Asset Accounting (FI-AA)

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Warning

Asset Accounting (FI-AA)

Use

Asset Accounting in the SAP system is used for managing and monitoring fixed assets. In Financial Accounting, it serves as a subsidiary ledger to the general ledger, providing detailed information on transactions involving fixed assets.

Implementation Considerations

Asset Accounting is intended for international use in many countries, irrespective of the nature of the industry. This means, for example, that **no** country-specific valuation rules are hard-coded in the system. You give this component its country-specific and company-specific character with the settings you make in Customizing. To minimize the time and energy involved in Customizing, country-specific standard Customizing settings are provided where possible.

The Implementation Guide (IMG) for **Asset Accounting** provides the necessary functions for this Customizing.

To be able to use Asset Accounting, you have to also use General Ledger Accounting.

To find out which other prerequisites must be fulfilled for Asset Accounting if you want to migrate to S/4HANA, and how to implement asset accounting there, see the Implementation Guide for **Asset Accounting** under **Migration: Asset Accounting (New)**.

Integration

As a result of the integration in the SAP system, Asset Accounting transfers data directly to and from other systems. For example, it is possible to post from the **Materials Management MM** component directly to Asset Accounting. When an asset is purchased or produced in-house, you can directly post the invoice receipt or goods receipt, or the withdrawal from the warehouse, to assets in the **Asset Accounting** component. At the same time, you can pass on depreciation and interest directly to the **Financial Accounting (FI)** and **Controlling (CO)** components. From the **Plant Maintenance** (**PM** – Plant Maintenance) component, you can settle maintenance activities that require capitalization to assets.

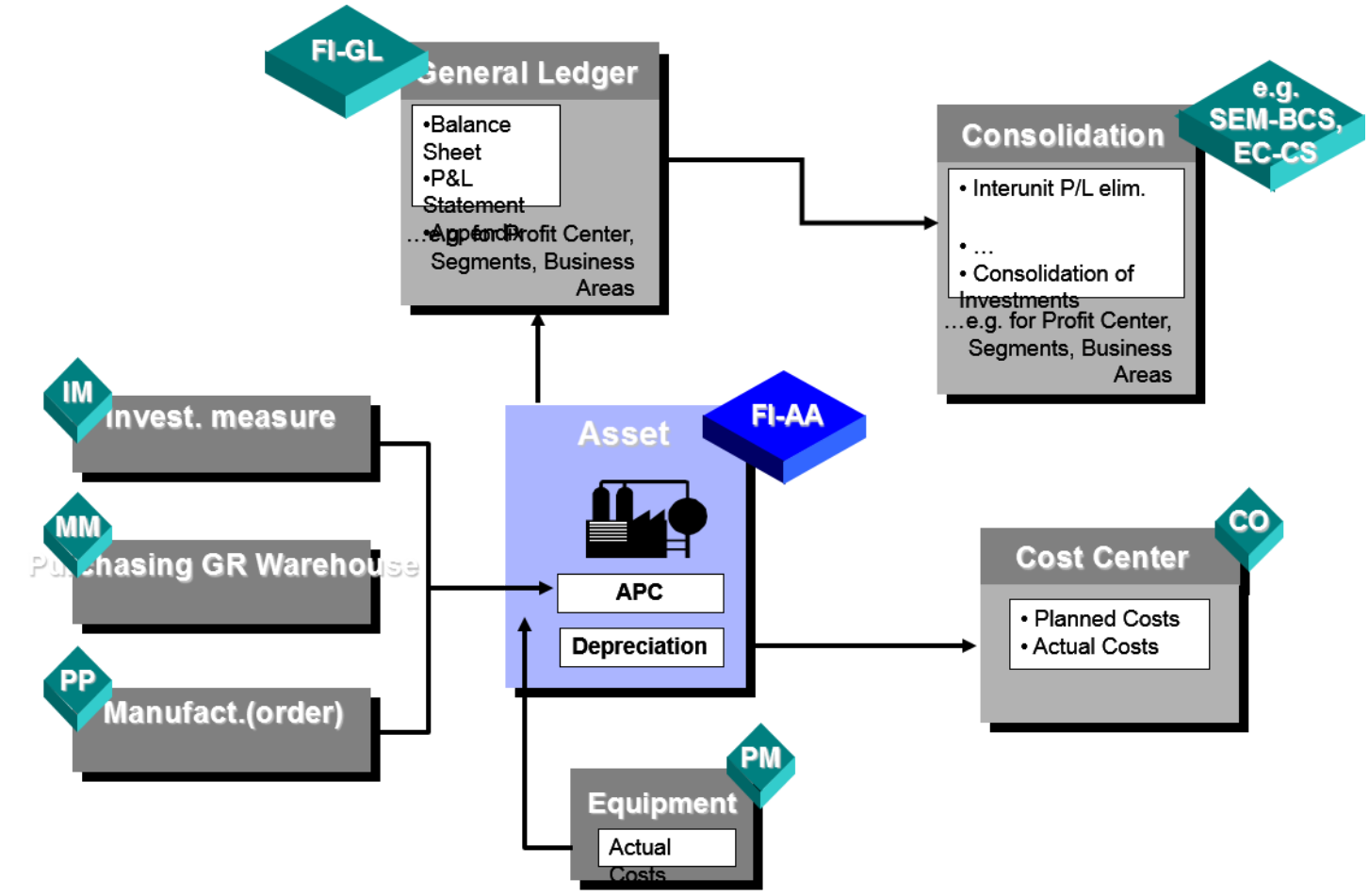


Figure 1: Integration of Asset Accounting

Key Features

The Asset Accounting component consists of the following parts:

- Basic Functions:
  - Master data (asset maintenance)
  - Basic valuation functions
  - Depreciation
  - Transactions, such as asset acquisitions and retirements
  - Closing Operations
  - And more
- Special Valuations: for example, for investment support
- Preparations for consolidation for group financial statements
- Information System

The basic functions cover the entire life of the asset from the purchase order or initial acquisition (which can be managed as an asset under construction) all the way to the asset retirement. The system calculates, to a large extent automatically, the values for depreciation, interest and other purposes between these two points in time, and places this information at your disposal in varied form using the Information System. There is a report for depreciation forecasting and simulation of the development of asset values.

The system enables you to manage values in parallel currencies using different types of valuation. These features simplify the process of preparing for the consolidation of multi-national group concerns. For parallel valuation, you can flexibly assign the depreciation areas of Asset Accounting to the ledgers of the general ledger. The system posts parallel values with the actual values in real time; separate documents are posted for each valuation (that is, each accounting principle).

ℹ Note

The following functions are covered by other components: The **Plant Maintenance (PM)** component offers functions for the technical management of assets in the form of functional locations and as equipment. The **Treasury and Risk Management (TRM)** component offers special functions for managing financial assets.

Organizational Elements and Structures

Purpose

In addition to providing for the management of assets and their values, asset accounting should offer an organizational structure for assets that reflects the organizational structure of the enterprise. This is why the component **Asset Accounting** supports different SAP organizational units. An asset is clearly assigned to these organizational units at any given point in time.

In addition, you need to classify assets according to various accounting criteria (such as depreciation methods). This classification assists in controlling-oriented tasks, and in the summarization of asset values in the general ledger.

Chart of Depreciation

Definition

Charts of depreciation are used to manage various legal requirements for the depreciation and valuation of assets. These charts of depreciation are usually country-specific and are defined independently of the other organizational units.

Example

You can use one chart of depreciation for all company codes in a country.

For more information, see Assignment of Company Code.

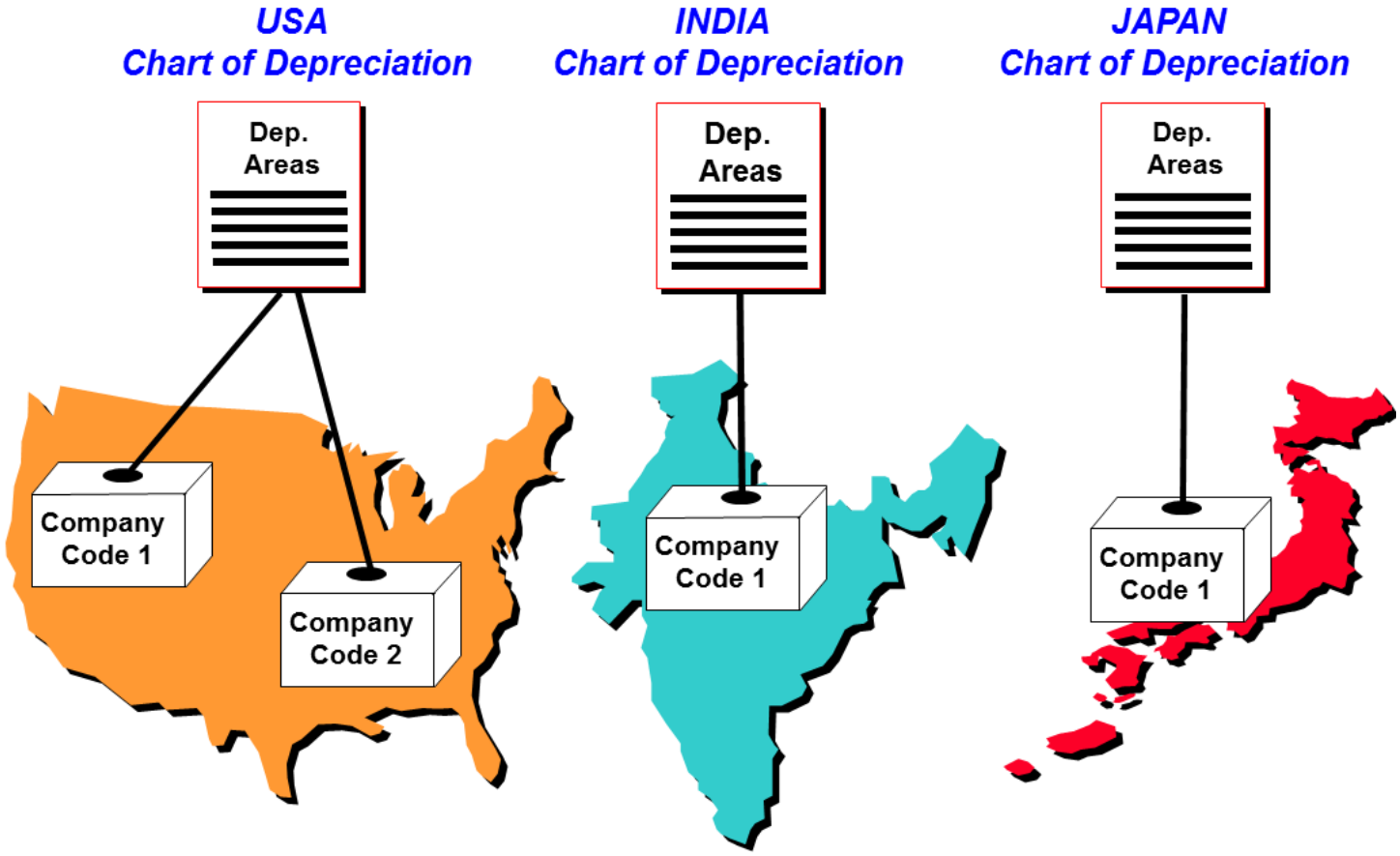


Figure 2: Country-Specific Charts of Depreciation

In the simplest scenario, all of your company codes are in the same country and are subject to the same legal requirements for asset valuation, meaning that you only need one chart of depreciation.

Use

SAP provides typical charts of depreciation for each country as a sample. These charts of depreciation have - in accordance with country-specific requirements - different depreciation areas and depreciation keys. It is **not** possible to use these standard charts of depreciation directly. You must create your own chart of depreciation by copying the reference chart of depreciation. You can delete any depreciation areas of the reference chart of depreciation that are **not** needed.

You can document the meaning of any chart of depreciation you set up in the system by writing a description for it.

i Note

When you are copying a chart of depreciation, the system also copies other depreciation area-specific parameters. For example, the system also copies depreciation area-specific restrictions that were necessary in classic Asset Accounting: the transaction types restricted to depreciation areas (see table TABWA)). In Asset Accounting, you **no** longer need to post with restricted transaction types (exception: revaluations and investment support).

You must therefore check when you are creating a new chart of depreciation whether restrictions for the transaction types are defined in table TABWA and delete them, if applicable. This also applies if you have copied the chart of depreciation from a sample chart of depreciation.

Transaction types that so far existed with restrictions on the depreciation areas in the system are now redundant and are **no** longer needed.

For more information, see Restriction of Transaction Types on Depreciation Areas.

Structure

A chart of depreciation consists of the following parts:

- In general, you are required to calculate values for assets for different needs, both internal and external (such as book depreciation and cost-accounting depreciation). Therefore, you can manage values for assets in parallel in up to 99 depreciation areas in Asset Accounting. The chart of depreciation, therefore, is a directory of depreciation areas organized according to business management requirements. You define the characteristics, and thereby the significance, of the individual depreciation areas in each chart of depreciation. A depreciation area is always assigned to only one chart of depreciation.
- You flexibly define the keys for the automatic depreciation of assets in each chart of depreciation. They are based on elements for calculation (calculation methods, period controls, and so on) that are available client-wide. You can change and add to the standard calculation keys that are delivered with the system (see Depreciation)
- There are specific objects in the chart of depreciation for special calculations of asset values (for example, investment support keys for investment support, see Special Valuations).

Integration

Company Code/Chart of Depreciation

You have to assign each company code defined in Asset Accounting to exactly one chart of depreciation. In the interests of keeping asset values uniform in your company, you should restrict the number of charts of depreciation used to as few as possible. Company codes in countries with the same valuation rules or company codes of a certain industry sector generally use the same chart of depreciation.

Chart of Accounts/Chart of Depreciation

The assignment of a company code to a chart of accounts is independent from its assignment to a chart of depreciation. This means that several company codes can use the same chart of accounts, although they have different charts of depreciation (and vice versa).

Examples

See the following examples:

- Example:Chart of Depreciation with Depreciation Areas and Ledgers
- Organizational Structure 1
- Organizational Structure 2

Example: Chart of Depreciation with Depreciation Areas and Accounting Principles

A company has the chart of depreciation with the depreciation areas listed below. The company is using the ledger approach.

The following accounting principles are assigned to the depreciation areas:

- **IFRS**

For recording values for the IFRS accounting principle;

With the following currencies:

- 10 = Company code currency EUR
- 30 = Group currency USD
- 40 = Hard currency XXX

- **HGB**

  For representing the local accounting principle, in this example HGB (German commercial code)

  With the following currencies:

  - 10 = Company code currency EUR
  - 30 = Group currency USD
  - 40 = Hard currency XXX

Depreciation Area	Depreciation Area Name	Real Depreciation Area	Target Ledger Group	Accounting Principle	Posting in G/L
01	Local depreciation area in local currency (EUR)	X	N1	HGB	1 = Area Posts in Realtime
02	Local area in group currency (USD)	X	N1	HGB	0 = Area Does Not Post
03	Local depreciation in hard currency (XXX)	X	N1	HGB	0 = Area Does Not Post
30	International depreciation area (IFRS) in local currency (EUR)	X	0L	IFRS	1 = Area Posts in Realtime
31	International depreciation area (IFRS) in group currency (USD)	X	0L	IFRS	0 = Area Does Not Post
32	International depreciation area (IFRS) in hard currency (XXX)	X	0L	IFRS	0 = Area Does Not Post
35	Cost-accounting dep. (statistical only)	X	0L	IFRS	3 = Area Posts APC and Depreciation Periodically

Notes:

- Depreciation area 01 does **not** necessarily have to be assigned to the leading ledger.

- If you have parallel accounting principles, you have to assign the accounting principles to the chart of depreciation, regardless of whether you use the ledger approach or the accounts approach. A ledger group, in turn, always has to be assigned to each accounting principle.

  With the accounts approach, each accounting principle refers to a ledger group that contains only the leading ledger 0L. Assigning a ledger group is necessary for technical reasons, so that it is possible to assign the accounting documents for each transaction in Asset Accounting.

Organizational Structure 1

The organizational structure (chart of accounts/chart of depreciation) below shows one possible organization:

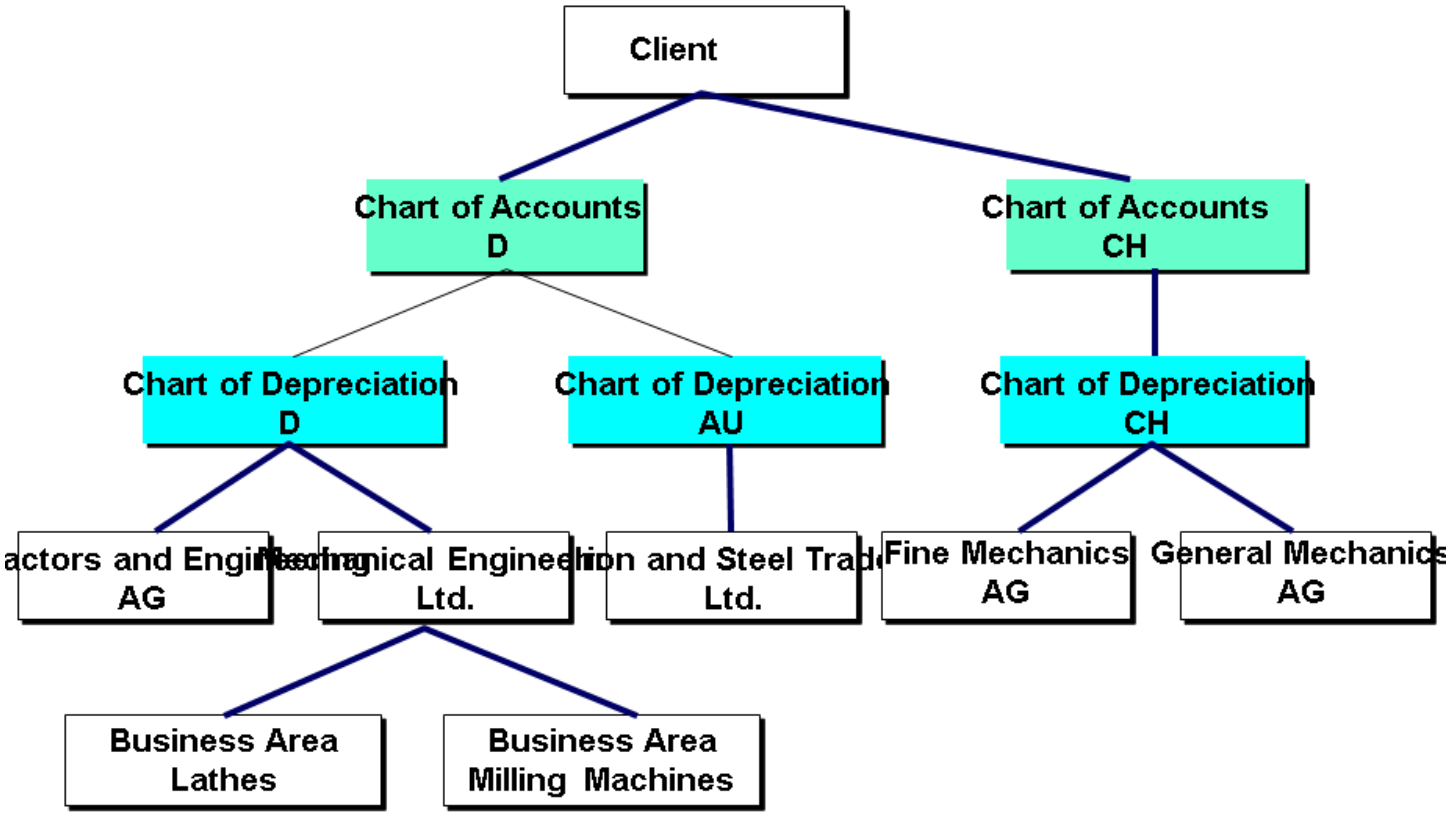


Figure 3: Figure: Organizational Structure 1

Organizational Structure 2

The organizational structure (chart of accounts/chart of depreciation) below shows one possible organization:

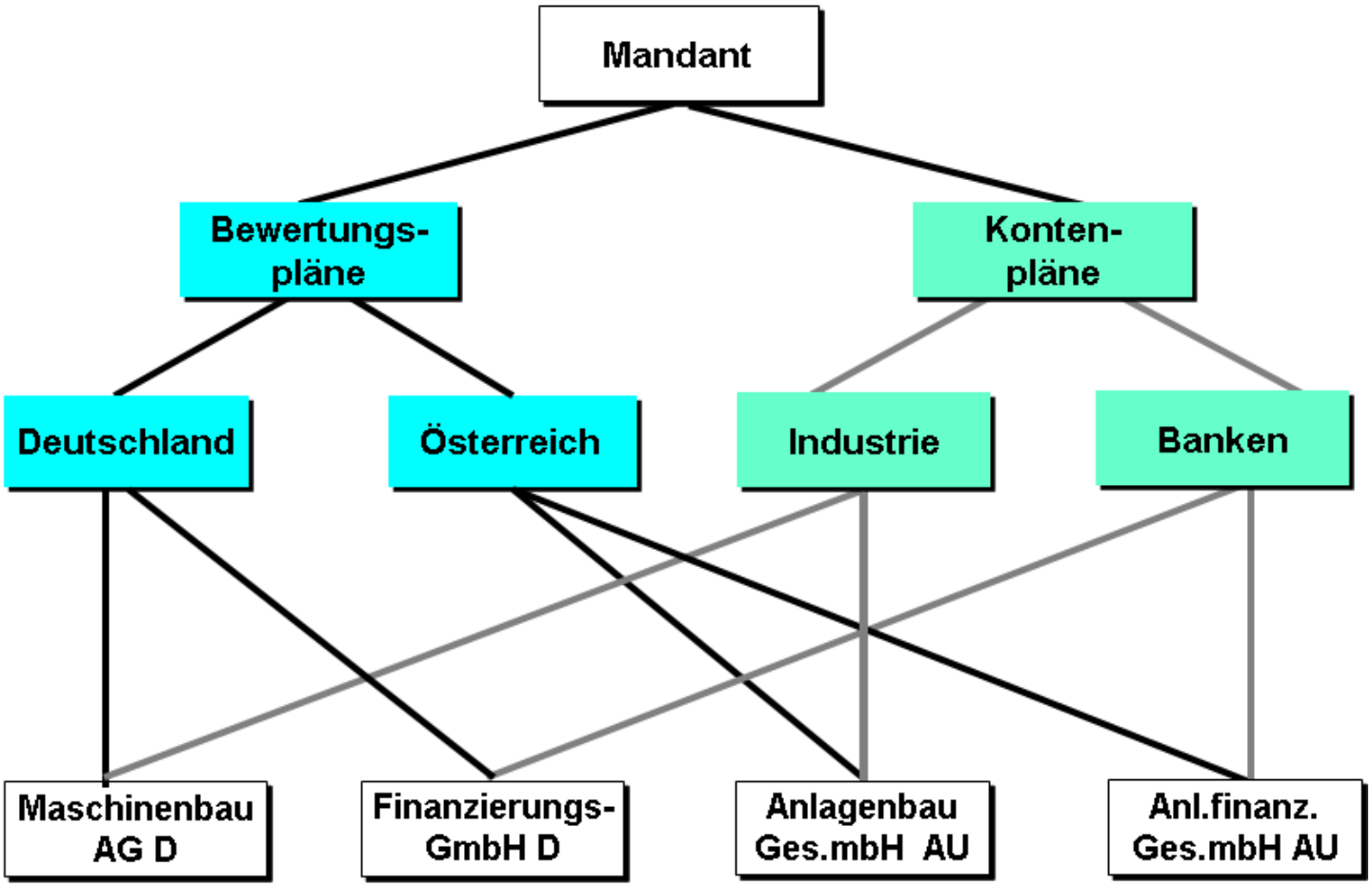


Figure 4: Figure: Organizational Structure 2

Chart of Accounts

Use

In the General Ledger, you can define different charts of accounts. Each company code is assigned to exactly one chart of accounts. The chart of accounts is used for the account assignments within Asset Accounting.

The account assignment is controlled by means of the asset class in Asset Accounting (refer to Account Assignment). You have to specify an account determination in each asset class. In this account determination, you specify the G/L accounts in which automatic posting takes place for different transactions.

Assignment to Organizational Units

Use

You can assign an asset to a number of organizational units by making entries in the asset master record. These assignments are meaningful primarily in other SAP application components. However, there are also functions and requirements for Asset Accounting that make it necessary or desirable to make organizational assignments.

Assignment of Company Code

Use

Asset Accounting uses the same company codes as the general ledger. However, you need to define these company codes further with the specifications needed for Asset Accounting. An FI company code is not usable in Asset Accounting until it has been defined in this way.

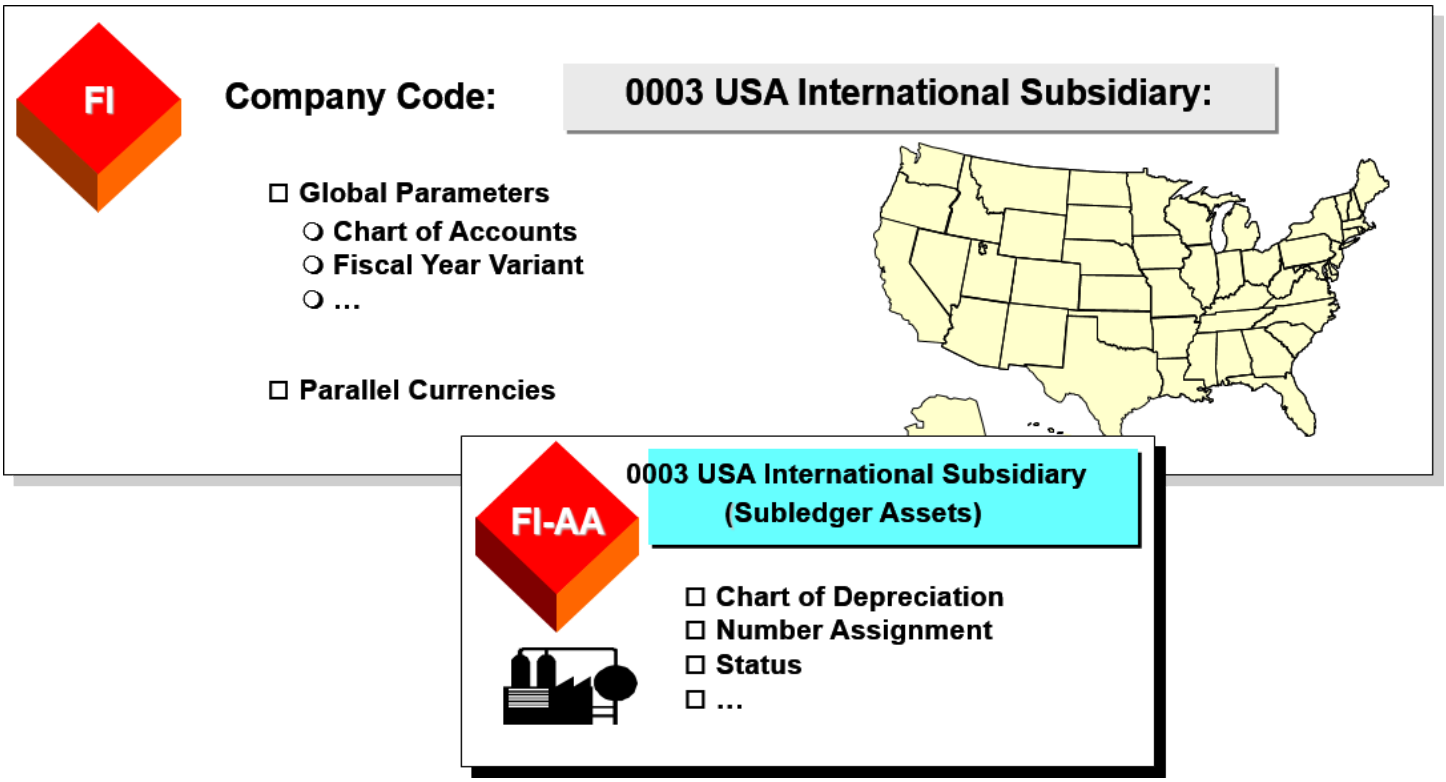


Figure 5: Company Code Definition

Prerequisites

To make a company code usable in Asset Accounting, you have to assign a chart of depreciation to the company code. You do so in Customizing for **Asset Accounting** under **Organizational Structures Assign Chart of Depreciation to Company Code** .

Also make the following system settings at the company code level:

- Company code for number assignment (for number assignment across company codes) –refer to Number Assignment .
- Fiscal year variant. In a non-leading ledger, you can enter a fiscal year variant that differs from that of the leading ledger. The start and end dates of the fiscal year variants assigned to one company code must always be the same. Under certain circumstances, you can also assign a different, FI-AA-specific fiscal year variant.

  For more information, see Different Fiscal Year for FI-AA.
- Depreciation area for net worth tax
- Document type for posting depreciation
- Settlement profile for the settlement of assets under construction

Features

The most important control feature in the Asset Accounting company code is the chart of depreciation . It contains the parameters (such as the depreciation keys) that are used for calculating asset values in a given country. You have to assign each company code, in which assets are managed, to exactly one chart of depreciation.

Assigning Assets

You have to enter a company code when you create an asset. This ensures that each asset is always uniquely assigned to a company code.

Status

An Asset Accounting company code can have one of the following statuses:

- Test Operation: This status lets you reset master data and transaction data.
- Productive: This status makes resetting master data and transaction data **no longer** possible.
- Deactivated: No postings **at all** are possible in Asset Accounting.

Reports

You create asset reports per company code. For reports for a group concern, it is also possible to run reports on all or several company codes

Legacy Data Transfer

For legacy data transfer, you can set the transfer date for each company code, and make various parameter settings.

Assignment to Business Area

Use

The business area is another organizational criterion for General Ledger Accounting, in addition to the company code.

Features

If you specify in Customizing for general ledger accounting that business area balance sheets be created for a company code, the system requires that assets be assigned to a business area during master record maintenance. The business area can also be adopted automatically from the cost center that you entered. As long as a fixed asset is assigned to a business area, the system makes account assignment of all postings to this asset to this business area, including depreciation and gain or loss postings on asset retirement.

When certain conditions are met, it is possible to change the business area using the master data transaction (compare Changes to Master Data). Otherwise, when the business area of an asset changes, you have to manually post a transfer of the asset to a new asset master record.

Assignment to Plant/Location/Address

Use

The meanings of the **plant** and **location** organizational units are primarily specified in the SAP system logistics components.

Prerequisites

You maintain plants and locations in Customizing. Choose **Enterprise Structure**.

Features

Plant

Generally, the plant is a plant location or branch. The plant has **no** asset accounting relevance, but it can be used as a sort and selection criterion for reports. You can assign a fixed asset to one plant for a set time in its asset master record. By changing the asset master record, you can change the assignment to a different plant.

Location

The **location** organizational unit is handled the same as the plant. You can also assign a fixed asset to a location for a set time.

Address

In the Customizing definition of the location, you can also specify an address. Using this method, you can indirectly assign an address to an asset. The comprehensive address data consists mainly of

- Street address
- PO box
- Information for communication (such as telephone number)

Since the address is linked to the location, all assets with the same location must have the same address. You can analyze the address of the location with a standard report for Asset Accounting (see Asset Lists). You can display the address in the asset master record, on the **Time-dependent data** tab page.

i Note

You can use the address to assist in determining net worth tax burden in the USA.

Assignment to Cost Center and Profit Center

Use

For internal accounting, you generally need to assign asset costs to cost centers. Therefore, you can assign each asset in Asset Accounting to exactly one cost center. You make this assignment in the asset master record. At the level of the cost center, you can then

- Post all depreciation and interest for the asset (see System Settings for Depreciation Posting)
- Plan all future depreciation and interest (for primary cost planning, see Primary Cost Planning)
- Statistically post gain or loss from the sale of assets (see Additional Account Assignment)

Prerequisites

If you want to use cost accounting across company codes, then you have to set this up in Customizing for **Asset Accounting**. Choose **Master Data** **Specify Cost Center Check Across Company Codes** .

You define the necessary clearing accounts for this for the different company codes in Customizing for **General Ledger Accounting**. Choose **Business Transactions**.

Features

The cost center assignment of a fixed asset can be set to begin on a specific day. If this date changes over the course of time, the system distributes depreciation and interest, according to the appropriate period, to the different cost centers, whereby costs are always allocated to the cost center valid at the end of the depreciation period. The history of the cost center changes can be managed in the system as long as you wish. A cost center can also be assigned to a business area as an asset can. In asset master record maintenance, therefore, the system ensures that the business area of the cost center matches the business area of the asset.

If you assign assets to more than one cost center at the same time, you have to:

- Distribute the costs either within Cost Center Accounting using a distribution cost center, or
- Post depreciation and interest to an internal order and then settle the order.

Cost Accounting Across Company Codes

Cost Accounting can be organized at company code level as well as across company codes. Cross-company code cost accounting allows you to assign a cost center to an asset when the company code of the cost center is **not** the same as that of the asset. Before you do this, you have to allow this procedure in Customizing. The system then makes additional account assignment of depreciation and interest to this cost center (that is in a different company code than the asset). The system posts the debits using the cost element that is entered as depreciation expense account in the **FI-AA account determination**. This type of posting is possible since all of the company codes belonging to a controlling area have to use the same chart of accounts.

The system then posts (regardless of the depreciation area) the depreciation expense in the company code of the cost center, and the value adjustments in the company code of the asset. In addition, the system creates a clearing posting to the clearing accounts of both company codes. You define the necessary clearing accounts in the component **General Ledger Accounting**.

Number assignment for the accounting documents created is different depending on the document:

- The document number for the document in the asset company code is assigned externally, that is, by the depreciation posting program, in the same way as normal document number assignment for depreciation posting.
- The document number for the document in the cost center company code depends on the document type that was defined in Customizing for this cross-company transaction. You make this setting in Customizing for **Asset Accounting** under **Integration with General Ledger Accounting Post Depreciation to General Ledger Accounting** .

When you set up the system in this way, it is **not** possible to post revenue/expense from asset transactions (such as gain or loss from asset sales) from the book depreciation area to cost centers.

The following graphic shows an overview of these postings:

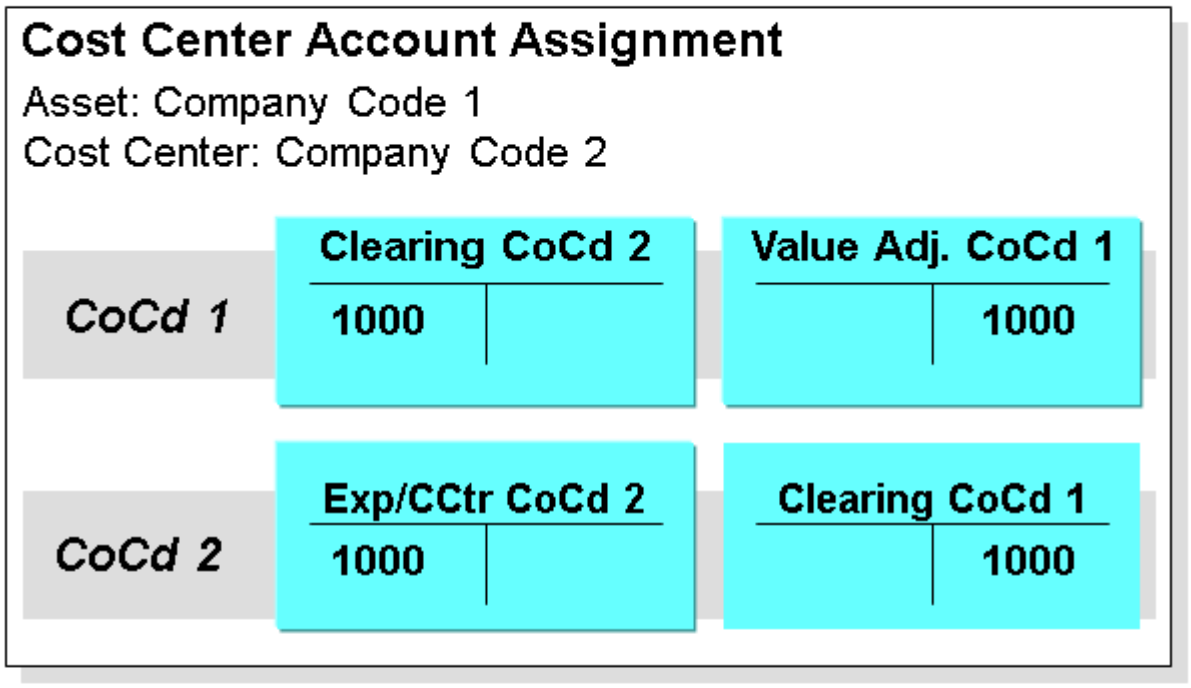


Figure 6: Figure: Cost Accounting Across Company Codes

You specify all of these accounts (except for the company code clearing accounts) in Customizing for **Asset Accounting**.

Assignment to Segments

Use

You can enter a segment in the master record of a profit center. As a result, when you post to an asset, the system derives the segment indirectly from the profit center that results from the cost object (such as cost center, internal order, or WBS element) to which account assignment is made in the asset master record.

If you use segment reporting, you enter the profit center and/or segments directly in the asset master record. This ensures a unique assignment of the asset to the segment. You can then create asset reports relating to profit centers and segments.

More Information

For more information, see Segment Reporting.

Structuring Fixed Assets

Use

It is possible to structure fixed assets at several different levels in the system:

Balance Sheet Level

Classification Level

Asset-Related Level

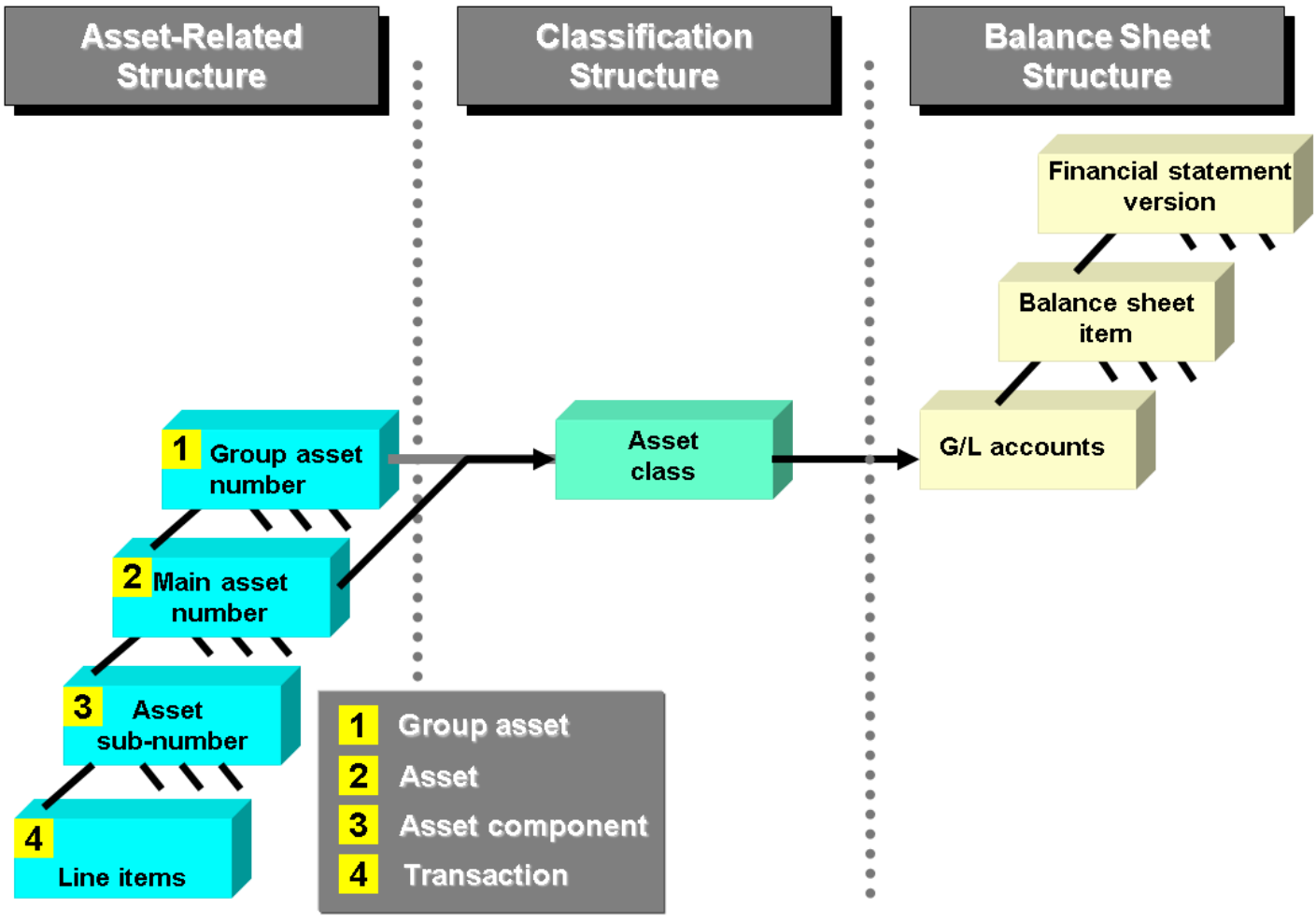


Figure 7: Structuring of Fixed Assets

Features

Balance Sheet Level

For structuring according to balance sheet criteria, the **Financial Accounting** (FI) component offers a three-level hierarchy:

Balance sheet version

Balance sheet item

General Ledger account

Classification Level

At this level, fixed assets can be structured using asset classes in the **Asset Accounting** component. You use asset classes to structure assets according to legal requirements or the demands of accounting. Every asset belongs to an asset class. You use the account determination in the asset class to assign each asset to an item in the balance sheet (refer to Account Determination). For more information, see Functions of the Asset Class

Asset-Related Level

At the asset-related level, a four-level hierarchy has been set up in the **Asset Accounting** component (refer to Basic Functions of Asset Maintenance):

The group asset makes it possible to group a number of assets together for the purpose of uniform evaluation and depreciation. Group assets are assigned to asset classes, just like other assets. The asset class of the group asset is not related to the asset classes of the assets that belong to it.

Group assets are used primarily in theUSAto meet certain tax requirements.

The asset main number represents an asset that is to be evaluated independently. The asset is viewed as a single unit for evaluation. It contains information for the valuation of the asset, as well as organizational information.

Below the asset main number, the asset can be further divided into its component parts by the use of asset sub-numbers. You can use sub-numbers to depreciate subsequent acquisitions to an asset separately from the original asset.

The lowest level consists of the transaction data per depreciation area (such as acquisitions or retirements) that belong to the asset master record (line items).

Please note that this four-tiered hierarchy is not mandatory. You can represent a simple fixed asset just using an asset main number (asset master record).

Functions of the Asset Class

Use

Asset classes are the most important means of structuring fixed assets. You can define an unlimited number of asset classes in the system. You use the asset classes to structure your assets according to the requirements of your enterprise. Asset classes apply in **all** company codes. The asset class catalog, therefore, is relevant in all company codes in a client. The preceding is also true when the company codes have different charts of depreciation and therefore different depreciation areas.

Prerequisites

You define asset classes in Customizing for Asset Accounting under **Organizational Structures Asset Classes** .

You also assign a chart of depreciation to an asset class in Customizing. Choose **Valuation Determine Depreciation Areas in the Asset Class** .

To generate asset classes that correspond to your G/L accounts, go to Customizing under Organizational Structures Asset Classes Generate Asset Classes from G/L Accounts (1:1) .

Features

Depending on the functions you want the asset class to have, consider the following when creating asset classes:

- The asset class provides default values to all asset master records in the class. In this way, the asset class functions as a sample master record, and makes it possible to create new asset master records simply and without errors.
- The screen layout, tab layout and the field characteristics (required/optional/suppressed) of the asset master record can be set for the asset class.
- The assignment of asset numbers can be controlled by the asset class.
- The asset class is a selection criteria in all standard reports in Asset Accounting. In addition, you can also request sorting and totaling by class-specific characteristics.

→ Recommendation

It is particularly useful to use the asset class to provide default values for valuation parameters (depreciation key, and so on). Therefore, define at least as many asset classes as you have assets with different valuation parameters.

Account Determination

One of the most important functions of the asset class is to establish the connection between the asset master records and the corresponding accounts in the general ledger in Financial Accounting. This connection is created by the account determination key in the asset class (refer to Account Determination

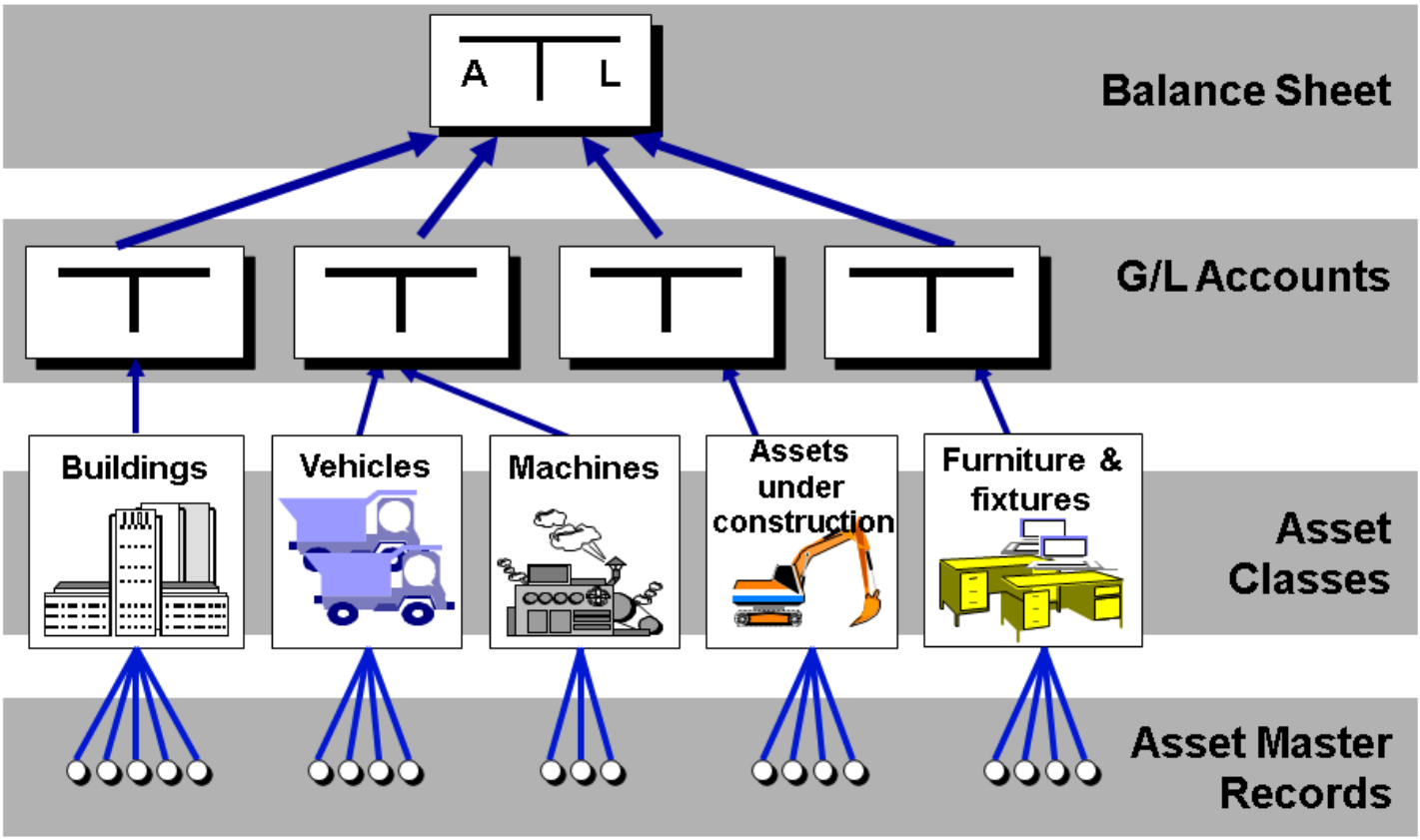


Figure 8: Figure: Account Determination

Structure of the Asset Class

An asset class consists of three main sections:

- A header with the control parameters for master data maintenance and account determination
- A master data section with default values for the administrative data in the asset master record
- A valuation section with control parameters for valuation and default depreciation terms for each depreciation area

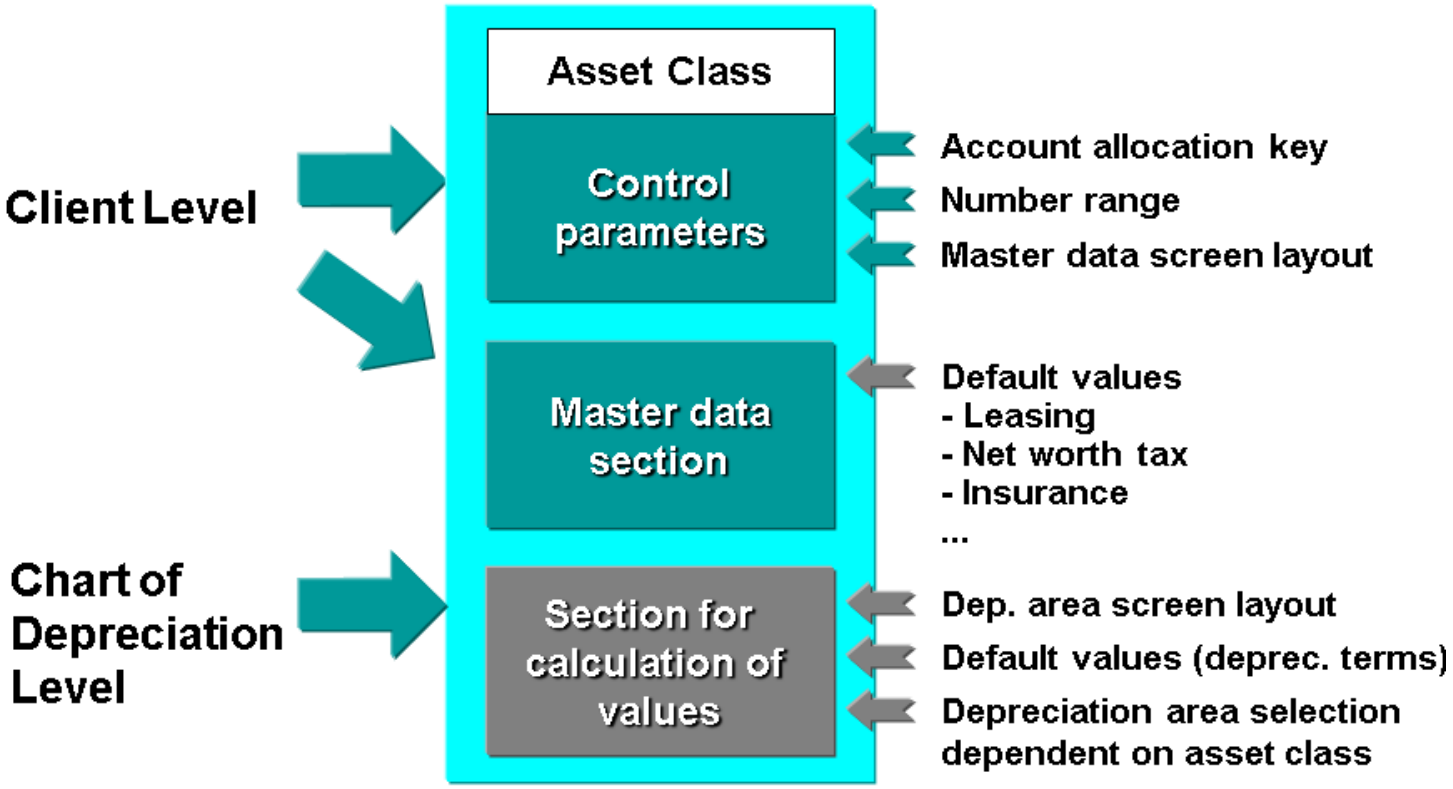


Figure 9: Figure: Structure of the Asset Class

You can assign any number of charts of depreciation to each asset class. In this way, you can have country-specific depreciation terms for each combination of asset class and chart of depreciation. And these depreciation terms are the default values in the given chart of depreciation.

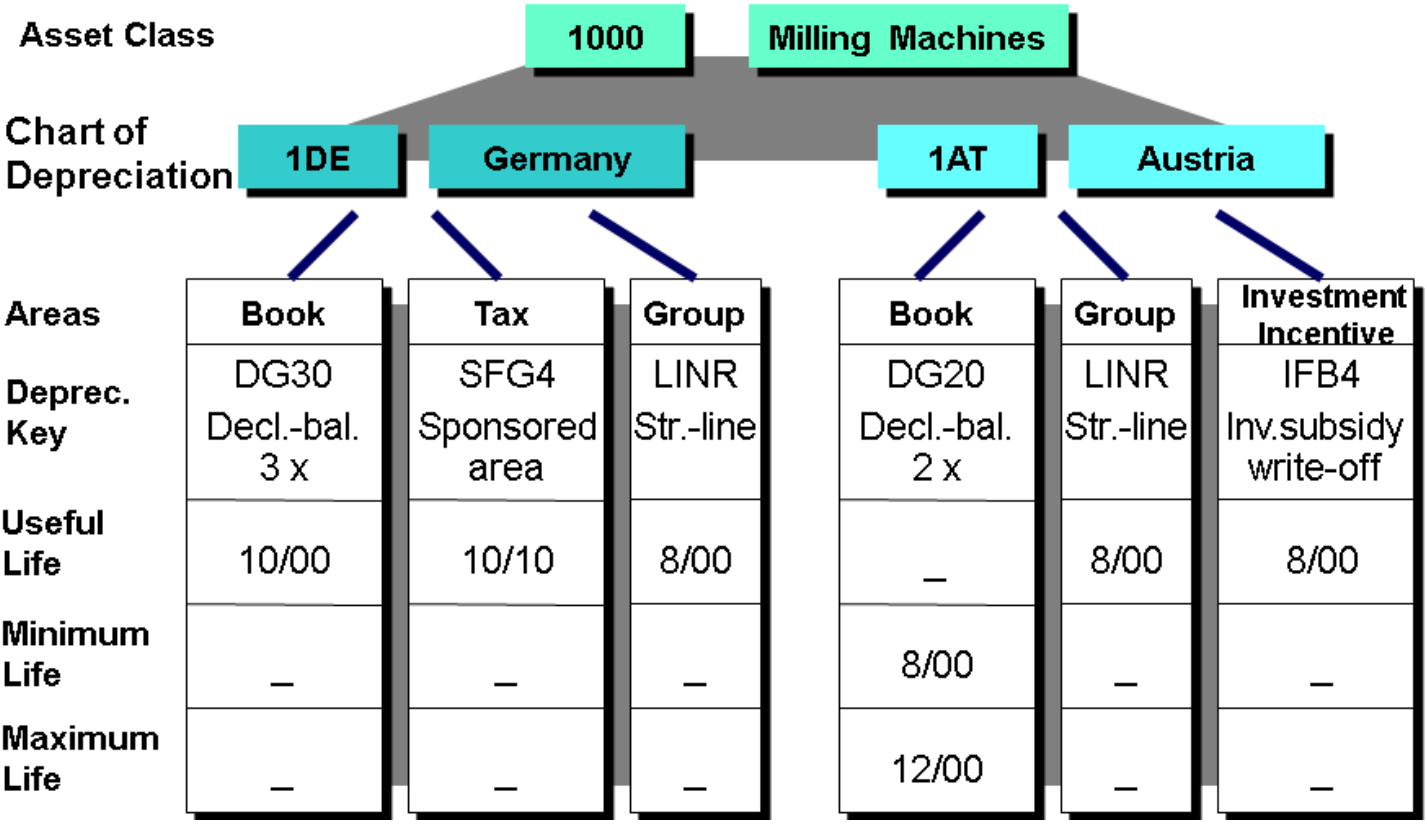


Figure 10: Figure: Asset Classes and Chart of Depreciation

The control parameters and the master data section of the asset class are always valid for all company codes within a client. However, it is also possible to specify that certain general master data is dependent on the chart of depreciation, and to use it also to provide default data.

Default Values

You should create reasonable default values in the asset class for control and valuation parameters in the asset master record. The most important fields of the asset master record are also found in the asset class (administrative data as well as valuation data). You can define the screen layout control, so that these fields can **no** longer be changed at the master record level (refer to Screen Layout and Maintenance Level).

You need to enter defaults for administrative details (such as insurance information) only once for each asset class, and therefore uniformly for all company codes and charts of depreciation. The following master data can, however, also be entered separately in the asset class for each chart of depreciation:

- Screen layout and account determination
- Evaluation groups (4 characters)
- Insurance type and insurance index series
- Property classification key

Creating the Asset Class

Creating the asset class is a Customizing activity. Account determination is the most important function of the asset class. There is a function in the system, therefore, for generating an asset class to correspond to each APC general ledger account. The system generates these asset classes automatically, in a one-to-one relationship to the accounts (see the "Prerequisites" section above).

Note that several asset classes can use the same account determination key. Therefore, you can copy the asset classes that were generated by the system. The asset class, as a result, can provide a more detailed classification of assets than the asset G/L accounts. You need to assign the asset class key yourself for asset classes that you copy. There is **no** internal number assignment

of the asset class key. It can be alphanumeric and up to 8 characters long. When you use the system to automatically generate asset classes, the system uses the APC account number as the account key.

After the system creates the asset class, only the account key and the control portion of the asset class are created at first. You maintain the default values for the asset class in further Customizing steps (for example, by choosing Special Valuation Insurance). You maintain the depreciation terms (such as the depreciation key) under Valuation.

⚠ Caution

- Changes to master data in the asset class only have an affect on assets created after the change was made. The system does **not** automatically carry out the changes for assets that already existed. For this purpose, you should use the mass change procedure (refer to Mass Change).
- When you create an asset in an asset class, the chart of depreciation of the asset company code has to be assigned to the asset class.

Control Information (Asset Class General)

Use

The asset class carries important control information for managing fixed assets.

The following graphic provides an overview of the functions of the asset class.

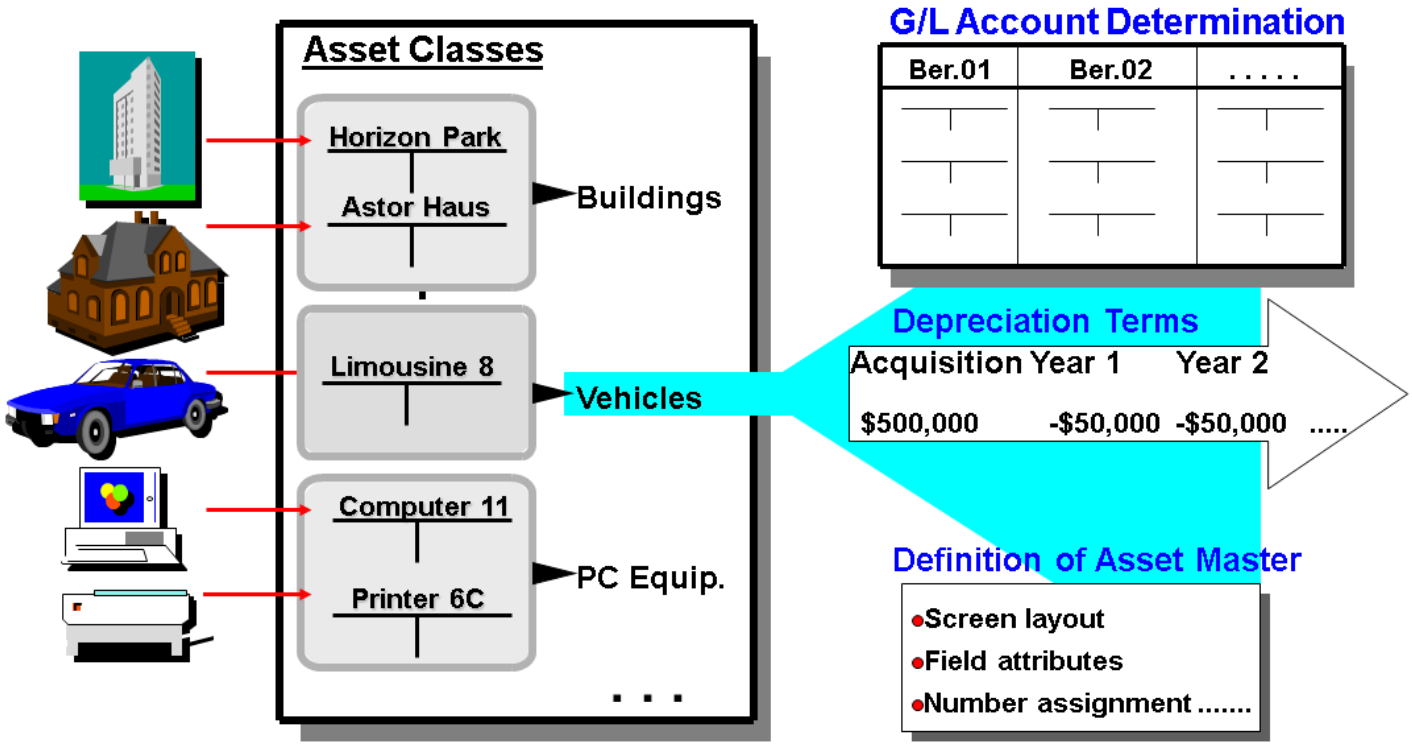


Figure 11: Figure: Functions of the Asset Class

Prerequisites

You specify that down payments can be posted (transaction type groups 15 and 16) in asset classes for assets under construction. You make this specification for these asset classes in Customizing for Asset Accounting (choose Transactions Acquisitions Allow Down Payment Transaction Types in Asset Classes).

There are **no** restrictions for any other transaction type groups in relation to the asset class. It is **not** necessary to specify the asset classes in which these transaction type groups can be used.

Features

Account Determination

In the account determination , you define the reconciliation accounts in Financial Accounting that are posted from Asset Accounting. Enter the account determination key in the asset class. When you create a fixed asset, the system checks whether the accounts defined in the account determination actually exist.

depreciation terms

For more information, see Control Information in the Valuation Section.

Screen Layout Control (Master Data)

Using the screen layout control, you control the fields that appear on the screen, the required fields, and the maintenance level of asset master data (see Screen Layout and Maintenance Level). The screen layout you set up in the asset class applies to all asset master records of this class.

There are screen layout controls for master data and for depreciation areas (see Control Information in the Valuation Section).

Number assignment

In the asset class, you enter the number range from which the asset numbers of this class are to be assigned. You specify the number range at company code level. It determines the number interval for the number assignment and determines whether the assignment of the main asset number is to be carried out externally or internally.

Sub-Number Assignment

It is standard for sub-numbers to be assigned by the system in ascending numerical order. In the asset class, you can specify whether sub-number assignment is to be carried out externally. The sub-number must always be numeric.

Special Functions

You can display an asset class as a class using the corresponding control indicator for the following assets types:

- Assets under Construction with Line Item Management
- Real estate (if the **Real Estate Management** component is being used)
- Group Assets (see Group Assets)

Using the status for assets under construction activates line item management for any assets belonging to this class. The indicator for group assets means that the asset class can only be used for group assets.

Control Information in the Valuation Section

Use

Specify the following control information, for each depreciation area, for the charts of depreciation created for an asset class.

Features

Deactivation of a Depreciation Area

When you maintain an asset class, the system displays every depreciation area of the specified chart of depreciation. By deactivating depreciation areas, you can limit the management of asset values to the depreciation areas you need in your enterprise.

Example

- You can deactivate the depreciation areas in a particular asset class that deal with investment support measures, if they are irrelevant for the assets in this asset class.
- You can deactivate the depreciation areas in an asset class for your local accounting principle, if assets in this class are capitalized solely based on international law (IFRS).

Once you have created asset master records for an asset class, you should **not** deactivate depreciation areas.

Along with deactivation at the asset class level, it is also possible to deactivate depreciation areas for individual assets directly in the asset master record.

Depreciation Keys and Useful Life

In order to guarantee uniform depreciation for the asset class, specify the depreciation terms here.

Index Series

For calculating using replacement values, you can specify an index series. However, there are prerequisites for calculating with index values. You must have provided for using revaluation when you defined the depreciation area involved; and you must have used a depreciation key that allows you to depreciate from replacement values.

Screen Layout (Depreciation Area)

You must specify the screen layout for every active depreciation area in the chart of depreciation entered in the asset class. For the depreciation terms (for example, the depreciation key), the screen layout determines the field selection, the required fields, and the maintenance level.

Control Indicator

In the detail display of the depreciation area, you can specify the following control indicators that are typical for certain asset types:

- Activation of amount check for individually managed low-value assets
- Activation of the quantity and amount-related check for collectively managed low-value assets
- Allowance of negative values: This can be necessary for assets under construction, for example, or investment support managed as negative assets.
- Maximum/minimum useful life allowed

Asset Types (General)

Fixed assets as a whole is made up of a variety of different types of assets. The balance sheet represents this variety using the following balance sheet items

- Intangible assets

- Tangible assets
- Financial Assets

It is generally desirable to provide for a more detailed classification of assets according to asset types. Defined asset types are **not** provided for in Asset Accounting. There is **no** object or control indicator in the system called **asset type**.

Every asset type is represented by one or more asset classes that you define. These asset classes contain certain control indicators. The asset class can serve as a kind of sample master record for the assets in that class. Generally, all the asset classes for an asset type will use the same

- account determination and
- the same screen layout control

Assets under Construction

Use

Assets under construction are a special form of tangible assets. They are usually displayed as a separate balance sheet item and therefore need a separate account determination in their asset classes.

Features

You can manage assets under construction in the system as individual master records, just as you do completed assets.

You can also use collective management of several assets under construction on one master record. On completion they can be divided up as follows:

- Line item settlement (see below) or
- Simple transfer to other asset master records

However, if you use collective management, without line item management, there is one limitation. You can only post asset retirements (transfers) with asset value dates that follow in sequential order.

⚠ Caution

Due to the above restriction, it is **not** recommended that you manage a large number (or all) assets under construction on **one** master record. Instead, you should use a general ledger clearing account to temporarily collect acquisitions for assets under construction.

Depreciation

Ordinary depreciation is **not** allowed for assets under construction in most countries. You reflect this limitation by choosing a depreciation key that does not allow ordinary depreciation in the book depreciation area. To ensure that this depreciation key is protected during master data maintenance, select the asset class as the maintenance level for the book depreciation area (see Screen Layout and Maintenance Level). For some assets under construction it is possible to perform special tax depreciation. In this case you also enter corresponding keys in the asset class, to be used as mandatory default values.

Down Payments

For posting down payments, allow the posting of the transaction type group "Down payments" (transaction type groups 15 and 16) in these asset classes. In addition, enter the necessary general ledger account in the account allocation. Also set the indicator for

negative APC in the depreciation areas of the assets under construction. This allows subsequent credit memos on already capitalized assets.

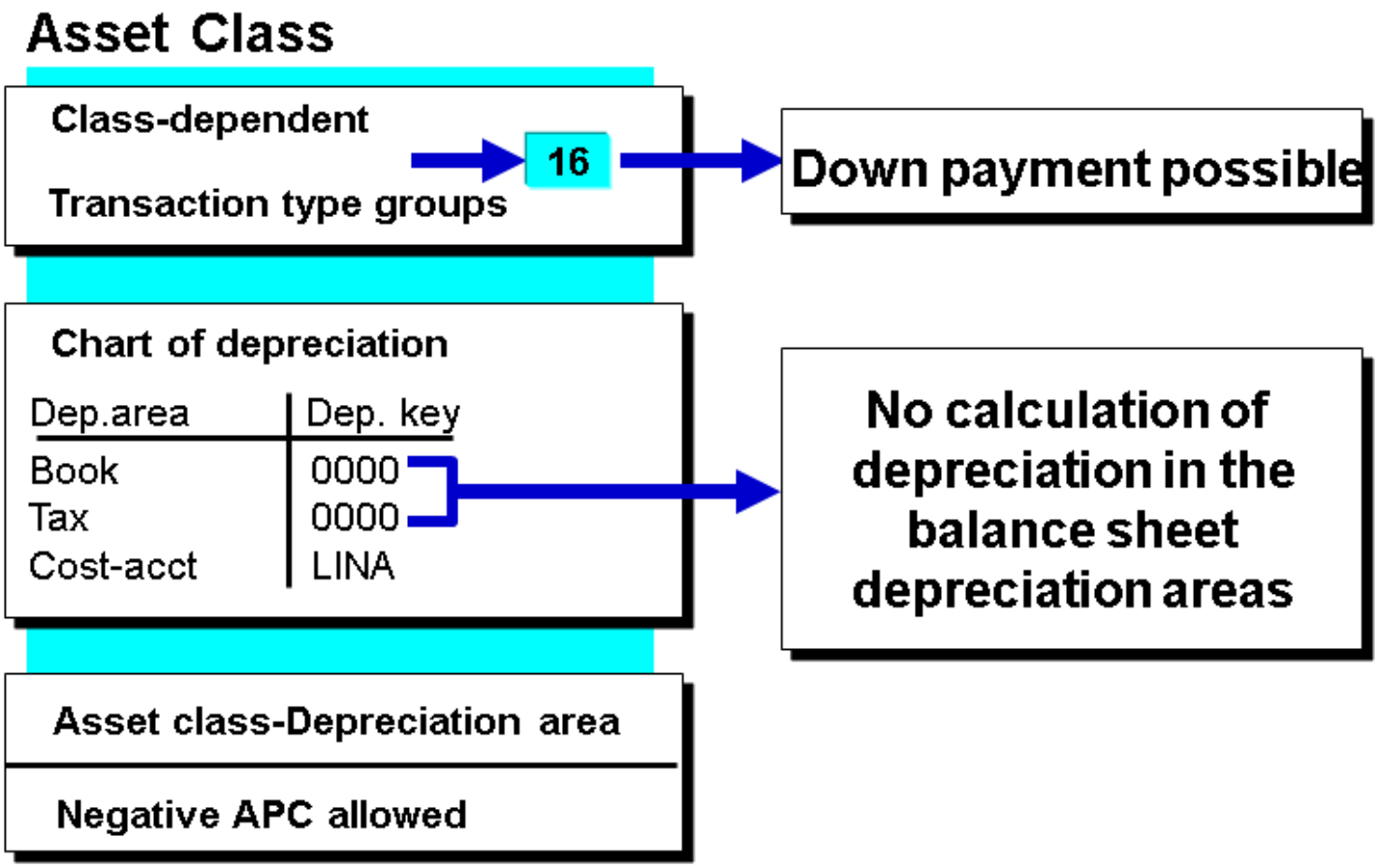


Figure 12: Figure: Control Information for Assets under Construction

Line Item Management

If you make large capital investments in your own in-house produced assets, you can manage assets under construction with open items, and settle the assets under construction per line item to different receivers. The system activates this line item management when you create the asset, if the indicator for it is set in the asset class to which the asset belongs. This indicator also determines that the transaction type for down payments is automatically allowed in these classes.

Settlement Profile

You can define profiles for the line item settlement of assets in FI-AA Customizing. The profiles determine the receivers to which you are allowed to settle. In order to settle an asset under construction, an appropriate settlement profile must be entered in Customizing for fixed assets per asset company code (Specify settlement profile).

List Variants

The transaction for the line item settlement of assets under construction enables you to select line items for allocation to a distribution rule group for each asset. You define display variants for these transactions in Customizing for Fixed Assets (under List Variants). Using these variants, you can control which information (document number, posting text, and so on) is displayed when you call up line items. There are also interfaces to additional functions of Asset Accounting (such as, master record display, asset values).

Low-Value Assets (LVA)

Use

In general, low value assets are fully depreciated in the year of purchase or in the period of acquisition. This can be achieved by using the special depreciation key GWG and the expected useful life of one month (one period). In order to ensure that depreciation is fully posted in the acquisition month during the monthly depreciation posting, activate the catch-up method for the depreciation posting run (see System Settings for Depreciation Posting).

Features

In contrast to fixed assets of greater value, low value assets (LVAs) are completely depreciated in the year in which they are acquired. Therefore, you do **not** usually need an individual assessment of their values. Since they individually have little value, they are often managed collectively as a single asset master record. In Asset Accounting, you can collectively manage all LVAs in a certain category (such as those belonging to a given cost center) in this way. You activate collective management by entering a unit of measure in the asset master record.

Maximum Amount

You set the maximum amount for low value assets when defining the depreciation area at company code level (in Customizing for Asset Accounting under **Valuation Amount Specifications (Company Code/Depreciation Area)**). You can enter one maximum amount for purchase orders (taking possible discounts into account) and one for the actual acquisition posting. Enter either an individual check or quantity check for the verification of the maximum amount for low value assets. You make this specification in the depreciation area at the asset class level (Customizing: **Valuation Determine Depreciation Areas in the Asset Class**):

- Individual check (individual management)

  When the acquisition is posted, the entire acquisition and production costs of the asset are compared with the LVA maximum amount.

- Quantity check (collective management)

  When the acquisition is posted, the entire acquisition and production costs of the asset, divided by the total quantity, are checked against the LVA maximum amount. When you make your first posting, you must also post the quantity.

Simulation in the Asset History Sheet

When you create an asset history sheet, you can specify that asset retirement be simulated for any low value assets acquired during a specified time period. The affected assets then appear in the asset history sheet as retired. The system ignores any actual retirements of low value assets when it calls up the asset history sheet.

You should be aware that choosing to simulate LVA retirement in the asset history sheet means that you are required to do the same in following years. Otherwise, the danger exists that LVA retirements could be listed in two asset history sheets (once as simulated retirement, and once as actual retirement).

Before running the report, enter the classes for low value assets, as well as the time period for the simulation. The simulation time period has to begin with the same date each year (see Asset History Sheet).

The system then carries out a retirement simulation for all assets belonging to the classes entered, which have a capitalization date in the simulation time period. The system simulates a complete retirement at the end of the fiscal year, if the book value of the asset is zero at that point in time.

In addition, the retirement affects **not only** the fiscal year requested in the report (that is, the fiscal year of the report date), but also the previous fiscal year. There is a certain principle of continuity: If the asset already fulfilled the requirements for retirement simulation at the end of the previous year, then the system bases its simulation on a simulated retirement at the end of the previous year. There are two possible consequences:

- The asset did **not** have any additional transactions in the current fiscal year. Then the system treats the asset as if it were retired in the previous year. The asset then **no longer** appears in the list.
- There were additional transactions for the asset in the current fiscal year. In this case, the system treats the asset as if the entire acquisition value were retired at the end of the previous fiscal year. However, the asset is not deactivated.

> **i Note**
>
> The retirement simulation always simulates the retirements at the end of the fiscal year. Therefore, it is **not** useful to simulate asset retirement unless the report date is the end of the fiscal year.

Leased Assets

Use

Leased assets create special accounting requirements for the lessee. During the term of the lease, leased assets remain the property of the lessor or manufacturer. They represent, therefore, a special form of rented asset. Such assets are legally and from a tax perspective the responsibility of the lessor, and are **not** relevant for assessing the value of the asset portfolio of the lessee. However, in certain countries, you are nonetheless required to capitalize leased assets, depending on the type of financing involved.

Features

Valuation Methods for Leased Assets

The result is that there are two different methods for handling the bookkeeping for leased assets, depending on legal requirements and the conditions of the lease. Depending on the legal terms and the conditions of the lease, leased assets can be capitalized and depreciated (capital lease method) or they can flow into the P&L as periodic rental expenses (operating lease method).

Master Data

You enter all the essential leasing contract information in the asset master record. In addition, you can assign a leasing type in the asset master record. You define the leasing type in Customizing for Asset Accounting. The leasing type contains all the information for the acquisition posting. You can post the acquisition in the display transaction for asset master records.

Intangible Assets

Use

You can manage intangible assets, such as patents, the same as tangible assets in the system. There are no special system functions for handling the needs of intangible assets.

Features

The account control of the asset class for intangible assets must be assigned to the corresponding balance sheet item. If you want to post down payments, you must specify in the asset class that posting is allowed with the transaction type group "down payments" (FI-AA Customizing: **Transactions Acquisitions).**

Intangible assets are not normally physically retired, and therefore no retirement posting takes place. In the request screen of the asset history sheet, you can specify for the asset class for intangible assets that a retirement is simulated when the book value reaches zero. The assets then appear in the retirement column of the asset history sheet.

Before running the report, enter the classes for intangible assets. The system then carries out a retirement simulation for the assets in the asset classes entered. The system simulates a complete retirement at the end of the fiscal year, if the planned useful life is expired at this point, and the book value is zero (this is usually the case when the useful life is expired).

Financial Assets

The SAP Treasury and Risk Management (TRM) application component offers functions particularly for managing financial assets.

Technical Assets

Use

Technical data can only be managed to a limited extent in the asset master record.

Features

However, you can enter a virtually unlimited amount of technical description using the long text function. In addition, it is possible to link any number of original documents (blueprints, bills of material, and so on) to the asset master record, using the document management system. These options are available for all fixed assets. If separate master records are to be created as technical assets, you should deactivate the book depreciation area for these fixed assets in order to prevent posting taking place.

You can enter detailed technical information for the maintenance of equipment in the Plant Maintenance (PM) component. You enter this information in the functional location and the equipment master record in PM. You use a field in the equipment master record to assign a piece of equipment to a specific asset.

Real Estate

Use

The **Asset Accounting** (FI-AA) component is not intended for rental contract management of residential buildings, or detailed land register management for real estate. For these types of activities, use the Flexible Real Estate Management (RE-FX) component.

Representing Fixed Assets

Use

The term "asset" is used for simple assets, as well as for complex large-scale assets that consist of a number of component assets. The data structure of the system, with a 12-character alpha-numeric main asset number and a 4-character sub-number, allows both. The main asset number represents the asset as a whole. Parts of assets can be represented by different sub-numbers.

Features

Every master record is automatically created with at least one sub-number, even if no sub-assets exist. The system marks the first master record as an asset main number master record. When you use internal sub-number assignment, this main number has sub-number "0000". You can create additional sub-numbers for this main number master record. The system manages values for each sub-number for every individual depreciation area in year segments. The individual transactions are posted directly to the sub-numbers as line items.

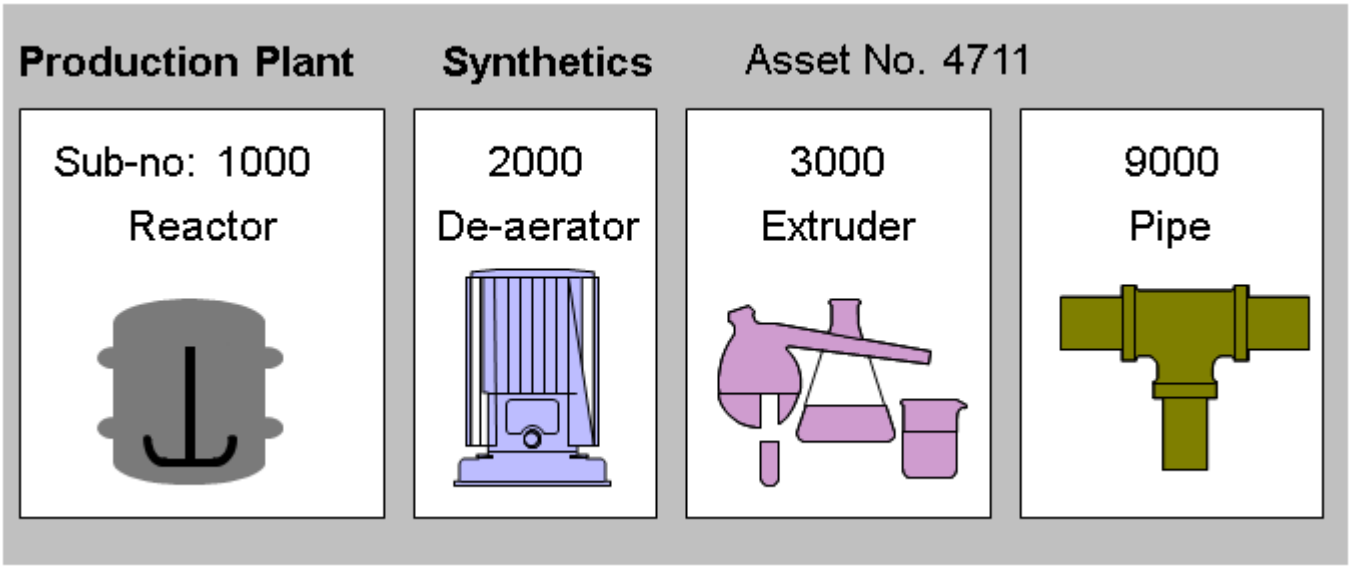


Figure 13: Figure: Main Asset with Sub-Numbers

Simple Asset

Use

A simple asset is represented by only one asset master record. This master record has sub-number "0000". Subsequent acquisitions are posted to this master record. You can meet the most essential business and legal demands with year segments (provided they have **not** yet been reorganized) and transaction data.

Features

However, the representation of the asset as a simple asset is limited in the following ways:

- You **cannot** separate the accumulated depreciation and book values from closed fiscal years according to their acquisition year for a simple asset.
- Subsequent acquisitions **cannot** be depreciated individually.

The following figure shows the line items for subsequent acquisitions to a simple asset (master record):

Asset	4711	0000	Milling Machine

Postings

Year	Cumul.APC	Transaction	Deprec.	Book Value
00	_ _	100,000	30,000	70,000
01	100,000	20,000	27,000	63,000
02	120,000		18,900	44,100
03	120,000	40,000 - 35,000 +	19,320	45,080

Line Items

Date	Trans.Type	Amount	Transaction
4/1/X0	100	100,000	Acquisition of machine
8/1/X1	100	20,000	Replacement of shafts
1/1/X3	200	40,000	Scrapping of shaft set
		25,300	Proportional depreciation
9/1/X3	100	35,000	Aquis. of new shaft set

Figure 14: Figure: Subsequent Acquisitions Without Sub-Numbers

Complex Asset with Component Parts

Use

If an asset consists of several component assets, it may make sense to monitor the individual sub-assets separately. For complex assets, for example, there is often a need for uniform depreciation of the entire asset in the book depreciation and tax depreciation areas, whereas for cost accounting purposes, the sub-assets should be depreciated separately.

Features

Therefore, you can manage asset components in the system as sub-numbers. There are several reasons for managing component assets as sub-numbers:

- The development of values for component assets is separate for each sub-number.
- The sub-numbers can have different cost accounting assignments (for example, to different cost centers).
- The asset can be divided along technical lines (for example, links to equipment in Plant Maintenance)
- Investment support can be represented as negative sub-numbers.
- If it is necessary to manage subsequent acquisitions separately in order to be able to monitor their depreciation and book values separately, you must manage these acquisitions on independent sub-numbers. For all subsequent acquisitions, create a new sub-number per year of acquisition. You guarantee that this takes place by setting the **Acquisition only in the capitalization year** indicator in the depreciation key.

Subsequent Acquisitions

The following graphic shows the treatment of subsequent acquisitions to complex assets:

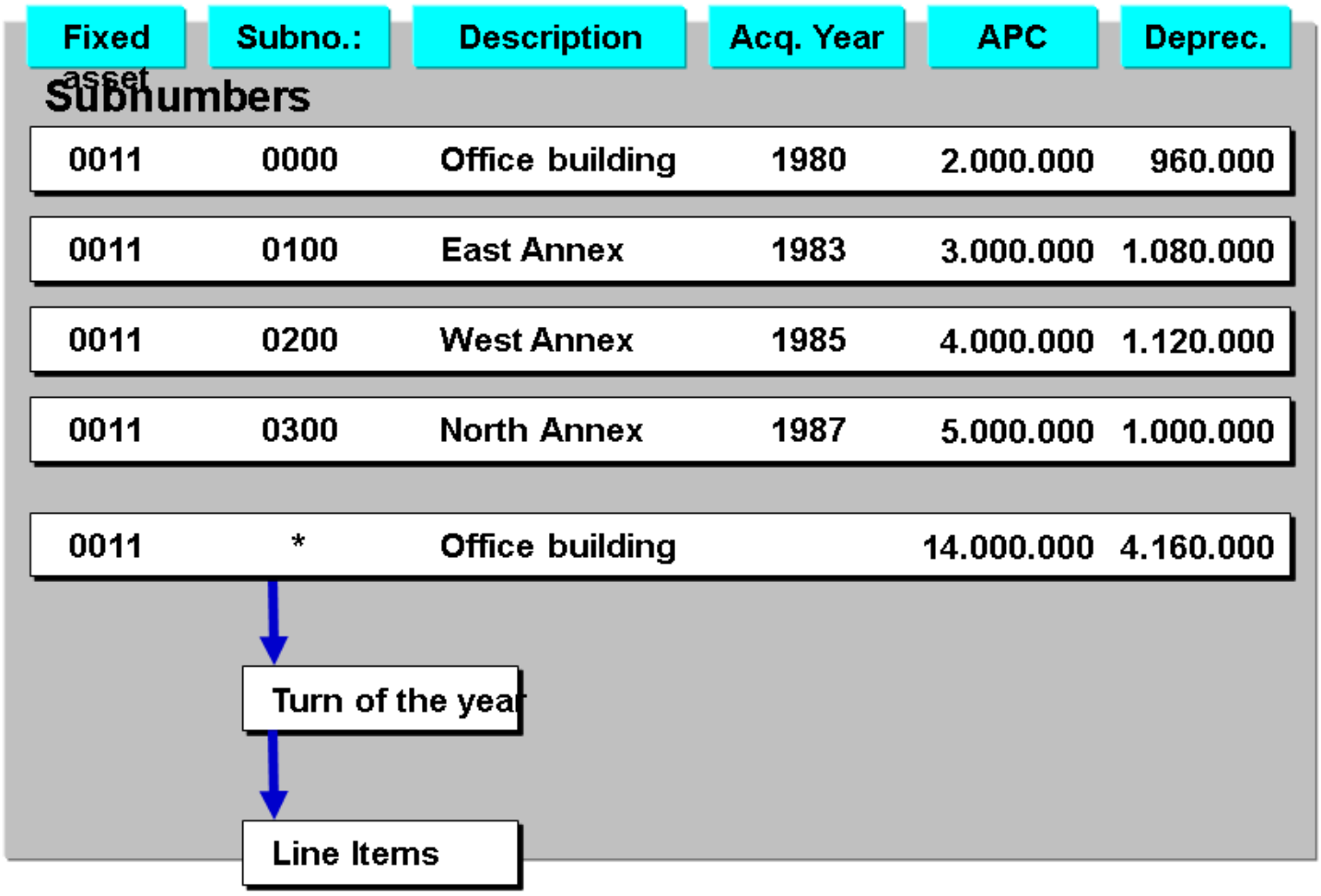


Figure 15: Figure: Subsequent Acquisitions with Sub-Number

When assigning the sub-number, it can be advantageous to specify the numbers yourself externally, rather than leaving sub-number assignment to the system. In this way, you can represent the specific structure of the asset. In order to monitor the value development of subsequent acquisitions to sub-assets (for example, upgrading or replacement acquisitions) separately according to years of acquisition, it is recommended that you use the following system for sub-number assignment.

Reactor	Extruder	Piping	Extractor
Sub 1093	Sub 2093	Sub 3093	Sub 4093
Acq.yr 1993	Acq.yr 1993	Acq.yr 1993	Acq.yr 1993

Modification	Modification
Sub 1094	Sub 4094
Acq.yr 1994	Acq.yr 1994

Depreciation Parameters

By means of the screen layout control for the asset class (see Screen Layout and Maintenance Level), you can specify whether the depreciation terms can be maintained at the sub-number level. You also specify in the screen layout control that uniform depreciation be carried out for all sub-numbers belonging to a main number. This specification will ensure that the evaluation and depreciation of all sub-numbers is identical, and that depreciation is calculated using the identical depreciation terms. To carry out changes to asset master data that are uniform for all sub-numbers, enter an asterisk (*) in the sub-number field in the initial screen of the change transaction. The system then carries out the changes that were made at the main number level for all sub-numbers.

Reports

In the display transactions and in reports, you can display asset values either individually by sub-number, or collectively. For displaying the asset values, you can also enter an asterisk (*) in the sub-number field in order to obtain totals for all sub-numbers. Partial summations are possible by entering the sub-numbers in the following form:

1*	sub-numbers from 1000 - 1999 -
01*	- Subnumbers from 0100 - 0199
001*	- Subnumbers from 0010 - 0019

Group Assets

Use

In component **FI-AA**, the calculation and posting of depreciation generally takes place at the level of the individual asset. The system is fundamentally conceived so that depreciation is calculated for each main number or sub-number. To meet certain tax reporting requirements (such as ADR in the United States), depreciation must take place at a higher level than the individual asset (for example, all assets of a class and an acquisition year).

Features

This is why in component **FI-AA** it is possible to define group assets in addition to depreciation at individual asset level. These group assets make it possible to group together a number of assets for the calculation and posting of depreciation.

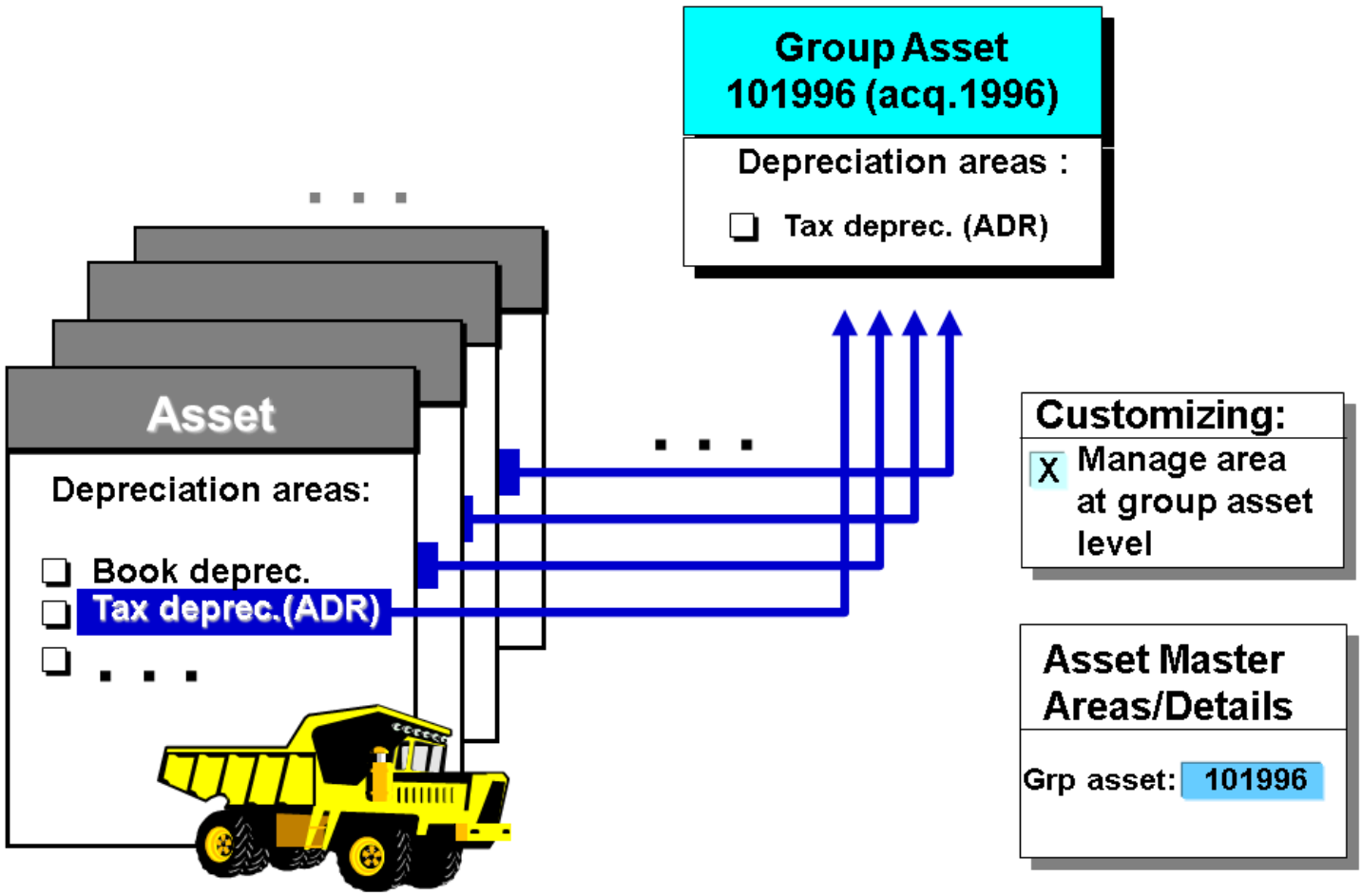


Figure 16: Group Asset per Acquisition Year

Master Data Maintenance (Group Asset)

A group asset is represented in the system by a separate master record. The structure of this master record corresponds to the structure of the normal asset master record. You can determine the structure of this master record using screen layout control, just as you do for normal master records. Just the same as a normal asset, a group asset can have any number of sub-numbers. In this way it is possible, for example, to collect all the acquisitions for one year in a single sub-number master record at the level of the group asset.

There is a master data transaction available for creating group assets (Asset → Create → Group Asset). This transaction corresponds to the transaction for creating normal assets. However, there are certain special considerations to keep in mind for the master data maintenance of group assets:

Group assets can only be deleted when all the assets belonging to them have been marked for deletion.

The group asset only manages depreciation areas that are flagged with the corresponding indicator in the specifications for the company code-specific depreciation area (FI-AA Customizing: Define Depreciation Areas for Group Assets).

Group assets have to be assigned to an asset class, just as normal assets do. You use an indicator in the asset class to specify that the class can be used only for group assets.

Assignment of an Asset to a Group Asset

You specify the assignment of an asset to a group asset specifically per depreciation area. For this purpose, there is a special field in the asset master record (in the detail display of each depreciation area). You enter the number of the group asset in this field. Once this entry is made, the system calculates and posts the depreciation for this depreciation area only at the level of the group asset. In this way, you can also assign one asset to different group assets in different depreciation areas.

Graphics: Assignment to Group Asset by Depreciation Area

⚠

Only assets that have the same positive/negative sign for their net book value can be assigned to the same group asset (that is, either all of the assets in the group have positive net book value, or all of the assets in the group have negative book value). It is not possible to have assets with negative net book value and assets with positive net book value belonging to the same group asset.

Substitution

You can use substitution to assist in making the assignment to group assets, just as you can use substitution for other master data fields (see Validation and Substitution). This method makes it possible to automate the assignment to a group asset. For example, you can have the assignment be a default based on the asset class or on specific evaluation groups.

Checks and Results of Assignment

An assignment to a group asset is only possible as long as the asset is not capitalized (the asset is inactive). Once an assignment has been made and the asset is capitalized, you can only change the assignment by a complete transfer of the asset to a new asset. Another result of the assignment to a group asset is that the depreciation terms in assigned depreciation areas can no longer be changed at the asset level. They can only be changed at the level of the group asset.

When you assign an asset to a group asset, the system checks if the asset has, at the minimum, all the depreciation areas that the group asset has. If it does not, the assignment is rejected. As a result of the assignment, the asset adopts the account allocation of the group asset. This method ensures that all the assets in a group asset post to the same general ledger accounts.

Legacy Data Transfer

When you transfer old assets data, normal assets and group assets have to be transferred separately. The group asset and the assignment to its asset master records are not created automatically. Therefore, there is no consistency check between the values of the group asset and the values of the individual assets.

Postings

When you post to an asset belonging to a group asset, the system duplicates all the line items that are created (such as, acquisitions) on the group asset as well. This duplication takes place according to whether depreciation area is assigned to the group asset. Direct posting of transactions to a group asset is generally not possible.

Graphics: Acquisition Group Asset

You should note the following special considerations with the different transaction categories:

Acquisitions

Nothing special to consider here. The system posts acquisitions to the individual asset and duplicates the line items online to the group asset it belongs to.

Retirements

GainI/Loss for asset retirement and transfer postings is handled in **FI-AA** Customizing for the retirement transaction types is parametrizable per depreciation area (Determine Bookkeeping for Asset Retirements):

Retirement with gain/loss

Gain/loss handled on liabilities side

Gain handled on liabilities side

For more information, see the section Posting Gain/Loss .

When you retire a group asset, the system does not calculate proportional value adjustments in exactly the same way as for the retirement of a single asset. The calculation is to some extent less exact because it can be based on overall figures. As a result, there can be small differences between individual assets and the group asset.

Transfer Postings

You can specify for intracompany transfers whether you want to transfer APC only, or also accumulated depreciation. You make this specification in the transaction type definition for each depreciation area. In this way, it is possible to transfer only APC (without depreciation) when making a transfer within a group asset.

Transfers between assets from different group assets are only possible if the assets were acquired in the same fiscal year. In addition, the same restrictions apply to these transfers as to transfers between assets that do not belong to a group asset.

When transferring acquisitions from prior years between group assets, make sure that you use a transaction type for the acquisition that allows the takeover of the historical depreciation start date (FI-AA Customizing: Indicator in the definition of the transaction type).

Write-up/Manual depreciation

Write-up and manual depreciation must be posted in the same way as calculated accumulated depreciation directly to the group asset.

Reports

The FI-AA standard reports identify group assets. The assets that belong to a group asset are not shown at first. In this way, double reporting is avoided. With the function **Break down grp. asset** in the list display of the report, it is possible to see the assets that make up a group asset.

Required System Settings

If you choose to use group assets, make the following settings in the system:

Indicate the depreciation areas that you want to manage at group asset level in FI-AA Customizing.

Set the indicator for group assets in the depreciation areas you want to manage at the group asset level. Set this indicator in the depreciation areas in the asset master record.

Create the group assets.

Create separate asset classes for group assets, if needed.

Define special transaction types for handling retirements and transfers for assets belonging to a group asset.

If you want to use the function Group Assets and have performed a release upgrade from 2.1 or 2.2, you must first start report RAXPRA04 (transaction SE38).

Grafik: Assignment to Group Asset by Depreciation Area

The following graphic shows the assignment of an asset to different group assets in different depreciation areas:

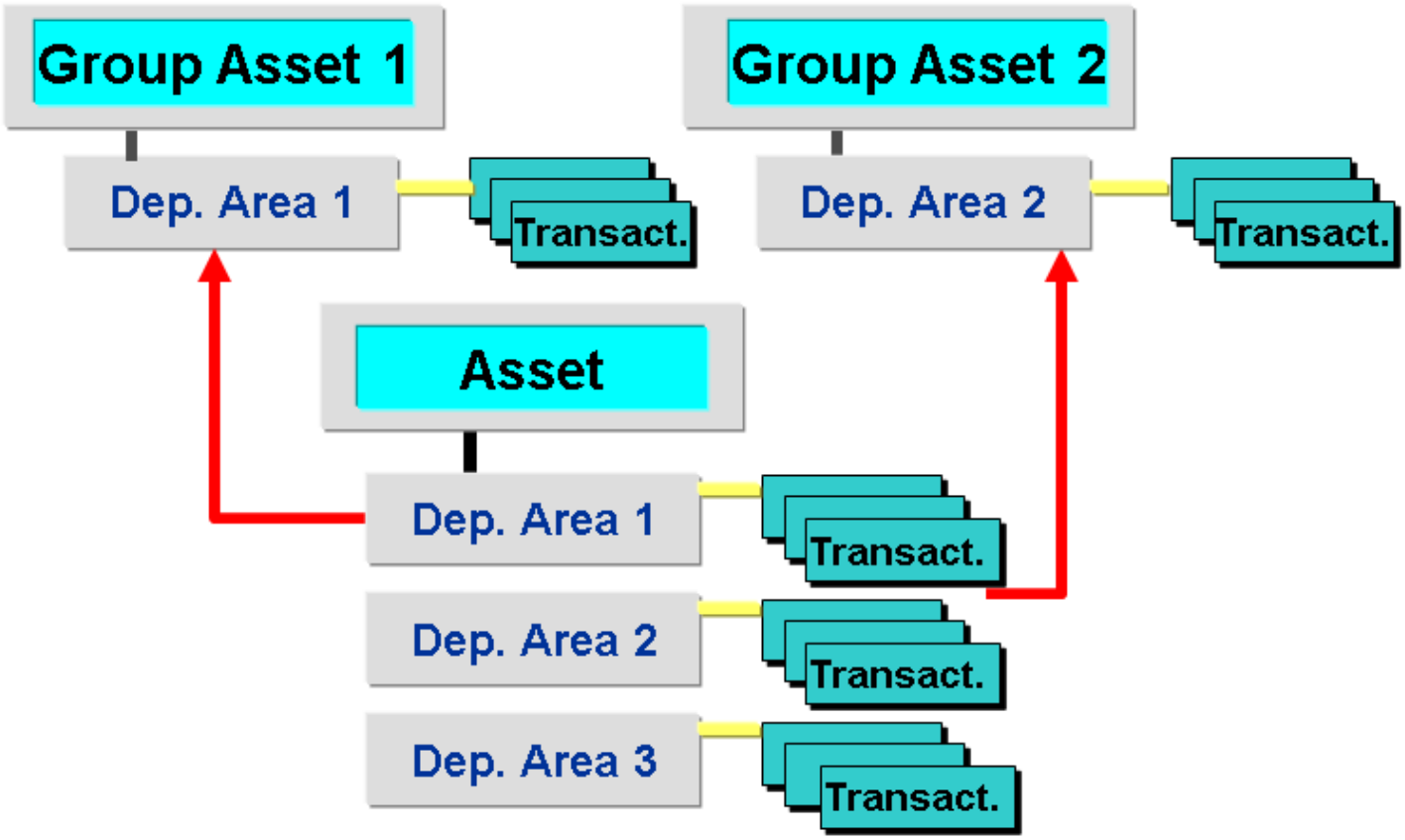


Figure 17: Figure: Area-specific assignment of fixed assets to group assets

⚠ Caution

Note the following: When you enter a group asset in a depreciation area of an asset, this entry is duplicated in all depreciation areas in the asset that are also managed at group asset level. This means that the assignment of an asset to different group assets for different depreciation areas is only possible if the group assets do **not** have any common depreciation areas.

Figure: Acquisition Group Asset

The following graphic shows assets that are assigned to group assets according to specific depreciation areas. Assets 1, 2 and 3 are assigned to the same group asset in depreciation area 1. Assets 2 and 4 are assigned to the same group asset in area 2. The system duplicates the respective APC acquisitions at the asset level also at the group asset level.

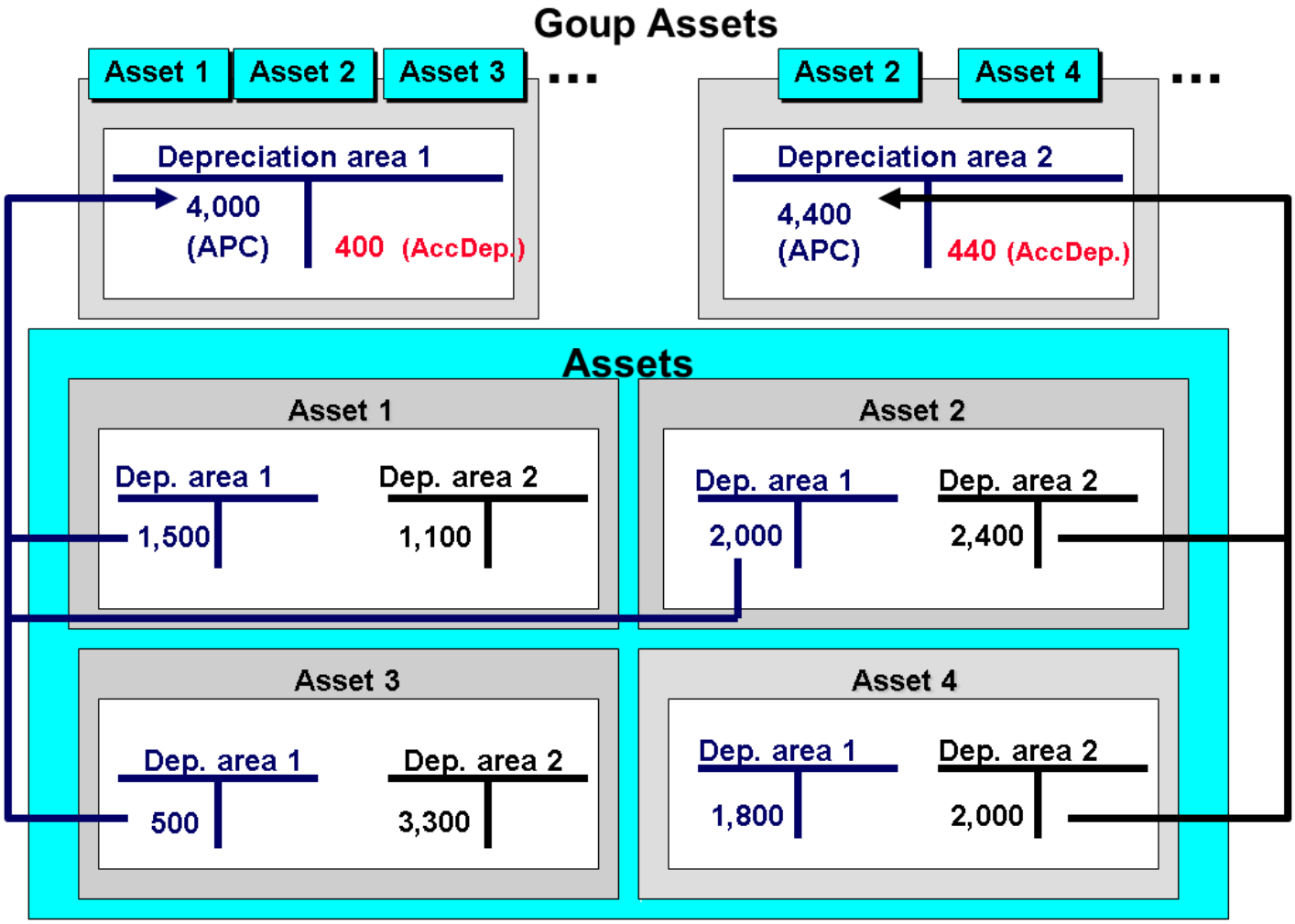


Figure 18: Figure: Acquisition Group Asset

Asset Super Number

Use

The asset super number offers some advantages of the group asset, without being as complex. You can use the asset super number to assign a number of assets to a single object.

Features

You assign assets to an asset super number by entering the common asset super number in the asset master record. You can either create the asset super number as a separate master record, or simply use it as a sort criterion. If you want to manage master data at the asset super number level, you must create a statistical asset master record (without values) for the asset super number. It is not possible to calculate asset values for the assets at the asset super number level. The group asset is designed for this purpose (see Group Assets).

You can enter the asset super number as a selection criterion for all standard reports. In this way, you can select all assets belonging to an asset super number for evaluation. In addition, you can use the asset super number as sort/total criterion for sort versions for standard reports (see Sort Versions).

Negative Assets

Use

You can specify that an asset class allows assets with negative acquisition and production costs (and positive depreciation). You make this specification using an indicator in the detail screen of the depreciation areas in the asset class. Managing negative assets allows you, for example

- To collect investment support on negative assets, or to represent investment support as a negative sub-number to the respective main number (see Complex Asset with Component Parts) or
- To collect credit memos on special assets.

⚠ Caution

Please note that you can only use one of the above possibilities on any given asset. It is not possible to manage a depreciation area for investment support on an asset that is set up for using credit memos in the book depreciation area.

Technical Structures for Plant Maintenance Purposes

Use

The structuring of assets from a bookkeeping perspective in the **Asset Accounting** component is independent of the technically-oriented structure in the**Plant Maintenance**component (**PM - Plant Maintenance**. PM has its own terms for classification (functional location, equipment) that are based on the requirements of plant maintenance.

For more information, see the documentation for plant maintenance under Technical Objects (Asset Structures)).

Integration

The system offers an additional option, the integration of the Asset Accounting and Plant Maintenance components by synchronization of asset master records an d equipment master records. Synchronization means master data maintenance of the two objects is linked, so that changes to one are automatically made in the other. You can set up this process, so that when you create an asset master record, the system automatically enters an equipment master record number in the asset master record, and copies the values of certain master data fields (for example, company code, cost center). The equipment master record, however, is not actually created until you save. You can delete it from the asset master record before that, if you wish.

You can also set up the system so that equipment master records are automatically updated when you make certain changes to the asset master records linked to them.

The system provides workflow functions here to augment this process, or to handle it completely. For example, a workflow can inform the responsible employee in Plant Maintenance, who then makes the necessary entries manually. (This could involve creating an equipment master record, or checking master data.)

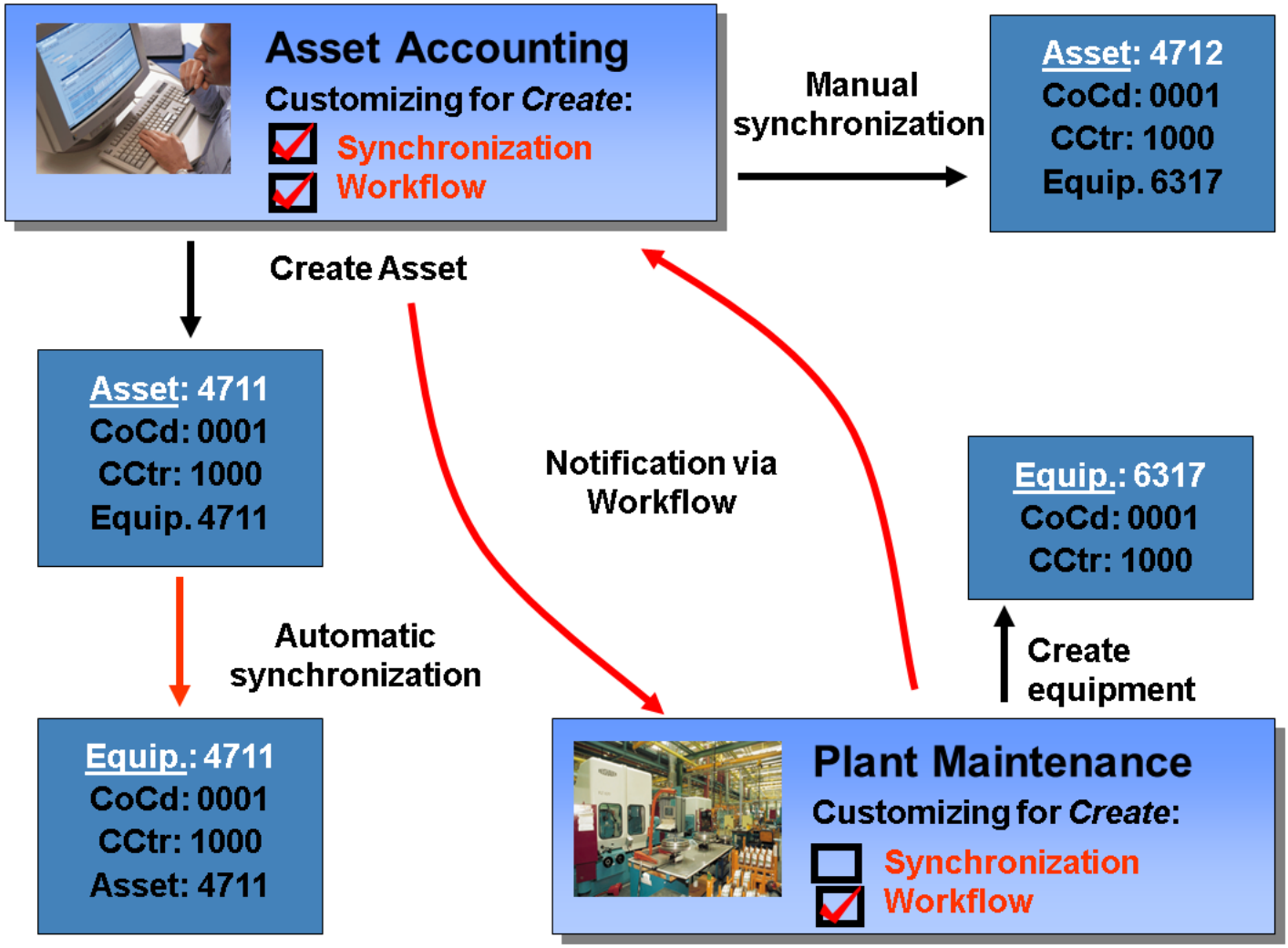


Figure 19: Figure

Prerequisites

In Customizing for Asset Accounting, you specify

- Whether the system automatically creates an equipment master record and/or triggers a workflow when an asset is created
- Whether the system makes synchronous changes in the equipment master record and/or triggers a workflow when an asset master data is changed.

When making these settings, you can specify which individual master data fields should automatically be synchronized in the asset and equipment master records (for example, company code, cost center).

You can also make all of these settings in the other direction, meaning that the equipment master record is the initiator. For example, creating an equipment master record then results in the automatic creation of an asset master record, or triggers a workflow. The same applies to changes.

→ Recommendation

Due to the fact that some asset master data fields are time-dependent, you should ensure that changing the asset master data from the equipment master record only takes place using workflow.

For more information, refer to the Implementation Guide for Asset Accounting under Master Data Automatic Creation of Equipment Master Records :

- Define Conditions for Synchronization of Master Data
- Assign Master Data Fields of Assets and Equipment
- Develop Enhancement for Field and Class/Type Assignment

Features

You specify the integration of the FI-AA and PM components by entering one or more equipment master records in the asset master record. The other way around, however, it is only possible to enter one asset number in an equipment master record (or functional location). In this way, it is possible to:

- Jump directly from the asset master record to the appropriate equipment master record.
- Select, in the PM component, all the assets that belong to a piece of equipment.
- Capitalize, in the PM component, all maintenance orders requiring capitalization, to the respective assets.

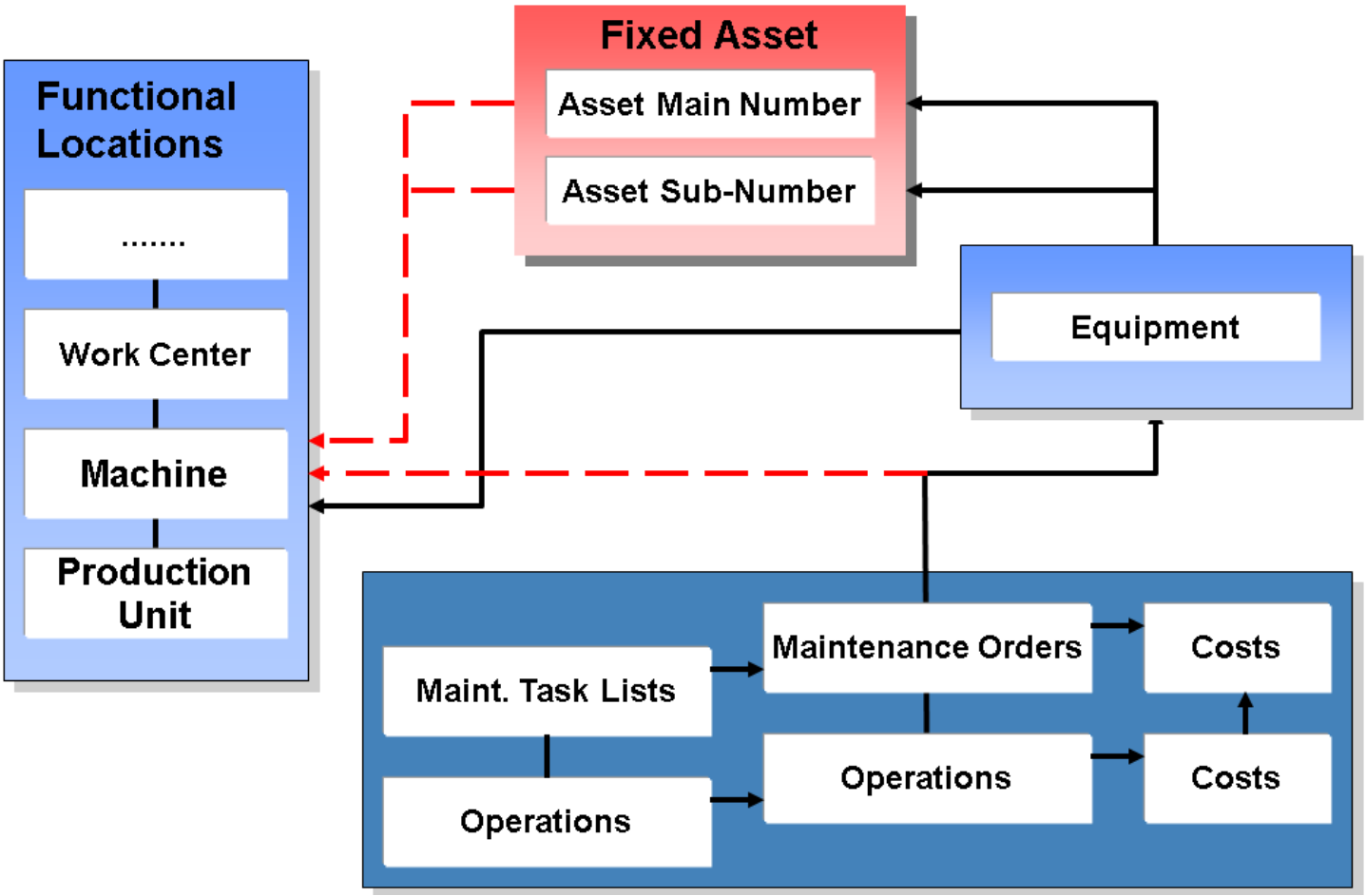


Figure 20: Figure: Technical Objects

Explanation of figure:

The solid lines show the relationships between assets and equipment or functional locations, when you use equipment and functional locations at the same time in PM. A piece of equipment can be assigned to the asset main number as well as to the asset sub-number. The broken lines shows the situation when only functional locations are used.

Activities

- When the correct Customizing settings are made (see above), the system automatically enters an equipment number in the asset master record. The equipment master record is created when you save. To enter additional equipment master records, choose **Create**.
- Delete equipment records that are **not** needed by choosing  .
- Specify whether the system should make synchronous changes to the asset master record when the equipment master record is subsequently changed, and also trigger a workflow, or just trigger a workflow. The system enters defaults based on your Customizing settings.

Basic Functions for Asset Valuation

Use

The component "Basic Function for Asset Valuation" is used to determine the values of all fixed assets at a given point in time, based on the demands of governmental authorities, or based on your own rules that meet your individual needs.

Depreciation Areas

Use

You use depreciation areas to calculate different values in parallel for each fixed asset for different purposes. For example, you may require different types of values for the balance sheet than for cost accounting or tax purposes. You manage the depreciation terms and values necessary for this valuation in the depreciation areas of each asset. Since the system allows you to define up to 99 depreciation areas, you can manage many different types of valuation (in Asset Accounting Customizing under **Valuation**). Depreciation areas are grouped together, according to the requirements of a specific country or economic area, into a chart of depreciation.

Features

The depreciation areas are identified by two-digit numeric keys. You specify the asset-specific depreciation terms for every depreciation area belonging to the chart of depreciation. You enter the depreciation terms in the asset class or directly in the asset master record of the particular asset (see Asset Master Record). This makes it possible, for example, for you to use straight-line depreciation for your internal accounting purposes and use declining-balance depreciation for the balance sheet.

Account Determination from Within the Depreciation Area

You can post both the asset balance sheet values and the depreciation values from the individual depreciation areas to separate balance sheet accounts or income statement accounts in the general ledger. You specify the accounts individually in the account determination key for each depreciation area. You define the account determination key in Asset Accounting Customizing and specify the key in the particular asset class. For more information see the documentation for account determination.

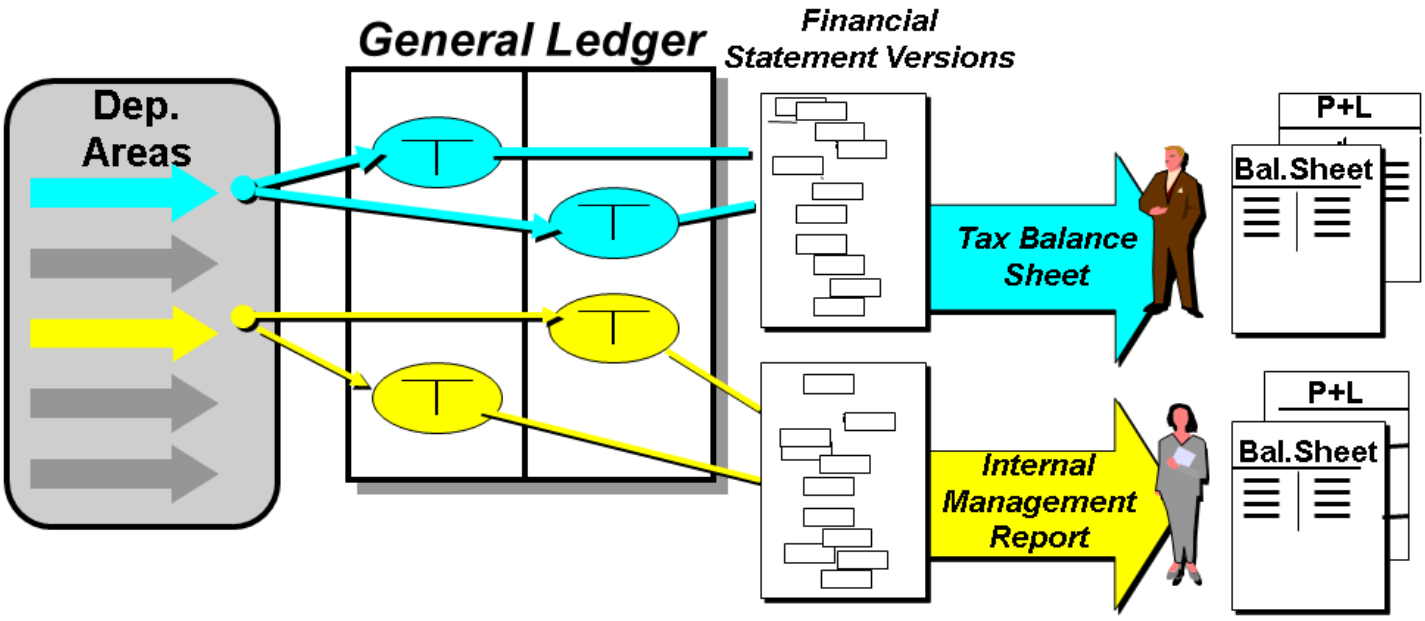


Figure 21: Account Determination from Within the Depreciation Area

Usually you need to post more than one depreciation area in parallel to the general ledger if you are creating different financial statement versions. For this purpose, you can define any number of financial statement versions for each chart of accounts in the general ledger. For each balance sheet account and income statement account, you specify in the financial statement version the balance sheet position or income statement position in which the account values should appear. You define financial statement versions in Customizing for Financial Accounting under Financial Accounting General Ledger Accounting Closing Operations Document or under Financial Accounting General Ledger Accounting Periodic Processing Document.

Retained Earnings Account

The retained earnings account is an equity item in the balance sheet. This account shows the balance of all income statement accounts. If you are using different financial statement versions, then you also have to set up corresponding retained earnings accounts (in Customizing under Financial Accounting General Ledger Accounting G/L Accounts Create or under Financial Accounting General Ledger Accounting Master Data G/L Accounts G/L Account Creation and Processing). The income statement account type controls which income statement accounts balance to which retained earnings accounts. You enter the income statement account type in the master record of the income statement accounts. When you enter a retained earnings account, enter the income statement account type that the retained earning account should balance to. You can also define new income statement account types here.

Creating Depreciation Areas

You should determine the types of valuation for which you need different depreciation areas before you implement Asset Accounting. Then adopt these areas from the SAP reference chart of depreciation, or copy existing depreciation areas and redefine them. You can delete any depreciation areas of the standard chart of depreciation that are **not** needed.

However, it is still possible to open new depreciation areas when the system is live.

Derived Depreciation Areas

Definition

A derived depreciation area is an area for which the values are calculated from two or more real areas using a calculation formula.

It is thereby possible to value fixed assets using mathematical relationships (such as subtraction) that are based on asset values that have already been determined. The system then manages these new values in the derived depreciation area.

Derived areas function the same as real areas in regard to reports and value field display.

Structure

You define the calculation formula for a derived depreciation area in Customizing for **Asset Accounting** under **Valuation Depreciation Areas Define Depreciation Areas**). In the formula for a derived area, you can use up to four real areas. The arithmetic operations allowed are addition and subtraction. It is possible to mix the calculation rules. This includes using proportional values from real areas in the calculation.

When defining the formula, it is up to you to make sure it is reasonable.

You can specify that the derived depreciation area is only for reporting. The system then does **not** subject the area to value checks (such as the check for positive/negative net book value).

⚠ Caution

- When defining a derived depreciation area, keep in mind that the net book values rules in the derived depreciation area can affect the depreciation in the real areas from which it is derived (see Characteristics of a Depreciation Area). By entering a modification area, you can specify which of the real areas this should be.
- In the calculation formula for derived depreciation areas that are for group assets, you can only use depreciation areas that are also intended for group assets

Example

An example of a derived depreciation area is the area for special items with reserves in Germany. (Of course this regulation has been revoked in Germany. However, there are transitional regulations that allow the continued use of the book depreciation regulation for those special reserves that already existed at the time the regulation was revoked.)

These special reserves (depreciation area 03) are the difference between book depreciation and tax depreciation. The book depreciation area (area 01) is therefore subtracted from the area for special tax depreciation (area 02). The following table shows the Customizing settings needed for these depreciation areas:

	–	**Area 01**	+	**Area 02**	=	**Area 03**
		Allowed Book Depreciation		Allowed Tax Depreciation		Special Reserves
Derived Area		—		—		X
APC		X	→	X		X
Ordinary Depreciation		X		X		X
Special Depreciation		—		X		X
Automatic Posting		X		—		X
Book Value		≥ 0		≥ 0		≥ 0

Features of a Depreciation Area

The depreciation areas in a chart of depreciation have **no** automatically defined features. You determine the features of each area individually, based on the basic structure, which is the same for all depreciation areas. For each depreciation area, you can specify different characteristics:

- At the level of the chart of depreciation
- At the level of the company code
- For the legacy data transfer

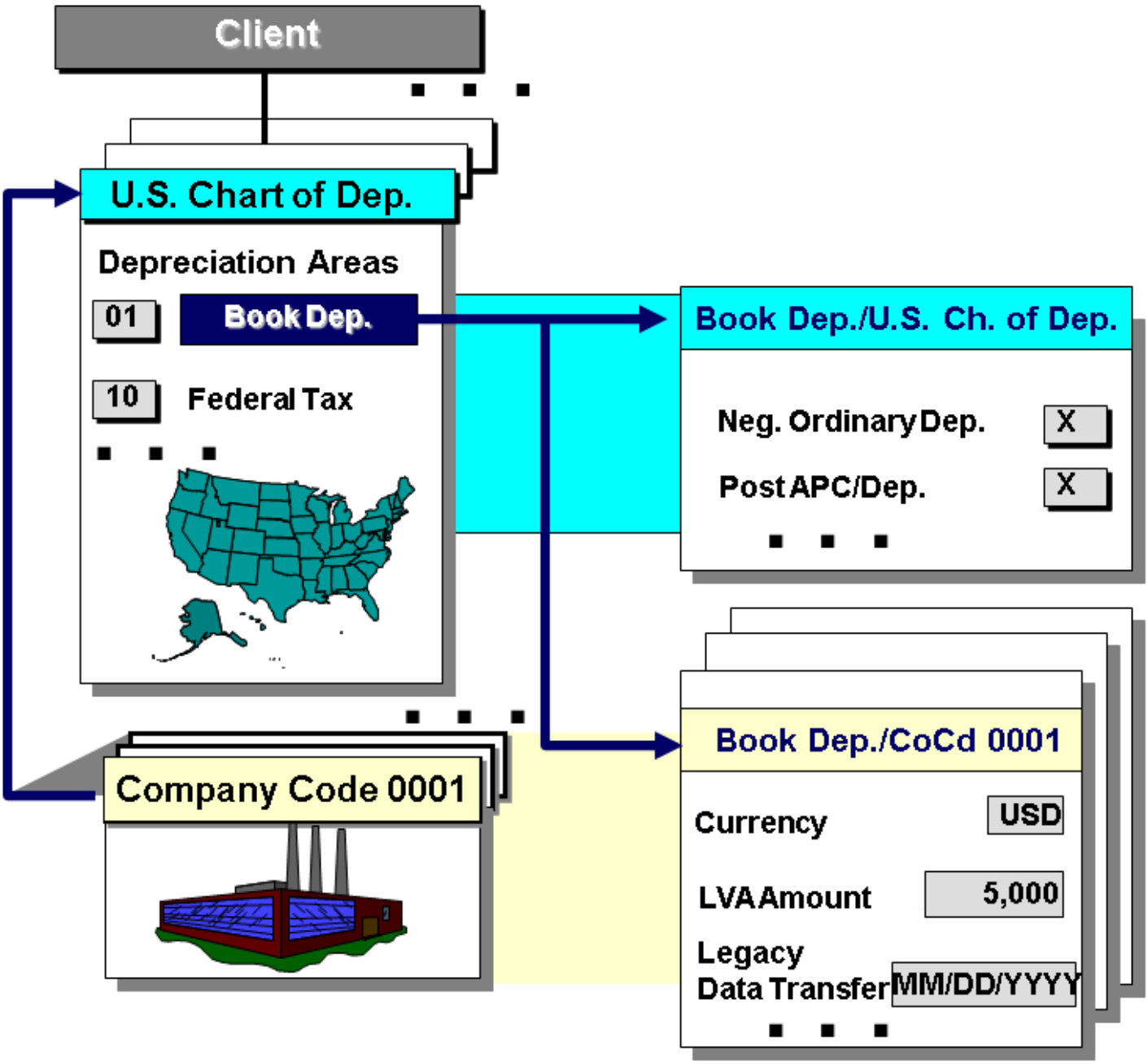


Figure 22: Figure: Features of a Depreciation Area

The above figure illustrates the different options, at the level of both the chart of depreciation and the company code, for defining a depreciation area. For example, the depreciation area for book depreciation in the U.S. chart of depreciation can be managed in different currencies in different company codes, while the APC and depreciation of the book depreciation area are posted to the general ledger in all company codes.

ⅈ Note

You **cannot** define any features that apply across all charts of depreciation. Therefore, it is **not** possible for the system to guarantee that certain depreciation areas (such as depreciation area 01 for book depreciation) are defined uniformly in all charts of depreciation that you are using.

Features at Chart of Depreciation Level

Use

You can specify the characteristics listed below for a depreciation area at the level of the chart of depreciation (in Customizing for **Asset Accounting (New)** under **Valuation Depreciation Areas**).

Features

Posting APC and Depreciation to the General Ledger

You can automatically post asset balance sheet values (APC/ proportional value adjustments) and depreciation from each depreciation area to the corresponding general ledger accounts. You can choose if the values are posted to the general ledger immediately or are posted periodically.

An accounting principle (and thereby indirectly a ledger group) are assigned to each depreciation area, even to the non-posting depreciation areas. A type of valuation is therefore represented by a set of depreciation areas to which the same accounting principle is assigned.

The values are updated with the full amount based on the accounting principle. For each accounting principle, this results in a complete and independent view of the asset values with the respective valuation.

For more information, see Automatic Posting from Depreciation Areas to General Ledger Accounting.

Posting Area

Ledger Approach

For each type of valuation, there is a leading depreciation area, for which the following applies:

- This area manages acquisition and production costs (APC) and its values are posted to the general ledger in real time.
- During the transfer of legacy asset data, you must always enter values in this area first.
- It is **not** possible for the area to adopt APC values and depreciation terms.
- The currency of this depreciation area must always be the same as the given company code currency.
- You **cannot** delete the leading depreciation area.

Accounts Approach

There is only one leading type of valuation in the chart of depreciation. (Usually it is the type of valuation that updates values to Controlling.)

For each type of valuation, there is a leading depreciation area that manages acquisition and production costs (APC) and for which the following applies:

- Posting to the general ledger is controlled by the posting indicator:
  - For the leading valuation, you choose the option **Area Posts in Realtime**.
  - You choose **Area Posts APC Immediately, Depreciation Periodically** for a parallel valuation.

  Regardless of which of the two options you choose (real time or immediately), the APC is updated to the general ledger at the time a posting is made.

- During the transfer of legacy asset data, you must always enter values in this area first.
- It is **not** possible for the area to adopt APC values and depreciation terms.
- The currency of this depreciation area must always be the same as the given company code currency.
- You **cannot** delete the leading depreciation area.

For investment support, you create separate depreciation areas within the valuation.

For posting depreciation areas for investment support, you always have to choose the option **Area Posts in Realtime**.

In addition, you can specify that only depreciation (and **not** APC) is posted. This is useful, for example, for depreciation areas for cost accounting depreciation.

Managing Certain Values

In the definition of a depreciation area, you can specify if the area should manage acquisition and production costs (APC). Areas that **do not** manage APC are, for example, depreciation areas only for value adjustments shown on the liabilities side (for example, investment support).

In addition, you can specify in each depreciation area whether the net book value of assets in the area is allowed to be positive and/or negative. The system rejects any posting that leads to a net book value that contradicts the rule you entered and issues an error message.

Allow negative net book values in the following depreciation areas:

- In depreciation areas that have depreciation below zero
- In depreciation areas for managing value adjustments on the liabilities side
- In depreciation areas that are derived depreciation areas, and can have negative values because of their calculation formula

Derived Depreciation Areas

For derived depreciation areas, you can enter a formula with calculation rules. For more information, see Derived Depreciation Areas.

⚠ Caution

Although you do **not** allow negative net book values in a derived depreciation area, negative values may occur due to the calculation formula. In this case the depreciation is reduced in the real areas (on which the derived area is based) until the net book value in the derived area is at least zero. For this reason it is recommended that you allow for both positive and negative net book value in derived depreciation areas.

Transfer Rules

Both for APC and depreciation terms, you can specify that they can be copied from one depreciation area to another. You can even define such a transfer rule so that the APC values or depreciation terms are required to be identical in the area that copies them and are **not** allowed to be changed. In this way, you ensure that two areas are always supplied with the same values when posting, or that two areas are uniformly depreciated.

A depreciation area can only adopt APC values or depreciation terms from a depreciation area to which the same accounting principle is assigned. It is **not** possible to define transfer rules that go beyond the boundaries of an accounting principle.

You cannot define **any** transfer rules for depreciation areas that post in real time or immediately.

Different Types of Depreciation/Special Values

The most important characteristic of a depreciation area is the types of values it manages. For each depreciation area, you can specify if it manages the following value types:

- Ordinary depreciation
- Special tax depreciation
- Unplanned depreciation
- Transfer of reserves
- Investment support
- Interest

You make this setting in Customizing for **Asset Accounting (New)** under **Depreciation** and under **Special Valuations**.

Be aware that these settings only **allow** the management of certain value types. Whether or not the system actually calculates these value types depends on additional parameters (such as, depreciation keys) or postings.

Replacement Values/Revaluation

You have to make the following specifications in depreciation areas that manage replacement values or revaluation:

- Revaluation of APC (replacement values)
- Revaluation of accumulated depreciation (backlog invoice)

For more information, see Special Valuation.

Corporate Group Depreciation Areas

You can mark certain depreciation areas for valuation related to group consolidation (**Preparations for Consolidation**). This has the following results:

- The system represents retirements to and acquisitions from an affiliated company as transfers in the respective group concern asset history sheet.
- These transfers are posted gross (that is, with historical acquisition and depreciation values).

For more information, see Requirements for Consolidation.

Company-Code-Related Features

Use

For each depreciation area, you can specify characteristics **not** only at the level of the chart of depreciation, but also at the level of the company code.

You make the necessary settings in Customizing for **Asset Accounting** under **Valuation**.

Features

Amount Specifications

The following are amount specifications:

- Memo value
- Maximum amount for low value assets (LVAs)
- Changeover value for declining balance depreciation
- Rules for rounding off APC and net book value

  When you carry out a partial retirement, the system automatically triggers depreciation recalculation. This procedure ensures that the remaining net book value is always rounded correctly (even if the proportional value adjustments of the retired APC amount would lead to a book value that is **not** rounded).

Foreign Currencies

For the ledger approach, the following applies in regard to foreign currencies:

The currency of the posting depreciation area must always be the same as the given company code currency.

You make settings for the parallel local currencies and for any additional foreign currencies in Customizing for **Asset Accounting** under **Valuation Currencies** .

For more information, see Parallel Currencies in New General Ledger Accounting and Asset Accounting and Requirements for Consolidation of a Corporate Group.

Fiscal Year Variant

Asset Accounting uses the same fiscal year variant as the general ledger. If there are special circumstances, however, you can use a different fiscal year variant in each company code/depreciation area. You make the settings for this in Customizing for **Asset Accounting** under **Valuation Fiscal Year Specifications**).

For more information, see Fiscal Years and Periods and Different Fiscal Year for FI-AA.

Distribution of Depreciation over the Fiscal Year

In general, depreciation is distributed evenly over the individual periods in the fiscal year. That is, the depreciation amount is the same in every period. Using a company-code-dependent and/or area-dependent Customizing control, however, you can use weighting to adjust the distribution of depreciation (for example, using a 4-4-5 rule). You make the necessary settings in Customizing for **Asset Accounting** under **Valuation Fiscal Year Specifications** .

Specifications for net worth tax

At the company code level, you determine whether a depreciation area should be included in net worth valuation.

For more information, see Net Worth Tax.

Standard Depreciation Areas: Germany

Definition

SAP delivers country-specific charts of depreciation, which contain the most commonly used depreciation areas. You can adopt these areas in your active chart of depreciation and you can expand your chart of depreciation by adding your own user-specific depreciation areas.

Structure

The following depreciation areas are supplied in the standard chart of depreciation for Germany:

ℹ Note

Due to a change in German laws, the practice of reflecting valuation for the tax balance sheet also in the commercial balance sheet has been eliminated. With this legal change, it is no longer allowed to represent special tax depreciation using special items with reserve in the commercial balance sheet. This takes effect for fiscal years that begin after 2010. However, during a transition phase, it is possible to choose how to handle old reserves for special depreciation: For reserves for special depreciation that were already created before the new law took effect, you are allowed to keep the reserves and allocate them based on the prior law.

For the standard chart of depreciation for Germany, this means: If you make use of the option for managing old special reserves according to the old law, you need depreciation areas that are defined like depreciation areas 02 an 03; otherwise, these two depreciation areas are **no longer** relevant.

Book Depreciation (01)

This is the depreciation area for book depreciation that posts online to the general ledger.

If special tax depreciation is to be managed as special reserves, you are allowed to use the book depreciation area only for depreciation allowed by commercial law (that is, without special depreciation).

Special Tax Depreciation for Acquisition and Production Costs in the Individual Balance Sheet (02)

Special tax depreciation is managed in this area. You need this area to be able to determine special reserves or the amount of the difference (between this area and the book depreciation area) using depreciation area 03. In order for this difference to be determined exactly in the derived depreciation area, the acquisition and production costs in this area must be identical to those in the book depreciation area. In addition, this area is defined so that it adopts posted values directly from area 01 (book depreciation). If different APC is also managed for a balance sheet for tax purposes, then depreciation area 15 should be used for it.

ℹ Note

If you choose to represent special tax depreciation as special reserves on the liabilities side of the balance sheet, you are **not** allowed to post depreciation from this depreciation area to Financial Accounting in addition to book depreciation. Use depreciation area 03 for the allocation and/or write-off of special reserves.

Special Reserves due to Special Tax Depreciation (03)

Special reserves can result, for example, from one of the following circumstances:

- Special tax depreciation (such as, transfer of reserves)
- Differing depreciation methods (book depreciation/tax depreciation)
- Differing useful life (book depreciation/tax depreciation)

Depreciation area 03 is used for representing special reserves or amounts of differences. This area is derived from depreciation area 01 and depreciation area 02. The system does **not** store values in the derived depreciation area permanently. Instead it determines these values each time as the difference between the values in the depreciation areas for special tax depreciation (02) and for book depreciation (01). The allocation and/or write-off of special reserves from this area are posted during the periodic posting run to the appropriate liability accounts in Financial Accounting. The write-off of special reserves due to asset retirements can be posted using a special report (Periodic Processing APC Values Posting).

This area is set up so that the book value must always be negative or zero. This means that the net book value in the area for special tax depreciation (02) must always be less than or equal to the net book value in the book depreciation area. Therefore, you should **not** enter depreciation terms in the area for special tax depreciation that lead to a higher net book value than in the book depreciation area. If, however, the net book value is higher than in the book depreciation area, the depreciation calculation program automatically reduces the depreciation in the book depreciation area as far as is necessary and possible.

ⓘ Note

You have to be able to post directly to the asset control accounts for reserves from special tax depreciation (they **cannot** be reconciliation accounts). The asset control accounts for investment support on the liabilities side, on the other hand, have to be defined as reconciliation accounts).

Valuation of Net Assets (10)

In this depreciation area, you specify valuation rules for net worth tax. The area is needed if **no** other area covers the property valuation rules.

Balance Sheet for Tax Purposes (15)

This area is used for the management of values for an alternative balance sheet for tax purposes. It can be managed independently from the commercial balance sheet. It is **not** necessary to manage the balance sheet for tax purposes separately if the only variance from the commercial balance sheet is the inclusion of special tax depreciation, since the balance sheet for tax purposes can be determined through the area Special Tax Depreciation for Acquisition and Production Costs in the Individual Balance Sheet (02).

Cost-Accounting Depreciation (20)

The asset values for cost accounting purposes are managed in this area. The area supplied by SAP depreciates the replacement values and simultaneously appreciates accumulated past depreciation. Depreciation is carried out below net book value zero and cost-accounting interest is calculated.

Consolidated Balance Sheet in Local Currency (30)

If a company is part of a corporate group with subsidiaries that use different rules for the valuation of fixed assets, or if gross transfers are carried between affiliated companies, a separate area is needed for consolidated valuation purposes. Both APC and depreciation terms in this area can be different from the balance sheet depreciation area.

Consolidated Balance Sheet in Group Currency (31)

This depreciation area is needed if a company belongs to a corporate group that reports in another currency. It is managed in the group currency. To clearly separate differences resulting from different valuation methods from differences due to currency conversion, the area "consolidated balance sheet in local currency" is also necessary in addition to this area. The depreciation terms and posting values of the two group areas must be identical for this purpose.

For more information, see Requirements for Consolidation.

Balance Sheet (HB1) in Foreign Currency (32)

This area is also needed during consolidation, in order to correctly determine the intercompany profit and loss from asset transfers.

Area for Investment Support Managed on the Assets Side (41)

This area handles investment support measures managed on the assets side of the balance sheet. Investment support of this kind is posted to the book depreciation area, where it reduces the acquisition and production costs. If you are managing only one

investment support of this type for your assets, you do **not** need a separate depreciation area, since the required posting can be handled in the book depreciation area. If you wish to manage more than one investment support for a particular asset, then each subsequent investment support measure must be handled in a separate area of this kind, and be posted from there to Financial Accounting.

Area for Investment Support Shown on the Liabilities Side (51)

This area handles investment support on the liabilities side. The measures are posted as an adjustment item for the acquisition and production costs on the liabilities side. The acquisition and production costs are **not** reduced in the book depreciation area. **No** posting is made in the book depreciation area. The investment support handled on the liabilities side can be cleared through depreciation, similar to the reduction of APC through depreciation in the book depreciation area. You post the depreciation and transactions from this area to Financial Accounting during the periodic posting run.

Representation of Asset Values

Use

In the FI-AA component, acquisition costs are shown separately from depreciation values. Separate accounts are used for acquisition values and value adjustments in FI-AA. This means that depreciation is **not** deducted directly from the acquisition cost. Over the entire life of the asset, the system updates the acquisition and production costs separately from the accumulated depreciation. Only changes to balance sheet values of the asset result in the updating of the acquisition cost. For partial retirements from an asset, the system automatically determines depreciation (value adjustments) up to the point of retirement, and this amount is retired along with the partial asset.

Features

The Composition of Values

Different types of depreciation and special valuations of assets (for example, interest) result in an asset having various value components. In part, the system calculates these value components automatically, and in part you must enter them yourself.

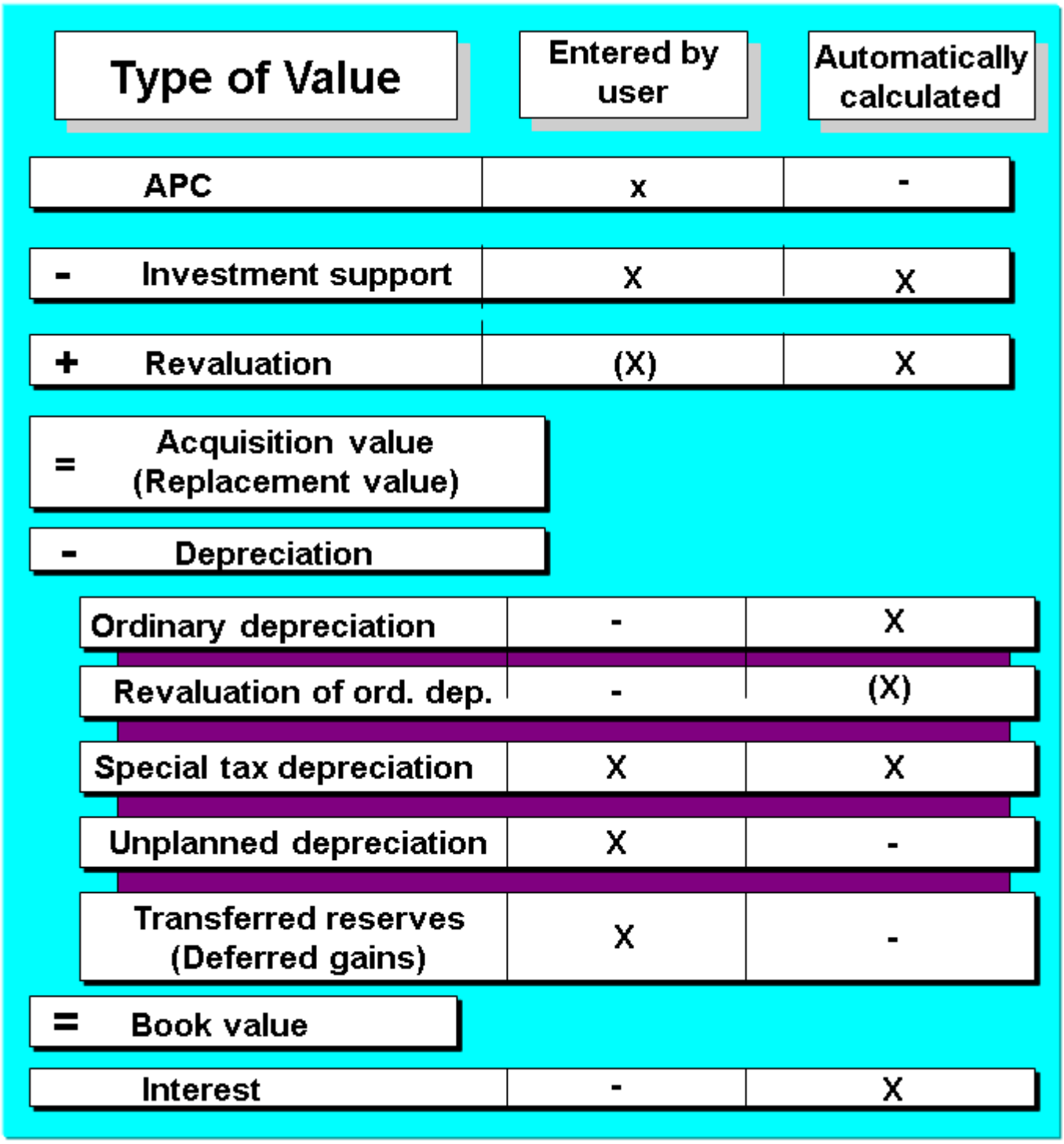


Figure 23: Figure: Composition of Asset Values

Net Book Value

The system determines the net book value at the end of a year in the following manner:

Net book value at the start of the fiscal year

Transactions affecting APC (for retirements and transfers corrected with proportional value adjustments)

+ write-ups for the year

- planned depreciation for the year

Transactions affecting APC are:

- Transactions affecting asset values (acquisition, retirement, etc.)
- Investment support measures
- Transferred Reserves
- Revaluation

Subsequent Deletion of a Depreciation Area

Use

You can delete **unneeded** depreciation areas subsequently.

Prerequisites

The area you want to delete must meet the following requirements:

- You are **not** allowed to delete the depreciation area that posts in real time (online) to the leading ledger group.
- It can **not** be a reference area for another area. That is, no values and/or parameters can be transferred from the depreciation area to be deleted to another depreciation area.
- The area **cannot** be used in the calculation formula for a derived depreciation area. If it is and you still want to delete the area, you have to change the calculation formula of the derived depreciation area.
- The area **cannot** be defined for automatic posting of APC values to the general ledger.

If the depreciation area is used for investment support, then you first have to delete all investment support keys that reference this depreciation area.

Features

If you delete the depreciation area, then the system deletes the depreciation area marked for deletion from the following places:

- the chart of depreciation
- the depreciation data of all affected assets and asset classes

Activities

To delete a chart of depreciation, use the following Customizing activity: **Asset Accounting General Valuation Define Depreciation Areas** .

Examples for Configuring Depreciation Areas

Use

Using the functions of depreciation areas, you are able to meet many very different needs for the calculation of asset values.

The following sections describe some of these requirements for asset valuation, and how the system is able to meet them.

Special Depreciation Shown on the Liabilities/Assets Side

ⅈ Note

Due to a change in German laws, the practice of reflecting valuation for the tax balance sheet also in the commercial balance sheet has been eliminated. With this legal change, it is no longer allowed to represent special tax depreciation using special items with reserve in the commercial balance sheet. This takes effect for fiscal years that begin after 2010. However, during a transition phase, it is possible to choose how to handle old reserves for special depreciation: For reserves for special depreciation that were already created before the new law took effect, you are allowed to keep the reserves and allocate them based on the prior law.

For the standard chart of depreciation for Germany, this means: If you make use of the option for managing old special reserves according to the old law, you need depreciation areas that are defined like depreciation areas 02 an 03; otherwise, these two depreciation areas are **no longer** relevant.

Display on the Liabilities Side of the Balance Sheet

For more information, see Special Reserves.

Display on the Assets Side of the Balance Sheet

You could have special depreciation, but choose **not** to manage the valuation difference between ordinary depreciation and depreciation allowed by tax depreciation laws separately as special reserves. Instead, you choose to deduct the full depreciation from the APC. In that case, you show the special depreciation on the assets side of the balance sheet.

Example

Based on the standard depreciation areas for Germany, you proceed as follows: First you set up depreciation area 01 to be the same as depreciation area 02. Then, delete areas 02 and 03 from your chart of depreciation. Area 01 is then the only area that posts to the balance sheet accounts, value adjustment and expense accounts in Financial Accounting. As a result, depreciation area 01 manages both ordinary depreciation and special depreciation.

Showing Investment Support on the Assets/Liabilities Side of the Balance Sheet

Display on the Liabilities Side of the Balance Sheet

Representing investment support measures in the balance sheet is analogous to the representation of special reserves for tax depreciation.

Example

As regards the standard depreciation areas for Germany, the following applies: For showing the values on the liabilities side, you need depreciation area 51.

You have to specify the liabilities accounts to be posted for each investment support measure.

Display on the Assets Side of the Balance Sheet

If you treat the support measure as a reduction of the APC on the assets side of the balance sheet, you do **not** necessarily need a separate depreciation area. You can deduct the investment support measure from the acquisition and production costs in any depreciation area. However, if you manage more than one investment support measure for a given asset, and you want to display the values separately, use a separate depreciation area for each additional support measure.

Example

As regards the standard depreciation areas for Germany, the following applies: Depreciation area 41 is defined explicitly for the management of support measures handled as reduction of APC.

Additional Information

For more information see, Investment Support and Revaluation

Valuation for Net Worth Tax

As long as the valuation for net worth tax is based on the usual valuation of assets for tax purposes, and you have a depreciation area for tax valuation, you do **not** need a separate depreciation area for net worth tax.

For more information, see Net Worth Tax.

Representing Transferred Reserves (Deferred Gain)

You can represent the transfer of reserves to assets in three different ways in Asset Accounting:

- Shown as a reduction on the assets side of the balance sheet
- Shown as special reserves (**not** separate from other special reserves based on tax depreciation)
- Shown in a derived depreciation area you define specially

For more information about these variants, see Transferred Reserves.

Fiscal Years and Periods

Use

You make specifications for fiscal years and posting periods in the SAP system in Customizing for Financial Accounting. This is done in the fiscal year variant in the global parameters of the company code. If you use parallel accounting, you can also specify fiscal years and posting periods within the ledger approach at the level of the ledger.

In Asset Accounting, you can enter different fiscal year variants, with identical fiscal year start and end dates, at depreciation area level, even for posting depreciation areas. If you also enter the fiscal year variant of the assigned ledger group for each depreciation area, you can thereby post and display APC and depreciation values to the exact period for each accounting principle using the given fiscal year variant.

You define the relationship between calendar dates and FI posting periods in the fiscal year variant. For this reason, you can enter all dates (for example, the asset value date of the posting) as calendar dates, even when you are using a non-calendar fiscal year. Using the fiscal year variant, the system determines which posting period is involved.

Features

These settings at company code level are, in general, also binding for Asset Accounting. The depreciation periods in Asset Accounting then correspond to the posting periods in Financial Accounting. It is usually **not** necessary to create a separate fiscal year variant for Asset Accounting.

If a different fiscal year variant with general ledger integration is necessary at company code level or ledger level, you can set this up in Customizing for **Asset Accounting** under **Valuation Fiscal Year Variants** .

Period Control

The period control in the depreciation key determines the start and end of depreciation when asset transactions are posted (see Period Control Method). The period control determines the relationship between the calendar period in which the asset transaction is posted and the depreciation period that is to be calculated.

These calendar periods are independent of the posting periods in Financial Accounting. The only restriction is that the beginning of the first calendar period and the end of the last calendar period defined in a period control have to match the start date and final date of the fiscal year in Financial Accounting.

Example

The figure below shows how the system determines the period for the start and end of depreciation using period control in the depreciation key (period control method) and the fiscal year variant in Financial Accounting.

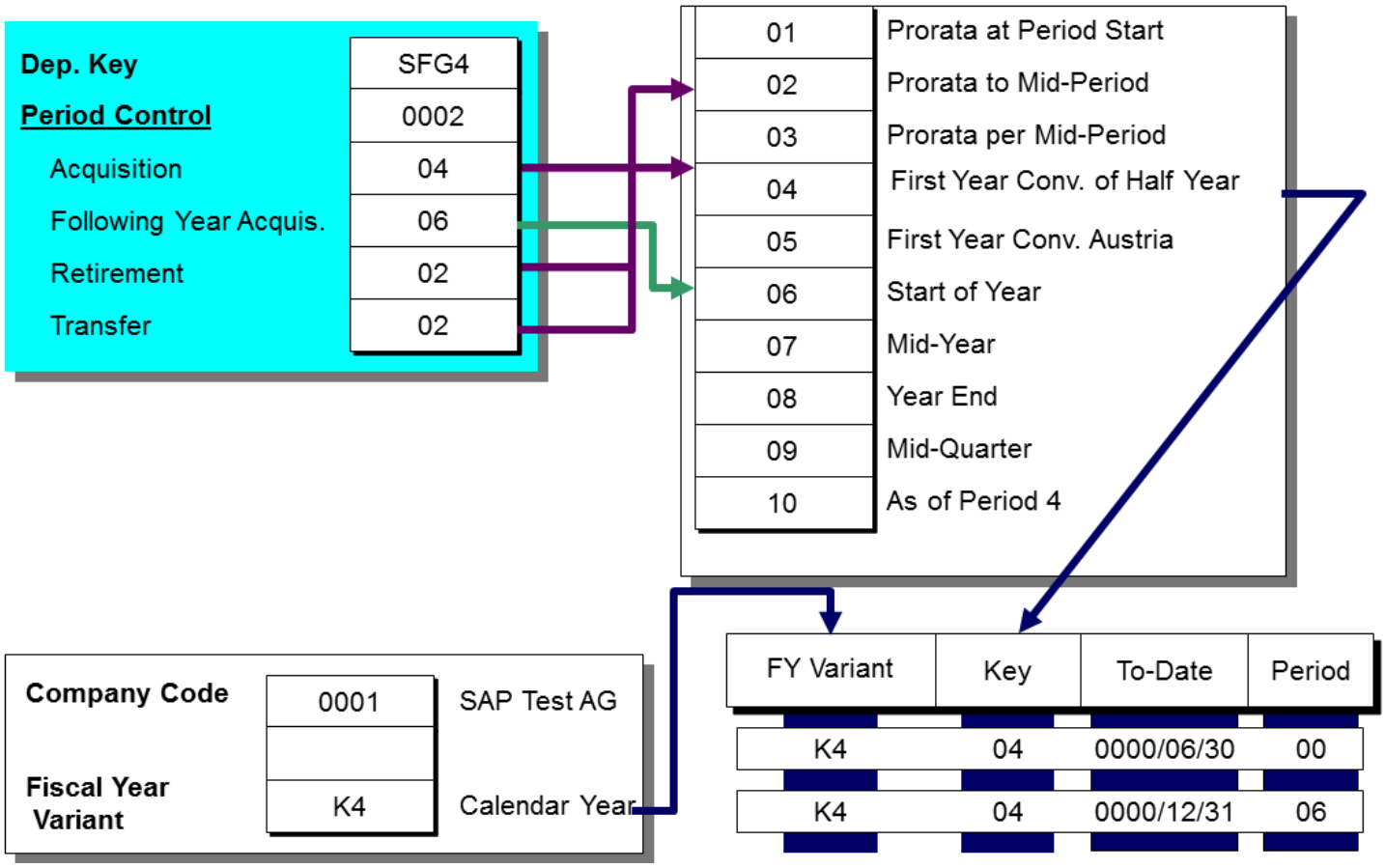


Figure 24: Period Control

Period control 4 (first year convention of a half year) applies to the acquisitions transaction type in this example. The period control is defined so that depreciation is calculated starting with period 00 (January 1) for acquisitions up to June 30. For acquisitions that take place between July 1 and December 31, the system calculates depreciation starting with period 06 (July 1). Fiscal year variant K4 corresponds to the calendar year.

⚠ Caution

The system interprets period 00 as the start of the year, **not** period 01.

Non-Calendar Fiscal Years

Use

If you choose to work with a non-calendar fiscal year, you need a General Ledger fiscal year variant with posting periods defined for it (FI-Customizing: **Financial Accounting Global Settings**). Assign this fiscal year version to the global company code parameters.

Features

Using a non-calendar fiscal year does not require special system settings in Asset Accounting. You make all date entries (such as the posting date) as normal calendar dates.

⚠ Caution

Once assets have been posted, you can no longer change the fiscal year variant of a company code in the current fiscal year, unless there was no posting in any changed period.

Calendar Assignments in Period Control

When you assign the company code to a chart of depreciation, the system automatically (one time only) makes the calendar assignments for a non-calendar fiscal year for the standard period control in Asset Accounting (for example, first-year convention of a half year). In order for this to occur, you need to have defined the fiscal year variant with 12 (or, in the case of half-periods, with 24) periods. Special periods are not restricted, that is, your fiscal year variant can have as many special periods as you want.

If the fiscal year variant is defined as year-dependent, you have to generate a new calendar assignment for depreciation period control each year (application menu: **Periodic Processing Settings).**

Definition of Posting Periods (FI Customizing)

The fiscal year variant contains the correlation between the calendar date and the posting periods. You assign a specific calendar time period to the various posting periods. You make this assignment by entering the last calendar date of each period. For a non-calendar fiscal year, you also have to enter a factor to indicate those periods that do not lie in the current calendar year (+1).

Example

Assignment Rules/Non-Calendar Fiscal Year

Non-Calendar Fiscal Month

If you also work with non-calendar fiscal months, the last posting period in the calendar year requires special handling. For this period, you have to make an additional entry for December 31. This means that this period requires two calendar assignments:

- A normal assignment for the period through to December 31
- An assignment with a shift for the period after January 1

Assignment Rules/Non-Calendar Fiscal Year

The following table shows the assignment rules for a non-calendar fiscal year (12 posting periods, fiscal year end June 30):

From	To	Period	Year change factor
01/01	**01/31**	**07**	**0**
	02/28	**08**	**0**

	03/31	09	0
	04/30	10	0
	05/31	11	0
	06/30	12	0
	07/31	01	+1
	08/31	02	+1
	09/30	03	+1
	10/30	04	+1
	11/30	05	+1
	12/31	06	+1

Shortened Fiscal Years

Use

A shortened fiscal year results when you change from a normal fiscal year to a non-calendar fiscal year, or the other way around. This type of change might be necessary, for instance, if an enterprise becomes part of a new corporate group.

Features

The **Financial Accounting** (FI) component in the SAP System fully supports the use of shortened fiscal years. However, there are still some points to consider from the perspective of Asset Accounting when you use a shortened fiscal year.

Timing of the Changeover

You change the current fiscal year to a shortened fiscal year by changing the fiscal year version in the FI General Ledger. You can only make this change if there has not been **any** posting yet in a period that will disappear when the shortened fiscal year becomes effective. Reversing any such postings does not make the change possible.

If you have already posted depreciation during the current fiscal year, you need to run the depreciation recalculation program (**Tools Recalculate values**) after the change to the shortened fiscal year.

Posting Periods

In order for the calculation of depreciation to be correct in the shortened fiscal year, the shortened year must begin with period 1 and be defined with fewer posting periods. Therefore, when you change the fiscal year cycle, you must define the fiscal year version in the given company code as year-dependent. You can specially identify the shortened fiscal year and define fewer posting periods for it, only if the fiscal year version is year-dependent (FI Customizing: **Financial Accounting global settings** .)

As long as you are still posting in or before the shortened fiscal year, or if you are transferring legacy data from this time period, then you must also retain the year-dependent fiscal year version, even after the shortened fiscal year. Define the fiscal year version with the full number of posting periods and the corresponding shift in the posting periods (see Non-Calendar Fiscal Years). You can redefine the fiscal year as not year-dependent only when the shortened fiscal year is closed for accounting, and no more correction postings are expected.

Example

Calendar Assignments for Shortened Fiscal Year

Historical Fiscal Years

If the fiscal year version was not defined as year-dependent up to the point when the fiscal year cycle was changed, you have to change the definition of the fiscal year version in FI Customizing. Define the fiscal year version as year-dependent, and specify the posting periods for each calendar year. In order to ensure that the calculation of depreciation remains correct after this change is made, you must also maintain the historical calendar dates with the correct posting periods for the calendar years of all open fiscal years (or, at least two calendar years before the shortened fiscal year).

Future Fiscal Years

It is also necessary to define at least the calendar year following the shortened fiscal year . In order to predict depreciation, maintain the future years involved.

⚠ Caution

For a version with a non-calendar fiscal year, the calendar/period assignments of the last maintained calendar year define only a part of the last fiscal year. Therefore, the system no longer predicts correct values for this fiscal year.

Period Control

The system automatically generates the correct calendar assignments for standard period control for Asset Accounting in a shortened fiscal year (see Period Control). However, since all possible period/calendar combinations cannot be one hundred percent predicted and resolved, you should check the assignments and correct them if necessary (FI-AA Customizing: **Period Control**).

You can also manually initiate the generation of calendar assignments for a fiscal year (SAP Easy Access menu: **Environment Current Settings**).

Reducing Depreciation

In a shortened fiscal year, you generally reduce depreciation in proportion to the amount that the fiscal year is shortened. Therefore, you can define whether the system should reduce planned depreciation, or if the full year's depreciation should be calculated. You make this specification in Customizing for **Asset Accounting** . You specify for each company code/depreciation area and depreciation type (ordinary depreciation, special depreciation, and so on), whether depreciation should be reduced or not (**Valuation Fiscal Year**).

Specialized Depreciation Key

In certain circumstances, the law stipulates depreciation cannot be reduced for certain depreciation methods (for example, a set percentage rate per year). Therefore, you can set an indicator in the Customizing definition of the depreciation key. When this indicator is set, depreciation cannot be reduced for this depreciation key, even though the definition at company code level specifies that depreciation should be reduced.

Depreciation Levels in Shortened Fiscal Year

Various depreciation keys (for example, for buildings) use special calculation methods. These methods have depreciation levels with time limitations, and specific depreciation percentage rates are set for each depreciation level (see Multi-Level Depreciation). These time limitations are set by entering the term of validity for the depreciation level in years and months (either in calendar years/months or fiscal years/months). A shortened fiscal year has the following affect on the definition of these depreciation levels:

- If you reduce the level depreciation in the shortened fiscal year, the standard depreciation keys supplied by SAP will continue to depreciate correctly, since the useful life (measured in fiscal years) is lengthened in proportion to the

reduction. You do not have to make any adjustments. The total period of validity as defined in the calculation method continues to correspond to the useful life in calendar years, and the depreciation in the shortened fiscal year is reduced proportionally to the shortening of the fiscal year.

- If you allow for a full year's depreciation in the shortened fiscal year, then the useful life as measured in calendar years will be shortened. For multi-level depreciation, this means that the full percentage rate defined for the depreciation level will be used. If the shortened fiscal year falls in the validity period of a depreciation level that has a different percentage rate than the one following it, this has the following result:

  Since a validity period defined as a calendar year is longer than the shortened fiscal year, the system continues to depreciate beyond the end of the shortened fiscal year, using the defined percentage rate, although the full percentage was already depreciated in the shortened fiscal year. For this reason, using the standard key in this instance will not ensure that depreciation is correctly calculated. In this case, create your own depreciation key and correct the validity periods for the depreciation levels. Reduce the length of the validity period of the depreciation level in which the shortened fiscal year falls, according to the length of the shortened fiscal year. Adjust the next validity periods to reflect this change.

Example

Validity Periods and the Depreciation Key

Calendar Assignments for Shortened Fiscal Year

The following example shows how the posting periods and calendar assignments of a shortened fiscal year should be defined.

Fiscal year YYYY is a shortened fiscal year with 6 periods (1/1/YYYY - 6/30/YYYY). The non-calendar fiscal year YYYY + 1 begins on 7/1/YYYY. You must assign the periods for the calendar year YYYY as follows:

From	To	Period	Year change factor
01/01	01/31	01	0
	02/28	02	0
	03/31	03	0
	04/30	04	0
	05/31	05	0
	06/30	06	0
	07/31	01	+1
	08/31	02	+1
	09/30	03	+1
	10/30	04	+1
	11/30	05	+1
	12/31	06	+1

Validity Periods/Depreciation Keys

The following example shows the defined validity periods of a depreciation key with five levels (60, 10, 10, 10, 10%) for the individual asset acquisition years. 2014 is a shortened fiscal year with 9 months (1.1 . - 30.9.). A full year's depreciation is to be calculated in the shortened fiscal year.

Acquisition year	Year/Month of validity	Percent
2014	0/9	60
2014	1/9	70
2014	2/9	80
2014	3/9	90
2014	999	100
2013	1/0	60
2013	1/9	70
2013	2/9	80
2013	3/9	90
2013	999	100
2012	1/0	60
2012	2/0	70
2012	2/9	80
2012	3/9	90
2012	999	100
2011	1/0	60
2011	2/0	70
2011	3/0	80
2011	3/9	90
2011	999	100

You do **not** have to make changes for acquisition years prior to 2011, since the key is only valid for 5 years, and the shortened fiscal year would **no longer** have an effect.

Different Fiscal Year for FI-AA

Use

You can use a fiscal year variant in Asset Accounting that is different from the fiscal year variant used in Financial Accounting. However, it is absolutely necessary that the start and end date be the same in Financial Accounting and in the Asset Accounting subsidiary ledger. (However, refer also to Different Fiscal Year Start or End in FIAA).

You might need a different fiscal year variant in FI-AA in order for the system to correctly determine the start and end of depreciation using period control in Asset Accounting. The reason for this is that the calculation of depreciation works only with

whole periods. For example, you have an acquisition on June 30 and the system is to calculate depreciation for half a year. However, the FI general ledger is using a version with 13 normal periods. Depreciation would have to be calculated for 6.5 periods. This calendar assignment can **not** be defined in period control for Asset Accounting.

Features

If you want to use a different fiscal year variant in Asset Accounting, you have the following options:

- You can define a different fiscal year variant at the level of the company code. Specify the differing fiscal year variant in the FI-AA definition of the affected company codes (in Customizing for **Asset Accounting** under **Valuation Fiscal Year**).
- If you are using the ledger approach, you can also make this specification at a lower level, at the level of the depreciation area. Enter the fiscal year variant in the FI-AA definition of the depreciation area. This might be necessary if you use a factory calendar that does not correspond to the normal calendar for book depreciation, but **not** for the tax balance sheet.

The system determines the fiscal year variant to be used bottom-up: If a fiscal year variant is entered at the depreciation area level, the system uses this variant. If **not**, the system uses the variant entered in the FI-AA definition of the company code. If there is **no** fiscal year variant specified there either, the system uses the fiscal year variant entered for the leading ledger of General Ledger Accounting.

Note that it is only possible to define a fiscal year variant in FI Customizing in the **Financial Accounting Global Settings**

⚠ Caution

When you use a different fiscal year variant for Asset Accounting, consider the problems related to the depreciation posting period (see System Settings for Posting Depreciation).

Example

You have set the **Alternative Fiscal Year Variants** indicator for your company code (in Customizing for **Asset Accounting** under **Valuation Fiscal Year Details Fiscal Year Variants Allow Differing Variants for Depreciation Areas with G/L Integration**).

For Asset Accounting and for General Ledger Accounting, you defined the following fiscal year variants:

FI-AA **Depreciation area level**	**FI-GL**
Depreciation area `01 (initial)`	Ledger 0L: K4
Depreciation area 21: `13`	Ledger 1L: `13`

The fiscal year variant K4 contains twelve normal periods that correspond to the calendar months; the variant `13` contains 13 periods, where the first period ends on January 28. Depreciation area 01 is assigned to the leading ledger group 0L; depreciation area 21 is assigned to the parallel ledger group 1L.

You now start the depreciation posting run for period 1 of ledger group 0L. The system posts 1/12 of the planned annual depreciation from depreciation area 01 with the posting date January 31 to ledger group 0L. The Asset Explorer displays the posted and planned depreciation for depreciation area 01 evenly distributed over 12 periods. Depreciation area 01 adopts the fiscal year variant K4 from General Ledger Accounting.

Then you start the depreciation posting run for period 1 of ledger group 1L. The system posts 1/13 of the planned annual depreciation from depreciation area 21 with the posting date January 28 to ledger group 1L. The Asset Explorer displays the posted and planned depreciation for depreciation area 21 evenly distributed over 13 periods.

It is important that you entered fiscal year variant 13 for depreciation area 21. If you had **not** done this, then the system would have adopted fiscal year variant K4 from the leading ledger. In that case, the system would have posted 1/12 of the annual depreciation for January 28. In the Asset Explorer you would then see 1/12 of the planned annual depreciation in 12 of the 13 periods, and one period would have a value of zero.

Different Fiscal Year Start/Different Fiscal Year End

Use

The basic rule is that the fiscal year variant is set in the general ledger at the company code level. It is possible, however, to set up a different fiscal year variant in Asset Accounting than the one used in the general ledger. You make this setting in Customizing, either at the company code level or the chart of depreciation level. However, the start date and end date of the fiscal year variant you specify for Asset Accounting have to be the same as those for the fiscal year variant of the company code (refer to Different Fiscal Year for FI-AA).

For various reasons, you might also need to have a fiscal year variant for certain depreciation areas that is completely different from the fiscal year variant of the company code. This means that not only is the distribution of the periods within the fiscal year different from that for the company code, but also the start and end of the fiscal year are different. For example, the company code might use a fiscal year variant that goes from April to March, whereas accounting at the group level or for tax reporting requires a fiscal year variant from January to December.

Features

To assist in such cases, there is a workaround solution that makes it possible to **create reports** using a totally different fiscal year cycle. Depreciation area 01, however, is excluded from this solution. It is **not** possible to create these kind of reports for depreciation area 01.

The workaround solution is described below using an example.

Example

For this example, assume that the fiscal year variant of the company code is defined from January 1 to December 31. The reporting requirements of another depreciation area, however, should be based on a fiscal year variant from April 1 to March 31 of the next year.

- To generate a report on **asset acquisitions**, follow these steps:
    1. Run the acquisitions list RAZUGA01. Report date: 12/31/YYYY. Posting date: 04/01/YYYY to 12/31/YYYY. Export the report to Microsoft Excel.
    2. Run the acquisitions list RAZUGA01. Report date: 03/31/YYYY + 1. Export the report to MS Excel.
    3. Add the values of both reports together, using MS Excel.
- In this scenario, you have to post **asset retirements** in two steps.
    1. Post the retirement for the special depreciation area which needs the differing fiscal year. Set the asset value date of this special posting so that you also retire the portion of value adjustments that you want.
    2. Post the retirement for the other depreciation areas. You may also need a different asset value date, in order to represent the retirement from the point of view of the fiscal year variant that is valid for the company code.

To create a report on asset retirements, follow the procedure outlined above for acquisitions, but using the retirement list RAABGA01.

- To generate a report on **depreciation**, follow these steps:

  1. Run the depreciation list RAHAFA01. Report date: 12/31/YYYY. Export the report to MS Excel.
  2. Run the depreciation list RAHAFA01. Report date: 03/31/YYYY. Export the report to MS Excel.
  3. Run the depreciation list RAHAFA01. Report date: 03/31/YYYY + 1. Export the report to MS Excel.
  4. Using MS Excel functions, subtract the second report from the first, and then add the third report (I - II + III).

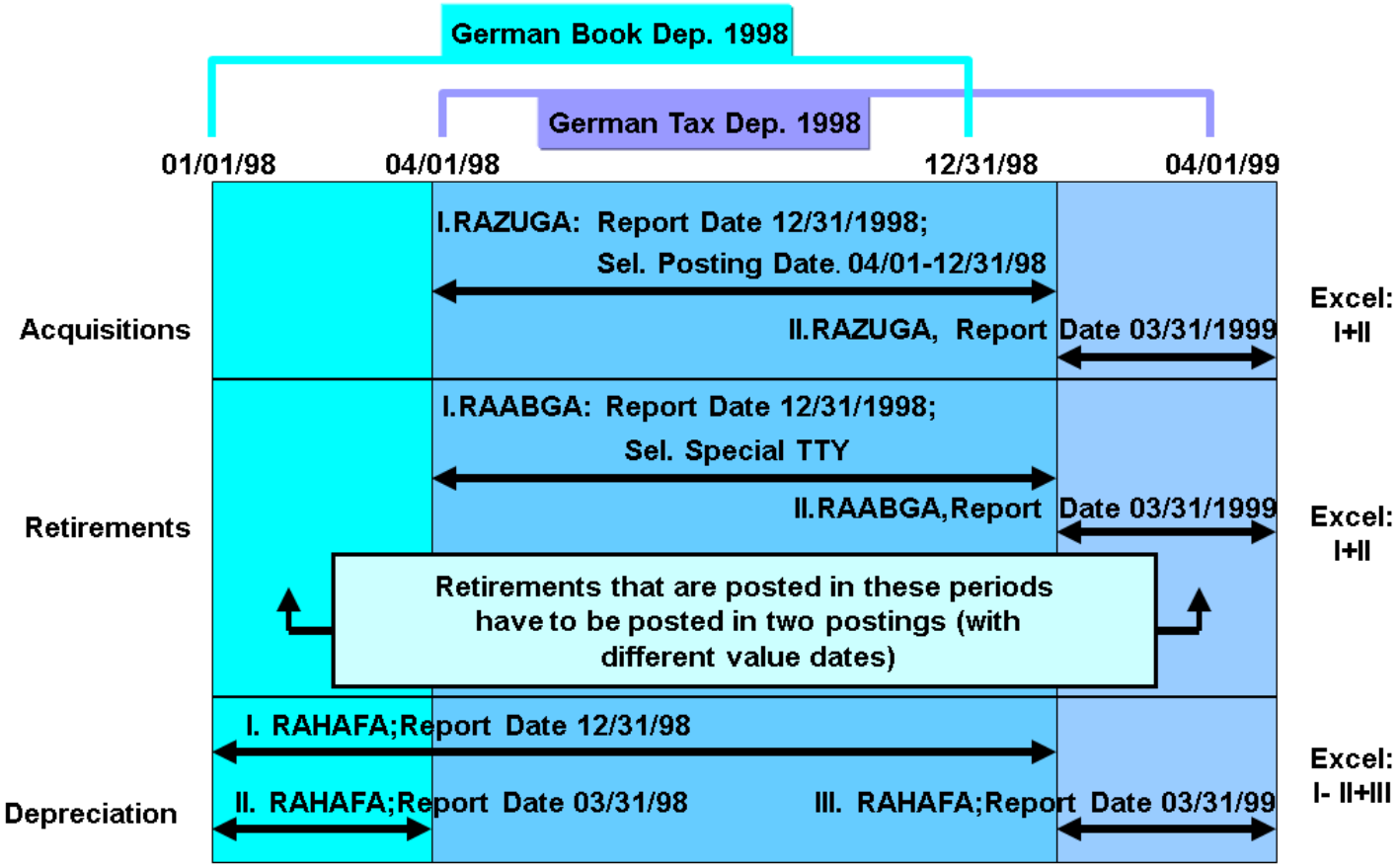


Figure 25: Figure: Procedure for Differing Fiscal Year

→ Recommendation

Before you introduce this solution, you should first discuss with your consultant whether it is necessary and how it should be implemented.

Mid-Quarter or Mid-Month Rule

Use

This version is widely used in the United States. In this version, the posting periods in Financial Accounting differ from the depreciation periods. The system handles this in a special way.

Features

As long as the number of the posting periods is the same as the number of calendar months (12), you can carry out depreciation calculation on the basis of half months and/or half periods (**See also:** Country-Specific Functions).

Proceed as follows:

- Specify the use of half periods and the mid-period date when defining the FI-AA company code.
- If you defined period controls yourself, you must provide for the use of half periods in their assignment rules. For monthly and quarterly periods, corresponding period controls are already created in the standard system.

⚠ Caution

- When you specify the use of half periods in the definition of an asset company code, half periods are automatically specified in all other company codes that use this fiscal year variant.
- It is **not** possible to use half-periods when you are using non-calendar fiscal months.

Parallel Currencies in General Ledger Accounting and Asset Accounting

Use

You can use the General Ledger Accounting function described below, if you do **not** need valuation parameters (different acquisition and production costs (APC)/alternative depreciation terms) for group consolidation that are different from your local valuation, but only need amounts in a foreign currency.

The **Financial Accounting** (FI) component enables you to manage all values of one company code, on the same accounts, in additional parallel currencies. To do this, you can define parallel currencies for each company code in Customizing for Financial Accounting.

Make the following specifications for each parallel currency:

- Currency type, according to the function of the currency (for example, group currency)
- Exchange rate type for the currency translation
- Source currency for the currency translation
- Date (for example document date) for the translation

Also the transactions for acquisition and productions costs (APC) and depreciation that are posted in Asset Accounting can be updated in multiple currencies in Financial Accounting in parallel, and in the same accounting document as the posted amount in the local currency.

Prerequisites

In Asset Accounting, you have to manage a depreciation area with the following properties for each currency:

- The currency type and currency of the depreciation area are identical to those of the corresponding parallel currency in the company code in question.
- The depreciation area has identical depreciation terms and identical acquisition values to the depreciation area that updates values to the G/L accounts.

The system then automatically updates the corresponding posting documents with the additional values from these depreciation areas. The values from the foreign currency depreciation areas are **not** allowed to be posted explicitly (according to their posting setting) to General Ledger Accounting.

Features

The system translates APC acquisitions into the parallel currency based on the exchange rate type (historical valuation). The system does **not** translate depreciation amounts at a fixed exchange rate. Instead, depreciation is calculated in the given currency, using the depreciation terms in the depreciation area. This method guarantees that the net book value zero is reached during the defined useful life in all depreciation areas with parallel currencies. The system also does **not** translate APC retirements and proportional value adjustments at a fixed exchange rate. Instead, the system calculates these values based on the proportional amount of APC being retired in the local currency area.

⚠ Caution

It is **not** possible to begin using the parallel currency functions after the company code is already live. You have to make the described Customizing settings **before** you go live with the given company code.

Parallel Currencies with the Ledger Approach

For each currency in General Ledger Accounting, as already mentioned above, you have to create parallel depreciation areas in Asset Accounting.

For the ledger approach, note that each ledger can only contain a subset of the parallel currencies of the company code.

Depending on whether a depreciation area posts in real time or periodically to General Ledger Accounting, the system translates the values historically or for a key date:

- **Historical management of values:**

  Set up an additional depreciation area for each posting depreciation area and for each accounting principle that manages this parallel currency.

  In Customizing for **Asset Accounting**, choose **Valuation Depreciation Areas Define Depreciation Areas** .

  Valuation in the parallel currency is entered on the assigned G/L accounts and in Asset Accounting, using the historical currency exchange rates of the original posting (for example, the invoice receipt).

- **Management of values related to a key date** (only relevant for the special case where APC is posted periodically for the depreciation area):

  The values of the posting depreciation area are translated into all parallel currencies of the company code for this area on the key date of the periodic document creation for this depreciation area. If General Ledger Accounting manages fewer currencies than the company code, then only the currencies managed in General Ledger Accounting are considered.

Parallel Currencies with the Accounts Approach

If you manage parallel currencies in the company code, you have the following options for managing values:

- **Historical management of values:**

  You set up an additional parallel currency depreciation area for the posting depreciation area. In Customizing for **Asset Accounting**, choose **Valuation Depreciation Areas Define Depreciation Areas** .

  Valuation in the parallel currency is entered on the assigned G/L accounts of General Ledger Accounting and in Asset Accounting, using the historical currency exchange rates of the original posting (for example, the invoice receipt).

- **Management of values related to a key date** (only relevant for the special case where APC is posted periodically for the depreciation area):

  The values of the posting depreciation area are translated into the parallel currency for this depreciation area on the key date of the periodic document creation.

Additional Information

For more information, see the application documentation of General Ledger Accounting under Parallel Currencies in Parallel Ledgers.

Integration

Use

The integration of Asset Accounting with other Financial Accounting application components provides you with the following functions in Asset Accounting:

- You can post asset acquisitions and retirements that are integrated with Accounts Payable and Accounts Receivable.
- You can make account assignment of down payments to assets when you post down payments in Financial Accounting.
- You can post depreciation from Asset Accounting to the appropriate general ledger accounts.

You can also make account assignment to fixed assets from the following application components for the business transactions listed below:

- Materials Management (MM)
- Plant Maintenance (PM)
- Investment Management (IM)

Features

Materials Management

Purchase Requisition - Outline Agreement - Purchase Order (MM)

If you post to an asset when entering a purchase requisition or an outline agreement, the system checks, with reference to the planned delivery date, whether the fixed asset actually exists and whether you can post to it. The same checks are carried out if you post to a fixed asset when entering a purchase order. Moreover, the system ensures that you do **not** exceed the upper limit for low-value assets. You can still change the asset, for which account assignment is to be performed, until receipt of the first goods or invoice for a purchase order.

ℹ Note

If you want to make account assignment to assets when creating purchase orders, purchase requisitions and outline agreements, the account entered in Financial Accounting for acquisition and production costs must be assigned to a field status group that allows entries in the field groups **Asset Number/Subnumber**, **Transaction Type**, and **Quantity/Material Number**.

Goods Receipt (MM)

Depending on the purchase order, you can post the goods receipt for a purchase order as valuated or non-valuated. When the goods receipt is valuated, the system capitalizes the invoiced value of the goods (based on the purchase order) to the fixed asset. Non-valuated goods receipt is posted against a clearing account.

ℹ Note

In commercial law, the start-up date of a fixed asset normally determines the start of capitalization. The start-up takes place, for the majority of fixed assets, directly after the physical goods receipt. In most cases, therefore, you should post valuated goods receipts.

Invoice Receipt (MM)

It makes a difference whether invoice receipt takes place before or after goods receipt.

- If the invoice receipt is first, the invoice amount (minus taxes and, if applicable, cash discount) is capitalized to the asset.
- If the invoice receipt is second, the difference between the invoice amount (without tax and cash discount) and the posted invoiced value of goods is capitalized, providing the goods receipt was valuated. For invoice receipt after a non-valuated goods receipt, the total invoice amount (minus tax and cash discount) is capitalized.

You determine whether cash discount should already be deducted at the invoice receipt by means of the document type you select.

Material Reservation - Material Withdrawal (MM)

If you have account assignment to an asset while making a material reservation, the system checks whether the asset actually exists. Material withdrawal with account assignment to an asset results in capitalization of the purchase or production costs of the material to the fixed asset. When creating a material withdrawal document, you can refer to a material reservation, if there is one.

Maintenance

Settlement of Maintenance Orders (PM/PP)

You can enter fixed assets as the receivers for the settlement of maintenance orders. In this way, you can settle maintenance activities that require capitalization to assets. The system proposes the asset that is assigned to the given equipment or functional location as the settlement receiver.

In addition to maintenance orders, you can settle internal orders to fixed assets.

ℹ Note

For more information, see Settlement of Investment Measures.

Primary Cost Planning (CO-OM-CCA)

You can determine planned depreciation and interest on a periodic basis for primary cost planning related to cost centers. Using a special report, you can transfer this depreciation and interest to primary cost planning in the Controlling (CO) component.

ℹ Note

For more information, see Primary Cost Planning.

Account Determination

Use

Using Asset Accounting, you can automatically update all relevant transactions to the general ledger. These include all accounting transactions that are posted to assets, and all changes to asset values that are automatically calculated by the system (particularly depreciation). For the leading depreciation areas of an accounting principle, this update takes place in real time. For other depreciation areas (such as depreciation areas for special reserves) the update takes place periodically.

Features

When you post with account assignment to an asset, the system determines the G/L accounts that are posted based on the business process using: the chart of accounts valid in the company code, the automatic posting depreciation area, and the account determination key entered in the asset class.

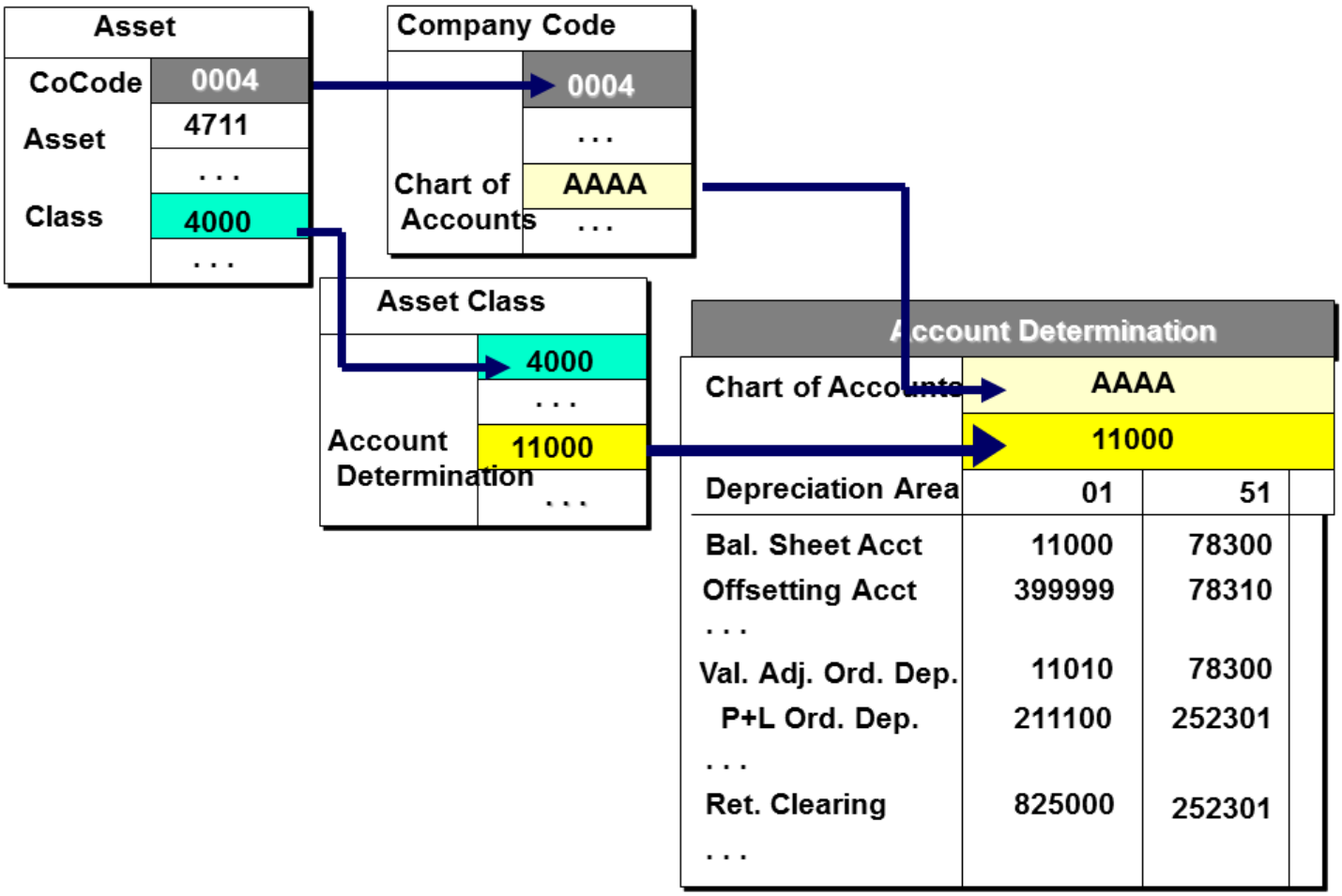


Figure 26: Account Determination

Chart of Accounts

The chart of accounts contains all accounts in the general ledger. In Financial Accounting, exactly one chart of accounts is assigned to each company code. This assignment is also binding for Asset Accounting.

Account Determination Key

You enter the account determination key in the general master data for the asset class. The account determination key defines the accounts in Financial Accounting that should be posted during asset transactions, for each chart of accounts and depreciation area (defined as an automatic posting area) in the chart of depreciation. The chart of depreciation itself is **not** the key criterion for account determination. This fact is important for company codes that have different charts of depreciation, but use the same chart of accounts. It is **not** possible to specify reconciliation accounts that are chart-of-depreciation-specific for these company codes.

You have to enter an account determination key in every asset class. Doing so guarantees that the account assignment will be the same for all assets in the given asset class. SAP provides account determination keys for the standard charts of depreciation and standard charts of accounts.

Depreciation Area with Automatic Posting to G/L

When you define depreciation areas, you can specify if the values of a depreciation are posted automatically to the general ledger. For every depreciation area that is defined for automatic posting, you can specify its own accounts in an account determination key.

For more information, see Features of a Depreciation Area.

→ Recommendation

You can also specify that one depreciation area uses the account assignment of another. We recommend that you make this setting, if you manage parallel accounting in the general ledger using parallel ledgers, that is, using the ledger approach. The advantage of this approach is that you can use the same account assignment for all accounting principles. In this way, you can avoid having to enter all accounts in the account determination in Asset Accounting multiple times, for each individual depreciation area.

For more information, see Parallel Valuation Methods in Asset Accounting.

You **cannot** enter an account determination for depreciation areas that have the setting **Area Does Not Post**.

Transaction Type

The transaction type identifies the type of business transaction. Using the transaction type, the system posts the transaction to the appropriate accounts of the given account determination (see Transaction Types).

Automatic Posting from Depreciation Areas to General Ledger Accounting

Use

Depending on the specifications in the chart of depreciation and in the asset class, you can manage up to 99 depreciation areas for each asset in the Asset Accounting. Often you are required to reflect these different parallel asset valuations in General Ledger Accounting.

Features

The posting amounts of the depreciation areas are updated on the G/L accounts. The update depends on the option you choose for how the depreciation area posts to the general ledger: You can post the depreciation areas in G/L accounting either in realtime (parallel depreciation in the ledger approach) or immediately (parallel depreciation in the account approach). Depreciation can only be updated periodically.

In Asset Accounting, you have to specify the ledgers that the system posts to in General Ledger Accounting by assigning an accounting principle for each chart of depreciation and depreciation area.

When you define depreciation areas, the following options are available for how the area posts to the general ledger:

- **0 - Area Does Not Post**

- 1 - Area Posts in Realtime
- 3 - Area Posts Depreciation Only
- 4 - Area Posts APC Immediately, Depreciation Periodically

The use of the posting options Area Posts in Realtime and Area Posts APC Immediately, Depreciation Periodically is explained below.

Posting to general ledger: Use of Posting Options

Ledger Approach

For the leading depreciation area of a valuation that manages APC and posts to the general ledger, you have to choose the Area Posts in Realtime option. If you use the ledger approach, this applies not only for the leading valuation, but also for the parallel valuation.

Accounts Approach

For the leading depreciation area of the leading valuation that manages APC and posts to the general ledger, you have to choose the Area Posts in Realtime option. For the leading depreciation area of the non-leading valuation that manages APC and posts to the general ledger, you have to choose the Area Posts APC Immediately, Depreciation Periodically option.

Posting to general ledger: In real time or immediately

	Posting indicator Area Posts in Realtime	Posting indicator Area Posts APC Immediately, Depreciation Periodically
Time of Document Posting	The system posts the documents for all relevant valuations, regardless of whether you chose the option Area Posts in Realtime or Area Posts APC Immediately, Depreciation Periodically. If the system **cannot** create and update all documents, then **no** documents are posted.	The system posts the documents for all relevant valuations, regardless of whether you chose the option Area Posts in Realtime or Area Posts APC Immediately, Depreciation Periodically. If the system **cannot** create and update all documents, then **no** documents are posted.
Technical Clearing Account for Integrated Asset Acquisition(1)	The valuating document of the valuation, which you post with this indicator, posts against the Technical Clearing Account for Integrated Asset Acquisition.	The valuating document of the valuation, which you post with this indicator, does **not** post against the Technical Clearing Account for Integrated Asset Acquisition; instead this valuation posts against the Offsetting Account for Acquisition Value (KTANSG)..
Checks for the Technical Clearing Account for Integrated Asset Acquisition Need for Parallel Depreciation Areas	The system ensures that the Technical Clearing Account for Integrated Asset Acquisition always has a balance of zero (for example, for currencies and account assignments). Therefore, for depreciation areas that post in real time, parallel depreciation areas have to be defined for all currencies.	The valuating document of the valuation that posts immediately does **not** post against the Technical Clearing Account for Integrated Asset Acquisition. From a technical perspective, it is **not** mandatory that you create parallel depreciation areas for this depreciation area. However, from a business perspective, you should check whether parallel depreciation areas are needed.

Explanation:

(1) The posting in the same ledger has the result that, for the accounts approach, it is only possible to have one depreciation area that manages APC and posts with the posting option Area Posts in Realtime.

More Information

For more information about Customizing for depreciation areas and about the posting indicator, see Customizing for **Asset Accounting** under **Valuation Depreciation Areas Define Depreciation Areas** .

For more information, see also the application documentation:

- Features at Chart of Depreciation Level
- Parallel Accounting in Asset Accounting
- Posting Depreciation

Additional Account Assignments

Use

If you use Asset Accounting integrated with Controlling or General Ledger Accounting, the following additional account assignments are possible, depending on the business transaction to be posted:

- Business Area
- Cost Center/Internal Order
- Real estate object
- WBS Element
- Profit Center/Segment
- Funds Center/Financial Budget Item

ℹ Note

- For information about assignable objects in fund accounting, see the application documentation for fund accounting.
- For information about functional areas, see Cost-of-Sales Accounting.

Features

Business Area

All changes to APC can also be automatically posted at the business area level. There is one prerequisite, however. The company code has to be set up to create business area balance sheets. The system then determines the business area that is to be posted for each posting. The system makes this determination based on the business area entered in the asset master record, and transfers this information to Financial Accounting for the automatic posting.

Cost Center/Internal Order

You can make account assignment of the following business transactions (postings to G/L accounts) to the cost center entered in the asset master record or to the internal order in **Controlling (CO)** entered in the asset master record:

- Loss due to scrapping
- Gain/loss due to asset retirements

- Clearing/expense from repayment of an investment support measure (as a result of asset retirement)
- Revenue from post-capitalization
- Revenue from write-ups (all depreciation types)
- Changes to APC can also be updated statistically.

ℹ Note

For an overview of the account assignment of revenue/expense from certain Asset Accounting business transactions to CO objects, see Graphic: Account Assignment to CO.

The prerequisites for this additional account assignment to CO are:

- A cost center or internal order has to be entered in the asset master data of the asset (in the section for **time-dependent data**).
- The field status variants of the company codes/asset accounts, as well as of the **Technical Clearing Account for Integrated Asset Acquisitions**, have to allow account assignment to cost center/internal order as an optional entry. In Customizing, you choose **Financial Accounting Financial Accounting Global Settings Ledgers Fields Define Field Status Variants** .
- Customizing for the account assignments in Asset Accounting has to allow the update of the account assignment object. It is possible to make this setting for each company code, depreciation area, transaction type and type of posting (APC or depreciation).
- The G/L account has to have been set up as a cost element in CO. For integrated asset acquisitions, this also applies for the **Technical Clearing Account for Integrated Asset Acquisition**.

⚠ Caution

If you enter additional account assignment for both an order and a cost center at the same time (expecting account assignment to both), the order takes precedence. There is **no** account assignment to the cost center. However, the order does **not** take precedence if it is a statistical order. If the order is statistical, then account assignment to both the statistical order and the cost center is possible.

Profit Center/Segment

When Profit Center Accounting is also active, the system also makes additional account assignment of the above business transactions to profit centers. The system determines the profit center to be posted by means of the cost center, the order or the real estate object specified in the asset master record. Further prerequisites for account assignment to a profit center are:

- The field status variant of the affected reconciliation accounts in Financial Accounting as well as the field status variant of the **Technical Clearing Account for Integrated Asset Acquisitions** must allow additional assignment to profit centers. In Customizing, you choose **Financial Accounting Financial Accounting Global Settings Ledgers Fields Define Field Status Variants** .
- The profit center is derived from other account assignment objects. Therefore, the field status of these objects is **not** allowed to be suppressed.
- The profit center can only be derived from objects to which account assignment is also made. You make settings for this in Customizing of additional account assignment. In Customizing, choose **Asset Accounting Integration with the General Ledger Additional Account Assignment Objects** . Here you can make differing settings, particularly for each different depreciation area and different account assignment types (such as APC, depreciation).
- The account assignment object, from which the profit center is to be derived, has to be assigned itself to a profit center.

Example

When posting depreciation, you want the profit center, derived from the cost center, to also be posted in depreciation area 01. However, you do **not** want account assignment to the cost center itself.

For this to be able to happen: The field status of the account involved **cannot** be suppressed (hidden) for additional account assignment to profit center and cost center. In addition, depreciation area 01 has to allow account assignment of **depreciation** to cost centers for the transaction type that is used.

- If the profit center is derived, then you can in turn derive a segment from it. You can also derive the segment, based on your specific requirements, from all existing CO objects using a BAdI.

Account Assignment of Depreciation and Interest

Depreciation and interest can be posted to all CO objects listed above. The depreciation posting program makes account assignment to the account assignment objects that are entered in the asset master record.

You make settings for the additional account assignment objects in Customizing by depreciation area. In Customizing, choose **Asset Accounting Integration with the General Ledger Additional Account Assignment Objects** .

You can also post depreciation and interest to cost centers if you are using cost accounting that applies across company codes. This means that the company code of the asset does **not** necessarily have to be the same as the company code of the cost center (see Assignment to Cost Center and Profit Center).

Distribution of Depreciation and Interest

It is only possible to enter one cost center in the asset master record. You distribute depreciation and interest to different cost centers using settlement within Controlling (CO). The cost center in the asset master record then serves the function of a distribution cost center.

The disadvantage of this approach is that reports show only the distribution cost center, and not the cost centers that are actually debited. Also, you need to create a separate cost center for the distribution. A different approach is to follow this procedure:

- Determine the cost center that you want to be shown in asset reports as the cost center of the asset. Enter this cost center in the asset master record.
- Enter an internal order in the asset master record. The system then posts to this order when it posts depreciation. The system does **not** post to the cost center.
- Settle the internal order to the cost centers that you want to debit.

Account Assignment to Activity Type

It is possible to enter an activity type in the asset master record along with the cost center. When an activity type is entered, all debits that have account assignment to the cost center are also posted automatically to the activity type as well. The only prerequisite is that you set up Customizing for Controlling so that account assignment of actual postings is made to activity types.

Graphic: Account Assignment to CO

The following figure shows the account assignment to CO of revenue and expense from Asset Accounting business transactions:

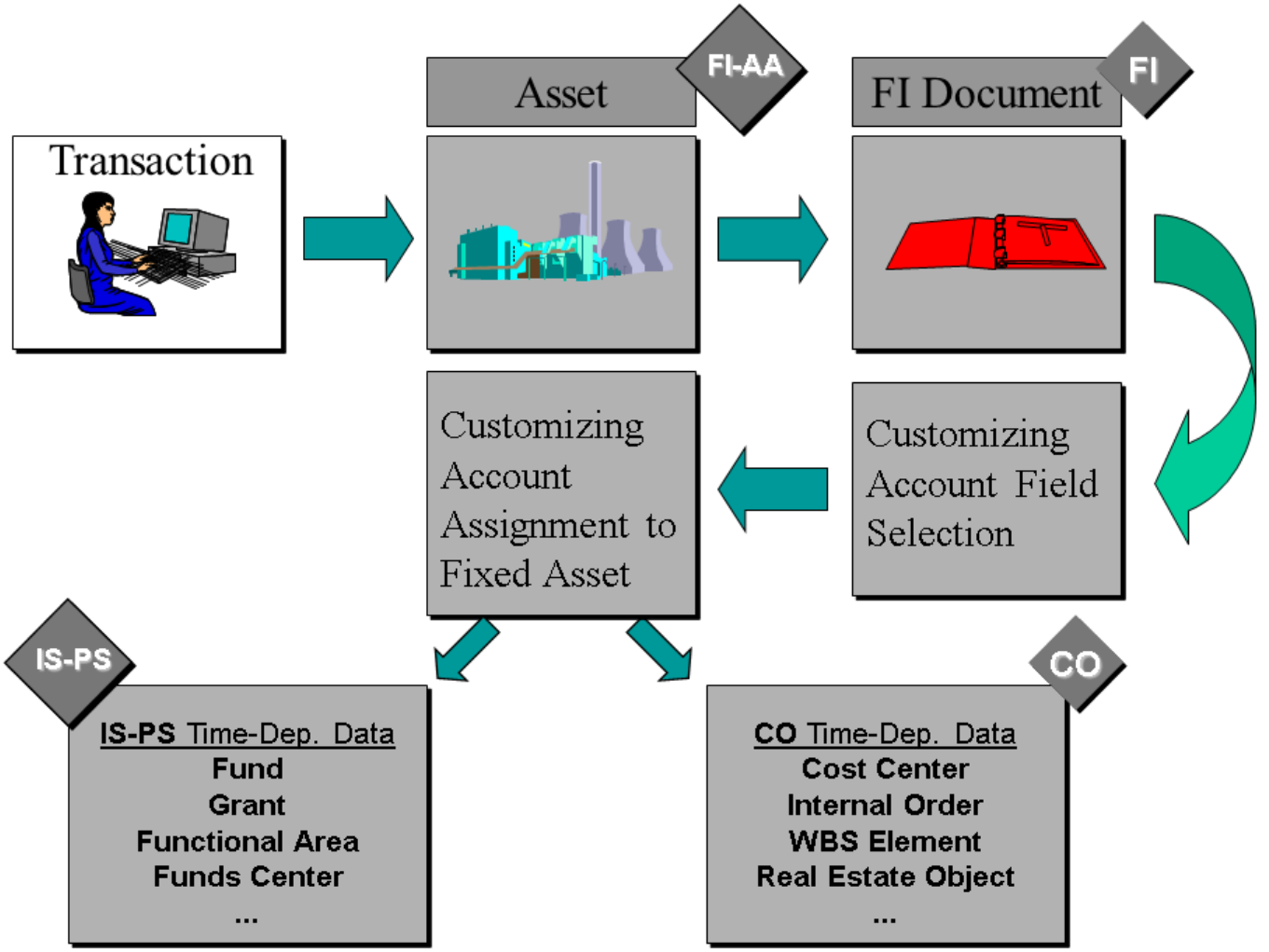


Figure 27: Additional Account Assignment

Cost of Sales Accounting

Use

In General Ledger Accounting (FI-GL), you can create the profitability analysis in accordance with cost of sales accounting. In this process, revenues and expenses are reported separately by functional area.

Prerequisite

You have activated account assignment object **Functional Area** as an additional account assignment object and specified the account assignment types.. In Customizing for asset accounting, choose **Integration with the General Ledger → Additional Account Assignment Objects**.

Features

To separate expenses for each functional area, the expenses must be able to be assigned from depreciation to the functional areas. The depreciation posting program assigns the functional area to the respective assets.

To determine the functional area, there are two different options:

- The functional area is defined in the asset master record.

  In the asset master record (on the Time-Dependent Data tab page), it is possible to specify a functional area. If an entry exists here, it is used and i**no** other functional area is derived.

- The functional area is **not** defined in the asset master record.

  In this case, the system derives a functional area in the following sequence:

  a) If a functional area is defined in the account (or the cost type), then it is used.

  b) If **no** functional area could be determined for a), then the system tries to derive a functional area from the additional account assignment objects (for example, cost center, order). The functional area can only be derived from objects that have been assigned to (see section on additional account assignments).

  If you have defined a substitution rule for deriving the functional area, then the system uses it, independently of whether a functional area could be determined by a) or b). This means you can also override a functional area that has already been derived. You can define the substitution rule in Customizing, under Financial Accounting Financial Accounting Global Settings Tools → Validation/SubstitutionDefine and Activate Substitution for Cost-of-Sales Accounting.

  Example

  When posting depreciation, the functional area in depreciation area 01 should be derived from the cost center. However, you do **not** want account assignment to the cost center itself.

  To do this, depreciation area 01 has to allow account assignment of depreciation to cost centers and to functional areas for the transaction type that is used. The field status of both these objects must **not** be hidden. The account must **not** be an account type.

Posting Depreciation

Use

Every asset transaction in Asset Accounting immediately causes a change of the forecasted depreciation. However, an asset transaction does **not** immediately cause an update of the depreciation and value adjustment accounts for the financial statements. The planned depreciation is posted directly to Financial Accounting when you run the periodic depreciation posting run. This posting run posts the planned depreciation for each posting level for each asset as a lump sum amount.

Note

During the posting of depreciation, the system does **not** create documents for each asset. It creates collective documents instead.

Prerequisites

You can choose both the posting cycle and the additional account assignment levels (such as, cost center or order; see the documentation for additional account assignment) for the depreciation posting run for each company code and depreciation area.

To do so, perform the following activities in Customizing for Asset Accounting:

- Integration with General Ledger Accounting Post Depreciation to General Ledger Accounting Specify Intervals and Posting Rules
- Integration with General Ledger Accounting Post Depreciation to General Ledger Accounting Additional Account Assignment Objects

You can enter the accounts to be posted for each depreciation area in each of the account determinations (see the documentation for account determination).

Features

The calculation and scheduling of depreciation, interest and revaluation are automatically controlled by keys in the system, or you can control them manually using a special posting transaction. In both cases, planned values from Asset Accounting have to be periodically posted to the corresponding asset and expense accounts of the general ledger. In addition to the various depreciation types, interest and revaluation, the system also posts the allocation and write-off of special reserves during this posting run.

ℹ Note

For more information on the posting run, see Posting Depreciation.

Performance

It is difficult to provide precise information on performance of the depreciation posting run, since it is strongly dependent on your system configuration. However, you can use the figures below for a rough estimate:

- For the calculation of depreciation, 16000 assets per hour is possible.
- Since only collective documents are created, the number of documents to be posted in a depreciation posting run depends on the number of G/L accounts to be posted, and on the number of combinations of account assignments and account determinations.

⚠ Caution

Keep in mind that the update run of the depreciation posting run can only be started in the background.

System Settings for Posting Depreciation

Use

The following describes the possible Customizing settings for posting depreciation. You find these activities in Customizing for Asset Accounting under **Integration with the General Ledger**.

Features

Depreciation Areas to be Posted

You decide which depreciation areas should have their values posted to Financial Accounting (FI). In Customizing for Asset Accounting, choose **Define How Depreciation Areas Post to General Ledger**. Enter depreciation posting rules for these areas.

ℹ Note

All company codes that are assigned to one chart of depreciation post depreciation to the same depreciation areas. You have to enter depreciation posting rules for these areas. This means that a depreciation area, which is assigned to two company codes through its chart of depreciation, has to post depreciation in both company codes. Posting in one while omitting the other is not possible.

Posting Document Type

You have to specify a document type for posting depreciation. When you post depreciation, do **not** use document types that are limited to use with batch input. (See Posting Depreciation). Otherwise the depreciation posting run is **not** able to post directly to Financial Accounting.

ℹ Note

For each company code, you can enter only one document type that can be used for posting in all posting depreciation areas.

It is also essential that you specify in the definition of of the document type that it uses a number range with external number assignment. For more information, see SAP Note `903118`. You need to prevent manual postings using this document type through organizational measures in your enterprise (that is, outside of the system).

The following relates to the settings you can make for posting depreciation in the **Specify Intervals and Posting Rules** IMG activity:

Depreciation Posting Cycle

You determine the depreciation posting cycle by entering the length of time (in posting periods) between two depreciation posting runs in the activity **Specify Intervals and Posting Rules**. This means that a setting of **1** indicates monthly posting, **3** means quarterly posting, **6** means semi-annual, and **12** means annual (for a fiscal year variant with 12 posting periods). When you start a depreciation posting run, you have to enter the period for which you want it to be carried out.

You do not necessarily have to adhere to the posting cycle. You can also choose an unplanned depreciation posting run using an indicator on the selection screen of the depreciation posting program. When you set this indicator, you can skip over several periods, and post the total depreciation for all of the skipped periods in one period. You might need to do this, for example, if you carried out legacy data transfer during the fiscal year. This method enables you to post all depreciation up to the transfer date at one time.

⚠ Caution

You can use a different fiscal year variant in Asset Accounting than you do in General Ledger Accounting (see Fiscal Years and Periods). The period you enter in the depreciation posting run, however, is **always** the period in the fiscal year variant for the general ledger.

If you set the **Alternative Fiscal Year Variant** indicator in Customizing for **Asset Accounting** under **Valuation Fiscal Year Fiscal Year Variants Allow Differing Variants for Depreciation Areas with G/L Integration** , then the fiscal year variant of the given ledger is the determining one; otherwise it is always the fiscal year variant of the leading ledger The same applies for the display of the posted depreciation in the **Asset Explorer**.

If you are using a different fiscal year variant in Asset Accounting, the system determines the FI-AA period to be posted in the following way:

First, the system determines the date of the last day of the FI period entered (according to the fiscal year variant of General Ledger Accounting). Then it determines the FI-AA period in which this date falls, and posts to this period. For example, you might enter period 1 for the depreciation posting run, but the system posts period 2. The reason for this difference is that January 31 falls in period 2 according to the fiscal year variant in Asset Accounting. This problem occurs particularly when you use fiscal year variants that apply to specific depreciation areas.

Posting Procedure

The system supports two different procedures for distributing the the forecasted depreciation over the posting periods. You make the settings for these two procedures in the **Specify Intervals and Posting Rules** Customizing activity.

- **Catch-Up Method**

Using the catch-up method, the system calculates the posting amount in this period as the difference between the planned depreciation and the depreciation posted up to this period.

Example

Acquisition posted in period 5	12000
Depreciation start in period	1
Planned annual depreciation	1200
Deprec. posted up to period 5	0
Planned deprec. up to period 5	500
Deprec. to post in period 5 =	**(500-0) = 500**
Deprec. to be posted per period (6-12) =	**(700/7) = 100**

- **Smoothing**

  Using the smoothing method, however, the system distributes the difference between the forecasted annual depreciation and depreciation already posted, to the remaining posting periods.

Example

Acquisition posted in period 5	12000
Depreciation start in period	1
Planned annual depreciation	1200
Deprec. posted up to period 5	0
Remaining periods, incl. period 5	8
Deprec. to be posted per period (5-12) =	**(1200-0)/8 = 150**

The difference between the two procedures becomes evident when processing acquisitions within the fiscal year or when handling post-capitalization.

- With the catch-up method, depreciation falling due on a transaction within the fiscal year (from the depreciation start date, according to period control, up to the current period) is posted in one total. The depreciation posting program posts this amount in the period, in which the posting date of the transaction lies. The amount posted is dependent on the asset value date.
- With the smoothing method, this amount is distributed equally over the periods from the current posting period to the year end (independent of the asset value date of the transaction).

For more information, see Graphic: Catch-Up/Smoothing Method.

⚠ Caution

- You should be careful if you use smoothing, and the depreciation start date comes after the acquisition date. In this case, the system does not distribute the planned depreciation first to the periods after the depreciation start date. Instead, it posts depreciation starting from the acquisition date. However, the total amount of planned depreciation is not affected.

- When an asset is retired during the fiscal year (partial or complete retirement) smoothing does not distribute depreciation only up to the retirement date; it distributes depreciation up to the end of the year.

Posting Interest/Revaluation

If you manage interest or revaluation in a given depreciation area, you can post them to appropriate accounts in Financial Accounting in the same way as depreciation. Or you can specify that they be ignored. It is **not** possible to post interest or revaluation alone (without depreciation).

ℹ Note

For more information on the calculation of interest to be posted, see Calculation of Interest.

Additional Account Assignments

In each depreciation area, you can specify to which of the possible objects (such as cost center or order) account assignment of depreciation should be made. This information is then taken from the asset master record, if applicable, and passed on to Financial Accounting as an additional account assignment.

You make the settings for this in Customizing under **Additional Account Assignment Objects**.

ℹ Note

For more information, see the Additional Account Assignment.

BAPIs

Use

A Business Application Programming Interface (BAPI) is a programming interface by means of which you can access the business data and processes of the SAP system from a different application system.

Structure

The BAPIs listed below can be used for Asset Accounting:

Business Object: Short Description	Business Object: Object Name	Object Type	Function Modules
Asset Acquisition	AssetAcquisition	BUS6029	BAPI_ASSET_ACQUISITION_CHECK, BAPI_ASSET_ACQUISITION_POST
Asset Retirement	AssetRetirement	BUS6028	BAPI_ASSET_RETIREMENT_CHECK, BAPI_ASSET_RETIREMENT_POST
Asset Post-Capitalization	AssetPostCapitaliztn	BUS6027	BAPI_ASSET_POSTCAP_CHECK, BAPI_ASSET_POSTCAP_POST
Asset Document Reversal	AssetReversalDoc	BUS6037	BAPI_ASSET_REVERSAL_CHECK, BAPI_ASSET_REVERSAL_POST

Business Object: Short Description	Business Object: Object Name	Object Type	Function Modules
Assets: Down payment	AssetDownPayment	BUS6038	BAPI_ASSET_DOWNPAYMENT_CHECK, BAPI_ASSET_DOWNPAYMENT_POST
Assets: Investment support	AssetInvestSupport	BUS6039	BAPI_ASSET_INV_SUPPORT_CHECK, BAPI_ASSET_INV_SUPPORT_POST
Assets: Revaluation	AssetRevaluation	BUS6040	BAPI_ASSET_REVALUATION_CHECK, BAPI_ASSET_REVALUATION_POST
Assets: Subsequent Costs and Revenues	AssetSubCostRev	BUS6041	BAPI_ASSET_SUB_COST_REV_CHECK, BAPI_ASSET_SUB_COST_REV_POST
Assets: Transfer Postings	AssetTransfer	BUS6042	BAPI_ASSET_TRANSFER_CHECK, BAPI_ASSET_TRANSFER_POST
Assets: Depreciation	AssetValueAdjust	BUS6043	BAPI_ASSET_VALUE_ADJUST_CHECK, BAPI_ASSET_VALUE_ADJUST_POST
Assets: Write-Up	AssetWriteUp	BUS6044	BAPI_ASSET_WRITEUP_CHECK, BAPI_ASSET_WRITEUP_POST
Asset	FixedAsset	BUS1022	[for the legacy data transfer:] BAPI_FIXEDASSET_OVRTAKE_CREATE, BAPI_FIXEDASSET_OVRTAKE_POST

Additional Information

For more information, see the system documentation for the BAPIs, the function modules, and the parameters.

Internal Service Requests in Asset Accounting

Use

There are two scenarios for internal service requests for Asset Accounting. One is a scenario for creating an asset master record, and the other is a scenario for changing an asset master record. You find these in Customizing for **Cross-Application Components** . Choose **Cross-Application Components Internet/Intranet Services Internal Service Request Definition of Scenarios with Specific Customizing Request for Master Data Change.** The names of the definitions are **SAS1** and **SAS2** . You can use these scenarios in the Workplace as Employee Self-Service, or in your enterprise's Intranet. For more information, refer to **Preparing Internal Service Requests** in the SAP Library for Cross-Application Components.

There are two forms available for the two scenarios: **AS01_ISR** and **AS02_ISR** . You can set up these forms as best suits your needs. For information on using forms, refer to **Definition of a Form** in the SAP Library for Cross-Application Components.

Features

A predefined form is provided for each of the scenarios. Typically these forms are filled out in the Web browser. When the form is sent, the system generates a message or a task in the inbox of the responsible person defined in the scenario. That person can

display and change the form by accessing it from the message or task. If the person processing the message determines that the contents of the form are correct, then the asset master record can be automatically created or changed. In the case of an asset being created, this is allowed only once.

- **Create asset:** The form has to contain a valid company code. If the asset class is not known, it can be omitted. If an asset class is entered, the system checks its validity. If you enter a post-capitalization, then the capitalization date has to be in a closed fiscal year. If an asset subnumber is to be created, the asset main number for it has to be entered.
- **Change asset:** The form has to contain a valid company code and a valid asset number. Then you can load the modifiable data by choosing **Master Data** . If you change the **Valid from** or **Valid to** fields, then a new interval is automatically added to the time-dependent data in the asset master record, when the processor approves the change.

Depreciation

Purpose

The following posting types are available:

- Automatically calculated depreciation types (can also be planned manually):
  - Ordinary depreciation
  - Special depreciation
- Depreciation types that are normally planned manually:
  - Unplanned depreciation
  - Transfer of reserves/reduction of APC

The automatic calculation of depreciation is controlled by depreciation keys in the system. These depreciation keys can be modified. In this way, you can define your own methods for calculating asset values.

The interest calculation for valuations for cost-accounting purposes is treated as a depreciation type by the system in the same way as depreciation calculation and therefore controlled by depreciation keys and calculation methods.

Additional Information

The following sections describe automatically calculated depreciation.

The handling of manual depreciation is described in section Manual Planning of Depreciation .

For more information on posting depreciation, see Post Depreciation.

New Depreciation Calculation Using DCP

Use

The Depreciation Calculation Program (DCP) provides new functions for calculating depreciation.

Integration

The depreciation calculation program is a back-end solution that does not require any special configuration. In addition, SAP provides Business Add Ins (BAdI) that you can use to modify the calculation of values. (These BAdIs are similar to the user exits available in depreciation calculation up to now).

Features

The new functions available in the DCP include:

Period-Based Calculation:

- The calculation of depreciation is now based on periods, rather than on individual transactions, as was previously the case.The system groups the transactions for an asset together by the calculation period.
- The system uses the asset value date and the period control group of the transaction type group to determine the calculation period.The system assigns each transaction to a calculation period.
- Then the system creates period intervals from the calculation periods that were determined. Based on these intervals, the system calculates the depreciation.

Time-Dependent Depreciation Terms:

- You can make time-dependent changes to depreciation terms in the asset master data. Changes to the depreciation terms become effective on the key date that you specified for the given depreciation area. A midyear change to depreciation terms causes the system to set up new calculation period intervals.
- Time-dependent depreciation terms include: useful life, depreciation key, scrap value, scrap value percentage, and variable depreciation portion.

Midyear, Period-Dependent Changeover:

- With the new depreciation calculation, you have new options for changeover of the depreciation method (for example, changing over from declining-balance to straight-line depreciation). Instead of using the old annual changeover, you can specify an automatic changeover of the depreciation method that takes place midyear. The UMPER field in table ANLB is used for this function.
- To use this midyear changeover, use the FAA_DC_CUSTOMER BAdI (method DEFINE_USE_OF_MAX_PERIODS). Set the CB_USE_MAX_PERIODS parameter to X.

See also:

Example: Period-Based Calculation

Example: Depreciation in Final Year of Useful Life

Example: Time-Dependent Depreciation Terms

Example: Period-Based Changeover of Depreciation Method

Architecture of the Depreciation Calculation Program

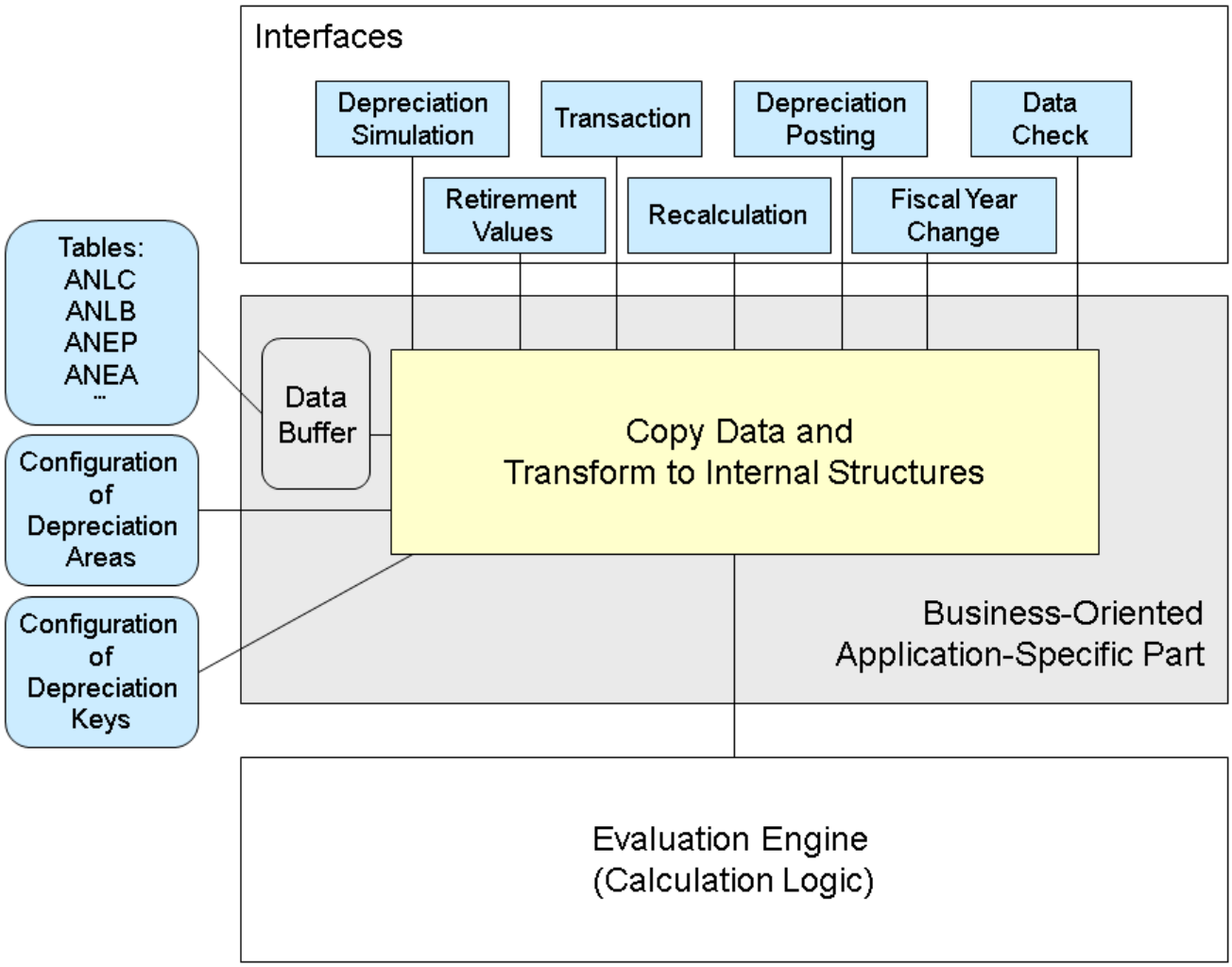
The Depreciation Calculation Program (DCP) consists of two parts: an external, application-specific (business-oriented) part, and an internal part (Evaluation Engine) that controls the calculation logic for depreciation calculations.

The application-specific part

- Provides an interface to other applications
- Transfers asset master data and transaction data to internal work structures
- Groups transactions together based on calculation periods
- Reads all configuration settings that are needed for the calculation, and transfers these to internal work structures
- Specifies the depreciation start date
- Updates the total asset values

The Evaluation Engine

- Is based on the work structures created by the application-specific part of the program
- Calculates replacement values, depreciation, and interest, as well as revaluation (both upward and downward) as part of an automatic calculation of inflation
- Determines the base value or net value, as well as the shutdown value of the assets
- Corrects values and amounts when derived depreciation areas are used
- Structure of the Depreciation Calculation Program



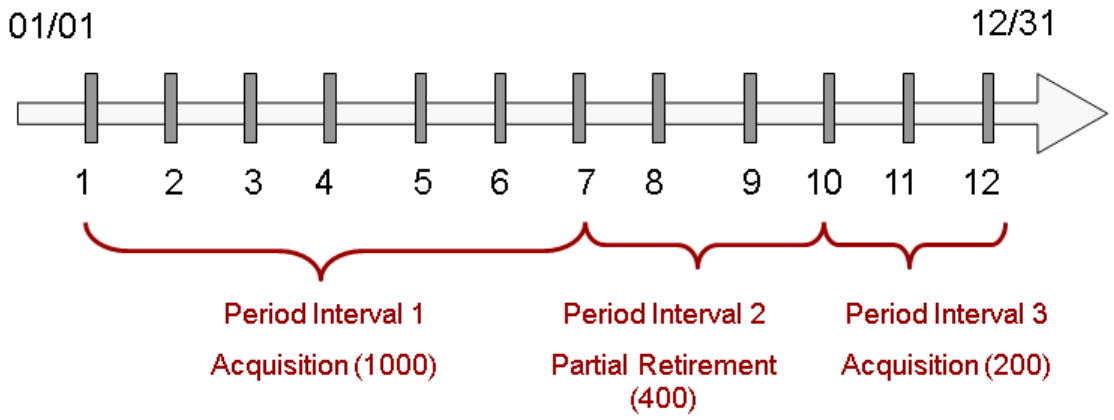
Example: Period-Based Calculation

A fiscal year consists of one or more period intervals. The number of intervals in the fiscal year is determined largely by the periods with transactions that influence depreciation calculation (such as, acquisitions, retirements) and changes to depreciation terms during the course of the year.

In the following example, the fiscal year has twelve periods (twelve months). The depreciation rate is ten percent. Three transactions are posted in different periods. The resulting period intervals are as follows:

Date	Transaction Type	Amount	Calculation Period	Period Interval
01/01	Acquisition	1000	1	1 (= 6 periods)
07/01	Partial retirement	- 400	7	2 (= 3 periods)
10/01	Acquisition	200	10	3 (= 3 periods)

Period Intervals



Based on the period intervals, the depreciation calculation is as follows:

Period Interval	Base Amount for Dep. Calculation	Depreciation Calculation	Depreciation per Interval
1	1000	1000 x 10% x (6/12)	50
2	600(= 1000 – 400)	600 x 10% x (3/12)	15
3	800(=600 + 200)	800 x 10% x (3/12)	20

Example: Depreciation in Final Year of Useful Life

Starting Data:

Acquisition value of asset: 10000

Useful life: 5 years

Annual depreciation: 2000 (20%)

Remaining useful life: 1 year

Net book value: 1000 (unplanned depreciation 1000)

Scrap value: None

Acquisition last year: 5000 on April 1

Year	Transaction Type	Amount	Ordinary Depreciation	Unplanned Depreciation	Net Book Value
01	Acquisition	10000	2000		8000
02			2000	1000	5000
03			2000		3000
04			2000		1000
April 05	Acquisition	5000	**?**		

The values for the individual periods and period intervals of last year are:

Period Interval	Number of Periods	Base Value for Dep. Calculation	Depreciation Calculation	Depreciation per Period Interval
1(Periods 1 - 3)	3	10000	10000 x 20% x (3/12)	500
2(Periods 4 - 12)	9	15000	15000 x 20% x (9/12)	2250

The totals from period intervals 1 and 2 result in an annual depreciation amount of 2750.

Example: Time-Dependent Depreciation Terms

Starting Values:

Acquisition value: 10000

Useful life: 5 years

Annual depreciation: 10000 / 5 = 2000

Effective on July 1 of year 01 of the useful life, you change the useful life to 4 years. The system recalculates depreciation:

Acquisition value: 10000

Useful life 4 years

Annual depreciation: 10000 / 4 = 2500

The system calculates the depreciation amount for the year 01 as follows:

Periods 1 to 6: 2000 x (6/12) = 1000

Periods 7 to 12: 2500 x (6/12) = 1250

From these totals, the system calculates annual depreciation of 2250.

Example: Period-Based Changeover of Depreciation Method

Starting Values:

Acquisition value: 12000

Useful life: 2 years (24 periods)

Periodic depreciation: Net book value (at start of period) x 2/24

- Depreciation is calculated for period 3:

  (12000 – 1000) x 2/24 = 11000 x 2/24 = 916.67

- You also specified that the depreciation method should change over when the net book value goes below 20% of the APC: 12000 x 0.2= 2400
- In period 9 (second fiscal year), the net book value at the start of the period is 2297.19.Since the net book value is now below 2400, the system automatically changes the depreciation method from declining-balance to straight-line in period 9.
- For the remaining five periods, the depreciation amount is then 459.44:2297.19 / 5 = 459.44.

Valuation Methods

Use

In FI-AA Customizing, you can define your own calculation methods for the valuation of fixed assets (**Depreciation Valuation Methods Depreciation Key Calculation Methods**). These calculation methods are not hard-coded in the system. They are based on a number of flexibly-definable calculation keys. By defining your own calculation methods and control parameters, you can represent your specific depreciation methods in the system.

There are pre-defined calculation methods and parameters in the system for the most commonly used depreciation methods.

Features

Depreciation calculation is based on the control parameters explained below, as well as on the planned useful life of the asset that is entered in the asset master record:

- The depreciation key contains all control data for the calculation of planned annual depreciation. You can enter a depreciation key in each depreciation area in the asset master record.
- The most important part of the depreciation key is the calculation method for the calculation of different types of automatically calculated depreciation (ordinary and special depreciation, and interest). The calculation method is particularly important for defining the depreciation calculation method .
- Special functions let you comply with a cutoff value (scrap value).

⚠ Caution

Changing the Customizing definition of the depreciation keys or calculation methods does not automatically lead to a correction of depreciation values that have already been calculated for individual assets. For that to happen, you have to recalculate depreciation (**Tools Recalculate values**) .

Depreciation Keys

Use

The depreciation key contains the value settings which are necessary for determining depreciation amounts. It represents a combination of calculation rules, which are used for the automatically calculated depreciation types

Ordinary depreciation

Special depreciation

Imputed interest

Features

You assign calculation methods to each depreciation key for the actual determination of depreciation amounts.

You can define depreciation keys and calculation methods in Customizing for Asset Accounting (**Depreciation → Valuation Methods → Depreciation Keys).**

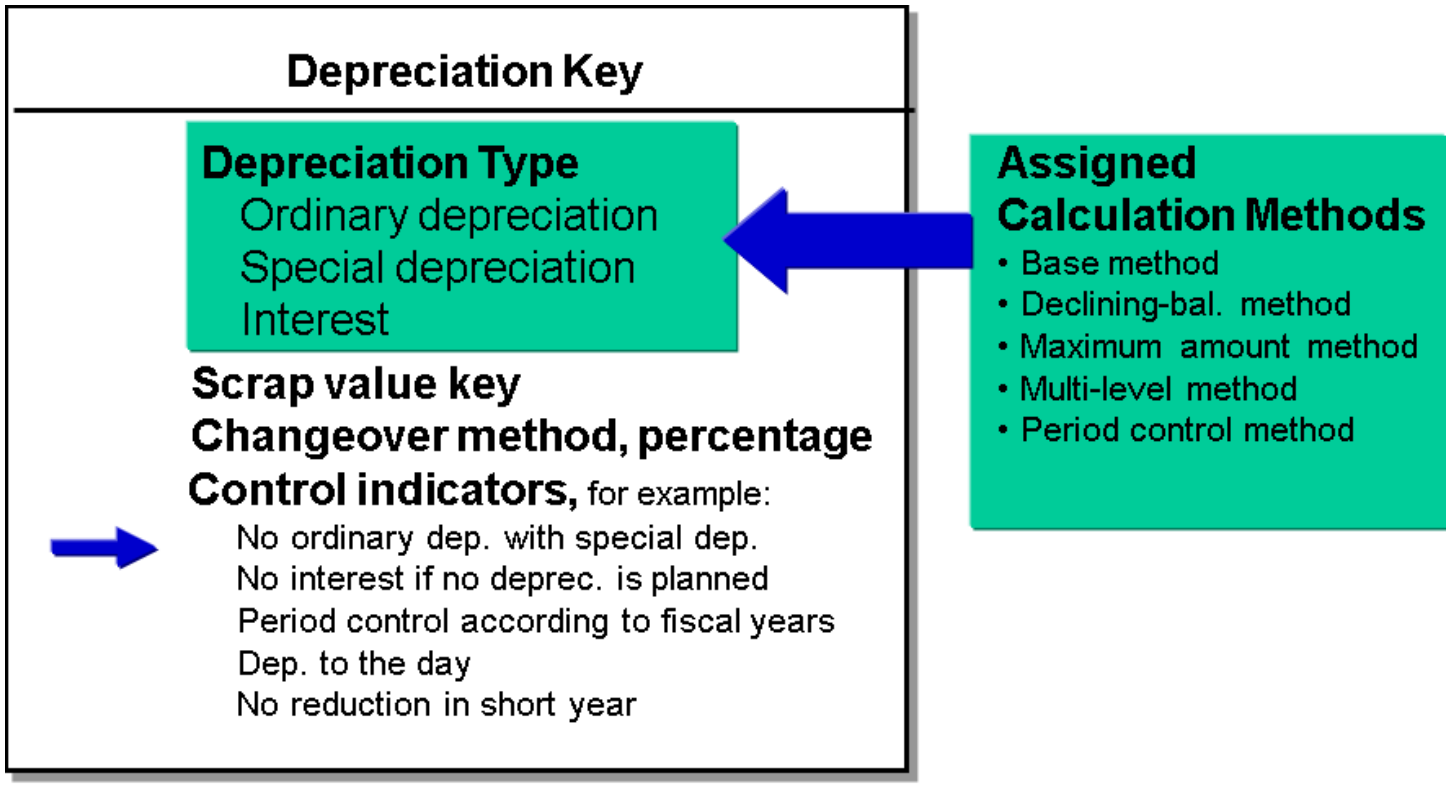


Figure 28: Components and Control Parameters of Depreciation Key

Depreciation keys are defined at the level of the chart of depreciation . Therefore, they are available in all company codes. With the help of the depreciation keys defined within a chart of depreciation, you can set up the chart of depreciation with uniform depreciation terms based on the special rules for valuation in an economic area (country, geographical region and so on).

The standard charts of depreciation in the S/4HANA System contain depreciation keys that are predefined to meet country-specific depreciation needs.

You can divide the duration of depreciation into several phases in the depreciation key. If you enter a changeover method for one of these phases, the system changes over to the next phase as soon as the event specified in the changeover method occurs. Then the system uses the type of depreciation calculation that is specified for that next phase.

Refer to:

For more information on the calculation methods and parameters entered in the depreciation key, see:

Changeover Methods

Changeover After the End of Planned Useful Life

Other Features of Depreciation Key

Calculation Methods

Cutoff Value

Also refer to the system long texts for the particular control parameters of the depreciation key.

Changeover Method

Use

Certain depreciation methods, due to their mathematical basis, require a switch to alternative calculation methods to ensure the complete depreciation of a fixed asset in the possession dates. An example for this is the declining-balance method of depreciation, which mathematically never achieves a book value of zero.

Therefore, when you assign the calculation methods to the depreciation keys, you can specify when the system is to use a different calculation method (for example, **Changeover as soon as the net book value percentage rate is reached**). The changeover method also specifies the conditions under which the changeover takes place. You can also enter a net book value percentage rate for certain changeover methods.

In the depreciation key, you can divide the duration of depreciation into several phases. When you enter a changeover method for one of these phases, the system changes over to the next phase as soon as the event specified in the changeover method has occurred. The system then uses the depreciation calculation that is specified in the calculation method for this phase.

Features

Changeover Methods

You can define the following changeover methods:

- **Changeover as soon as the depreciation amount of the changeover method is higher**

  Here, the result of the depreciation calculation in one phase of the depreciation key is compared with the result in the following phase. The system performs the changeover as soon as depreciation in the following phase is higher than in the previous phase.

- **Changeover when net book value percentage is reached**

  With this method, changeover takes place as soon as the net book value falls below a specified percentage of the acquisition value.

- **Changeover when net book value percentage rate less or same as x%**

  With this method, changeover takes place as soon as the net book value is equal to the specified percentage rate of the acquisition value or lower.

- **Changeover when net book value is less than changeover amount**

  In the Customizing settings, when you define the company code-specific depreciation area, you can specify a global changeover amount in the local currency of the depreciation area. When the net book value falls below this changeover amount, changeover to another method takes place.

  To change the changeover amount, in Customizing, choose **Asset Accounting**: **Valuation Amount Specifications (Company Code / Depreciation Area) Specify Changeover Amount** .

- **Changeover when net book value is less than straight-line rate**

  A straight-line depreciation rate is calculated from the useful life which is used as a comparison with the net book value. If the net book value falls below this straight line rate, changeover to another method takes place.

- **Changeover after the end of planned useful life**

  When the planned useful life has expired, changeover to another method can also take place. Sum-of-the-years-digits methods in particular are defined only during the useful life. If a post-capitalization is posted after expiration of the planned

finish, a different method must be used.

With the changeover at the end of the planned useful life, the conversion to a specified changeover method occurs period-specific. With other changeover methods, the changeover takes place according to fiscal years. The changeover criteria are checked in relation to depreciation for the entire year, and the depreciation for the entire fiscal year is either calculated with the original key or with the new changeover key.

- **Changeover in next year as soon as straight-line depreciation is higher (Poland)**

  This is functionally the same as **Changeover when depreciation amount of changeover method higher**, except that the changeover is not performed until the following year.

- **User-defined changeover using a customer enhancement**

  With the BAdI methods `FAA_DC_CUSTOMER` (`define_changeover_yr`) and `FAA_DC_CUSTOMER` (`define_changeover_yr_and_prd`), you can define your own changeover methods. You can perform a changeover during the year by using the second method in conjunction with the method `FAA_DC_CUSTOMER` (`define_use_of_max_periods`) in addition to the annual changeover. You can find more information in the documentation for the individual BAdI methods (transaction `SE18`).

Time of the Changeover

- For the following functions **Year-end carryforward**, **Recalculate values** , and **Posting of transactions**, the system decides if a phase change needs to be carried out. For this check, the system uses by default the annual values.
- However, one exception is the **Changeover after end of useful life**. This is carried out by period. If the end of the planned useful life **does not** fall at the end of a fiscal year, the system decides which method applies for each activity (year-end carryforward or transaction), based on the asset value date. However, a calculation using two methods for one activity (time period before the end of the planned useful life and the time period after end of planned life) does **not** occur. When deciding which method is valid, it is only relevant whether the asset value date of the relevant transaction is before or after the end of planned useful life. This means that a changeover after the end of the planned duration for a year-end carryforward takes place only at the end of the fiscal year that follows the end of the useful life. In case of a transaction, the system decides on an individual basis whether the value date lies before or after the end of the useful life.

You can use the BAdI method `FAA_DC_CUSTOMER` (`define_use_of_max_periods`) to perform a period-specific changeover during the year within the planned useful life.

ℹ Note

A changeover to a different percentage rate or base value in the multilevel method is **not** considered a changeover method in the above sense. The changeover to another level takes place at the exact period for each transaction.

Example

Changeover after the end of planned useful life

Example: Changeover after the end of planned useful life

In the example, the following conditions apply for an asset:

- Start date of depreciation: 7/1/2009
- Useful life: 5 years

- End of useful life: 6/30/2014
- Acquisition cost: 100
- Depreciation Method: Straight-line, percentage rate based on useful life, base value 100% of acquisition cost
- Changeover after the end of useful life: linear; Percentage rate based on useful life, base value 50% of acquisition cost

This results in the following course of depreciation:

2009: 10 (100/60*6)

2010: 20 (100/60*12)

2011: 20 (100/60*12)

2012: 20 (100/60*12)

2013: 20 (100/60*12)

2014: 18 (100/66*12) or 2010: 10 (100/60*6)

2015: 10 (50 /60*12)

The changeover therefore does **not** take place in the year 2014 is, but the useful life is internally increased by 6 months and continues with the old method of calculation as it was defined that, after the end of the useful life, depreciation should continue below zero. If you do not want this, you must change the base method so that the calculation is only performed up to the end of the useful life and **not** below zero.

A transaction with an asset value date up to 6.30.2014 is calculated with the calculation methods of the old phase. A transaction with an asset value date after 7.01.2014 is calculated based on the changeover method with calculation methods of the next phase.

Other Features of Depreciation Key

Use

The depreciation key offers further settings for depreciation calculation, in addition to the settings already discussed.

Features

No Ordinary Depreciation with Special Depreciation

You can specify that the system does not calculate ordinary depreciation if there is special tax depreciation. This means ordinary depreciation is set to zero.

No Interest If No Depreciation is Planned

You can specify that the system does not calculate imputed interest unless depreciation is also calculated.

Period Control According to Fiscal Years

You can specify that a given depreciation key, for selected company codes and fiscal years, uses period controls that are different from those in the period control method.

This may be necessary, for example, when depreciating according to US law, if you only apply the mid-quarter convention to acquisitions in specific company codes or fiscal years.

Depreciation to the Day

You can specify that the system performs the depreciation calculation to the day. The period control rules in the calculation method are thereby deactivated for the entire life of the asset.

ⓘ Note

The system takes the 29th of February into account only if there were transactions for the asset during this leap year. If there were no transactions during a leap year, the annual depreciation for the year is the same as in a normal year.

This special handling meets legal requirements in France.

Depreciation Calculation in Shortened Fiscal Years

You can specify that depreciation is not reduced in shortened fiscal years, even if settings were made to that effect in the depreciation area at company code level.

Acquisitions Allowed Only in Capitalization Year

You can specify that the system only allows acquisitions in the year in which depreciation started for the asset. This may be necessary for technical reasons when you use sum-of-the-years-digits depreciation, for example. You may also want to use this function for your own internal, organizational reasons.

Number of Places for Rounding

You can specify the number places to which the system should round the percentage rate for depreciation calculation.

Depreciation Class

You can classify the depreciation key. This characteristic can be used as a selection criterion in reporting.

Multiple Shift Use

You can specify that the system calculates increased depreciation due to increased wear and tear on assets during multiple shift use.

Affect of Scrap Value on Base Value for Depreciation

You can specify how the scrap value influences the base value for depreciation (for example, by reducing the base value).

You need this setting only in the following case: You have a depreciation key with different phases, each with different calculation methods, and you want the treatment of the scrap value to also be different in each phase. Normally the treatment of the scrap value is the same in the depreciation key throughout the useful life.

⁘ Example

According to Federal Income Tax law (§350) in the USA, scrap value has to be handled differently in the declining-balance phase of depreciation than after the changeover to straight-line depreciation.

Calculate Shutdown

By specifying shutdown periods in the master record, you can have the system suspend depreciation during shutdown periods.

→ Recommendation

Refer also to the online long texts for these functions in the system.

Calculation Methods (Control Functions)

Use

The system uses calculation methods for the calculation of depreciation and imputed interest. You assign calculation methods to depreciation keys. The calculation methods provide the parameters for the depreciation calculation program.

The calculation of depreciation is controlled by the calculation methods, the control parameters that are entered in depreciation keys, and the cutoff value keys.

Features

You maintain each calculation method separately, and then assign it to a depreciation key. Since the individual calculation methods are independent of each other, you can use a given calculation method in more than one depreciation key. As a result, you do **not** have to define a large number of new calculation methods in order to maintain a number of depreciation keys that function similarly.

The individual calculation methods, with the exception of the base method, are dependent on the chart of depreciation. This means you can represent your country-specific depreciation requirements by means of calculation methods that are chart-of-depreciation-specific. The system helps you to choose the right methods by only offering methods for selection that apply to your given chart of depreciation. You can also enter default values for depreciation areas and company codes.

The following graphic provides an overview of the control functions of calculation methods.

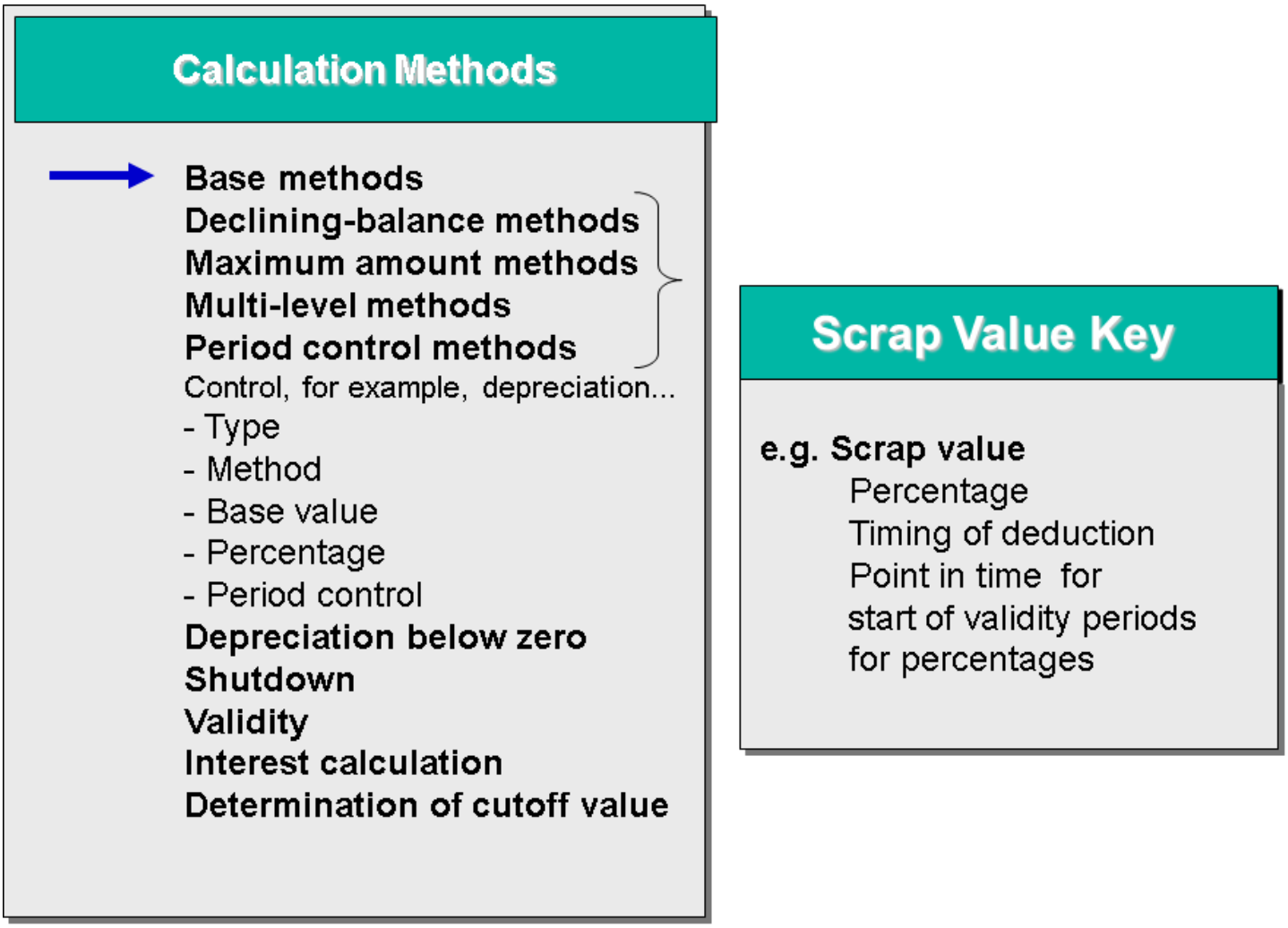


Figure 29: Figure: Calculation Methods

The standard calculation methods are an integral part of the system and **cannot** be altered. If you need to modify a calculation method for legal or business reasons, copy the calculation method and make the alterations to the copy. The key of the calculation method that you create has to begin with X , Y or Z.

Any changeovers to other calculation methods during the duration of depreciation are defined in the depreciation key.

Calculation Methods

Calculation Method	control parameters
Base Method	Depreciation type (ordinary or special depreciation, interest) Depreciation calculation method (for example, Stated percentage) Ending Depreciation
Declining-Balance Method	Declining-balance multiplication factor, maximum and minimum percentage rate
Maximum Amount Method	Maximum amount, currency, validity date
Multi-Level Method	Validity date or period, levels, base value, calculation of percentage or remaining useful life, reduction of base value
Period Control Method	Period control for acquisition, subsequent acquisition, retirement, transfer

→ **Recommendation**

Refer also to the system long text documentation for the control parameters of the individual calculation methods.

Activities

If you need your own calculation methods, define them in FI-AA Customizing. Choose **Depreciation Valuation Methods Depreciation Keys Calculation Methods** .

Base Method

Use

The base method contains general control parameters the system needs for calculating depreciation. You enter the base method in a depreciation key. The base method is independent of the chart of depreciation, meaning that it does not contain any country-specific settings.

Features

You specify the following in the base method:

- Depreciation type
- Depreciation calculation method
- Treatment of the end of depreciation

Activities

If you need base methods other than those provided by SAP, define your own base methods in FI-AA Customizing. Choose **Depreciation Valuation Methods Depreciation Keys Calculation Methods** .

Depreciation Calculation Methods

Use

The depreciation calculation method is the most important characteristic of the base method. The depreciation calculation method makes it possible to carry out the numerous different types of depreciation calculation in the system. Depending on how the depreciation calculation method is set up, the system determines which further control parameters need to be specified in the depreciation key. For example, when you choose the **Stated percentage** depreciation calculation method, you have to enter a percentage in the depreciation key.

Features

The following depreciation calculation methods are available in the standard system.

Percentage from Useful Life / Percentage from Remaining Useful Life

There are two variants of this depreciation calculation method:

- The system determines a depreciation percentage rate from the total useful life; the rate remains the same for each year.

- The system calculates a new percentage rate for each year based on the remaining useful life. The depreciation percentage rate rises constantly until it reaches 100% in the last year of the useful life.

Total Percentage Rate in the Tax Concession Period

This method allows you to depreciate a certain percentage rate from the depreciation base within a tax concession period. In order to calculate the current periodic depreciation, the system first determines the accumulated depreciation up to the period under consideration. The period depreciation is the difference between the already existing depreciation and the total depreciation allowed. With subsequent acquisitions, the system automatically catches up depreciation from previous years in a lump sum.

Stated Percentage Rate

In contrast to a total percentage rate, here you specify the percentage rate for each fiscal year. The system uses this percentage rate for calculating depreciation for each period. For example, you can depreciate 3.5% in each of the first 12 years, then 2% a year for 20 years and 1% per year for the remaining 18 years. The total of the percentage rates over the useful life is always 100%, so that complete depreciation is reached by the end of the useful life.

Percentage Rate from Remaining Life + Changeover Date – Depreciation Start Date

This method is used as a changeover method (in the next phase in the depreciation key) following depreciation within the tax concession period of an investment support measure. The net book value of the asset will be depreciated over the total useful life when the tax concession period ends (that is, the actual duration of depreciation encompasses the tax concession period plus the total useful life that is entered).

Mean Value from Several Areas

When defining depreciation areas, you can establish dependencies between them by specifying a mathematical formula. This method allows you to calculate depreciation in one area based on the depreciation in another area using this mathematical formula. Using this method you can, for example, calculate the mean value of straight-line depreciation and declining-balance depreciation.

Unit-of-Production Depreciation

Unit-of-production depreciation is based on the output-related use of the asset. When you specify a total expected output or a total expected number of units, and the exact output per period or exact unit of production output figure per period, the system determines the resulting depreciation for each period. You enter the output or number of units at the level of the depreciation key.

Depreciation Over Remaining Units of Production

In the same way as with the unit-of-production method of depreciation, the amount of depreciation here is dependent on output. In contrast to the unit-of-production method of depreciation, the system uses the remaining units of production and **not** the total units of production to determine the periodic depreciation. Depreciating using the remaining units of production ensures that, for post-capitalization, the book value reaches zero when the total output or the total units of production is reached.

Sum-of-the-Years-Digits Method

An arithmetic sequence is set up based on the total useful life. The depreciation percentage rate is proportional to the remaining useful life.

Depreciation According to the Present Value of Lease Installments

This depreciation calculation method is designed for leased assets that have been capitalized using the capital lease procedure. The depreciation amounts correspond here to the present value of the periodic lease installments. The interest is determined as the difference between the lease installment and the present value.

Declining-Balance Method of Depreciation According to Japanese Regulations

See Japan: Declining-Balance Method of Depreciation.

Custom Depreciation Calculation Methods

You can program your own depreciation calculation methods using the Business Add-In (BAdI) FAA_EE_CUSTOMER and its method SET_PERCENT_AMOUNT. For more information, see the documentation of the BAdI in Customizing for **Asset Accounting** under **Depreciation Valuation Methods Enhancements Program Enhancement for New Depreciation Calculation Create Implementations for Add-In for Depreciation Calculation** .

Ending Depreciation

Use

The depreciation of a fixed asset is usually finished when a net book value of zero or the end of the planned useful life has been reached. Sometimes, the book value has not yet reached zero when the useful life is expired, due to the depreciation method used. By adjusting the way the system handles the end of depreciation (in the base method), you can continue to depreciate beyond the end of the useful life.

Features

You specify how the end of depreciation is handled in the base method, which is independent of the chart of depreciation. However, you can enter default value for depreciation areas and company codes in Customizing for **Asset Accounting (Depreciation Valuation Methods Depreciation Key Default Values**). Using such default values, you can maintain your base methods so that you have different ways of handling the end of depreciation in different depreciation areas and company codes.

Depreciation Calculation after End of Planned Useful Life

The system continues to calculate depreciation after the planned useful life of the fixed asset has ended.

Curb

With depreciation beyond the planned useful life, the depreciation percentage rate can be derived, not only from the planned useful life, but also from the actual useful life. This method produces a declining-balance effect instead of a straight-line effect (curb).

Example

An asset that originally had a useful life of 10 years is depreciated in year 11 by 1/11 = 9.09 %, in year 12 by 8.33 % and in year n with 100/n %.

When you use below-zero depreciation with a curb, the system determines the percentage rate, after the end of planned life, to the exact period and not to the year.

Depreciation Below Zero

It is also possible to depreciate below zero as long as the depreciation area allows a negative net book value. You have to set an indicator in the base method to allow this kind of depreciation. Depreciation below zero can, for example, be useful for cost-accounting purposes.

If you choose an appropriate changeover method, you can also depreciate after the end of useful life using a different depreciation key. For more information, see Changeover Method .

Reduce Useful Life at End of Fiscal Year

Depreciation usually ends within the fiscal year due to the fact that the depreciation start date for the asset is also within the fiscal year. Using a setting in the base method, you can automatically reduce the useful life so that the close of depreciation always falls at the end of the fiscal year.

Declining-Balance Method

Use

Diminishing-rate depreciation includes both the declining-balance method, as well as the sum-of-the-years-digits method (see Depreciation Calculation Methods).

Features

The normal declining-balance method of depreciation multiplies the straight-line percentage rate resulting from the useful life by a given factor. Since a relatively short useful life can produce a very large depreciation percentage rate, you can specify a maximum percentage rate as the upper ceiling limit in the declining-balance method. A similar principle applies for a very long useful life. Entering a minimum percentage rate prevents the percentage rate from sinking below a given level.

Maximum Amount Method

Use

You use the maximum amount method to specify the maximum amount up to which the system should calculate depreciation until a certain calendar date. In this way, you can meet those legal requirements, for example, that allow depreciation for certain assets only up to a set amount. During the specified time period, the system calculates depreciation only until this amount is reached.

The maximum amount method does not function in the same way as a maximum base value for depreciation . With such a maximum base value, depreciation is based on a limited acquisition value, which may be below the actual acquisition value, being used from the start as the base value for depreciation. In contrast, the system calculates depreciation without any dependency on the acquisition value when a maximum amount method is used. As soon as the maximum depreciation amount that you entered is reached, the system stops calculating depreciation.

You enter the maximum amount method in the depreciation key.

Activities

If you need maximum amount methods, define them in FI-AA Customizing. Choose **Depreciation Valuation Methods Depreciation Keys Calculation Methods** .

You also specify there whether the maximum amount applies to annual depreciation or accumulated depreciation.

Multi-Level Method

Use

Base methods for certain depreciation calculation methods (**Stated percentage** and **Total percentage in concessionary period**) use either a total percentage rate or a periodic percentage rate to calculate depreciation. You can divide these calculation keys into as many levels as you like. A level, in this sense, represents the period of validity of a certain percentage rate. This percentage rate is then replaced by the next percentage rate when its period of validity has expired.

Features

Period of Validity for the Individual Levels

You determine the validity period for the individual levels of a key by specifying the length of time in years and months. You can choose whether the defined validity period begins with

- The capitalization date
- The start date for ordinary or tax depreciation
- The original acquisition date of the asset under construction
- The changeover year

The defined time periods of a key always have a common start date. This means that the period from the start of one key to its end will overlap with the next period, which has the same start date but a longer validity period. Therefore, you have to enter the validity periods for the levels in cumulative form.

There is a special indicator you can use when you work with non-calendar fiscal years. The indicator allows you to specify that the definition of the levels applies to the fiscal year and not to the calendar year. However, be aware of the considerations involved when using shortened fiscal years (see Shortened Fiscal Years).

Depreciation Percentage Rates

How you enter the depreciation percentage rate is dependent on the depreciation calculation method being used:

- When using the **Total percentage in concessionary period** depreciation calculation method, you also have to enter the depreciation percentage rate in cumulative form (see example).
- When using the **Stated percentage** depreciation calculation method, you do not enter the percentage rate in cumulative form.

Example

The following example shows the definition of five levels, each one of which should last for a year. The **Total percentage in concessionary period** depreciation calculation method is being used. The depreciation percentage rates in the individual years are 60, 10, 10, 10, and 10%.

Validity period	Percentage
1 year	60
2 years	70
3 years	80
4 years	90

5 years	100

In addition, you can limit the levels according to specific acquisition years. This enables you, for example, to observe certain legal requirements that place time restrictions.