy assignment for these

cost centers has been changed. To be able to plan using the standard hierarchy structure that is valid for the next fiscal year, you must make the necessary changes to the standard hierarchy. The previous standard hierarchy is required for reporting in the current fiscal year, because it no longer matches the structure in the current fiscal year.

Solution:
Copy the current standard hierarchy to "freeze" its current state, and carry out the changes to the structure.

There are two hierarchies available for you in the system:

The current standard hierarchy used for reporting

The changed standard hierarchy used for planning the next fiscal year Further usages of the copying of groups is a possibility.

Note:

Remember that the number of groups doubles with each copying transaction. If you have a very large hierarchy, you should

regularly delete those copies you no longer need. Alternatively, you can keep the number of groups low by only copying those parts in which changes occur. If you do this, you need to create the backup copy manually.

Note on transport

For the transport of settings for Activity Based Costing, an individual function is available in the IMG for "General Controlling".

Define Selection Variants for Business Processes

A selection variant contains the fields that are to be evaluated in your selection report. These fields determine the content and structure of a selection variant.

The following selection reports are available:

For cost elements RKKOASEL

For cost centers RKKSTSEL

For activity types RKLSTSEL

For business processes RKPRZSEL

For internal orders RKOSEL00

For projects RKPSEL00

You enter the selection values in the corresponding fields, and can overwrite these in the application. You can hide the fields that you do not require.

When you process "variant attributes", you can specify variables for selection variant fields, and so on.

Example

If you wish to select your objects by time, then define a selection variant, which only contains master data fields for times.

Standard settings

The following selection variants are defined for internal orders:

SAP_01 - SAP_02 - SAP_03

Activities

If you wish to create your own selection variants, proceed as follows:

Enter a name for your variant in the "ABAP: Initial screen for variants"

Confirm the "Values" default setting in the "Subobjects" group box, and choose "Create". In the "Variant maintenance: Report <your selection report>" screen, the system displays the selection fields for the corresponding master data.

Enter the values or variables in the fields that you wish the system to use for selection.

Choose **Continue**.

This takes you to the Attribute maintenance screen for the selection variants.

You can assign the following field attributes:

Protected

The value that you specified for the field can no longer be overwritten in the application.

Invisible

The system hides this field from the selection variant.

Selection variable

You can define a variable for a field, such as a user-defined selection rule (compare with the "Define selection rule" section). The field is filled with the corresponding value during runtime.

Enter a short text in the "Description" field.

Save your entries.

This variant is now available for the corresponding selection report.

Transport notes

You can transport selection variants manually by proceeding as follows:

Choose "Utilities -> Transport request..." in the "ABAP: Variants - Initial screen"

Enter the program name

Enter the name of the variant to be transported

Define List Variants for Group Processing

In this IMG activity, you create variants for organizing lists in group processing of business processes.

You can determine which fields appear in which order for the individual business processes.

Standard settings

The standard R/3 System includes the following list variants:

Standard one row

Standard two rows

Standard three rows

Standard four rows

You cannot change these variants. The R/3 System offers these variants and any variants defined by you when you choose "Possible entries".

Actions

Check whether the standard variants satistfy your requirements.

If necessary, create new list variants:

Choose "Create".

Enter a key and a name for the variant and determine how many rows appear per business process.

Select the fields you require from the list of possible fields displayed by the R/3 System.

Note that the fields "Marking" and "Business process" are mandatory.

Change the offset to adjust the spacing between the fields in a row.

Save your entries and activate the new list variant.

Further notes

Ensure in IMG activity Maintain Controlling Area that cost accounting is active for the list variant objects during the relevant fiscal year.

Maintain Business Processes

In this IMG activity you define business processes.

Requirements

Before defining business processes, determine business process categories, the cost behavior, and the ranking order for value added processes because these fields are important for defining business process attributes.

Note on transport

For the transport of settings for Activity Based Costing, an individual function is available in the IMG for "General Controlling".

Activate Inactive Business Processes

In this IMG activity, you can activate the inactive version of a master record.

The following master data can be either active or inactive versions:

Cost centers

Profit centers
Business processes

Note on Active and Inactive Master Record Versions

Choose the corresponding objects using one of the following criteria:

<Object> or <object> interval

<Object> group

All <objects> in a controlling area

Decide whether to activate *immediately*, or in a *test run* first.

Decide whether to activate in the *background*, or *online*.

To activate the objects, choose *Execute*.

Note
You can go from the activation of one object into the activation for another object. This means that you can go from *Activation of cost centers* to *Activation of profit centers*.

Further notes

For more information, see the SAP Library, under *Financials -> CO - Controlling -> Methods in Controlling -> Enterprise Organization -> Processing Enterprise Organization -> Activate Inactive Master Data*.

Delete Inactive Business Processes

In this IMG activity, you can delete the inactive version of one of the following master records:

Cost centers

Profit centers

Business processes

Note on Active and Inactive Master Record Versions

Activities

Choose the corresponding objects using one of the following criteria:

<Object> or <object> interval

<Object> group

All <objects> in a controlling area

Decide whether to delete *immediately*, or in a *test run* first.

Decide whether to delete in the *background*, or *online*.

To delete the inactive master record versions, choose *Execute*.

Note

You can go from the deletion transaction for one object to that of another object. This means that you can go from *Deleting cost centers* to *Deleting business processes* and *Profit centers*.

Further notes

For more information, see the SAP Library under *Financials -> CO - Controlling -> Enterprise Organization -> Processing the Enterprise Organization -> Delete Inactive Master Data*.

Determine Time-Based Fields for Business Processes

In this step you determine on the client level, independently of organizational units such as controlling area or chart of accounts, whether master data table fields are **historically relevant** or not.

You can maintain master data for cost centers, cost elements, activity types, and business processes as time-based. Changes to any other time interval are possible at any given time. Data storage is also time-based. In this way, you can store multiple database records for a master data record, each holding different information.

The time-based dependencies are determined by SAP and cannot be changed. The following dependencies are possible:

Not time-based

Day-based

Period-based

Fiscal Year-based
In the "Time Dependency" column, you have an overview of the time-based dependencies for individual master data fields as set by SAP.

For day-based fields, you can set an indicator determining whether fields are **historically relevant** or not. Period-based and year-based fields are always historically relevant.

If you change fields during master data maintenance which were marked as historically relevant, and redefine a new analysis period, the system creates new database records, for the new analysis period and for any following periods, and simultaneously restricts the validity period of the existing database records.

Example:

You create an object (cost center, cost element, activity type, business process) from 011996 to 312999. Then you change the object by defining other field characteristics from 011997 to 312997. In Customizing, you defined the *Manager* field as historically relevant.

The SAP system stores three records. You can view them in master data maintenance by placing the cursor on the field and choosing *Expand*:

One record for the interval 011996 to 312996 Manager: Miller

One record for the interval 011997 to 312997 Manager: Wang

One record for the interval 011998 to 312999
Manager: Miller

If you change fields during master data maintenance not marked as historically relevant, but without a new analysis period, the entire database record changes for the entire analysis period. These changes appear in the change log.

If you change day-based fields not marked as historically relevant, the existing database record also changes for the entire selected analysis period. Definition of a new period is not possible. These changes appear in the change log.

Example

You create an object (cost center, cost element, activity type, business process) from 011996 to 312999. You then change the object by defining another cost center manager. In Customizing, you defined the *Manager* field as not historically relevant.

The SAP system changes the record for the *Manager* field:

Record for the interval 011996 to 312999 Manager: Wang

The SAP system documents the changes with date and user name in a change document.

Fields without time-based dependencies may be changed at any time, with the change applying to the entire validity period of the master data.

Note

Remember that time-based storage consumes large amounts of data storage space. Designate only important fields for time-based dependencies.

If consecutive fields have identical historically relevant definitions, the SAP system replaces the database records with a single record valid for the existence of the individual records.

Further Notes

Time-based master data storage minimizes maintenance effort. You can create master data crossing fiscal year boundaries without having to recreate them every year. Changes affecting a single time only can be made without direct effects on the other times involved.

Example:

You create a cost center with the following data: Cost Center: 41
Validity Dates: 011996 to 312000
This entry remains available in the SAP system until 312000.

However, you may also create:
Cost Center: 41
Validity Dates: 011996 to 312996
The disadvantage here is that you must recreate the cost center for the following years, each year, if you still require the cost center.

The example above uses the yearly borders of a calendar year. However, you can determine validity periods that are independent of any given calendar year. This is particularly useful if you define a fiscal year variant in Financial Accounting with delayed, extended, or shortened fiscal years, because master data is not oriented along fiscal year variant lines.

Actions

Determine which fields you want to designate as historically relevant.

Activate or deactivate the indicators according to your requirements.

Notes for Transport

If, in your client, you have not selected the automatic recording of changes for client-specific objects (in Customizing under *Basis Components -> System Administration -> Change and Transport System -> Configure Clients*), you can transport your settings to the target system in a user-defined activity.
To do this, in Customizing, choose *Controlling -> General Controlling -> Production Start-Up Preparation -> Transport System Settings* and then process the relevant activity.

Define Search Aids for Business Processes

In this IMG activity you can revise or redefine the existing **search_help** for business processes.

Notes

Maintaining search help requires technical knowledge of the ABAP dictionary. Leave search help maintenance to your system administrator.

Note that a large number of search helps can adversely affect system performance. Check whether you want to use search helps in your work area. You can deactivate any search helps you do not use.

Search helps are created across clients.

Requirements

Before you edit search help, read the documentation in the SAP Library under ***SAP NetWeaver -> Application Platform (SAP Web Application Server) -> ABAP Technology -> ABAP Workbench -> ABAP Dictionary***.

This section tells you how search help is structured in the SAP system and how you can create a search help in the ABAP Dictionary.

Standard settings

The standard SAP system includes the following search helps o

N - Search for business process number o H - Search via

the business process standard hierarchy

Activities

Check whether the standard search helps meet your requirements.

If necessary, change existing search help objects or create new search helps.

Create Extensions for Business Process Master Data

You can enhance business process master data with your own additional fields. To do this, you can use the following SAP enhancement:

COOMBP01 Business process: user-defined additional fields in the master record This

enhancement contains the following enhancement components:

EXIT_SAPLKWM3_001
CO-OM Customer Exit for the PBO date for the user-defined subscreen "0399" in SAPLKWM3.

EXIT_SAPLKWM3_002
CO-OM Customer Exit for the PAI date for the user-defined subscreen "0399" in SAPLKWM3.

Activities

Create the enhancement
Either create a new project or use an existing project.

Activate the project.
The enhancement is effective only after activation.

Further notes

Enhancements, in contrast to modifications, are basically release- insensitive, as they are executed in a name space reserved for the customer, and not in the standard R/3 System.

For more information on how to use enhancements, see the documentation for enhancement transaction CMOD by choosing "Utilities -> Online Handbook" in the section "Function Exits".

For more general information, see the documentation for enhancement transaction CMOD by choosing "Display SAP Docu".

Templates

This section explains how to use the templates.

You maintain the functions that the template accesses (see Maintaining environments and Function Trees).

Create and maintain these templates (see Maintaining Templates).

You assign templates to the receiver object. See:

Assigning Templates for Cost Objects and Calculations

Assigning Templates for Profitability Segments

Assigning Templates for Business Processes - Assigning Templates for Cost Centers.

For more information on the use of

Templates see the Application help under *Business Process Planning -> Period Based Allocations -> Template Allocation in Plan or Period-end Closing -> Period Based Allocation -> Template Allocation in Actual*.

Define Environments and Function Trees

In this step you maintain:

Function trees

Structure nodes - Function references - Functions.

The basis for the maintenance of the object is always the chosen environment.

Environment

The Template's environment determines the information of the SAP-environment and the external system that can be accessed. Basically, the functions relevant to each context are already provided in the corresponding environment. Environments always contain a row of sub-environments which group functions by theme; these include material, BOM, routing, and others.

The standard system delivers the following environments:

Template allocation (for cost objects, profitability segments,

business processes, cost centers/activity types)

Formula planning (business processes, cost centers, profit centers)

Standard cost estimates

Process quantity determination (SOP/LTP)

Easy Cost Planning/Internal Service Request

Recommendation

Use the sub-environments provided by SAP as much as possible. When you assign an function to a sub-environment, it is automatically available in all the main environments containing this sub-environment.

Further notes

For more information on environments and a list of these and their sub-environments go to the help for applications of Activity-Based Costing under "Template -> Template Environment".

Function Tree

A function tree is a user-defined hierarchy which structures or groups functions. With the Help for function trees, you can structure groups of functions available in each environment according to their their theme or emphasis. Functions are then processed from here on.

A function tree is assigned to an environment and consists of nodes and function nodes.

Environments: all environments are displayed when you call up the n transaction. Environments themselves cannot be changed or deleted. The creation of new environments is also not possible.

Function trees: the first level under environments. You can subordinate nodes or function nodes to a function tree.

Nodes: nodes are always subordinate to function trees or other nodes. You can subordinate other nodes to a node or function node. In function trees SAP1, nodes contain sub-environments.

Function nodes are always subordinate to function trees or nodes. They always refer to a function.

SAP standard delivery for all environments includes function tree SAP1 (for example, for environment 001, function tree SAP1-001). This contains all standard nodes (sub-environments) and function nodes (with reference to the respective function).

Activities

The transaction provides you with left and right screens. The left one displays the existing environments. You can expand the hierarchy and view the function trees, nodes and function nodes in their hierarchical structure. Place the curser on an object you want to process.

The right screen details of the chosen object (environment, function tree, nodes or function nodes) in list form. If you double click on a funciton node you will see the maintenance screen for the functions.

Further notes

For more information see Application help for Activity-Based Costing:

AC-Financials -> CO-Controlling -> Activity-Based Costing -> Template -> Function tree -> Maintain function tree or *Template -> Template environment -> Maintain functions*

AC-Financials -> CO-Controlling -> Cost center accounting -> Cost center planning -> Aids -> Formula planning -> Template -> Template environment.

Maintain Templates

Here you maintain templates.

Applications

Each purpose (application) of a template requires a special environment. Before creating a template, choose an environment. The environment determines which row and column types are available, for example.

The available applications include the following:

Template allocation to cost objects, or use in standard cost estimates for cost objects and materials (environments 001 - 012)

Template allocation to business processes, cost centers, or cost centers/activity types (environments SBP, SCI, SCD)

Template allocation to profitability segments (environment PAC)

Formula planning (environments CPI, CPD, BPP, PCA)

Calculation of output quantities (environment SOP)

Easy Cost Planning/Internal Service Requests (environment 200 - 299)

Structure

A template consists of rows (items) and columns. The row and column types available to you depend on the environment.

Columns available include:

Type of row, such as business process, cost element subtemplate, or calculation row

Name of the item

Object, such as the name of the process, cost element, subtemplate, or calculation row

Quantity (actual/plan), such as the process quantity or statistical key figure quantity

Activation (actual/plan)

Allocation event (template for cost objects)

Activities

To maintain a template, you must edit the initial and overview screens, from which you can access various editors.

Initial screen

Enter the name of the template that you want to create or edit.

Enter the environment of the template.

Choose *Enter*.

Overview screen

If the template is new, enter a name for it.

Select the row type.

Enter a name for the row.

Edit the other columns. Use the mouse or the tab key to reach the individual columns. Double-clicking on particular column types (such as object, quantity, activation, or allocation event) brings you to the editor or function selection.

Once you have entered or edited all rows, choose *Template -> Save*.

Further notes

Detailed information is available in the Application Help for the transaction, or in the *SAP Library* under **Financials -> Controlling -> Activity-Based Costing -> Template -> Maintaining Templates**.

Assign Templates for Cost Objects and Costing

In this IMG step you maintain the assignments for your templates. for cost objects and calculations.

As templates are not dependent on materials or orders, you must select the appropriate template at the time of evaluation. This selection must meet the following assignment logic:

For **product cost planning**:

Select an overhead structure through the valuation variant, which is selected through the costing variant.

Select the overhead key through the overhead group in the master record for the material to be costed.

The R/3 System determines the environment based on the method of costing (unit or product costing).

For **cost object costing** and **cost object allocations**:

The R/3 System selects the overhead structure and the overhead key from the master record for the cost object, and determines the environment based on the cost object.

For **material transfer from PP**:

You can assign the template using the overhead key or the product group and overhead key. The R/3 System always uses SOP as the environment.

Requirements

Create the environment and the template. Additionally, you must maintain the assignment criteria described above in the corresponding objects

Recommendation

To call up assignment maintenance using the maintenance transaction for the template, choose "Environment".

Activities

Enter the controlling area, costing sheet, overhead key and environment.

Further notes

For more information, see the Application help: "AC - Financials -> CO - Controlling -> Activity-Based Costing -> Business Process planning -> Period-Based Allocations -> Template Allocation in Plan -> Template Allocation for Cost Objects, or Template Allocation in Plan Calculation," or "Period-end Closing Period-Based Allocations -> Template Allocation in Actual -> Template Allocation for Cost Objects.

Assign Templates for Profitability Segments

Assigning templates for profitability segments.

The profitability analysis (CO-PA) allows you to carry out periodic controlling at the product level. Here you can establish multi-dimensional market segments (profitability segments) that distinguish themselves through several characteristics.

You can choose business processes or cost centers/activity types as senders using template allocation for profitability segments. You can define profitability segments as receivers: this allows you to allocate costs directly to corresponding market segments.

Because templates for profitability segments depend on the characteristics of the objects, they must be selected during the time of evaluation. The necessary settings are made in the IMG for profitability analysis.

For more information in IMG on profitability analysis, see: "Set Up Template Allocation".

The Application help for Activity-Based Costing provides further information on template allocations for profitability segments: "Business Process Planning -> Period Based Allocations -> Template Allocation in Plan -> Template Allocation for Profitability Segment".

Assign Templates for Business Processes

Along with profitability segments and cost objects, business processes receiver objects can also take part in template allocations. A template allocation can be executed only in business processes that have an allocation template assigned to them in the master data. You do this in this step.

Requirements

- You have already created templates in the template environment SBP.

Activities

In IMG of Activity-Based Costing choose "Templates -> Assign templates for business processes" or in the menu for Activity-Based Costing, "Master data -> Business process -> Individual processing -> Change".

In the initial screen "Change business process" choose the process that to which you want to assign a template.

Choose tab "Template".

In field "Allocation template" choose a template. All templates in environment SBP are available here.

Save your work.

Further notes

Only one template can be assigned to each business process. However, each process can be used several times as sender process in various templates.

The assignment results for the entire year: the template assignment to the business process cannot be changed within the year (for periods shorter as the fiscal year). Changes can be made in the structure set for the fiscal year by activating or deactivating time dependent entries in the template.

Assign Templates for Cost Centers

You create the link between cost center and formula planning in the master record of the cost center in question.

You assign templates to those cost centers for which you want to determine planned values using formulaplanning, or which are to be receiver objects for template allocations.

Activities

You can also define templates when maintaining master data.

In the cost center master record, choose the *Templates* tab.

On the *Templates* tab, choose *Create*.

You can now change or display existing templates or display an allocation structure with the template.

If you have already defined templates, you can enter these on corresponding tab.

If you want to determine activity-independent planned costs for the relevant cost center, enter an activity-independent template in the *Aty-ind. formula temp.* field.

If you want to determine activity-dependent planned costs for the relevant cost center, enter an activity-dependent template in the *Aty-dep.formula tmp.* field.

If you want to carry out an activity-dependent activity allocation for the cost center in question, enter an activity-dependent template in the *Aty-dep.alloc.tmp* field.

If you want to carry out an activity-independent activity allocation for the cost center in question, enter an activity-independent template in the *Aty-ind.alloc.tmp* field.

Save your entries.

Further notes

For more information on cost center master data, see the "SAP Library" under *Financials -> CO Controlling -> Cost Center Accounting -> Master Data in Cost Center Accounting -> Cost Centers -> Cost Center Master Data*.

Planning

In this IMG activity ou make settings for planning in the Activity-Based Costing component (CO-OM-ABC).

Maintain Versions

Versions enable you to have independent sets of planning and actual data.

In planning, you use versions to configure alternative scenarios based on different assumptions. For example, the different versions can represent different employment markets, price and wage increases, or sales programs.

You normally configure the most likely scenario in version 000. The plan data you enter there forms the basis for calculating planned prices for activity types, and determines the rates with which activities containing actual amounts can be settled. Version 000 also contains all actual data postings. The plan and actual data for version 000 can be used in plan/actual comparisons and variance analysis.

You make settings for version maintenance on a hierarchical basis.

In this IMG activity, you make the following settings:

Controlling area settings

Fiscal year settings

Note

The term "version" replaces the earlier term "plan/planning version".
You can record planning and/or actual data in a version.

In planning, you must maintain fiscal-year dependent parameters.

If you use parallel valuations and transfer prices, you define parallel actual versions alongside operational version 000 in order to separate different valuations. To do this, you must maintain valuations, by carrying out the activity Create Versions for Valuation Methods in Customizing under *General Controlling -> Multiple Valuation Approaches/Transfer Prices*

In Activity-Based Costing, you can manage actual data in different delta versions of activity-based costing. To do so, you must specify a version that can be referenced. Once you specify this version, the current version is marked as a delta version.

Complete the IMG activity Maintain Controlling Area.

Complete the IMG activity Maintain Versions.

Standard Settings

When you create a controlling area, the SAP system automatically creates version 000, valid for five fiscal years. The first fiscal year depends on the control indicator you set when you created the controlling area:

If the indicator is set for the current year or earlier, the five-year period begins with the current year.

If the indicator is set for future years, the five-year period begins with the earliest of these years as the first year.

Recommendation

If you want to plan in a single version only, use version 000.

Actual primary cost data entry and actual data from internal acitivty allocation all post to version 000. SAP therefore recommends you use this version for all plan/actual comparisons.

Activities

To assign versions to authorization groups, define the groups first. These groups determine which users can maintain which versions. To assign authorizations, use authorization object "Controlling: Version" (K_KA09_KVS). Maintain Authorizations

Make the version settings in the current controlling area. To switch to another controlling area, choose *Extras -> Set controlling area...*

Change an existing version to meet your requirements.

Enter a key and a name.
Specify whether plan and/or actual data may be recorded in the version and activate the corresponding indicator.
You cannot activate the *actual* data recording indicator for version 001.

If necessary, enter an authorization group.

To create a delta version in the Activity-Based Costing component, enter a valid version as the reference version.

Maintain the fiscal year-dependent version parameters.

If you use a delta version in Activity-Based Costing, use *Reference version* to determine which transactions the system reads from the reference. The system does not execute these transactions in the delta version, but transfers the values from the reference instead.

Note on transport

To transport versions, a separate function exists in Customizing under *Controlling -> General Controlling*. (Transport Settings for Organization.

Further information

For more information, see:

Notes on Version Maintenance

Fiscal Year-Dependent Version Parameters.

Delta Versions in Activity-Based Costing

Further notes

Notes on Version Maintenance

The following should be taken into account when maintaining a version:

In general version definition you decide whether a version is allowed for

Panning (with the **Plan** indicator)

Actual data update (with the **Actual** indicator)
Note: In Overhead Cost Controlling, actual data is updated in operational version 0.

Actual versions different from 0 are found at present only for delta versions in Activity Based Costing (CO-ABC), and when you work with parallel assesment (additional versions):

A data version from results and WIP determination manages (indicator **WIP**)

Another version from variance determination manages (indicator **Variance**)

A version for exclusive use (field **exclusive application**)

You must maintain the version basic settings for each controlling area in which you want to update transaction data. General version definition restricts the settings possible for the controlling area:
If general version definition does not allow plan and/or actual data update for version, this applies to the version in all controlling areas. If plan and/or actual data updating is allowed for a version in general definition, this can be reset for each controlling area separately (unmark the plan or actual indicator).

Delta versions in ABC may not be used for parallel valuations in the actual; the same goes for versions with exclusive applications. In both cases, the valuation fields may not be maintained.

To set indicators WIP/Results- or Variance-determination the following conditions apply:

Both indicators may be set only during setup for the controlling area, when they are already established in the higher level general version definition

If either indicator is already active in the data bank, then the actual indicator may not be subsequently activated

If the actual indicator is inactive and either of these indicators is active, then the valuations in the corresponding versions and in version "000" must agree

If the actual indicator is active, then both indicators must be activated

Versions 0 and 1 are used regularly for various purposes by the system, which sets the following limitations/restrictions:

Version 0 must always be available. It cannot be used exclusively. The plan and actual indicators must always be active.

The actual indicator may not be activated in version 1.

If these conditions are violated during version maintenance, error messages are issued. There are three types of error message:

While maintaining the general version definition, you can only make changes if they do not violate the conditions outlined above.

While maintaining the basic settings in the controlling area, the entries must remain consistent with the higher level entries.

You want to maintain version 0 or 1. The restrictions outlined above apply.

Use the "Extras" menu option to display the structure of the entries in the complex data object version:

Select a version and choose **Extras -> Version use**.
The SAP System shows which controlling areas use this version.

Select **Extras -> Versions in CO area**
This displays all versions used in the current controlling area.

The subordinate entries in the hierarchy (settings for each fiscal year, strategic Activity-Based Costing: transactions for a delta versions) will also be shown for both cases.

Fiscal-Year-Dependent Version Parameters

In a version you define defaults for the following parameters based on the fiscal year:

Planning

Lock version

Integrated planning

Copying allowed

Exchange rate type

Value date

Integrated planning with Cost Center Accounting and Activity Based Costing

Version for indirect activity allocation for non-integratedorder/project planning

Receiver version

Valuation Variant for CO Resource Planning

Price Calculation

Purely iterative price

Plan price calculation: Determination method

Actual price calculation: Determination method

Recalcuation with actual prices

Cost component structure

Delta Versions in Activity-Based Costing

A delta version is an additional statistical version that is linked to a reference version. You create the delta version to be able to carry out other allocations for selected transactions. Allocations within a delta version do not affect the operative value flow in the system. It follows that you cannot allocate process costs within costing, cost object controlling, and Profitability Analysis. Referencing can take place at several levels. The reference version can also be a delta version and in turn be linked to another version.

Manual Planning

In this section you undertake settings for manual planning.

User-Defined Planning Layouts

In this IMG activity you define new planning layouts or change existing ones.

Using the planning layout you specify what contents appear in the header, rows, and columns (elements) of your planning screens depending on the specific management requirements made by cost center planning.

The SAP system contains standard SAP planning layouts that satisfy most planning requirements. Only if this is not the case do you require your own layouts.

Standard SAP planning layouts

SAP offers the following standard planning layouts:

Cost Center Accounting

Cost Element/Activity Input Planning

1-1 CCtr: Cost elements, activity-dependent/-independent

1-2 CCtr: Activity inputs, activity-dependent/-independent

1-3 CCtr: Costs/revenues/consumption

1-4 CCtr: Primary/secondary order costs

1-161 CCtr: Cost elements, simplified

1-162 CCtr: Cost element central planning, simplified

1-151 CCtr: Cost elements in transaction currency

1-152 CCtr: Cost element comparison, 2 quarters

1-153 CCtr: Cost element planning, 2 versions

1-154 CCtr: Cost elements with display of previous year

1-155 CCtr: Activity output from sender viewpoint

1-156 CCtr: Cost element central planning

1-157 CCtr: Cost element plan/actual comparison

Activity/Activity Price Planning

1-201 CCtr: Activity types/prices, standard

1-201C CCtrs: Activity types/prices, central planning

1-202 PP planning: Activity types/prices

1-203 ATyp: Actual activity price indicator and switch structure

1-204 CCtr: Activity types/prices, attributes

1-261 CCtr: Activity price, simplified

1-262 CCtr: Activity price, centralized

Manual Actual Prices

1-N01 CCtr: Manual actual prices, cost centers

Resource Planning

1-1R1 CCtr: Resource planning

1-4R1 Orders: Resource planning

1-7R1 WBS elements: Resource planning

Dependency planning

1-1R2: CCtr: Value-based recipe planning

1-1R3: KoStellen: Quantity-based recipe planning

Statistical Key Figure Planning

1-301 CCtr: Statistical key figures, standard

1-302 CCtr: Statistical key figures, activity-dependent

1-3C CCtr: Statistical key figures, central

1-361 CCtr: Statistical key figures, simplified

1-362 CCtr: Statistical key figures, centralized

Internal Orders

Cost/Revenue Element Planning

1-401 Orders: Cost elements, standard

1-402 Orders: Activity inputs, standard

1-402P: Orders: Process inputs

1-404 Orders: Primary/secondary order costs

Cost Planning/Activity Input Planning

1-461 Cost elements: Simplified layout

1-462 Cost elements: Simplified layout, central

Statistical Key Figure Planning

1-601 Orders: Statistical key figures, standard

1-603C: Orders: Statistical key figures, central

1-661 Statistical key figures, simplified

1-662 Statistical key figures, simplified, central

Project Cost Controlling

Cost Element/Activity Input Planning

1-701 WBS elements: Cost element planning

1-702 WBS elements: Activity inputs

1-702P: WBS elements: Process inputs

1-703 WBS elements: Revenues, revenue cost elements

1-704: WBS elements: Primary/secondary order costs

Statistical Key Figure Planning

1-901 WBS elements: Statistical key figures, standard - 1-903C WBS elements: Statistical key figures, central

1-C01 Networks: Statistical key figures

1-C02 Networks: Statistical key figures

1-C03C Networks:Statistical key figures, central

Activity-Based Costing

Cost Planning/Activity Input Planning

1-4P Processes: Primary/secondary order costs, processes

1-2P Processes: Activity-dependent/-independent process inputs

1-D01 Processes: Cost elements

1-D02 Processes: Activity inputs

1-D02P Processes: Process inputs

Quantities and Prices

1-E01 Processes: Quantity planning/price planning

1-E02 Processes: Tax codes

Statistical Key Figure Planning

1-F01 Processes: Statistical key figures, standard - central

1-F03C Processes: Statistical key figures,

Manual Actual Prices

1-Q01 Processes: Manual actual prices, business processes

Cost Object Accounting

Cost/Activity Input Planning

1-G01 Cost object: Primary costs

1-G02 Cost object: Activity inputs, standard

1-G02P Cost object: Process inputs

Statistical Key Figure Planning

1-I01 Cost objects: Statistical key figures, standard

1-I03C Cost objects: Statistical key figures, central

Real Estate

Cost element allocation/activity allocation

1-J01-1 Business entity: Cost elements, standard

1-J01-2 Buildings: Cost elements, standard

1-J01-3 Property: Cost elements, standard

1-J01-4 Rental unit: Cost elements, standard

1-J01-5 Rental agreement: Cost elements, standard

1-J01-6 Management contract: Cost elements, standard

1-J02-1 Business entity: Activity inputs, standard

1-J02-2 Buildings: Activity inputs, standard

1-J02-3 Property: Activity inputs, standard

1-J02-4 Rental unit: Activity inputs, standard

1-J02-5 Rental agreement: Activity inputs, standard

1-J02-6 Management contract: Activity inputs, standard

Further notes

Procedures for Layout Definition

With some exceptions, defining planning layouts is similar to defining reports with the Report Painter.

The following is essential information on defining a planning layout. For a detailed description of functions, see the SAP Library under *Financials -> Controlling -> Cost Center Accounting -> Information System -> Define Reports -> Creating Reports with Report Painter*, or in the Implementation Guide for Cost Center Accounting under *Information System -> Own Reports -> Create reports* .

A planning layout consists of the following components:

Header

Lead and value columns (elements)

Header

Defining a planning layout begins by entering general selection criteria (*Edit -> General selection -> Display/Change*). These criteria control which characteristics and which characteristic values are in the header of the planning layout.

The *General Selections* characteristics apply to the whole planning layout. This reduces the time required for defining the planning layout and also improves the response times when you execute the planning, since the SAP system has to read less data. You have the option of defining the characteristics and the lead and value columns as variables. Defining them as variables means that these fields are ready for input on the initial screen when you execute the planning.

In a layout for cost element planning, you would (under general selections) choose the characteristics *version*, *period*, *fiscal year*, and *cost center*. The lead column contains the

characteristics *activity type* and *cost element*. The value columns contain key figures like e.g. *Plan costs in object currency* and *actual costs in object currency*.

In a layout for a quarterly comparison, you would for example choose the characteristics *Version* and *Fiscal year* as general selections. You would enter the *period* and the *cost center* in the lead column or value columns.

In a further step, you can determine the hierarchical order in which characteristics in the general selection criteria are used (*Edit -> General selection -> Header*). Without header entries, the hierarchical order given by the SAP system as a default is retained.

Lead columns and value columns

You now define the content of the lead and value columns in the planning layout. The layout of the columns and rows is based on the selection of particular characteristics that are preset by SAP. You assign an attribute to each characteristic.

Definition of Lead Columns

When defining lead columns you have two options:

Definition of one or more lead columns above the column heading
Definition of one lead column only above the rows

Definition of one or more lead columns above the column heading

Under this type of definition, the system proposes all the possible combinations of characteristic values of the lead columns defined for planning.

You define the first lead column by selecting the column heading, or by placing the cursor on the lead column and choosing *Edit -> Element -> Define element*. By choosing *Edit -> Columns -> New lead column* you can insert further lead columns.

Note that the system inserts each new lead column **in front of** the other lead columns.

Under this definition method, you can select exactly one characteristic per lead column.

Example Primary cost planning,
fast entry

1st lead column	**2nd lead column**	**1st value column**
	Cost center	Cost element	Plan costs
4711 - 4719	400000 - 403000	
	420000 - 429000	

The system calculates the rows from the Cartesian product of the values from all lead columns.

Defining exactly one lead column above the rows

In this type of definition you must define every row by double-clicking on the row description. The definition of the first row determines whether all rows are defined through a key figure with characteristics or just with characteristics. You can choose one or more characteristics per row.
If, for example, you want a complete overview of all key figures in the planning layout, you define the lead columns via key figures with characteristics.

Rows of element type *Characteristics* are defined by choosing the characteristics and assigning them characteristic values.

Rows of element type *Key figure with characteristics* are defined by first choosing exactly one key figure from the list of all possible key figures. Afterwards, you decide on the characteristics and characteristic values.
The procedure is similar to that for defining value columns.

Example

Quarterly planning in several versions
1st lead column 1st value column
Version/Quarter Plan costs
Version1/Quarter1
Version2/Quarter1
Version1/Quarter2
Version2/Quarter2
...

Note on cost element planning

If you wish to plan activity-dependent and activity-independent costs together in a planning layout, you must enter *initial* for the characteristic activity type.

The *Initial* value is set:

In layout maintenance by entering "#" as the characteristic value

In the group maintenance dialog window *Maintain values...* by choosing the *Set initial value* function

On the initial screen for planning by entering "*" in the *From* field if you assigned a group variable for the activity type. The system selects all characteristic values for the *Activity type* field, including the initial value.

Definition of Value Columns

To define the first value column, select the column heading. Define other value columns by selecting the empty space next to the first value column.

You may also select the corresponding column and choose *Define element*.

You can also hide rows and columns from later display. This is useful for those elements necessary for calculations but not necessary for report displays.

You have several options for defining value columns:

Define column with either a key figure with characteristics or just characteristics

Define formula column

Define attribute column

Define Column with Either a Key Figure with Characteristics or Just Characteristics

To define a value column, select the column heading.

The definition of the first value column determines whether all rows are defined by a key figure with characteristics or just with characteristics.
If you defined lead columns with rows using key figures with characteristics, you can define value columns only with characteristics.
If you defined lead columns with characteristics or through the column header, you can define value columns only with characteristics.

The procedure is similar to that for defining lead columns with rows.

Define Formula Column

A formula column is a value column made up of values from previously defined columns. When defining a formula, the SAP system provides you with a selection of value columns in a dialog box. The system calculates the values for these columns once the value columns used in the formula contain values. In the dialog window, choose the element type *Formula*.
In the following screen you can create a formula using previously defined value columns with the aid of the formula components found in the screen.

Example

Planning layout with formula column as 3d value column

Lead column	**Value column 1**	**Value column 2**	**Formula column**
Cost element	Plan curr. year	Plan prev. year	Variance
			Curr. year
			Prev. year

Indirect Formulas
Indirect formulas allow you to enter values in formula columns during planning that the R/3 System uses to determine values in another layout column.

To define indirect formulas:

Define the planning layout with the desired formula column and save.

Set the indicator for the column to "Not ready for entry".
To do so, select the column in question and choose *Format -> Entry ready on/off*.

Set the formula column to "Entry ready" in the same manner.

Generate the indirect formula by choosing *Extras -> All indirect formulas -> Generate formulas*.
The SAP system determines the values for the non-entry ready column.

Example

You plan a wage increase for employees as a percentage surcharge. The SAP system should determine the plan value of the current year from the surcharge and the plan value of the previous year. 1. Planning Layout
Define the following layout:

Key Column	Value Col. 1	Value Col. 2	Formula Column
CElm	Plan Cur. Year	Plan Pre. Year	% Raise
			((Plan cur. year - Plan pre. year) /Plan pre. year) X 0

Indicate the column "Plan Cur. Year" as not ready for input , the column "% Raise" as ready for input.
Afterwards, generate the reverse formula.

2. Planning (Example)

If, before manual planning starts, the previous year plan values are copied to the current year (via *Planning -> Planning aids -> Copy planning*), the new plan costs can be calculated then by entering the percentage raise.

After copying planning:

CElm	Plan Cur. Year	Plan Pre. Year	% Raise
430000	50,000	50,000	

After calculating the new plan costs:

CElm	Plan Cur. Year	Plan Pre. Year	% Raise
430000	55,000	50,000	

Define Attribute Column

When defining an attribute column, you have two options, depending on the attributes used:

Attribute columns **with direct reference** to a value column

Attribute columns **with no direct reference** to a value column

Attribute columns with direct reference to a value column

You set the *Unit*, *Distribution key* and *Action* attributes in conjunction with a value column.

You have options for definition:

Select a previously defined value column and choose *Edit -> Columns -> Attach add. fields*. This inserts selected attribute columns into the planning layout.
This method establishes a direct reference between the attribute column and the value column. If you wish to change characteristics and characteristic values for the value column, the SAP system confirms whether the dependent attributes are to be changed and, if so, adjusts the attribute column accordingly.
You can also define characteristic and characteristic values in the attribute column independently of the value column.

Select the free field next to an existing value column and choose the element type *Attribute* from the dialog window.
The attribute column so defined has no direct connection to a value column. Changes in the characteristic values of value columns have no further effects on the attribute column.

Attribute columns with no direct reference to a value column

Define other attributes by selecting the free field beside an existing value column, or by choosing *Define element*.

Having selected the element type *Attribute*, the system provides you with a list of possible attributes, from which you can select one attribute.

There are two kinds of attribute - display attributes and those that can be maintained during the planning process.

Attributes for all planning areas

- Unit, maintainable with restrictions
  Depending on the attribute of the corresponding value column, the SAP system displays either the currency unit or the quantity unit.

  Example
  Key figure *Plan activity*
  Unit: Activity unit from the activity unit master record

  The following units exist:

  Consumption unit in cost element planning, maintainable with restrictions. The consumption unit is useful in the activity-dependent and activity- independent planning of both primary and secondary costs (without sender reference) and in revenue planning.The SAP system takes the value from the cost element master record as the default value. In planning at cost center/cost element level, you can overwrite the consumption unit, provided no dependent data exists.

  Activity unit in activity input planning, display attribute.
  The system automatically uses the activity unit belonging to the sender activity type.

  Currency units in cost element planning, display attribute.

The controlling area, object, and transaction currency are useful where you plan with foreign currencies or the object currency differs from the controlling area currency. The different currencies cannot be displayed unless you have activated the *All currencies* indicator in your controlling area. Only if you have done this does the system update all currencies.
Activity unit in activity type planning, display attribute.
For the key figures *plan activity*, *capacity* and *scheduled activity* the SAP system automatically uses the activity unit entered in the activity type master record.

Output unit in activity type planning, maintainable with restrictions. For the key figure *plan output* you can maintain the output unit at cost center/activity type/fiscal year level, provided no dependent data exists.

Currency units for prices, display attribute.
Controlling area, object, and transaction currency are especially useful if you plan with foreign currency or the object currency differs from the controlling area currency. To be able to display the different currencies, you must have activated the *All currencies* indicator in your controlling area, since only then does the system update all currencies.

Units in statistical key figure planning, display attribute. The SAP system automatically uses the unit entered in the key figure master record as the unit for statistical key figures in planning.

- Distribution key, maintainable.
  The SAP System stores plan data per period. If, when planning, you enter an annual value on the overview screen, the SAP system distributes this value to the individual periods according to a rule that is stored in the distribution key. The standard system includes fixed non-changeable distribution keys (standard distribution keys).
  If you want to use a particular season distribution, you can also define any number of individual distribution keys.
  You can define distribution keys per key figure.

  Example
  Fixed plan costs + distribution key for plan costs (fixed) Variable plan costs + distribution key for plan costs (variable).

Action, maintainable.
The action determines how the SAP system is to process the values entered. You can add, subtract, or replace the entry value for the existing value.

Caution
You can define the action per plan record only, and not per key figure.

Long text exists, display attribute.
This indicator tells the user that a long text exists for the planning item. This text may be an explanation, or a description of the origin of the plan data.

Attributes for cost element planning -

Transaction, display attribute.

This indicator shows the business transaction under which the corresponding plan record is stored.
It has two further important functions:
Document number assignment control
Lock option per version, fiscal year, and transaction

Exchange rate type, display attribute.

If you plan in foreign currencies, you can use the exchange rate type to follow the currency translation. The type is determined per version and fiscal year.

Value date, display attribute.

If you plan in foreign currencies, you can use the value date to follow the currency translation. The date with which the exchange rates are read depends on the contents of the *Value date* field:
If it is not filled in version maintenance, calculation takes place by period. Each period's starting date is used to calculate its own rate, to take possible rate swings within a fiscal year into account.
If a value date is entered, all periods are processed with the same exchange rate calculated with this date.

Record quantites, maintainable.

This indicator shows whether consumption quantities are recorded on the cost center.

Cost element attributes, display attribute.

A cost element can be characterized independently of the account framework by entereing a maximum of eight attributes. The attributes can be drawn upon within reporting for use in evaluations.
In addition, they have no access to control information.
An indicator is assigned for each attribute. A cost element can be given the following as indicators: **D** for service costs
W for costs affecting payment
The attribute indicators and their valid combinations are maintained in customizing for
Cost Center Accounting under Cost
Element Attributes and Attribute
Mix.

A valid combination of the permitted attributes can be defined as follows:

In the cost element's master data record
Within cost center planning for the combination cost center/ activity type and varying from the entry in the cost element master data record.
Note that you must always specify one of the attributes valid for the first item

Detailed planning exists

The calculation number is the internal number under which detailed planning is stored.

Value calculation type, maintainable.

This displays whether plan values are entered manually (1) or through detailed planning (4). Since the indicator is maintainable within planning, further manual editing of plan records entered via detailed planning is possible. In this case, change the indicator "Value calculation type" accordingly.

Allocation cost element, display attribute.

Allocation cost elements are used exclusively in activity input planning as attributes. Because the *cost element* characteristic is optional for activity input planning, it can be left out of a planning layout for secondary cost planning. By inserting the attribute of the same name, you can nevertheless display the allocation cost element.

Cost element type, display attribute.

The cost element type determines for which transactions a cost element may be used.

The following types are differentiated:

Primary cost elements	Type 01
Secondary cost elements	Type 21, 41, 43
Revenue elements	Type 11, 12

Dependency type, maintainable.

The dependency type is available only in value-based or quantity-based dependency planning.

Dependency source type, display attribute

The system sets the dependency source type according to the dependency type.

Attributes for activity type planning

Along with the attributes for unit, distribution key, action type, long text available, transaction, exchange rate type, value date, and cost element attribute, the following attributes are available in activity type planning: Two transactions are differentiated here, those for:

Manual and non-allocatable activities

Automatically allocatable activitites

The transaction results from the activity type category.

Production factor, maintainable.

The production factor gives the relationship of activity quantity to output quantity by means of the following formula:

Output quantity = Activity quantity x Output factor

In planning, the output quantity can be calculated with the formula using the function *Calculate output*.

You may select individual or groups of planning lines for use and begin the calculation.

Allocation cost element, maintainable with limitations.

The SAP system automatically uses the allocation cost element from the activity type master record as a default value in planning. You can overwrite the default as long as no debit and credit records have been posted for the allocation cost element.

Activity type category, maintainable with restrictions.

You can maintain the category in the activity type master data record as well as in planning on the cost center/activity type/version/fiscal year level. The category serves as a default setting for planning. You can switch between the allocatable activity type categories (1, 2, 3) as long as no debit and credit records have been posted.

Actual activity type category, maintainable.

You can determine a category deviating from plan categories for actual allocations. If no actual activity type category is maintained, the SAP system automatically uses the plan activity type category. A variant actual category is useful for a planning layout when, for example, the plan values must be indirectly calculated due to missing results (such as from the power plant), but where the actual values were registered.

Activity price indicator, maintainable.

The indicator contains the calculation basis for the plan activity price of a cost center's activity type.
The activity price indicator can take the following values:

001:

The activity type's activity price is automatically calculated on the basis of plan activity for the cost center to be planned. Fixed activity price: Fixed plan costs / Plan activity
Variable activity price:Variable plan costs / Plan activity Total activity price:
Fixed activity price + Variable activity price

002:

The activity type's activity price is automatically calculated on the basis of the capacity of the cost center to be planned. The capacity serves only for fixed costs as a basis for activity price calculation. This is relevant for cost centers that must continually be prepared for maximum activity quantity output, such as costs for supplying energy from a power plant. The total costs are fixed. Fixed activity price: Fixed plan costs / Capacity
Variable activity price:Variable plan costs / Plan activity
Total activity price: Fixed activity price + Variable activity price

Note
If you set values 001 or 002, you must carry out plan activity price calculation.

003:

The activity type's activity price is set manually.

If you activate the indicator "ItAcPr" (purely iterative activity price) in the version, the system calculates a purely iterative activity price along with the activity price resulting from planning.

- Actual activity price indicator, maintainable.

  This indicator shows how the activity price's actual activity price for a cost center is calculated. If you do not maintain this indicator, the system automatically uses the plan activity price indicator value.

  The activity price indicator can take the following values:

  005:

  The actual activity price is calculated by the system on the basis of actual activity.

  If you set this value, you must carry out actual activity price calculation. Indicators 005 and 006 are useful in planning only if you set revaluation of actual activity with actual activity prices in the version.

  006:

  The actual activity price is calculated by the system on the basis of capacity. Cost center capacity serves only for fixed costs as a basis for activity price calculation. This is relevant for cost centers that must continually be prepared to supply the maximum activity quantity output, such as costs for supplying energy from a power plant. The total costs are fixed.

  If you want to execute activity price calculation, you must determine the actual activity price indicator. In planning layouts for activity type planning, you must set the attribute for this situation.

- Average activity price, maintainable.

  This indicator ensures that cost center/activity type activity prices remain constant for the entire fiscal year.

  This determination takes place on two levels:

  Version/fiscal year

  For a version, all cost center/activity type activity prices in a fiscal year are held constant. During activity price calculation, only plan total costs and total activity for the timeframe are used. Monthly swings are ignored.

  Cost center/activity type/version/fiscal year

  If no average activity price is determined for the version, individual cost centers/activity types may be assigned a constant allocation activity price for a fiscal year. Activity price calculation averages the price swings for this cost center/activity type. Insert the corresponding attribute in the activity type planning layout and maintain the indicator in activity type planning.

Switching layout, maintainable.

Within price calculation with cost component split, the switching layout is used to change the cost component assignment.

In activity price calculation, cost component splitting utilizes a cost component structure, in which is defined which cost elements are steered to which components. You define the layout during version maintenance, and per fiscal year. For allocations between cost centers, this cost component layering is usually retained. There are, however, cases in which the sender components are not to be retained, but where the allocation is to other receiver components. Here is where the switching layout is used. The layout stores which sender components are

allocated to which receiver components. You determine the switching layout in activity type planning for the sender, but it must have been defined in Customizing first.

Fixed cost predistribution, maintainable.

If you carry out standard costing on a marginal costing basis, the fixed costs are not distributed to the cost objects in proportion to the operating rate. In this case, you must work with fixed cost predistribution in order to credit fixed costs to the cost centers accepting activity inputs. You can overwrite the default value in the indicator **Fixed cost predistribution**, which controls whether the fixed costs (that is, the activity-independent preparation costs) are distributed to the cost centers or not.

Attributes for statistical key figure planning

In addition to the attributes unit, distribution key, action type, and long text available, the following attributes are available for statistical key figure planning:

Variant, display attribute

Key figure type, display attribute.

This indicator controls the entry and updating of statistical key figures. It can take the following values:

Fixed value

The key figure values are valid as of the period entered for all following periods in the fiscal year. Average values are planned.

Total value

The key figure values are not carried over from the period entered to the following periods. You can enter new plan values for each period.

Variant, display attribute

Origin, display attribute

Key figure, display attribute

These attributes are useful in the planning layout when you transfer key figures from the Logistics Information System (LIS).

Afterwards, you determine characteristics and characteristic values for the attribute columns.

Characteristics and characteristic values

When defining headers, lead columns, and value columns, you must enter one or more characteristics.

Characteristics are predefined by the SAP system for the corresponding planning area.

Characteristics

The following section is a list of the possible characteristics.

These are divided into optional and required characteristics.

Version
Enter one or more individual values or one or more intervals.

Planning period
Enter an individual value or an interval.

Fiscal year
Enter one or more individual values or one or more intervals.

Cost center
Enter one or more individual values, one or more intervals, or one or more cost center groups.

Version, planning period, fiscal year, and cost center are required characteristics in all planning areas.

Activity type: Required characteristic for activity type planning, optional characteristic for cost element and statistical key figure planning
Enter either one or more individual values, several intervals, or one activity type group. The following transactions do not require the characteristic:

Primary cost planning, activity-**in**dependent

Activity input planning, activity-**in**dependent

Revenue planning

Settlement cost planning, activity-**in**dependent

Secondary order cost planning, activity-**in**dependent

Cost element: Relevant only for cost element planning, where it is an optional characteristic which can be ignored if plan records **only** are entered for activity inputs in the affected planning layout.

There the cost element is the sender allocation cost element.
In primary cost planning the cost element is a required characteristic.
Enter one or more individual values, one or more intervals, or a cost element group.

Resource
This is important for resource planning, where it is a required characteristic. Resource planning is primary cost planning on a quantity basis. You can valuate planned consumption quantities and determine resulting costs. Resource planning can thus sub-divide cost element planning. You can plan on orders and WBS structures. You cannot use resources in the Actual. Use Define resources to maintain resources. Enter one or more single values or intervals.

Sender cost center: Relevant only for cost element planning, where it is an optional characteristic

The characteristic can be ignored if you do not wish to plan activity inputs with the relevant layout.
For the following transactions, you do not require the characteristic:

Primary cost planning, activity-independent and activity-dependent

Revenue planning

Settlement cost planning, activity-independent and activity- dependent without sender reference

Planning credits as surcharges
Enter one or more individual values, one or more intervals, or a cost center group.

Sender activity type: Relevant only for cost element planning, where it is an optional characteristic
The characteristic can be left aside if you do not wish to plan activity inputs with the relevant layout.
For the following transactions, you do not require the characteristic:

Primary cost planning, activity-independent and activity-dependent

Revenue planning

Settlement cost planning, activity-independent and activity- dependent without sender reference

Planning credits as surcharges
Enter one or more single values, one or more intervals, or an activity type group.
The characteristics sender cost center and sender activity type are only useful in tandem.

Transaction currency: Relevant only for cost element planning, where it is an optional characteristic.
Enter one or more individual values or one or more intervals.
If you do not select the characteristic, the controlling area currency will be set for the field.

Note
If you define a value column in your planning layout for cost element planning via the key figures "Total actual costs in controlling area currency" or "Total actual costs in object currency", you must include the transaction currency as an additional characteristic in the key columns if actual cost postings use a transaction currency which is not the same as the controlling area currency.

Statistical key figure: Required characteristic for statistical key figure planning Enter one or more single values, one or more intervals, or an activity type group.

After specifying the characteristic, you must determine the characteristic value controlling the data selection.

Characteristic Values

When defining characteristic values, you have the following options:

Entry of fixed characteristic values
You set characteristic values for each element to be used as selection criteria by the SAP system to generate the planning screen.

You can specify a single value, an interval, or a group of values. By choosing *More* you can enter more than one single value or interval.

Characteristic value parameterization
You can also use varaibles for the characteristic values.
Variables enable flexible shaping of the planning layout. The content is determined only after planning is executed.
Note that the system distinguishes between *local* and *global* variables, but that you may only use local variables for the planning layout.
Local variables are not permanently in the system, but are valid only in the affected planning layout. They may be used more than once the layout.

Example:
You create a layout with the following three value columns:
Column 1: Version, Variable 1 Fis.Y, 1996
Column 2: Version, Variable 1 Fis.Y, 1995
Column 3: Version, Variable 2 Fis.Y, 1995
Local variable 1 is used twice, variable 2 only once.

You enter a variable for the characteristic value by choosing *Indicator for entering variables* (variables on/off) on the screen *Define Element*.
The system changes the size of the input field and marks the field. The local variable designation can be set as desired.

Additionally, you can also parameterize texts under *Edit -> Element -> Change text* (text variable). On the screen *Enter Text*, enter a local variable beginning with special character "$". According to your setting per text variable, the SAP system determines the text automatically from the selection of the assigned characteristics.

If you set characteristic values as variables, the user will be asked during planning callup to replace the variables with values.

Notes

Calculated variables

Variables based on numerical fields may be changed with additive operations. The variable is extended with a "+" or "-" and a number (no more than two places). In a formula, for example, variable "A" is used in a fiscal year column. The second column should display the previous year. Parameter "A-1" is thus maintained as the fiscal year characteristic. In the planning transactions, the fiscal year variable "A" is called up as a control date, and the previous year is calculated automatically.

Mandatory/optional variables

For variables in optional characteristics, you have the choice between
Replacement through mandatory entry
Replacement through optional entry

Use the menu path *Extras -> Variables -> Define variable*. Choose a variable for an optional characteristic and you thereby replace the default *Mandatory* with *Optional*.

Example

You set *Activity type* as the optional characteristic in the planning layout *Cost elements/Activity inputs* and activate the *Optional* setting. On the initial planning screen, you have the option of selecting activity-dependent and activity-independent planning. Only when you fill the field *Activity type* on the initial screen will activity-dependent planning be executed.

3. **Names/key values of variables**

   To give each variable a name, use *Extras -> Variables -> Define variables -> Name* and use the name when prompted in the initial planning screen.

   Examples

   You use 2 versions for an optimistic/pessimistic planning comparison. Using the naming function identifies the variables in the different versions.

   You define a period interval. To distinguish between the "From" period and the "To" period on the initial planning screen, save the appropriate names for the variables.

For more information about variables, see the SAP Library under *Cross-Application Components -> CA - Drilldown Reporting -> Reports -> Variables -> Variables for Characteristic Values, Variables for Texts*, or *Variables for Formulas*.

Maintain Planning Layouts for Business Processes - Cost Planning

To be able to plan for cost elements, you first need to define the planning layout. In the planning layout, you specify the format of the planning screens.

Requirements

In the standard SAP System, planning layouts are found only in client 000. To use them as models for user-defined planning layouts, they must be taken from client 000 and imported to your production client. Use the IMG *General Controlling* under the section *Prepare Production Startup -> Transport System Settings -> Transport Planning Settings ->* Import Standard Planning Layouts.

Recommendation

After installing a new release or update, you should repeat the import of standard planning layouts from client 000 in order to access the latest layouts.

Activities

Create planning layouts for cost element planning
based on your requirements.

Change an existing planning layout. **Further notes**

Procedure for Creating Planning Layouts
Notes on transport

For the transport of planning layouts, an individual function is available in Customizing under *Controlling -> General Controlling -> Production Startup Preparation -> Transport System Settings -> Transport System Settings -> Transport Planning Layouts.*

Maintain Planning Layouts for Business Processes - Quantities/Prices

In this IMG activity you define or change planning layouts for quantities and prices for business processes.

Requirements

In the standard SAP System, planning layouts are found only in client 000. To use them as models for user-defined planning layouts, they must be taken from client 000 and imported to your production client. Use the IMG *General Controlling* under the section *Prepare Production Startup -> Transport System Settings -> Transport Planning Settings ->* Import Standard Planning Layouts.

Recommendation

After installing a new release or update, you should repeat the import of standard planning layouts from client 000 in order to access the latest layouts.

Activities

Based on your requirements, create planning layouts for planning quantities and processes for your business processes.

Change an existing planning layout if necessary.

Further notes

Procedure for Creating Planning Layouts

Note on transport

To transport planning layouts, see the transport function in the IMG activity under "Controlling: General".

Maintain Planning Layouts for Business Processes - Statistical Key Figures

To be able to plan statistical key figures, you first need to define planning layouts for planning statistical key figures. You specify the layout of the planning screens in these planning layouts.

Requirements

In the standard SAP System, planning layouts are found only in client 000. To use them as models for user-defined planning layouts, they must be taken from client 000 and imported to your production client. Use the IMG *General Controlling* under the section *Prepare Production Startup -> Transport System Settings -> Transport Planning Settings ->* Import Standard Planning Layouts.

Recommendation

After installing a new release or update, you should repeat the import of standard planning layouts from client 000 in order to access the latest layouts.

Activities

Create planning layouts according to your requirements
for the planning of statistical key figures.

Change an existing planning layout. **Additional Notes**

Procedure for Creating Planning Layouts

Note on transport

For the transport of planning layouts, an separate function is available in Customizing for *Controlling -> General Controlling -> Production Start-Up Preparation -> Transport System Settings -> Transport Settings for Planning -> Transport Planning Layouts*.

Maintain User-Defined Planner Profiles

You use planner profiles to control the way planning is carried out. In a planner profile, you specify per planning area which planning layout is to be used with which default values. Per planning area, you can create as many planning layouts as you require. The profile item determines the order of the planning layouts within a planning area and can be used to assign the same planning layout to a planner profile in multiple areas, but with a different default setting each time.

Planner profiles are hierarchically structured as follows:

Planner Profile

General Controlling
Layouts Controlling

Default Parameters

Planner Profile

You can assign an authorization group to every standard profile and every planner profile that you create in the *Profile planning overview*.

The combination of authorization groups and locked default settings (see *Default layout*) results in highly detailed authorization assignments for entering planning data. All the planner profiles in the system are defaulted. This is regardless of the component in which you wish to call up planner profile processing. This enables you to define allowed entries of planner profiles from other components, for each component chosen.

General Controlling

For each planner profile, the system recommends different planning areas, depending on the application component. You can create additional planning areas.

In *CuDK* you can enter a default value for a distribution key for currency amounts.

In *QtDK* you can enter a default value for a distribution key for quantities. The system uses these default values for combinations that have not yet been planned, even if you have not selected a distribution key in the definition of the planning layout.

Layout Controlling

In each planning area, you determine which planning layouts appear in which sequence. For each planning area, you must define at least one profile item and assign a planning layout.

The *Deflt* indicator shows whether settings already exist (see: *Default settings layout*). If you deactivate the *Over.* (=Default settings not protected) indicator, the user must use the entries given in planning and may use only the defaulted variables. If the indicator is active, the entries are default values which can be overwritten when entering planning. The *Excel integration* indicator gives you the option of entering planning data in an Excel worksheet. If the indicator is active, you can use Excel to make your entries. The file description influences the layout of the worksheet. If you move the planning data (that you entered in the system) within the worksheet, the file description creates the link between the old data and the new location.

You can also find further information on preparation for planning with Excel in the *SAP Library* under *Financials -> CO Controlling -> Cost Center Accounting -> Cost Center Planning -> Manual Planning -> Techniques for Supporting Manual Planning -> Integrated Excel in Planning*.

- Default parameters

  You can enter default parameters for the selection of planning data of each item in the assigned planning layout.

  All variables defined in a layout are referenced during planning as parameters, which you can set with values per profile item.

If you undertake decentralized planning in your organization, the planner profiles assist the organizational aspects of the planning process. You can assign particular user groups to profiles in which objects have already been preset and precisely delimited.

Example

You set general selection criteria (fiscal year, version, periods and transaction currency) in your planning layout PRIMARY.

From an organizational perspective, it was decided that the cost center managers decentrally plan the material expenses first, followed by the personnel expenses.

In the *Planning profile overview* create the planning profile "PLAN01".

Choose the planning profile "PLAN01" and *CO General Settings*.

Choose the planning area "Cost centers: Cost elements/acty inputs" and *Layouts CO general*.

Enter the planning layout "PRIMARY" with both item number 0 and item number 020.

Choose the item "0" and *Default parameters* and enter the cost element group for material expenses.

Choose the item "020" and *Default parameters* and enter the cost element group for personnel expenses.

Also assign the cost center managers in the user parameters to planner profile PLAN01 via the parameter ID "PPP". To do so, choose *System -> User profile -> User parameters*.

When the cost center manager calls up planning by choosing "Planning -> CElems/Actvty input -> Change", the system suggests profile PLAN01 and branches to planning layout PRIMARY with the plan costs for material expenses. The cost center manager can now enter the plan data and, after it is saved, can go to other planning by choosing *Next layout*.

Requirements

To create entire planner profiles, the planning layouts used must be available. Complete the IMG activity Create Planning Layout.

Standard settings

The standard system includes several defined planner profiles. The names of the profiles begin with SAP. These are protected, meaning you cannot create custom profiles beginning with "SAP".

Note

Note that as of Release 4A, the planner profile SAP1, SAP2, SAP3, and SAP4 and the planning layouts 1-1 to 1-4 contained in these profiles are no longer maintained by SAP.

Activities

To assign planner profiles to authorization groups, create the necessary groups in the IMG activity *Create Custom Authorization Groups*. You can use the authorization groups to control which users have access to which planner profiles. Assign authorizations with the authorization object "CO: Planner Profiles" (K_TKA 50).

To create planner profiles, proceed as follows

CO Planner Profile Overview

To create a new planner profile, choose *New entries*.

To copy an existing profile, select a reference and choose *Edit -> Copy as*.

Enter a name and explanatory short text for the object.

If necessary, assign an authorization group to the planner profile.

General Controlling

Select the suggested planning area for which you want to make settings and choose *Settings for General Controlling*.

To create a new planning area, choose *New entries*.

Layouts for Controlling

Select a planning area for which you want to make settings and choose *Layouts for General Controlling*.

Choose *New entries* and enter an item and previously defined layout.

Activate the indicator *Default settings not protected* if users may overwrite the defaulted variables.

Activate *Excel integration* if you want to enter your planning data in an excel worksheet.

Enter a name for the file description.
If you do not enter a name, the system automatically assigns a name when you save the file.

Save your entries and return to the layout overview screen.

Layout Default Settings

Select a planning area for which you want to make settings and choose *Layout Controlling*.

Set the parameters of the defined variables per profile item for the planning layout.

Notes

To define the excel worksheet, at least one row must exist on the screen. For this reason, you need to enter example data as dummy data in the SAP System using the planning layout.

To be able to plan directly using the corresponding planning layout, you may need to reset any planner profile that has been set under *Planning -> Set planner profile*.

Optional steps:

Authorizations

In the IMG activity *Authorization Management*, set authorizations as required for object K_TKA50 and assign the authorizations to the authorization profiles of the appropriate users.

User parameters

Assign parameter ID PPP to the users who are to work with the profile in the user parameters (choose *System -> User profile -> User parameters*).

Deleting planner profiles

When you delete a planner profile, the system checks whether the profile is also used in other components. If it is, you first need to delete the dependent entries for the planner profile in all components, before you can delete the planner profile itself.

Note on transport

To transport planner profiles, see the *General Controlling Customizing -> Production Start-Up Preparation -> System Configuration Transport -> Planning Configuration Transport -> Transport Other Planning Configurations*. You can use this function to transport the complete set of planner profiles from a test to a productive client.

Planner profile maintenance is connected to the automatic recording of transport data.

This also includes the settings for integrated Excel. The system includes file descriptions and Excel sheet templates in the transport request, provided you have created them in Customizing.

The system also transports the settings for integrated Excel if you have manually included a planner profile in - or manually deleted a planner profile from - a transport request (you do both by choosing *Table View -> Transport*).

Warning

When performing the transport, ensure that you have not manually created any *integrated Excel* settings in the target system.

Only supply the target system by means of transports, otherwise inconsistencies could arise. When importing the Excel sheet templates from the source system, the system does **not** overwrite the settings already made in the target system.

If, however, planner profiles with corresponding Excel sheet templates already exist in the target system, you have to delete them before performing any imports. In planner profile maintenance, you can delete these Excel sheet templates for specific planner profiles or profile items.

Further notes

You can find more information on planner profiles in the *SAP Library* under *Financials -> CO Controlling -> Cost Center Accounting -> Cost Center Planning -> Manual Planning -> Planning Techniques -> Planning Screen Layout -> Planner Profiles*.

Maintain User-Defined Distribution Keys

You use distribution keys to both simplify and speed up the entry of monthly plan values. The following options are available for defining your own distribution keys:

Distribution keys that refer to a standard distribution key (1, 2, 3, 4, 5, 6, 7).
Note

The system also saves distribution keys in the object currency.

You can also change the distribution key during the runtime.

Note

You define a distribution key in which you save the number of shifts (relative factor) per month (period). In cost center planning you enter the annual plan activity and combine this with your distribution key.

Five workers work seven hours per shift. Multipling 35 hours per shift with 680, the maximum number of shifts per year, results in annual plan activity of 23,800 hours.

The following table shows the distribution of activity according to the distribution key used.

Plan Activity: 23,800 hours			
Period	Relative Factor	Calculation	Plan Activity
1	40	23,800 : 680 X 40 =	1,400
2	40	23,000 : 680 X 40 =	1,400
3	40	23,800 : 680 X 40 =	1,400
4	60	23,800 : 680 X 60 =	2,0
5	60	23,800 : 680 X 60 =	2,0
6	80	23,800 : 680 X 80 =	2,800
7	80	23,800 : 680 X 80 =	2,800
8	80	23,800 : 680 X 80 =	2,800
9	60	23,800 : 680 X 60 =	2,0
	60	23,800 : 680 X 60 =	2,0
11	40	23,800 : 680 X 40 =	1,400
12	40	23,800 : 680 X 40 =	1,400
	680		23,800

Standard settings

The standard SAP System includes unchangeable default distribution keys.

Distribution key **0**
Enter the values manually for each period.

Distribution key **1**
Given plan value is distributed equally to the plan periods.

Distribution key **2**
Given plan value is distributed according to the previous distribution.

Distribution key **3**
The value entered is interpreted as a percentage and applied to the previous values.

Distribution key **4**
The periods containing a value not equal to zero are distributed to the following empty periods.

Distribution key **5**

The periods containing a value not equal to zero are copied to the following periods.

Distribution key **6**

The period value entered is copied to the following period

Distribution key **7**

The total value is distributed to the periods according to the number of calendar days in each period.

Distribution key **11**

Used only in the Cost Center Controlling component for activity-dependent cost planning or activity-dependent statistical key figure planning.

The given value is distributed based on the plan activity quantity of a cost center. The system uses the activity quantities planned at the time you create the distribution key. If you change activity quantities afterwards and copy the plan values to another version, the system does not create a new distribution automatically.

Recommendation

If the SAP standard keys do not meet your requirements completely, but you want to use certains parts of them, you should copy the distribution key and save it as your own key after making changes to it.

Position the cursor on the standard distribution key you want to use and choose *Copy* using the context menu.

Enter a new name for your own distribution key.

Maintain and save your settings.

Activities

If necessary, define distribution keys that meet your requirements.

Place the cursor on

Referenced, if you want to refer to one of the standard distribution keys (**except 11**).

Independent, if you want to create a new distribution key.

Choose *Create or Change* using the context menu.

Assign a key and a description for the new distribution key.

Maintain the number of posting periods and a relative distribution factor. The system distributes the input value to the individual posting periods according to the relative distribution factor.

Via *Suppress zero factor*, you can suppress posting periods to which you have assigned a relative distribution factor "0". You can display these posting periods again by choosing *Display zero factor*.

If you subsequently want to set a relative distribution factor in a period to "0", you can recalculate the factors of the remaining periods by choosing *Calculation*.

You can compare the original version of the distribution key with the new one by choosing *Compare*.

Notes on transport

To transport distribution keys, a separate function is available in Customizing under *Controlling -> General Controlling -> Production Start-Up Preparation -> Transport System Settings -> Transport Settings for Planning -> Transport Other Planning Settings*.

Further notes

For more information, see the *SAP Library* under *Financials -> CO Controlling -> Cost Center Accounting -> Cost Center Planning -> Manual Planning -> Techniques for Supporting Manual Planning -> Distribution Keys*.

Actual Postings

In this IMG activity you define periodic actual allocations in the Activity-Based Costing component (CO-OM-ABC).

Manual Actual Postings

In this IMG activity you make settings for manual actual postings.

Define Own Screen Variants for Postings in Controlling

You use screen variants to define the layout of the screen on which you make one of the following postings:

Manual reposting of costs

Manual reposting of revenues

Activity allocation

Manual cost allocation

Statistical key figures

A screen variant consists of variants for the individual transactions in manual actual postings (reposting costs or activity allocation for example).

Note:
Authorization object K_PVARIANT controls whether the screen variants can be accessed.

Example

Requirements

Check the settings in activity *Maintain Controlling Area* to check that cost accounting for the objects that you want to include in the screen variant is active in the relevant fiscal year. Examples of these objects include:

Cost centers

Order management

Projects

Cost objects

Sales and distribution documents

Standard settings

SAP supplies a wide variety of screen variants for the postings mentioned above.

Note

You **cannot** make changes to the standard system. If, however you need to make only minor changes, you should copy the standard delivery and adjust the copy to meet your requirements.

Recommendation

Activities

The screen variants supplied by SAP are displayed on the initial screen.

To create your own screen variants, proceed as follows:

Creating screen variants

Determine what postings you want to make.

Choose *New entries*.

Enter a key and an explanatory text for the screen variant.

Save your entries.

Assigning variants for individual transactions

Select a screen variant and, in the navigation tree, double-click on *Define screen variants per business transaction*.

Choose *New entries*.

Choose the transaction you require.

Select the fields that you want to have included on the entry screen for the posting.

The system provides different fields depending on the transaction

Field selection is broken down into *General fields*, *Sender fields* and *Receiver fields*.

Specify whether you want to use **Individual entry** or **List entry**.

To do so, select the appropriate option in the *Initial screen* field under **Additional data**.

Recommendation

For complex postings, choose **Individual entry**. If you have selected a lot of fields for the entry screen, individual entry helps you retain a better overview.

Selecting display variants for lists

For the **Overview list**, you can select all line items for a display variant. To do so, under *Additional data* choose a variant.

You can access the overview list from either the individual entry screen or the list entry screen.

You can select a display variant for the **navigation list** by choosing a variant under *Further data*.

Under individual entry, you can switch between posting records using the navigation list.

Note

In the display variant for the overview list and the navigation list you specify what columns are to be displayed, their width, and the order in which they are displayed. You can create your own display variants in the respective entry transaction. These are then displayed here and can be selected.

You can select a **transaction variant**.

To do so, under *Further data* choose a variant.

Using the transaction variant and for both individual entry and list entry you can

Define default values for particular fields

Display or hide fields

Change the order of the fields

Save your entries.

Further notes

You can transport the screen variants straight away.

To do so, choose *Table view -> Transport* and enter the screen variants in a Customizing request.

Actual Data Transfer

In this IMG activity you transfer actual statistical key figures from the Logistics Information System (LIS) for activity types, business processes, and cost objects.

Statistical Key Figure Transfer From LIS

In this section you assign different objects (business process, activity type, cost object) a statistical key figure that can be given corresponding actual values from the Logistics Information System (LIS) as an alternative to manual entry of the key figures for the objects.

Maintain Statistical Key Figures (Link to LIS)

In this IMG activity you create a link between a statistical key figure in the Activity-Based Costing component (CO-OM-ABC) and the corresponding key figure in the Logistics Information System (LIS).

For example, statistical key figure REPOS can indicate the number of calculation items automatically updated in the LIS.

You can activate the interface in the statistical key figure's master data in the Activity-Based Costing component. This ensures the requirement for later automatic transfer of LIS key figures to the Cost Center Accounting component (CO-OM-CCA).

To find key figures in the LIS, two methods are available:

Find via info-structures

Info-structures are database tables administered by the SAP System and automatically updated with the different LIS key figures from a particular area or application.

Find via info-sets

Info-sets also serve to divide the LIS key figures. Here, however, even finer differentiation can take place.

Info-structures and info-sets are defined within Logistics Controlling.

Prerequisites

Complete the step Maintain Controlling Area.

Activities

Enter the statistical key figure for which you want to create a link to the LIS.

Choose the pushbutton "Link LIS".

Decide whether to use info-structures or info-sets in the search for the key figure in the LIS.

Find the desired key figure in the LIS.

The search via info-structures takes place through the choice of application and info-structure.

The serarch via info-sets takes place through the continuing choice of info-sets.

The information on the corresponding LIS key figure are displayed in the statistical key figure basic screen.

Note on transport

To transport statistical key figures, see the IMG activity under "Controlling: Genreral".

Maintain Assignments of Business Processes to Statistical Key Figures

In this IMG activity, you assign one or more statistical key figures to a business process. The R/3 System automatically supplies the key figures with values if you arrange for statistical key figure transfer to the Activity-Based Costing component (CO-OM-ABC) from the Logistics Information System (LIS).

With this function you can define automatic entry of plan and actual data for statistical key figures for this object. In planning, you can overwrite values transferred from the LIS.

Example

You define the key figure ORDER and link it with the LIS key figure NPOIT "Number of purchase order items".

You assign ORDER to one or more business processes by using an existing variant or by creating a new one. To limit the data selection for the key figure, enter the corresponding selection criteria in the characteristic values for the variant.

Requirements

Activate and maintain the Logistics component functions that supply data to the LIS.

Define the business process.

Define and link the relevant key figures with the LIS.

Activities

Assign one or more statistical key figures to the affected business process by entering a version and the fiscal year.

You must enter a variant for each key figure if you want to limit data selection for the key figure.
If you do not enter a variant in the characteristic values, the R/3 System selects all the key figure data from the LIS database.

Save your entries.

Note on transport

For the transport of settings for Activity Based Costing, an individual function is available in the IMG for "General Controlling".

Data Transfer from External Systems

During external data transfer, the system distinguishes between

plan data

actual data

The SAP system checks the data to be transferred just as in the corresponding dialog functions.

Transferring external data to the SAP system requires ABAP programming experience, as you have to create your own transfer program. SAP provides sample programs to make this task easier. These sample programs contain callups for function modules that control the data transfer.

Further information

Detailed information on the procedures and execution of external data transfer can be found in the *SAP Library* under *Financials -> Controlling (CO) -> Controlling -> CO External Data Transfer*.

Period-End Closing

In this IMG activity, you create period-end closing activities, which are period-based actual allocations in the form of sender-receiver relationships defined in cycles:

Distribution

Assessment

Indirect activity allocation

Distribution

In this segment you carry out the adjustments for the allocations in the actual.

Specify Receiver Types for Distribution

When making distributions you can specify which table fields are active and whether, in cycles, a single value, an interval, or a group can be entered for these fields.

You make these settings per controlling area and separately for plan and actual data respectively.

If you change the attributes for a field that is already used in cycles then:

If you change individual values, groups, and intervals that have a "to" value, the system deletes the corresponding data records from the table.

If you change intervals with "From" values, the "To" values are deleted from the table.

Example

You use assessments on cost centers, but would always only like to touch upon cost center groups as a receiver.
By deleting the character of the table field 'Cost center' in the fields for input-readiness as a single value and in the interval in the area of receiver, you discover that only one group can be entered with the definition of the assessment cycle as a receiver for cost centers.

	Allocation type	Assessment
	Act./Plan	Act.
	Field	Cost center

Field properties

Activ ind.	Input ready	Input ready	Input ready
+ Sender	X Single value	X Interval	X Group
+ Receiver	_ Single value	_ Interval	X Group

Requirements

Complete the IMG activity Maintain Controlling Area in the Implementation Guide under *General Controlling -> Organization*.

Standard settings

Initially, standard values are defaulted as to whether single values, intervals, or groups can be entered. In order to ensure overall data consistency, not all the standard values can be changed.

Activities

Change the field attributes of an assessment as follows:

Select the controlling area for which you want to change the field characteristics by entering the CO area in the dialog box offered. If the dialog box does not appear, you can change the CO area by choosing **Extras -> Set CO area**.

Mark the rows from the list of fields offered for which you want to maintain field attributes.

Depending on the field selected, one or more of the following maintenance options are offered in the detailed screen:

Field attributes in cycle

Field attributes in cycle sender control

Field attributes as sender

Field attributes as sender tracing factor

Field attributes as receiver

Field attributes as receiver tracing factor

In the detail screen, maintain the following table fields:

Active indicator

Ready-for-input as single value

Ready-for-input as interval

Ready-for-input as group

To reverse changes you have made to field attributes, choose *Get standard values* in the detail screen.
This retrieves the original standard values for a table field.

Save your changes.

Notes on transport

To transport assessment field attributes manually, choose *Table view -> Transport*.

Define Distribution

In this activity, you define distributions in the form of cycles by specifying rules for the settlement of primary costs on a cost center.

Recommendation

Check whether distribution can be replaced here by periodic reposting or assessment in order to achieve better system performance.
You can use assessment if the origin of the primary costs is not important. If required, you can use multiple assessment cost elements for differentiation.

Periodic reposting is recommended if the origin of primary costs is important, but the partner object does not need to be displayed directly. The partner information, however, is not lost. Proof of origin is always possible via the line item document.

If you do need to show the partner object directly in the report, you must use distribution. The data volume will grow significantly for the proof of the partner objects, particularly in large distributions.

Note that the data volume generated for past periods will grow with increased numbers of periods. Especially in reporting and for data backups, it is important to keep the data volume generated by allocation to a minimum. For this reason, assessment or periodic reposting are to be recommended.

For performance reasons, you should not use more than 50 segments in one cycle. If necessary, define multiple cycles. A larger number of segments per cycle is only necessary for extensive iterations.

Also: For performance reasons, never use more than ,000 relationships in an allocation cycle. If you require more than that, you must plan a mass test of the allocations beforehand.

Example

From a sender cost center with 0 sender cost elements, allocations are made with one segment to 500 receiver cost centers.

The following numbers of sender and receiver totals records result from the different allocations that must be written in the processed period:

Allocation	Sender totals recds	Receiver totals recds
Assessment	500	500
Periodic reposting	0	500 x 0
Distribution	500 x 0	500 x 0

This simple example already demonstrates that

far more sender totals records are written for distribution than for periodic reposting

far more receiver totals records are written for periodic reposting than for assessment

In practice, because of the far higher number of senders and receivers, the advantages of assessment and periodic posting are even more apparent.

Activities

Create a plan distribution cycle by proceeding as follows:
Determine a name for the cycle.

Determine a validity period for the cycle.

Maintain the header data for the cycle by entering the following.

- Which currencies are to be used in the allocations
- Whether consumption is to be allocated or not
- Whether negative tracing factors are scaled or not
- Whether cycle processing is to be iterative
- In which version the allocation is to take place

Define cycle segments in which you store the following information.

- Sender cost element to be distributed
- Criteria for cost distribution to the receiver
- Sender objects
- Receiver objects

Save the cycle.

Notes for Transport

If, in your client, you have not selected the automatic recording of changes for client-specific objects (in Customizing under *Basis Components -> System Administration -> Change and Transport System -> Configure Clients*), you can transport your settings to the target system in a user-defined activity.
To do this, in Customizing, choose *Controlling -> General Controlling -> Production Start-Up Preparation -> Transport System Settings* and then process the relevant activity.

Further notes

Distribution

During distribution, the following information remains:

Original primary cost element.

Information on the sender cost center is noted in the receiver cost center or receiver order.

Information on the receiver cost center or order is noted in the sender cost center.

For more information, see the "SAP Library" under *Financials -> CO Controlling -> Cost Center Accounting -> Period-End Closing -> Defining Periodic Repostings or Periodic Allocations*.

Assessment

In this IMG activity you make settings for carrying out assessments from business processes to other processes or to cost objects.

Requirements

Complete the IMG activity **Create Assessment Cost Elements**.

Further notes

Further Notes

Determine Assessment Receiver Category (Business Processes)

When making assessments you can specify which table fields are active and whether, in cycles a single value, an interval, or a group can be entered for these fields.

You make these settings per controlling area and separately for plan and actual data respectively.

If you change the attributes for a field that is already used in cycles then:

If you change individual values, groups, and intervals that have a "to" value, the system deletes the corresponding data records from the table.

If you change intervals with "From" values, the "To" values are deleted from the table.

Example

You use assessments on cost centers, but would always only like to touch upon cost center groups as a receiver.
By deleting the character of the table field 'Cost center' in the fields for input-readiness as a single value and in the interval in the area of receiver, you discover that only one group can be entered with the definition of the assessment cycle as a receiver for cost centers.

	Allocation type	Assessment
	Act./Plan	Act.
	Field	Cost center

Field properties

Activ ind.	Input ready	Input ready	Input ready
+ Sender	X Single value	X Interval	X Group
+ Receiver	_ Single value	_ Interval	X Group

Requirements

Complete the IMG activity Maintain Controlling Area in the Implementation Guide under *General Controlling -> Organization*.

Standard settings

Initially, standard values are defaulted as to whether single values, intervals, or groups can be entered. In order to ensure overall data consistency, not all the standard values can be changed.

Activities

Change the field attributes of an assessment as follows:

Select the controlling area for which you want to change the field characteristics by entering the CO area in the dialog box offered. If the dialog box does not appear, you can change the CO area by choosing **Extras -> Set CO area**.

Mark the rows from the list of fields offered for which you want to maintain field attributes.

Depending on the field selected, one or more of the following maintenance options are offered in the detailed screen:

Field attributes in cycle

Field attributes in cycle sender control

Field attributes as sender

Field attributes as sender tracing factor

Field attributes as receiver

Field attributes as receiver tracing factor

In the detail screen, maintain the following table fields:

Active indicator

Ready-for-input as single value

Ready-for-input as interval

Ready-for-input as group

To reverse changes you have made to field attributes, choose *Get standard values* in the detail screen.
This retrieves the original standard values for a table field.

Save your changes.

Notes on transport

To transport assessment field attributes manually, choose *Table view -> Transport*.

Create Assessment Cost Elements

In assessment, the R/3 System converts the original cost elements cumulatively or in groups into assessment cost elements. The original cost elements are lost in this process.

Assessment cost elements are secondary cost elements.

Requirements

- Complete the IMG activity Maintain Controlling Area, found in the *General Controlling* section of the IMG under *Organizaton*.

Activities

Create secondary cost elements of category 42 (assessment cost element).

Note

For more information, see Maintain Cost Element.

Note on transport

To transport cost elements, see the IMG activity under "Controlling: General".

Maintain Allocation Structures

If the assessment for each segment is not made with a pre-defined assessment cost element, you can assign the source cost elements to the desired assessment cost element in the allocation structure. During cycle definition, enter the allocation structure instead of an assessment cost element in the segment.

An allocation structure for the assessment consists of at least one assignment, stating the assessment cost element to which the source element is assigned. The original cost elements will already have assignments in the source.

Requirements

To define the assessment cost elements required for the allocation structures, you must first complete the IMG activity "Create Assessment Cost Elements".

Activities

Creating an allocation structure.

To create an allocation structure, proceed as follows:

Choose "New Entries".

Enter a name and text for the allocation structure.

Save the allocation structure.

Enter the assignments for each allocation structure. To make the assignments, proceed as follows:

Select the allocation structure, and then choose "Assignments".

Choose "New Entries".
Enter a name and text for the assignment.

Save the assignment.

Specify the source for each assignment.

To specify the source for an assignment, proceed as follows:

Select the assignment, then choose "Source".

Enter a cost element interval or a cost element group.

Save the source.

Enter the assessment cost element for each assignment.

To specify an assessment cost element for an assignement, proceed as follows:

Select the assignment, then choose "Assessment cost element".

Enter the assessment cost element you require.

Save your entries.

Further notes

For further information on allocation template go to the SAP Library under Accouting -> CO-Controlling -> Overhead-Controlling -> Activity-Based Costing -> Period end closing ->Periodic allocations -> Assessment (Cost centers, business processes).

Maintain Process Assessment

In this IMG activity you determine rules in the form of cycles for the allocation of primary and secondary costs of business processes on cost objects or other actual business processes.

Process costs allocated through assesment of cost centers to business processes were allocated further to cost objects or other business processes. The costs calculated in the resource assessment example are allocated here to cost objects EP1 and EP2. The following cycle was defined:

Segment Sender	CostElem	Amount	Rule	Tracing Factor	Receiver
SEG_1					
TP1	520000	2000	posted amt.	fixed % rate EP1, EP2	
SEG_2					
TP2	5000	2000	posted amt	fixed % rate EP1	
SEG_3					
TP3	5000	2000	posted amt	fixed % rate EP2	
SEG_4					
TP4	5000	6000	posted amt	var. prcntg. EP1, EP2	

TP1 allocates its costs in a 50:50 ration to EP1 and EP2.
TP2 and TP3 allocate 0% of their costs to EP1 and EP2. TP4 allocates
on the basis of statistical key figure 'STCK'.
On the basis of statistical key figure "number of finished pieces", the costs of final checking are allocated to cost objects EP1 and EP2. The following key figures are allotted to the cost objects:

EP1 0 pieces
EP2 200 pieces

Receivers EP1 and EP2 are charged with the following costs from assessment cost element 422154:

Cost Object Costs
EP1 00 + 2000 + 6000 * (0/300) = 5000
EP2 00 + 2000 + 6000 * (200/300) = 7000

Prerequisites

Carry out the steps in "Create assessment cost element".

When using an allocation template, you must carry out the steps in Arbeitsschritt "Maintain allocation tempplate".

Recommendation

When using assessment, distribution, and periodic reposting, note the following:

You can use assessment if the origin of the primary costs is not important. If required, you can use multiple assessment cost elements for differentiation.

Periodic reposting is recommended if the origin of primary costs is important, but the partner object does not need to be displayed directly. The partner information, however, is not lost. Proof of origin is always possible via the line item document.

If you do need to show the partner object directly in the report, you must use distribution. The data volume will grow significantly for the proof of the partner objects, particularly in large distributions.

Note that the data volume generated for past periods will grow with increased numbers of periods. Especially in reporting and for data backups, it is important to keep the data volume generated by allocation to a minimum. For this reason, assessment or periodic reposting are to be recommended.

For performance reasons, you should not use more than 50 segments in one cycle. If necessary, define multiple cycles. A larger number of segments per cycle is only necessary for extensive iterations.

Also: For performance reasons, never use more than ,000 relationships in an allocation cycle. If you require more than that, you must plan a mass test of the allocations beforehand.

Example

From a sender cost center with 0 sender cost elements, allocations are made with one segment to 500 receiver cost centers.

The following numbers of sender and receiver totals records result from the different allocations that must be written in the processed period:

Allocation	Sender totals recds	Receiver totals recds
Assessment	500	500
Periodic reposting	0	500 x 0
Distribution	500 x 0	500 x 0

This simple example already demonstrates that

far more sender totals records are written for distribution than for periodic reposting

far more receiver totals records are written for periodic reposting than for assessment

In practice, because of the far higher number of senders and receivers, the advantages of assessment and periodic posting are even more apparent.

Activities

Create an assessment cycle as follows:

Determine a name for the cycle.

Determine a validity period for the cycle.

Maintain the header data for the cycle:

- what currency should be applied
- whether consumption/usage should be allocated
- whether to scale negative tracing factors
- whether the cycle changes should be iterativ
- which version of the cycles should be valid

Define cycle segments with the following information:

- the allotted cost element of the sender
- the criteria for cost distribution per sender
- the sender
- the receiver object

Save the cycle.

Notes for Transport

If, in your client, you have not selected the automatic recording of changes for client-specific objects (in Customizing under *Basis Components -> System Administration -> Change and Transport System -> Configure Clients*), you can transport your settings to the target system in a user-defined activity.
To do this, in Customizing, choose *Controlling -> General Controlling -> Production Start-Up Preparation -> Transport System Settings* and then process the relevant activity.

Indirect Activity Allocation

In these IMG activities you make default settings for indirect activity allocation in actual.

Determine Send/Recv Categories for Indirect Acty Allocation

For indirect activity allocation you can determine which table fields are active and whether, in cycles you can enter a single value, an interval, or a group for these fields.

You make these settings per controlling area, and separately for plan and actual data respectively.

Example

You use indirect activity allocation for cost centers, but want to use only cost center groups as receivers.

Remove the table field indicator "Cost Center" in the fields for individual value entry readiness and in the receiver area interval to ensure that you can only enter groups as cost center receivers during cycle definition.

Allocation Cat:	Indirect Activity Allocation
Actual/Plan:	Actual
Field:	Cost Center

Field Characteristics:

Active Indicator	Entry-Ready	Entry-Ready	Entry-Ready
+ Sender	X Indv. Valu	X Interval	X Group
+ Receiver	_ Indv. Valu	_ Interval	X Group

Requirements

Complete the IMG activity Maintain Controlling Area in the Implementation Guide under *General Controlling -> Organization*.

Standard settings

Initially, standard values are defaulted as to whether single values, intervals, or groups can be entered. In order to ensure overall data consistency, not all the standard values can be changed.

Activities

Change the field attributes of an indirect activity allocation as follows:

Select the controlling area for which you want to change the field characteristics by entering the CO area in the dialog box offered. If the dialog box does not appear, you can change the CO area by choosing **Extras -> Set CO area**.

Mark the rows from the list of fields offered for which you want to maintain field attributes.

Depending on the field selected, one or more of the following maintenance options are offered in the detailed screen:

Field attributes in cycle

Field attributes in cycle sender control

Field attributes as sender

Field attributes as sender tracing factor

Field attributes as receiver

Field attributes as receiver tracing factor

In the detail screen, maintain the following table fields:

Active indicator

Ready-for-input as single value

Ready-for-input as interval

Ready-for-input as group

To reverse changes you have made to field attributes, choose *Get standard values* in the detail screen.
This retrieves the original standard values for a table field.

Save your changes.

Notes on transport

To transport indirect activity allocation field attributes manually, choose *Table view -> Transport*.

Maintain Indirect Activity Allocation

In this IMG activity you determine rules for indirect activity allocation in the form of cycles.

In indirect activity allocation you define the use of sender activities (cost center/activity type) from the point of view of the activity receiver by means of tracing factors.

You define tracing factors here as in assessment or distribution.

Activities

To create a cycle for indirect activity allocation:

Determine a name for the cycle.
Determine a time as of which the cycle will be valid.

Maintain the header data for the cycle:

An explanatory text

The time to which the cycle will be valid

Whether to scale negative tracing factors

Define cycle segments in which you store the following information:

A name and a text for each segment

Sender values

Tracing factor

Selection criteria (sender and receiver objects)

If necessary, attributes of business process(es)

Save the cycle.

Notes for Transport

If, in your client, you have not selected the automatic recording of changes for client-specific objects (in Customizing under *Basis Components -> System Administration -> Change and Transport System -> Configure Clients*), you can transport your settings to the target system in a user-defined activity.
To do this, in Customizing, choose *Controlling -> General Controlling -> Production Start-Up Preparation -> Transport System Settings* and then process the relevant activity.

Further notes

Conceptional Information on Indirect Activity Allocation

Indirect activity allocation consists of two subfunctions which you can enter as required in a cycle. However, one segment can cover only one subfunction in each case:

Sender activity quantities are known and can be entered as totals. Using indirect activity allocation, the posted activity quantities are distributed from senders to receivers according to the tracing factors defined in the segment.
segment uses this method if *Posted quantities* (rule 1) is the sender rule and *Fixed quantities* (rule 2) is NOT a receiver rule.

In a segment to distribute posted sender amounts, you can use activity types of category 3 *manual entry, indirect allocation* only.

Sender activity quantities are not known because measurement is either impossible or not feasible (for example, a joint office working for several cost centers). However, the SAP system can derive sender activity quantities indirectly, based on receiver tracing factors adjusted with a sender-specific weighting factor.
segment uses this method if *Indirectly determined quantities* (rule 3) is the sender rule, or if *Fixed quantities* (rule 2) is a sender or receiver rule. Using the *Sender values* function, you can determine sender-specific weighting factors for the sender rule *Indirectly determined quantities*. The default value is "1".
In segments for indirect calculation of sender activity quantities you can only use activity types of category 2 *indirect entry, indirect allocation*.

Senders and receivers in indirect activity allocation

In indirect activity allocation for actual and plan data, **senders** can be objects of the category *cost center/activity type* or **business processes**.
In a given segment, you can use category 2 or category 3 activity types only.

In indirect activity allocation for **plan data**, all usual CO objects are possible (cost center, cost center/activity type, orders, projects, etc.) as **receivers**
All of these receiver categories can appear in a cycle. However, cost objects of the category cost center/activity type may not be combined with other receiver categories.

In indirect activity allocation for **actual data**, you can use the same cost objects as receivers as in manual activity allocation, meaning **no** cost centers/activity types.

Fixed and variable activity references; evaluating activity quantities

In indirect activity allocation for **actual data**, all quantities are posted as total quantities. The division into fixed and variable quantity parts is carried out through actual cost splitting.

In indirect activity allocation for **plan data**, the determination of fixed and variable quantity quotas depends on the receiver category:

Receivers of the category cost center/activity type post all activity quantities as variable quantities, with tracing factors dividing actual and plan activity into fixed and variable quantity parts.

For all other receivers the receiver quantities are posted as fixed.

If an activity price is available for a sender object, the activity quantities of the sender and the corresponding receivers are valuated using this activity price.

Updating the databases

The activity quantity updated on the senders is determined either from read/posted sender quantities (subfunction 1) or from indirectly calculated activity quantities based on receiver tracing factors or predefined sender quantities/receiver quantities (subfunction 2). The activity quantity thus determined is posted to the respective sender as activity output (quantity credit) and to the respective receiver as activity-dependent or activity-independent activity input in relation to their tracing factors (quantity debit). The indefinite credit rate is updated for plan data as well (with activity type category 2).

Additionally, the following activity postings are based on the sender activity quantities:

If available quantities are distributed (subfunction 1), the scheduled quantity are updated. If the sender activity quantities are indirectly determined or fixed, the activity quantity is also updated in addition to the scheduled quantity.

In actual indirect activity allocation, all quantities are treated as fixed quantities.

You use indirect activity allocation in activity price calculation.

Price Calculation

In this section you make the following settings for price calculation:

Basic Settings for Price Calculation

Cost Component Structure

Switching Structure

Change Basic Settings for Price Calculation

You can change the following SAP default control parameters for price calculation.

Indicator *Generate*.

Controls report generation for iterative price calculation.

Before running price calculation, the system generates the corresponding report on the execution. The number of entries in the associated internal tables is generated, as well as the parallel processing of field groups.

By entering realistic figures during performance problems, the storage capacities and runtimes can be improved significantly.

Because generation also requires some time, you should activate this indicator only for very large processing runs when problems occur. If the indicator is active, entering numbers in the fields mentioned above can be left aside.

Number of senders/receivers

The number of entries in the internal tables is also set if the generation indicator is activated itself.

Number of relationships between senders/receivers

The number of entries in the internal tables is also set if the generation indicator is activated itself.

Number of cost centers in the controlling area

The number of entries in the internal tables is also set if the generation indicator is activated itself.

Number of significant digits in the price unit

To achieve more accurate results, the price unit can be set. The activity price is thereafter not based on units of 1, but on units of , 0, 00, or 000. If the activity price per unit is already relatively high, but you nevertheless want greater accuracy for your prices, this results in even higher values. With the number of significant digits, you can limit this development. The moving of digits takes place until the number of significant digits is reached.

Example

If the price per unit is 333333333, and the significant digit number was set to 6, the price unit remains 1 and the price 333. For 12 significant digits, the unit would be 000 and the price ,333,333333.

Indicator for deactivating the optimization of the price unit

Deactivates the significant digit settings mentioned in the previous point. If this is chosen, the price unit is 1.

Tolerance percentage for reconciliation of actual and scheduled activity Activity planning should be reconciled when price calculation is called up. The plan activity of the activity type should equal the scheduled receiver activity quantity. Only in this way will a sensible price be determined. All activity types are checked for reconciliation and, if necessary, issues warnings or error messages.

Due to planning rounding differences, especially in period distribution, minimal variances may occur nevertheless.

Enter the percentage by which plan activity may vary from scheduled activity.

Indicator *Post anyway*.

Indicator for posting of price calculation results even if errors occur.

Exceptions are serious system errors resulting in program termination and errors occurring in update preparation (such as integration or document assignment problems). Normally, errors prevent update booking of postings. In online processing, the update can be repeated from the results list. In background processing, this is not the case.

Standard settings

Use the function *Set standard* to set the parameter values defaulted by the SAP system.

Recommendation

SAP recommends using the standard settings unchanged.

Changing settings to meet the requirements of your organization is useful only if your results vary greatly from the SAP default values.

The changes in generation factors can worsen the runtimes of price calculation.

Activities

Maintain the settings for price calculation according to your requirements.

Additional Notes

For more information about price calculation, see the SAP Library under *Financials -> Controlling (CO) -> Cost Center Accounting -> Cost Center Planning -> Periodic Allocations -> Plan Price Calculation*.

Note on transport

To transport basic settings for price calculations, see Customizing under *Controlling -> General Controlling*.

Settings for Cost Component Split

In this section you make settings for price calculation using cost component splitting.

Define Cost Component Structure

You require a cost component structure to calculate prices using cost component split.

For each cost component structure you define a cost component such as energy, personnel, or raw materials. The components combine all costs occuring for a particular cost element area. In this way, you ensure greater cost transparency in activity price calculation when putting together the activity type prices - for example, it becomes easier to find how much of the activity price is taken up by the material costs.

In activity allocation, the cost component structure remains constant, meaning that the receiver takes on the sender cost elements and that the allocated costs are posted in the same cost components in the receiver as in the sender.

A cost component structure can have a maximum of 40 defined cost components.

Cost components are assigned to cost elements. You thereby determine which cost elements go to which rows in the structure, and how these components are updated in price calculation.

The cost component structure must be stored independently of fiscal year in the version.

You can transfer cost component splitting directly as primary cost splitting to product costing, or you can use a transfer structure to transport it to the Product Cost Controlling component (CO-PC).

Note

You need only carry out the steps named in "Activity". Further settings for cost components are not necessary, as they are relevant for product costing only.

Activities

To use cost component splitting for price calculation:

Create a cost component structure or change an existing one.

To create a new structure, enter a two-character key and an explanatory text.
Otherwise, choose an existing structure and maintain it in the following steps.

Save the cost component structure.

Define cost components

Select the structure and choose the navigation level "Cost components with characteristics".

If no components exist, choose "New entries". Otherwise, maintain the existing elements.

Enter the structure, a key, and a short text for the component.

Save your entries.

Assign the cost elements to the cost components.

Branch to the navigation level "Assign Cost Component - Cost Element Interval".

If no assignments exist, choose "New entries". Otherwise, maintain the existing elements.

For each component, enter the structure, the chart of accounts, and the relevant cost element or cost element interval.

Save your entries.

Enter the cost component structure in the fiscal year dependent part of the version's detailed information.

Further notes

For more information about the cost component structure, and price calculation using cost component splitting, see the *SAP Library* under *Financials -> CO Controlling -> Cost Center Accounting - Period-End Closing -> Actual Price Calculation -> Price Calculation using Cost Component Splitting*.

Note on transport

To transport of cost component structures, an individual function is available Customizing under *CO - Controlling -> Controlling*.

Define Switching Structure

You need to define a switch scheme, if within cost component split for price calculation you do not want a cost component split for primary costs only. In other words, where for an activity allocation, the allocated costs on the receiver are entered on a cost component different from that of the sender. You then determine which sender cost element is to be entered on which receiver cost element.

In price calculation, a cost component structure is used for price component splitting. This structure stores which cost elements are to be directed into which component.

For example, you can note in the cost component structure that material cost elements assigned to the sender component "Raw materials" and wage costs assigned to the sender component "Personnel" can be directed to the receiver component "Energy".

As the structure is used only with a specific combination of cost center/activity type, it is entered in the activity type planning of the sender. The corresponding planning structure for activity type planning using a switching structure is found in planner profile SAP4.

Activities

Create a switching structure if you require one To do
so, proceed as follows:

Assign an existing cost component structure to a switching structure.
Assign the structure's components to target components.
Save your entries.

Further notes

For more information and an example, see the *SAP Library* under *Financials -> CO Controlling -> Cost Center Accounting -> Period-End Closing -> Actual Price Calculation -> Price Calculation with Cost Component Split*.

Note on transport

You can also transport switching structures manually. To do this, choose *Table View -> transport*.

Variances

In this section you make the settings for variance calculation.

Variance calculation in Activity-Based Costing displays the balance between the actual costs and the allocated actual costs in different variance categories. The individual categories are determined cumulatively. This means that the total of the individual variances corresponds with the overall balance for the business process.

Variance calculation distinguishes between the input side and the output side of the business process.

The input side contains all the debits and credits for the business process, except the credits from activity allocations. On the input side you compare the actual costs (control costs) with the **target costs**. In this way, the following variance categories can be calculated:

Price variance o Quantity

variance o Structure

variance o Remaining

input variance

The output side contains the activity allocations for the business process. On the output side you also compare the allocated actual costs with the target costs or the plan costs. The variance categories on the output side are:

Output price variance o **Fixed-cost variance**

Volume variance

Secondary fixed-cost variance o

Allocation quantity variance

Remaining variance

Further notes

For more information on variances, see the Application help for Activity-Based Costing under "Period-End Closing -> Varience Calculation".

You can also find information in: o

Create target version

Check Units of Measure in Cost Element Master Data

In order to calculate input price and quantity variances, the system requires the consumption quantities in addition to actual and plan costs. Only then can it distinguish between variance categories.

To assign consumption quantities to an account, you must define a quantity unit in the cost element master data. You can also assign quantities to accounts using a quantity unit you define as convertible to the unit stored in the cost element master data.

In addition, if you set the indicator *Record quantities* in the cost element and cost center master data, the system issues an error message if you do not enter quantities.

The deciding factor for variance calculation, however, is solely the **quantity unit**.

Example of Input Quantity Variance

To provide the activity type "Machine Hours", you define the consumption of liters of grease as a ratio of the activity quantity. At an operating rate of 1%, actual postings record the consumption of 12 liters. The input quantity variance therefore equals 1 liter because the cost center activity consumed more than provided for in the adjusted plan (target) costs. Consumption as based on the operating rate equals 11 liters.

Note

Cost elements with frequent price fluctuations require consumption quantities for differentiated calculation of input price and quantity variances and their assignment to accounts.

You can determine input price variances for cost elements with relatively stable prices. To do so, complete the IMG activity Determine Primary Cost Input Price Variance. The input quantity variance is identified here.

Activities

Maintain a quantity unit in the cost element master data for cost elements with frequent price fluctuations.

Note on transport

To transport cost elements, there is a separate Customizing function under *Controlling -> General Controlling* available (Transport Settings for Master Data.

Define Variance Variants

In this IMG activity you define the variance variant determining the variance categories to be calculated.

You can calculate the following variance categories:

Input Side Variance:

Input price variance

Resource-usage variance

Input quantity variance - Remaining input variance **Output Side Variance:**

Output price variance

Fixed-cost variance, itself divided into:

Volume variance

Secondary fixed cost variance

Remaining variance

The system calculates variances for all categories chosen.

The values from variance categories not chosen are added onto the following variance category.
Fixed cost variance is calculated as a whole and not sub-divided.

If you do not select variance categories, the two remaining variance categories hold all the variances as totals.

You define the variance variant in the target version of each controlling area.

Default settings

The standard system includes default variance variant 001.

Actions

Check whether the standard variance variant meets your requirements. If you require a new variance variant:

Choose **New entries** and enter a key and a corresponding short text for the new variance variant.

Select the corresponding variance categories.

Save the variance variant.

Note on transport

To transport variants, choose "Table view -> Transport".

Further notes

For more information on and examples of variance categories, see the SAP Library under *Financials -> CO - Controlling -> Cost Center Accounting or Activity Based Costing -> Period-End Closing -> Variance Calculation -> Variance Categories*.

Define Cost Element Groups

In variance calculation, the first splitting step distributes the activity-independent actual costs on the basis of the target costs and quantities by cost element to the activity types. If no target costs are given for a cost element, the SAP System determines target costs for the corresponding cost element group. These target costs are then used as the basis for the first splitting step.

You may use either the defined cost element groups or define new cost elements for the special requirements of variance calculation.

You can combine similar cost elements into cost element groups. Similar cost element groups can be combined to form other cost element groups so as to build a cost element hierarchy.

You can use cost element groups:

In the information system
: The row structure of your report is determined by the cost element structure. You can create totals for each node in the report.

When processing of several cost elements in one transaction, such as

Cost center planning
: If, for example, you wish to display and plan personnel costs in one work transaction, select the group "Personnel costs".

Distribution

Assessment

Report totalling takes place via cost element group nodes. To achieve a clear illustration, each node on a level must have the same number of subordinate levels.

Prerequisites

In Customizing of *Financial Accounting* (under *General Ledger Accounting -> G/L Accounts -> Master Data*) you have maintained a chart of accounts.

You must have completed the Customizing activity Maintain Controlling Area in Customizing of *General Controlling* under *Organization*.

Default Settings

Standard cost element group **OAS-INT** is created for chart of accounts INT (international chart of accounts) in controlling area 0001.

Actions

Check whether the standard cost element groups meet your requirements.

Enter the group to be created or changed and choose "Enter".

In the structure screen, select the node from which the group is to be extended and choose "Same level" or "Lower level".

Data fields appear at the selected location in the tree structure.

Enter a name and a text for the new node.

Confirm by choosing "Accept changes".

To assign values to an end node, select the node and choose "Insert value". Data fields appear in the tree structure.

Enter a "From" value and, if necessary, a "To" value.

Confirm by choosing "Accept changes".

The selected values appear together with the name.

Notes on Group Maintenance

During group maintenance, you can take advantage of the following functions.

- Selection Variants

  If you create or change groups of cost centers, cost elements, activity types, internal orders, business processes or WBS elements, you can also add a selection variant onto an end node. This end node is one that you already defined in the implementation guide (IMG) for the corresponding object type. To do this, place the cursor on the end node, then choose *Insert lower level* followed by .+<<)< Name of selection variant> (or choose the selection variant using input help).

  By double-clicking, you can change each selection variant.

  You cannot create new selection variants while processing a group.

  You can reassign selection variants in the same way as groups.

You can display a list of the master data that belongs to one selection variant by placing the cursor on the selection variant and choosing *Extras -> Break down selection variant*. The system then displays a list of the corresponding master data in a dialog box.

Expand/collapse

You can open the entire hierarchy to the individual value level or hide it up to the second level. You can thus display and print different summarization levels of the hierarchy. Under *Edit*, you find *Expand all* and *Collapse all*.

Change node

You can change the location of subgroups or individual nodes in the hierarchy. To do so, select the highest subgroup node or individual node, select the reference node, and choose *Same level* or *Lower level*.

Remove nodes/values

You can remove subgroups or values from the structure. To do so, select the highest subgroup node, the value, or the value interval, and choose *Edit -> Selected entry -> Remove*. The affected node is thereafter no longer part of the complete group, but remains on the database.

Delete node from database

To delete nodes in a database structure, select the highest node and choose *Edit -> Selected entry -> Delete*.

You can only delete each node if it is not used elsewhere in the system. To check this, choose *Extras -> Where-used list group*. You then receive a selection of the areas for which you can create the Where-used list.

Find values

Within each group, you can search for particular values using *Edit -> Cost element, cost center, activity type, statistical key figure, business process, order or WBS structure -> Find*. The system expands the corresponding subgroup and highlights the single value.

Sort values

To sort values, choose *Edit -> Cost element/Cost center/Activity type/ Statistical key figure/Business process/Order WBS element ->* Sort in ascending order or *Sort in descending order*.

Display master data

You can branch to displaying master data. To do so, select the value and choose *Master data*.

If you entered a value interval, you cannot display master data.

Report info

To maintain report information, choose *Utilities -> Report settings* .

Maintain defaults

You can maintain the following defaults using *Utilities -> Defaults -> Structur, for:*

Master data

Node structures

You can make the following default settings to compare individual values with master data in the initial screen of group maintenance:

Display texts
Master data texts of individual values appear in the hierarchy.

Master data validation

Checks whether master data exists for the individual values of the hierarchy. If no master data exists, a warning message appears.

You can display individual values with existing master data by entering a search string in the individual value field.

Breakdown interval
Checks whether at least one individual value exists in master data within an interval of individual values. If no individual value exists, a warning message appears. If values exist

in the master data, these appear instead.

Key date

Enter the test date for the master data. The current date is defaulted.

Notes on Copying Groups

To copy groups, you have the following options:

Copy Entire Group Structure

In the same controlling area/chart of accounts

To copy the group, you enter a supplementary key as a suffix. The copy receives a new name through the attachment of the suffix to the original name of the group node. If a suffix already exists, this will be replaced by the new suffix. Copy and original are two separate, independent structures.

Example:
CO area 0001, group HIER
-> CO area 0001, group HIER997

To a different controlling area/chart of accounts

In this case, you create a new group based on a reference group from another controlling area or chart of accounts.
The complete structure and name are copied from the current controlling area/chart of accounts.
Copy and original are two separate, independent structures.

Example:
CO area 0001, group HIER
-> CO area 9999, group HIER

This does not apply to order groups because they are not assigned to a controlling area or chart of accounts.

Copy Highest Group Node in Controlling Area/Chart of Accounts and Attach Existing Structure

In this case, you create a new group based on a reference group from the same controlling area or chart of accounts.
The highest node holds the given group name, and the existing structure attaches to the highest node. All changes in the original automatically affect the copy as well.

Example:
CO area 0001, group HIER --> CO area 0001, group NEW_HIER

| |
+-> Node 1 +-> Node 1
+-> Node 2 +-> Node 2

When copying groups, the system checks whether group nodes with the copy name exist in the system. If at least one exists, the system asks whether it should overwrite all existing group nodes or whether it should not carry out copying. The standard hierarchy is exempt from this overwriting function.

Copying groups is especially useful when you want to freeze the characteristics of a group with time-based dependencies for objects at a given time in order to make changes affecting the following fiscal year.

Example: Copy standard hierarchy for cost centers

Problem:
You are using planning functions for cost centers. You want to execute planning for the following fiscal year in the current fiscal year, based on the standard hierarchy.

However, in the new fiscal year, changes will take place in the structure for the standard hierarchy, due for example to the removal or addition of cost centers, or because the hierarchy assignment for these

cost centers has been changed. To be able to plan using the standard hierarchy structure that is valid for the next fiscal year, you must make the necessary changes to the standard hierarchy. The previous standard hierarchy is required for reporting in the current fiscal year, because it no longer matches the structure in the current fiscal year.

Solution:
Copy the current standard hierarchy to "freeze" its current state, and carry out the changes to the structure.

There are two hierarchies available for you in the system:

The current standard hierarchy used for reporting

The changed standard hierarchy used for planning the next fiscal year Further usages of the copying of groups is a possibility.

Note:

Remember that the number of groups doubles with each copying transaction. If you have a very large hierarchy, you should

regularly delete those copies you no longer need. Alternatively, you can keep the number of groups low by only copying those parts in which changes occur. If you do this, you need to create the backup copy manually.

Notes on transporting

A separate activity for transporting cost element groups exists in Customizing under *Controlling -> General Controlling*.

Note on Validity Period

Note that groups have no validity periods. However, most master data is time-based.

Further notes

For more information about creating cost element groups, see SAP Library under *Financials -> CO Controlling -> Cost Center Accounting -> Processing Master Data* and *Cost Elements -> Cost Element Groups*.

Define Target Cost Versions

In this IMG activity you maintain a target cost version for variance calculation.

To carry out variance calculation in Cost Center Accounting, you must first create a target cost version for the respective controlling area.

You determine the following by means of the target cost version:

the version from which plan and actual data is read

the version in which the target costs are calculated

the version to which the split actual costs are posted

the version in which the variances are updated

In the target cost version you also store

which cost element group is used for the first splitting step

according to which variant the variances are determined

Keep in mind that currently only version 000 is allowed as an entry for all versions (plan, actual, and target). The standardization of variance calculation in Cost Center Accounting and Product Cost Accounting, however, makes the use of the target cost version necessary.

Activities

Create a target cost version.

Enter a variance variant for your controlling area.

Activate the target cost version by setting the "Active" indicator on the overview screen of the target cost versions.

Note on transport

Target versions can be manually transported by choosing "Table view -> Transport".

Information System

In this IMG activity, you create and transfer reports, make settings for the Controlling document display, and create custom reports with the Report Writer and Report Painter tools.

Group Maintenance

In this IMG activity, you adapt master data groups to the specific requirements of the information system.

For more information on group maintenance, see the *SAP Library* under *Financials -> CO Controlling -> Cost Center Accounting -> Cost Center Planning -> Master Data in Cost Center Accounting -> Master Data Groups -> Processing Master Data*.

Maintain Business Process Groups

In this step you create new business process groups or maintain existing groups.

You can define groups of similar business processes. Business process groups themselves can be combined into groups, resulting in a business process hierarchy.

The highest node of the standard hierarchy is normally the first business process group you created (see Maintain Standard Hierarchy of Business Processes). The groups you create thereafter form the remaining nodes of the standard hierarchy.

You can also create independent business process groups that are not part of the standard hierarchy. A business process can only be assigned to one hierarchy group. However, it can be assigned to any number of independent business process groups.

You can create independent business process groups only in this transaction or in the Activity-Based Costing menu under Master Data -> Business Process Groups -> Create.

You use business process groups in:

The information system

Processing multiple processes in one transaction (such as allocations)

Requirements

You must already have created a controlling area and fully defined it.

Activities

Structure the activities in your company and derive from them your business processes and the structure of the business processes.

Enter the group to be created or changed and choose "Enter".
In the structure screen, select the node from which the group is to be extended and choose "Same level" or "Lower level".
Data fields appear at the selected location in the tree structure.

Enter a name and a text for the new node.

Confirm by choosing "Accept changes".

To assign values to an end node, select the node and choose "Insert value". Data fields appear in the tree structure.

Enter a "From" value and, if necessary, a "To" value.

Confirm by choosing "Accept changes".
The selected values appear together with the name.

Notes on Group Maintenance

During group maintenance, you can take advantage of the following functions.

- Selection Variants

  If you create or change groups of cost centers, cost elements, activity types, internal orders, business processes or WBS elements, you can also add a selection variant onto an end node. This end node is one that you already defined in the implementation guide (IMG) for the corresponding object type. To do this, place the cursor on the end node, then choose *Insert lower level* followed by .+<<)< Name of selection variant> (or choose the selection variant using input help).

  By double-clicking, you can change each selection variant.

  You cannot create new selection variants while processing a group.

  You can reassign selection variants in the same way as groups.

  You can display a list of the master data that belongs to one selection variant by placing the cursor on the selection variant and choosing *Extras -> Break down selection variant*. The system then displays a list of the corresponding master data in a dialog box.

Expand/collapse

You can open the entire hierarchy to the individual value level or hide it up to the second level. You can thus display and print different summarization levels of the hierarchy. Under *Edit*, you find *Expand all* and *Collapse all*.

Change node

You can change the location of subgroups or individual nodes in the hierarchy. To do so, select the highest subgroup node or individual node, select the reference node, and choose *Same level* or *Lower level*.

Remove nodes/values

You can remove subgroups or values from the structure. To do so, select the highest subgroup node, the value, or the value interval, and choose *Edit -> Selected entry -> Remove*. The affected node is thereafter no longer part of the complete group, but remains on the database.

Delete node from database

To delete nodes in a database structure, select the highest node and choose *Edit -> Selected entry -> Delete*.

You can only delete each node if it is not used elsewhere in the system. To check this, choose *Extras -> Where-used list group*. You then receive a selection of the areas for which you can create the Where-used list.

Find values

Within each group, you can search for particular values using *Edit -> Cost element, cost center, activity type, statistical key figure, business process, order or WBS structure -> Find*. The system expands the corresponding subgroup and highlights the single value.

Sort values

To sort values, choose *Edit -> Cost element/Cost center/Activity type/ Statistical key figure/Business process/Order WBS element ->* Sort in ascending order or *Sort in descending order*.

Display master data

You can branch to displaying master data. To do so, select the value and choose *Master data*.

If you entered a value interval, you cannot display master data.

Report info

To maintain report information, choose *Utilities -> Report settings* .

Maintain defaults

You can maintain the following defaults using *Utilities -> Defaults -> Structur, for:*

Master data

Node structures

You can make the following default settings to compare individual values with master data in the initial screen of group maintenance:

Display texts

Master data texts of individual values appear in the hierarchy.

Master data validation

Checks whether master data exists for the individual values of the hierarchy. If no master data exists, a warning message appears.

You can display individual values with existing master data by entering a search string in the individual value field.

Breakdown interval

Checks whether at least one individual value exists in master data within an interval of individual values. If no individual value exists, a warning message appears. If values exist in the master data, these appear instead.

Key date

Enter the test date for the master data. The current date is defaulted.

Notes on Copying Groups

To copy groups, you have the following options:

Copy Entire Group Structure
In the same controlling area/chart of accounts

To copy the group, you enter a supplementary key as a suffix. The copy receives a new name through the attachment of the suffix to the original name of the group node. If a suffix already exists, this will be replaced by the new suffix. Copy and original are two separate, independent structures.

Example:
CO area 0001, group HIER
-> CO area 0001, group HIER997

To a different controlling area/chart of accounts

In this case, you create a new group based on a reference group from another controlling area or chart of accounts.
The complete structure and name are copied from the current controlling area/chart of accounts.
Copy and original are two separate, independent structures.

Example:
CO area 0001, group HIER
-> CO area 9999, group HIER

This does not apply to order groups because they are not assigned to a controlling area or chart of accounts.

Copy Highest Group Node in Controlling Area/Chart of Accounts and Attach Existing

Structure

In this case, you create a new group based on a reference group from the same controlling area or chart of accounts.
The highest node holds the given group name, and the existing structure attaches to the highest node. All changes in the original automatically affect the copy as well.

Example:
CO area 0001, group HIER --> CO area 0001, group NEW_HIER

| |
+-> Node 1 +-> Node 1
+-> Node 2 +-> Node 2

When copying groups, the system checks whether group nodes with the copy name exist in the system. If at least one exists, the system asks whether it should overwrite all existing group nodes or whether it should not carry out copying. The standard hierarchy is exempt from this overwriting function.

Copying groups is especially useful when you want to freeze the characteristics of a group with time-based dependencies for objects at a given time in order to make changes affecting the following fiscal year.

Example: Copy standard hierarchy for cost centers

Problem:
You are using planning functions for cost centers. You want to execute planning for the following fiscal year in the current fiscal year, based on the standard hierarchy.

However, in the new fiscal year, changes will take place in the structure for the standard hierarchy, due for example to the removal or addition of cost centers, or because the hierarchy assignment for these

cost centers has been changed. To be able to plan using the standard hierarchy structure that is valid for the next fiscal year, you must make the necessary changes to the standard hierarchy. The previous standard hierarchy is required for reporting in the current fiscal year, because it no longer matches the structure in the current fiscal year.

Solution:
Copy the current standard hierarchy to "freeze" its current state, and carry out the changes to the structure.

There are two hierarchies available for you in the system:

The current standard hierarchy used for reporting

The changed standard hierarchy used for planning the next fiscal year Further usages of the copying of groups is a possibility.

Note:

Remember that the number of groups doubles with each copying transaction. If you have a very large hierarchy, you should

regularly delete those copies you no longer need. Alternatively, you can keep the number of groups low by only copying those parts in which changes occur. If you do this, you need to create the backup copy manually.

Note on transport

For the transport of settings for Activity Based Costing, an individual function is available in the IMG for "General Controlling".

Maintain Statistical Key Figure Groups

You can combine similar statistical key figures to form statistical key figure groups. You can combine similar such **groups** to form further groups, thereby creating a hierarchy of statistical key figures.

Statistical key figures are used:

In the Information System, to create reports for particular key figures

To maintain multiple key figures in Cost Center Accounting transactions:

Cost center planning

Distribution

Assessment

You may combine statistical key figures used in the distribution/assessment framework as tracing factors into a single group.

Requirements

You completed the IMG activity Maintain Controlling Area, located under *General Controlling -> Organization*.

Activities

Structure your statistical key figure groups in the controlling area based on your controlling requirements.

Enter the group to be created or changed and choose "Enter".

In the structure screen, select the node from which the group is to be extended and choose "Same level" or "Lower level".

Data fields appear at the selected location in the tree structure.

Enter a name and a text for the new node.

Confirm by choosing "Accept changes".

To assign values to an end node, select the node and choose "Insert value". Data fields appear in the tree structure.

Enter a "From" value and, if necessary, a "To" value.

Confirm by choosing "Accept changes".

The selected values appear together with the name.

Notes on Group Maintenance

During group maintenance, you can take advantage of the following functions.

- Selection Variants

If you create or change groups of cost centers, cost elements, activity types, internal orders, business processes or WBS elements, you can also add a selection variant onto an end node. This end node is one that you already defined in the implementation guide (IMG) for the corresponding object type. To do this, place the cursor on the end node, then choose *Insert lower level* followed by .+<<)< Name of selection variant> (or choose the selection variant using input help).

By double-clicking, you can change each selection variant.

You cannot create new selection variants while processing a group.

You can reassign selection variants in the same way as groups.

You can display a list of the master data that belongs to one selection variant by placing the cursor on the selection variant and choosing *Extras -> Break down selection variant*. The system then displays a list of the corresponding master data in a dialog box.

Expand/collapse

You can open the entire hierarchy to the individual value level or hide it up to the second level. You can thus display and print different summarization levels of the hierarchy. Under *Edit*, you find *Expand all* and *Collapse all*.

Change node

You can change the location of subgroups or individual nodes in the hierarchy. To do so, select the highest subgroup node or individual node, select the reference node, and choose *Same level* or *Lower level*.

Remove nodes/values

You can remove subgroups or values from the structure. To do so, select the highest subgroup node, the value, or the value interval, and choose *Edit -> Selected entry -> Remove*. The affected node is thereafter no longer part of the complete group, but remains on the database.

Delete node from database

To delete nodes in a database structure, select the highest node and choose *Edit -> Selected entry -> Delete*.

You can only delete each node if it is not used elsewhere in the system. To check this, choose *Extras -> Where-used list group*. You then receive a selection of the areas for which you can create the Where-used list.

Find values

Within each group, you can search for particular values using *Edit -> Cost element, cost center, activity type, statistical key figure, business process, order or WBS structure -> Find*. The system expands the corresponding subgroup and highlights the single value.

Sort values

To sort values, choose *Edit -> Cost element/Cost center/Activity type/ Statistical key figure/Business process/Order WBS element ->* Sort in ascending order or *Sort in descending order*.

Display master data

You can branch to displaying master data. To do so, select the value and choose *Master data*.

If you entered a value interval, you cannot display master data.

Report info

To maintain report information, choose *Utilities -> Report settings* .

Maintain defaults

You can maintain the following defaults using *Utilities -> Defaults -> Structur, for:*

Master data

Node structures

You can make the following default settings to compare individual values with master data in the initial screen of group maintenance:

Display texts
Master data texts of individual values appear in the hierarchy.

Master data validation

Checks whether master data exists for the individual values of the hierarchy. If no master data exists, a warning message appears.

You can display individual values with existing master data by entering a search string in the individual value field.

Breakdown interval
Checks whether at least one individual value exists in master data within an interval of individual values. If no individual value exists, a warning message appears. If values exist in the master data, these appear instead.

Key date
Enter the test date for the master data. The current date is defaulted.

Notes on Copying Groups

To copy groups, you have the following options:

Copy Entire Group Structure

In the same controlling area/chart of accounts

To copy the group, you enter a supplementary key as a suffix. The copy receives a new name through the attachment of the suffix to the original name of the group node. If a suffix already exists, this will be replaced by the new suffix. Copy and original are two separate, independent structures.

Example:
CO area 0001, group HIER
-> CO area 0001, group HIER997

To a different controlling area/chart of accounts

In this case, you create a new group based on a reference group from another controlling area or chart of accounts.
The complete structure and name are copied from the current controlling area/chart of accounts.
Copy and original are two separate, independent structures.

Example:
CO area 0001, group HIER
-> CO area 9999, group HIER

This does not apply to order groups because they are not assigned to a controlling area or chart of accounts.

Copy Highest Group Node in Controlling Area/Chart of Accounts and Attach Existing Structure

In this case, you create a new group based on a reference group from the same controlling area or chart of accounts.
The highest node holds the given group name, and the existing structure attaches to the highest node. All changes in the original automatically affect the copy as well.

Example:
CO area 0001, group HIER --> CO area 0001, group NEW_HIER

| |
+-> Node 1 +-> Node 1
+-> Node 2 +-> Node 2

When copying groups, the system checks whether group nodes with the copy name exist in the system. If at least one exists, the system asks whether it should overwrite all existing group nodes or whether it should not carry out copying. The standard hierarchy is exempt from this overwriting function.

Copying groups is especially useful when you want to freeze the characteristics of a group with time-based dependencies for objects at a given time in order to make changes affecting the following fiscal year.

Example: Copy standard hierarchy for cost centers

Problem:
You are using planning functions for cost centers. You want to execute planning for the following fiscal year in the current fiscal year, based on the standard hierarchy.

However, in the new fiscal year, changes will take place in the structure for the standard hierarchy, due for example to the removal or addition of cost centers, or because the hierarchy assignment for these

cost centers has been changed. To be able to plan using the standard hierarchy structure that is valid for the next fiscal year, you must make the necessary changes to the standard hierarchy. The previous standard hierarchy is required for reporting in the current fiscal year, because it no longer matches the structure in the current fiscal year.

Solution:
Copy the current standard hierarchy to "freeze" its current state, and carry out the changes to the structure.

There are two hierarchies available for you in the system:

The current standard hierarchy used for reporting

The changed standard hierarchy used for planning the next fiscal year Further usages of the copying of groups is a possibility.

Note:
Remember that the number of groups doubles with each copying transaction. If you have a very large hierarchy, you should

regularly delete those copies you no longer need. Alternatively, you can keep the number of groups low by only copying those parts in which changes occur. If you do this, you need to create the backup copy manually.

Note on transport

To Transport statistical key figure groups, see *General Controlling* Customizing.

Note on Validity Period

Note that groups have no validity periods. However, most master data is time-based.

Further notes

For more information, see the SAP Library under *Financials -> CO Controlling -> Cost Center Accounting -> Master Data in Cost Center Accounting*, then *Master Data in Center Accounting -> Processing Master Data -> Master Data Groups* or *Statistical Key Figures -> Statistical Key Figure Groups*.

Define Selection Variants for Business Processes

You use selection variants to select master data using one or more master data attributes. The variant contains the fields that the SAP system evaluates in your selection report. These fields determine both the content and layout of a selection variant.

The following selection reports exist:

RKKOASEL for cost elements

RKKSTSEL for cost centers

RKLSTSEL for activity types

RKPRZSEL for business processes

RKOSEL00 for internal orders

RKPSEL00 for projects

You enter the selection values in the appropriate fields. You can overwrite these fields in the application; you can also hide those fields that you do not require.

When maintaining the *variant attributes* you can also specify variables for selection variant fields.

You need enter the selection criteria for selecting the objects only once, and then save these criteria as a selection variant. You can then use this variant to call up the master data of the selected objects.

Example

If you want to display reports in the information system for objects with given selection values, you can also enter the <name of the selection variant> under the group.

If you want to define reports using selection variants, enter the <name of the selection variant> as the characteristic value under group. You can then for instance display all the cost centers for a company code in the report.

Activities

If you want to define more than one selection variant, proceed as follows:

Enter a name for your variant in *ABAP: Variants: Initial Screen*.

Transfer the *Values* default in the *Subobjects* group box and choose *Create*. The system displays the selection fields for the given master data on the screen *Variant Maintenance: Report <your selection report>*.

Enter the values by which you want to select the desired fields.

Choose **Continue**.
You branch to the attribute maintenance in the selection variant.

Enter a short text in the *Description* field.

Save your entries.

Notes on transport

You can transport selection variants manually:

Choose *Variants -> Transport request*..

Enter the program name.

Enter the name of the variant to be transported.

Standard Reports

In this activity, you add to the list of standard reports. You do so by:

Importing standard reports into
your production system

Specifying report languages -
Generating standard
reports

Import Standard Reports

In this IMG activity, you import SAP standard reports from client 000, online or in background, to the client in which you are working.

You have the following import options:

Import some reports
Select the required standard reports from the list of all report groups offered.

Import all reports
Determine a time of low system use to create a background job for importing all reports.

Repeat the import of standard reports from client 000 after each update or new release.

Note

Do not change the standard objects in the target client. Rather, use them as models for your own objects. This ensures that changes are not overwritten by the next transport of standard objects.

Standard settings

The standard system includes all default reports for the components.

Activities

To import only some of the reports:

Choose *Online*.

Select the standard reports for the system to import.

Choose *Copy*.

To import all reports:

Determine a time of low system use

Choose *Background*

Enter a job name.

Transfer reports from the defaulted source client 000.

Enter the desired start time and date, or activate the *Start now* indicator to instantly begin the job.
The system plans the job and selects all available standard reports automatically.

Further notes

For more information on the standard reports for Activity-Based Costing, see the corresponding Application help under "Controlling -> Activity-Based Costing -> Activity-Based Costing Information System -> Important Standard Reports"; also see the selection window of the report or go to "Help -> Application help" after executing the report.

Specify Report Languages

Report Writer can generate a report in up to 32 languages simultaneously. When generating a report group, the system adopts the language-dependent report parts (such as rows or column texts) in the languages set by you in the report. In addition, the logon language is taken into account.

Note

The languages that you specify are valid for all Report Writer reports and **in all clients**.

To improve performance, only enter the languages required. The more languages specified, the longer it takes for the system to execute the report.

Activities

Determine the languages you need for your reports.

Enter the required languages.

choose *New entries*

Enter a language key and the corresponding description.

Save your entries.

Generate Standard Reports

SAP standard reports that you have imported must also be generated. Only then is an executable program created that can be run in the information system.

The following generation options are available:

Generate some reports

You receive a list of all report groups. From the list of standard reports, you can designate those required for your reporting needs.

Generate all reports

If you want to generate all reports, create a background job for times of low system use.

Standard settings

All standard reports for an application are defaulted in the standard SAP System.

Activities

To generate only some of the reports, proceed as follows.

Choose *Online*.
Mark the standard reports that the SAP System is to generate.

Choose *Generate*.

To generate all reports, create a background job for times of low system use. To do so, proceed as follows.

Choose *Background*

Enter a job name.

Enter the desired start time and start date, or activate the indicator *Start now* to execute the job immediately.

The SAP System plans the job and automatically selects all available standard reports.

Further notes

Non-generated reports are generated online automatically during report callup.

Enhancements for Line Item Reports

You can enhance line item reports by adding custom fields. The SAP system includes the following standard enhancements:

COOMEP01 CO-OM: Info System -> Line Items: Custom Fields This

enhancement includes the following components:

EXIT_SAPLKAEP_001

Line Item Report, Actual: Custom Fields in Layout

EXIT_SAPLKAEP_002

Line Item Report, Plan: Custom Fields in Layout

EXIT_SAPLKAEP_003
Line Item Report, Commitments: Custom Fields in Layout

EXIT_SAPLKAEP_004
Line Item Report Budget/Cost Center Budget: Custom Fields in Layout

EXIT_SAPLKAEP_005
Line Item Report, Actual: Customer-specific Authorization Checks

EXIT_SAPLKAEP_006
Line Item Report, Plan: Customer-specific Authorization Checks

EXIT_SAPLKAEP_007
Line Item Report, Commitment: Customer-specific Authorization Checks

EXIT_SAPLKAEP_008
Line Item Report Budget/Cost Center Budget: Customer-specific Authorization Checks

EXIT_SAPLKAEP_009
Line Item Reports: Customer-specific Formatting of the Lists.
You can use this enhancement to protect layouts or to modify column headings.
You can call up the transaction for reposting actual costs (posted to cost centers) directly from the actual line item report and actual document display. The system adds the new records to the reports.

Activities

Create the enhancement
To do so, create a new project or use an existing project.

Activate the project
The enhancement is valid only after activation.

Further notes

Unlike modifications, enhancements are compatible with all Releases because they are not part of the original SAP system but part of the name range reserved for customers.

For more information on using enhancements, use the enhancement transaction CMOD by choosing *Utilities -> Online handbook* in the section *Function Exits*.

For more information on the enhancement, see the enhancement documentation in CMOD by choosing *Display SAP documentation*.

Custom Reports

In this IMG activity you create custom reports.

Specify Report Languages

Report Writer can generate a report in up to 32 languages simultaneously. When generating a report group, the system adopts the language-dependent report parts (such as rows or column texts) in the languages set by you in the report. In addition, the logon language is taken into account.

Note

The languages that you specify are valid for all Report Writer reports and **in all clients**.

To improve performance, only enter the languages required. The more languages specified, the longer it takes for the system to execute the report.

Activities

Determine the languages you need for your reports.

Enter the required languages.

choose *New entries*
Enter a language key and the corresponding description.

Save your entries.

Maintain Libraries

In this IMG activity, you can maintain previously defined libraries or create new ones. You must assign each report that you define to a library.

A library is a selection of characteristics, key figures, and predefined columns from the list of all options in the Report Writer table. In Controlling, table *CCSS* is used.

A characteristic (in earlier releases *field* or *dimension*) is a non-numerical field, for example, *Account*, *Cost center*, and *Business area* .

A key figure (new as of Release 3) is a numerical value field, such as *Amount in local currency*, *Total costs*, and *Activity quantity*.

A default column (in earlier releases *Data-set-entry* is made up of a key figure and one or more characteristics. With default columns, you can define standard columns that can be used more than once in your reports, for example, *Actual costs in current fiscal year* and *Plan costs in closed fiscal year*.

Four screens are available for library maintenance:

Header

Key figures

Characteristics

Default columns

Activities

Check whether the standard libraries satisfy your requirements. If not, proceed as follows:

Enter a name for the library and the name of the table to which the library is assigned.

To copy and change an existing library, enter the name of the reference library in the field of the same name.

Enter a description for your library.

Determine which key figures are to be used in the library.

Determine which characteristics are to be used in the library.

Determine which default columns are to be used in the library.

For steps 2 to 4, if necessary, enter the ranking order (position) in which the characteristics, default columns, and key figures are to appear in the selection lists of the Report Painter.

Note on transport

To transport libraries, an separate function is available, Transport Report Writer Objects, in the IMG for Financial Accounting under *Special Purpose Ledger -> Tools -> Transport*.

Further notes

For more information, see the *SAP Library* under *Financials -> Financial Accounting (FI) -> Special Purpose Ledger -> Libraries*.

Import Templates

You import standard SAP templates for report rows or columns from client 000, online or in the background, to the client you are using.

Templates are one-dimensional report modules in which complete row or column blocks are predefined, and which can be placed in reports during definition.

The following options are available:

Import a certain number of templates
: The system displays a list of all templates, from which you select those required for your information system.

Import all templates
: Importing all templates should be done during times where system usage is at a minimum, using a background job.

After installing a new release or update, repeat the import of templates from client 000 in order to access the changes.

Standard settings

The standard system defaults all templates.

Activities

To import only some of the templates, proceed as follows:

Choose *Online*.

Mark the templates that the SAP system should import.

Choose *Copy*.

To import all templates, create a background job and schedule it as follows:

Choose *Background*.

Enter a job name.

Keep the defaulted value "000" as source client.
Enter the desired start time and date, or use the indicator *Start now* to execute the job immediately.
The system plans the job and automatically selects all existing templates.

Further notes

For more information, see the *SAP Library* under *Financials -> CO Controlling -> Cost Center Accounting -> Information System -> Report Definition -> Report Painter*.

Create Reports

Many reporting requirements are solved by standard system reports. If, however, non-standard requirements remain unfulfilled, you can use Report Painter for simple, quick definition of user-defined reports.

You can also use standard references objects to construct your own reports: libraries, standard layouts, default columns, and row and column models, all in the standard system, and available for custom reports.

A report can consist of several "logical" pages. This is useful if you wish to construct managerial key figures, such as costs per employee. You can switch between logical pages and carry out calculations with them.

Report Painter report definition requires several Preparatory Steps, depending on the complexity of the report to be generated.

Requirements

To create reports for user-defined libraries with Report Painter, you must maintain the Libraries first.

Standard settings

The standard system includes many standard layouts and column and row models, as well as default columns for libraries 1VK, 1GK, 1AB, 1RU, and 7KK. As a rule these standard modules are sufficient for report definition.

Recommendation

Do not change a standard report because any changes will be overwritten when importing new reports from client 000 (which supplies standard reports).

- To make small changes to a standard, use the report as a model, copy it to another name, and change the copy only. Choose *Report -> Copy*.
  You can use reports as models in one library only, but you can copy reports from other libraries.

Activities

The procedure when defining a Report Painter report depends on how far the supplied standards satisfy your requirements.

1. If the libraries, layouts, row and column models, and default columns in the standard system are sufficient:

   a) Define report columns by using the supplied default columns and characteristics as well as formulas and standard layouts in the standard library.

You can construct columns from characteristics, formulas, or predefined columns. Predefined columns can be changed by inserting further characteristics. You can also use variables, but only those already defined in Report Writer.

Select a column by double-clicking.

Choose *Key figure with characteristics* or *Default columns* for the column structure.

If you choose *Key figure with characteristics*, use the dialog box to mark the key figure to be used in the report.

In the following dialog box, choose the characteristics to be used in the column and afterwards specify the characteristic values as individual values, groups, intervals, or variables.

To define all possible values for a chosen characteristic, enter an asterisk (*); to define an initial value, enter a pound sign (#).

To use variables, choose *Variables on/off*. The SAP system automatically indicates the appropriate field and automatically adjusts the field length. Choose "Possible entries" to display all existing variables.

If you choose *Default columns*, specify one of the standard default columns in the dialog box. You can then change or expand upon the suggested characteristics and characteristic values.

To define a further report column, select the element type *Formula* in the dialog box. Use the formula editor to select other report columns and predefined cells to define a formula which calculates a value for the column.

Enter a column text. Choose *Copy* to copy the short text to the fields *Middle* and *Long* as well.

You can also use variables in a column text. To store a variable, enter an ampersand (&) followed by a variable name. When you activate *Key* as text type in the standard report layout under *Column text*, the report issues the current value of the variable. If you activate *Name*, the report issues the name of the current value.

b) Define report rows by using the characteristics or row models available in the standard library.

All steps in row definition are similar to those in column definition.

If the libraries, layouts, and row and column models do not meet your requirements:

If necessary, maintain the corresponding library.

If necessary, create a new layout or change an existing one.

If necessary, maintain the standard default columns.

In Report Painter, choose **Set maintenance -> Data set entries -> Maintenance**.

If necessary, create new row and column models.

Proceed as described in the definition of report rows and columns.

For further report definition proceed as described in step 1.

Determine general selections

General selections include the characteristics according to which you select data for a report, but which are not to be identified in report rows or columns.

Save your report.

Insert your report into a report group.

Further Notes

Note the following when defining reports with Report Painter:

The SAP System stores reports created with Report Painter in a special storage area, in the same name range as Report Writer reports. When generating the related report group or copying to a Report Writer report, Report Painter reports are converted to Report Writer format. This results in the following:

- Report Painter reports can only be changed or displayed with Report Painter.
  To subsequently change a report with Report Writer, first copy the report to a Report Writer report under a different name. Then modify the report with Report Writer. The SAP system automatically generates the necessary sets during copying.

It is possible to execute a Report Painter report with Report Writer and to assign Report Painter reports to a mixed report group, that is, to a report group that contains both Report Writer and Report Painter reports.

Additional editing functions

Below is an overview of functions and work techniques in Report Painter that will facilitate you report definitions.

F2 key
  To define individual report columns or rows, select the specific column or row (in the report to be defined) by double clicking on the corresponding text (Column1, etc. or Row1 etc.) or with the F2 key.

Directories
  You can display existing objects (defined by SAP or yourself) for layouts, libraries, row or column models as well as predefined columns.

Create with model
  If you want to define your own libraries, reports, layouts, row or column models, you can use the standard objects delivered by SAP to aid you and then adjust them to your needs.

The following functions are available to structure and format the rows and columns of your reports:

Working with row and column models
  When defining multiple reports with similar structure, it is useful to work with models.
  Models are one-dimensional, predefined modules for rows and columns, maintained with the the function "Model". To incorporate individual models into your report, choose "Edit -> Rows/Columns -> Get row/column model...".

Formula editor
  You can define formulas to calculate a column, row or cell.

Changing text
  You can make subsequent changes to column and row texts. Position on the desired object and choose the text function.

Changing characteristic values
  You can make subsequent changes to characteristics of columns and rows. Position on the desired object and choose "Edit -> Change char.values".

Expanding rows
  To expand groups down to the single value level, choose "Edit -> Rows -> Expand". You can then maintain totals levels. If you do not provide for expanding groups in the rows, the groups cannot be expanded in the report display.

Note

Formatting defined for expanded rows of a group is carried out for all sub-groups of the same summation level (indicated by the identical number of asterisks). Formatting includes color and underlining, for example.

Markings for cell calculation undertaken in the expanded rows of a group are always based on the highest summation level of the group. If you require a subgroup, you must define an additional report row for the subgroup, mark the desired cell, and afterwards hide the additional row again.

Show or hide rows/columns

You can show or hide one or more rows or columns. You can show hidden rows/columns again, change them or delete them.

Number formats

With this function you can define the scaling and the number of decimal places (only for columns).

Delete

To delete rows or columns, position on the object to be deleted and choose the delete function.

Select

You can select one or more rows or columns to then delete, copy, cut, etc. the selected set.

Maintain report texts

You can enter a title page, last page, header or footing for each report.

Note

It is much easier to enter report texts in the finished report after you have finished defining it.

Overview function

With this function you can create an overview of all characteristics, indicators, predefined columns and rows with details (name, last person to change it, date of change).

Goto

You can branch between the sections of a report as well as create new sections. You can combine multiple rows and columns of a report.

Format changes

Report Painter provides five column formats, corresponding to the print classes of Report Writer.

You can assign a standard layout to a report, as well as additional format changes, such as reversing the sign, row format changes or column width. Format changes always affect all columns with the same format; this means columms cannot be changed individually.

Note on transport

To transport Report Painter reports, see the IMG activity Transport Report Writer Objects in the IMG for Financial Accounting under *Special Purpose Ledger -> Tools -> Transport*.

For more information on user-defined reports, see the *SAP Library* under *Financials -> CO Controlling -> Cost Center Accounting -> Information System -> Defining Reports*.

Generate Reports

You must *generate* the reports that you created in the current client or in a different client. Having defined the report, it only by generating it that a program capable of being run in the information system is created.

Those reports that you created in a different client must first be imported into your current client.

You have the following generation options:

Generate some reports
From a list of all reports, you select those that you want to generate.

Generate all reports
To generate all reports, you should create a background job for times of low system use.

Activities

Enter one or more report groups for generation.

Use selection criteria to further delimit the reports to be generated.

If you want to generate only a small number of reports, proceed as follows:

Choose *Program -> Execute*.

a) Select the report groups that the SAP System is to generate and choose *Generate*.

To generate all reports, create a background job by choosing *Program -> Execute in background*.

Further notes

A report created with Report Painter is automatically generated when the report is started from report definition using *Report -> Execute*. In do doing, you assign a report to a report group.

You can also generate report groups by choosing *Report Painter -> Report Writer -> Execute report group*.

Maintain Report Tree

In this step you define:

Which reports are contained in the report tree

How the report tree is structured

The report tree contains all reports for an application, arranged in a hierarchy.

If the report tree is active, the tree structure defined in Customizing is displayed when you call up the Information System.

If the report tree has been deactivated, the reports are displayed in a list when you call up the information system.

Standard settings

The standard system contains a predefined report tree for each application.

Recommendation

You should add the reports that are in the report tree to the report list.

Activities

Check the report tree that is supplied in the standard system.

Define additional report trees as required.

User Settings

In this activity, you define the default settings for calling up Report Painter reports.

You can store the default settings either as a default setting for all users or as a user-specific setting.

The user settings include:
Settings for the report currency and for currency translations (report currency)

Presettings for the selection criteria during the report call (selection criteria)

Agreements on the work with extracts during the report call (settings for extract management)

Specify User Settings

In this IMG activity, you specify the following user settings for the information system:

Basic data

Planning time frame

Report time frame

Report currency

Other information, such as version and actual valuation

You can store the basic data, planning and report time frames as user- specific or standard settings. The standard settings are valid for all users without user-specific settings.

You thus determine the default values for the report selection screens.

These settings are only valid for reports in components within Controlling or Cost Element Accounting.

In the **basic data**, you can set the following default values:

Controlling area

Report objects, such as cost center groups, statistical key figure groups, activity type groups, cost element groups, or individual values or intervals for cost centers.

You can determine the **planning time frame** as follows:

Fiscal year
The fiscal year can be the current year, previous year, or a year that you defined.
If you choose *No profile*, the system takes the user-profile parameters for the selection.
Note
Maintain the *User profile* as follows:

Choose *System -> User defaults -> User data* and the *Parameters* tab index.

Period

The period can be the current period, previous period, or a period interval that you specified.

You can decide on the interval from period one to the current, or previous period. The current period, or the previous period is therefore defaulted for reports that you do not run during a period interval.

If you choose *No profile*, the system uses the user-profile for parameter selection.

You can specify the **report time frame** as follows:

Fiscal year

This can be the current fiscal year, the previous year, or an interval that you specify. If you choose *No profile*, the system uses the user-profile for parameter selection.

Period

The period can be the current period, previous period, or a period interval that you specified.

The period can be the interval between period one to the current or previous period. The current or previous period is therefore defaulted for reports that you do not run during a period interval.

If you choose *No profile*, the system uses the user-profile for parameter selection.

You can store the **report currency**, either user-defined, or as a standard setting. The standard setting is valid for all users without user-defined settings.

You use the report currency to specify which currency is used for Report Painter reports, line item reports or planning overviews, and to determine how the currency is translated.

The settings are valid in Controlling and Cost Element Accounting for all planning overviews and Report Painter reports that have the *Cost*, *Secondary cost*, *Actual cost*, and *Variable cost* key figures, in which the currency is not defaulted

In line item reports for Controlling, the settings are valid for the following columns: *Cost in report currency*, *Variable costs in report currency*, and *Fixed costs in report currency*.

These settings are valid, regardless of the component used to define the report currency.

You can display reports

in Cost Element Accounting in:

The company code currency

The group currency

The controlling area currency - A target currency that you specified

The Overhead Cost Controlling components in:

The controlling area currency

The object currency

The transaction currency

A target currency that you specified

In totals reports using report currency, if you call up another report using the report-report interface then the system displays both reports in the same currency.

When you enter a target currency, specify which reference currency is to be used for the currency translation. In Cost Element Accounting, the reference currency can be the company code currency, group currency, or controlling area currency. In the Controlling components, it can be the controlling area currency, the object currency, or the transaction currency.

You also need to enter the following:

Key date for translation

Translation for each exchange rate date

Translation on a fixed date

Period-specific translation on the last day of each period

The exchange rate type that you require
You can use the exchange rate type to differentiate between buying rate, bank selling rate, or the average rate.

To display reports in euro for all users, for example, you need to specify this in the standard settings.

Further entries

Versions
Default the plan version that you require for the reports.

Actual valuation
You enter settings for either legal, group, or profit center valuation.

Requirements

You need to process the Currencies IMG activity in the Implementation Guide under *Global Settings*.

Activities

Make default settings

If you want to create or change default settings, you do not have to enter a user. Choose *Execute*.

Choose *Change standard*.

Make your entries choose *Confirm* to exit the dialog box.

Save your entries.

Make settings for one, several, or all users

If you want to create or change the settings for one or more users, enter the corresponding user or users.

To enter several users, choose *Multiple selection*.
The system then displays a list of all users.
Select the users you want to edit, then choose *Copy* to leave the dialog box. The settings of all selected users can now be edited.
If you want to edit the settings for all users with user-specific settings, enter "*". The system displays a list of all users with user-specific settings.

Choose *Execute*.

If you selected users without any settings, you can transfer the settings from the default settings by choosing "Yes".

If you want to enter new settings, choose "No".

To create new user settings, proceed as follows:

You want to create new settings for a user.
Choose *Create* and enter the name of the user.

You want to copy the settings for a user from those of an existing user.
Select the existing user. Choose *Copy* and enter the name of the new user.

You want to copy the settings for a user from the standard settings. Choose *Copy from standard* and enter the name of the user.

To change user settings, proceed as follows:

You want to change the settings of a user. Double-click the relevant line.

You want to edit the settings of several users.
Select the relevant lines and double-click one line. In the dialog box, you can display the settings for the selected users by choosing *Previous user* or *Next user*.

You want to make the same settings for several users.
Mark the relevant users.
You can select all users, for example, with *Select all*.
Position the cursor on a line in the column you want to change and choose *Multiple replace*.

You want to change a certain setting for all users, who fulfill certain filter criteria. Upon fiscal year change, for example, you changed a cost element group and you would like to store the new group as a selection criterion for all users, who have used the old cost element group up to now.
Select the column header to apply the filter to that column.
Choose Set filter.
Enter the filter criteria and choose *Copy*. The system displays a list of the users who fulfill the filter criteria. Choose *Select all*.
Position the cursor on a line in the column you want to change and choose *Multiple replace*.

Enter the required settings, and choose *Copy* to exit the dialog box.

Save your entries.

Notes on transporting

To transport the default settings, choose *Default settings -> Transport*.

To transport the settings for individual users, mark the corresponding users, and choose *User settings -> Transport*.

Further notes

To edit lists, use the ABAP List Viewer functions. For information on these, see the SAP Library: *Cross-Application Components -> General Application Functions (CA-GTF)-> ABAP List Viewer*.

Authorization Management

Maintain Authorizations and Profiles

Introduction to Procedure for Creating Activity Groups

The following information describes the standard procedure for creating simple activity groups. It covers processing of an activity group with the option **Basic maintenance** in transaction **PFCG**.

Step 1

Create the activity group.

Step 2

In the **Description** field, enter a description of the function the activity group is to perform.

Step 3

On the **Menu** tab, assign transactions to the activity group.

You can either enter the transactions directly.

Alternatively, you can use the **Menu selection** key to assign menu options from the company menu (provided that this menu has already been generated in the current release).

The activities selected from this menu are displayed in the session manager for all users assigned to the activity group as a **user menu**.

Step 4

On the **Authorizations** tab, choose **Change authorization data**

Depending on which transactions you selected, a dialog box may appear on which you are requested to maintain the **Org. levels**. These organizational levels are authorization fields that appear simultaneously in many authorizations and which can be maintained together this way. An example here is the company code, which appears in many authorization objects. By assigning values to the organizational levels, you are also maintaining the corresponding authorization fields for all authorizations in the overview tree that follows.

The system displays an overview tree of all authorizations that SAP suggests for the transactions selected. Some of these authorizations already contain values.

For those authorizations where an amber traffic light is displayed, authorization values must be manually entered. You enter these values by clicking on the white line to the right of the authorization field. Once you have maintained the values, the authorizations are classed as manually modified and are not overwritten if you include more transactions and reprocess authorizations. By clicking on the traffic lights, you can assign the full authorization for all non-maintained fields for the hierarchy level in question.

A red traffic light indicates that **organizational levels** exist that do not yet contain any values. You can enter/change these values by choosing **Org. levels**.

If you require further functions in the overview tree like copying or combining authorizations, you can display additional functions by choosing **Utilities -> Settings**.

Generate an authorization profile for the authorizations. To do so, choose **Authorizations -> Generate**.

The system now asks you to enter a name for the authorization profile that now arises and defaults a name that exists in the customer name range.

Once the profile has been generated, exit the overview tree.

If you make changes to the menu selections and then call up the overview tree for the authorizations, the system tries to add the authorizations for the new transactions to the existing authorizations. In so doing, traffic lights can be changed back to **amber** becauseauthorizations that are not fully defined appear once more in the overview tree. You then need to enter values manually for these authorizations or to delete them if they are not required.

To delete an authorization you must first deactivate it.

General authorizations like spool display and printing are not generally defined for the transactions. For this reason, authorization templates exist that you can add to the existing data. To do so, from the menu choose **Edit -> Insert auth. -> From template... and choose one of the templates from (for example SAP_USER_B Basic authorization for application users or (for example SAP_PRINT Print authorization). Alternatively, you can also create a separate activity group for these general authorizations, simplifying handling.**

Step 5

On the **User** tab, assign users to the activity group.
For the users assigned, the menu items belonging to the activity group are displayed in the session manager as a user menu.

In addition, the generated authorization profiles are automatically

entered in the user master record when you carry out the **User master comparison**. To do so, choose **User compare** on the **User** tab and then choose the option **Cpmplete compare**.

If you do not narrow down the selections by specifying a particular period, but instead use the period defaulted by the system (current date to 12/31/9999) no further action is necessary. If you specify a particular period, then you need to ensure the report program **PFCG_TIME_DEPENDENCY** is scheduled periodically every day. This report automatically updates the user master records. You also need to schedule this report if using Organizational Management (no further details on this are entered into here).

It is extremely important that you never enter generated authorization profiles directly in the user master records (as is the case for manually created authorization profiles). You can only link generated profiles to users by assigning the users to the corresponding activity group and then running a compare on the user master data. When the system runs the compare, it enters the profiles of the activity group for all users belonging to the activity group.

Step 6

If you want to transport the activity group into another system, you now need to enter the activity group in a transport request.

To do so, choose **Activity group -> Transport**.. You can now specify whether the user assignment should also be transported.

The authorization profiles are also transported (unless you specified that you do not want them to be transported).

Following the import in the target system, you then need to carry out a full user master compare for the imported activity groups. You can either start this comparison yourself or it can be carried out automatically by report program

PFCG_TIME_DEPENDENCY (assuming this report is scheduled to run periodically in the target system).

Detail information

See also the general documentation on the Profile Generator in the SAP Library. Choose: *Basis Components -> Computing Center Management System -> Users and Roles* or in the Implementation Guide (IMG), choose: *Basis Components -> System Administration -> Users and Authorizations -> Maintain Authorizations and Profiles using Profile Generator*.

Program Enhancements for Periodic Allocation Authorizations

The R/3 System includes the following extensions for authorization checks of assessments and indirect activity allocations:

SAPMKAL1 Allocations: Authorization Checks for Cycle Maintenance This extension includes the following component:

EXIT_SAPMKAL1_001

Customer exit for authorization check of cycle maintenance

SAPMKGA2 Allocations: Execute Authorization Check During Cycle This extension includes the following component:

EXIT_SAPMKGA2_001

Customer exit for execution of authorization check during cycle

Activities

Create the extension.

To do so, create a new project or use an existing project.

Activate the project.

The activation starts the extension in the R/3 System.

Further notes

Extensions, unlike modifications, are not affected by release changes because they are stored in a name space reserved for the customer.

For more information on extensions, run extension transaction CMOD, choose "Utilities -> Online manual", and read the section "Function Exits".

To find the documentation for a given extension in extension transaction CMOD, select "Documentation" and choose "Display".