



SAP Treasury and Risk Management (TRM)

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SAP Treasury and Risk Management (TRM)

Purpose

SAP Treasury and Risk Management is a series of solutions that are geared towards analyzing and optimizing business processes in the finance area of a company.

Transaction Manager

A core task in many finance departments is concluding financial transactions. Depending on the company policy, the emphasis can either be on providing an internal service for the affiliated group companies, or participating actively in the financial markets in order to invest liquid assets, finance planned investment, or hedge existing risks. The Transaction Manager provides the instruments for processing the related financial transactions, from deal capture through to transferring the relevant data to Financial Accounting. The system supports both traditional treasury departments that focus on trading as well as asset management departments. This enables you to use the same platform for various types of transaction - from short-term finance to longer-term strategic investments.

See also: [Transaction Manager](#)

Market Risk Analyzer

Alongside traditional finance management tasks, such as cash management and liquidity assurance, effective market risk management is a decisive factor in securing your company's competitive position. In this field, the Market Risk Analyzer offers extensive position evaluations, such as mark-to-market valuations of financial transactions. It also includes tools for calculating risk and return figures, including exposure, future values, sensitivities and value at risk. When you run these reports, you can incorporate both contracted positions and fictitious financial transactions in the calculations. The valuations can be based on both real and simulated market prices. Together with a high degree of flexibility for creating reports, the Market Risk Analyzer provides a reliable evaluation basis for market risk controlling.

See also: [Market Risk Analyzer](#)

Credit Risk Analyzer

The Credit Risk Analyzer focuses on measuring, analyzing and controlling counterparty default risk. The first phase aims to cover the specific risks associated with financial transactions in a company. The Credit Risk Analyzer enables you to control risks actively by setting limits. This is supported by flexible limit management functions with online monitoring, as well as extensive reporting options. As a result, managers are in a position to identify credit risks as they occur and act accordingly.

See also: [Credit Risk Analyzer](#)

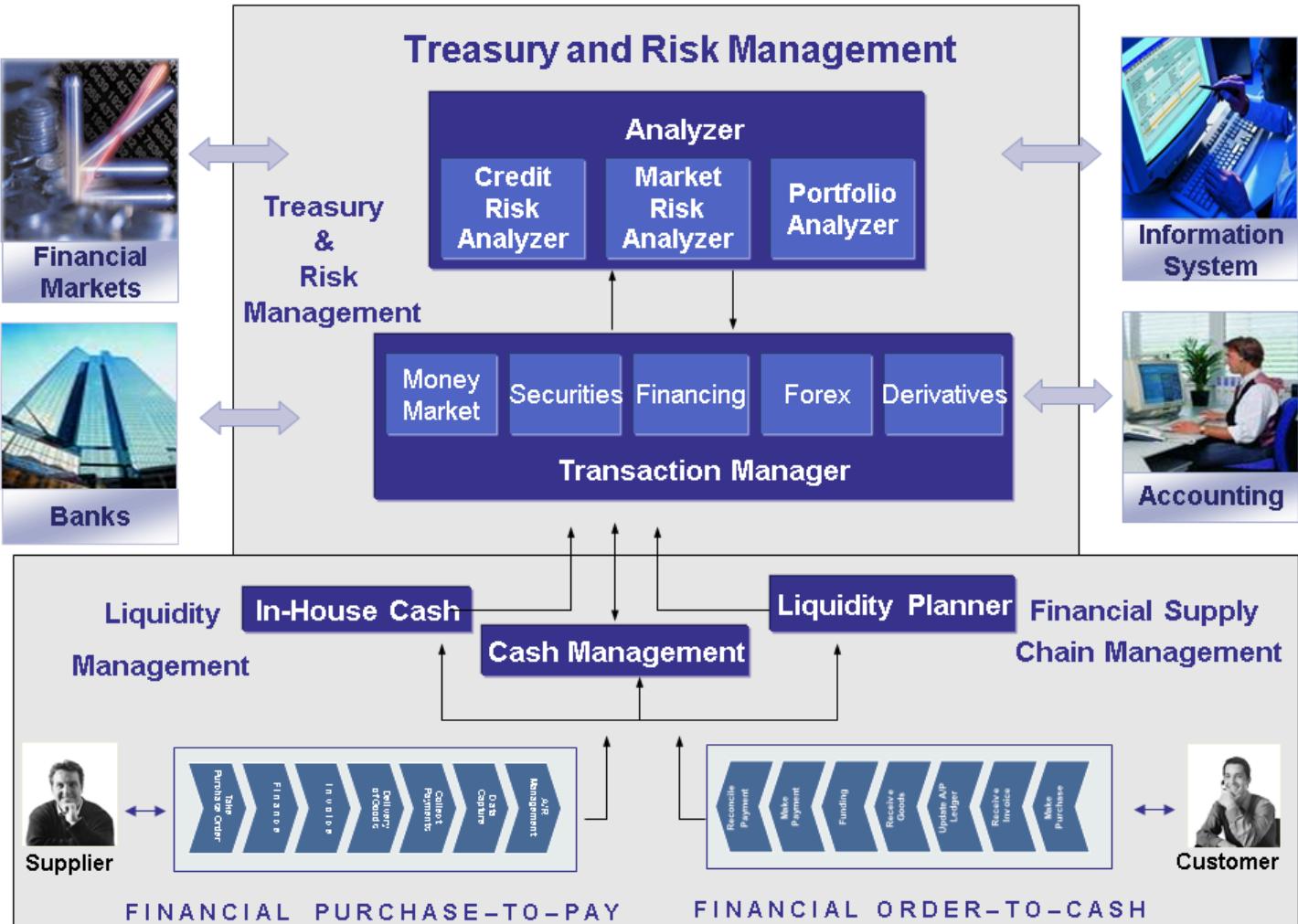
Portfolio Analyzer

Given that the funds available for investment are usually limited, and that there are numerous investment options to choose from, the crucial question for investment policy decisions is how well the investments have actually performed. The economic success of an investment is therefore a critical factor when it comes to making investment policy decisions. The Portfolio Analyzer is designed to provide the answers to this question. It measures the exact return on investments, compares the results to prescribed targets, and breaks down the overall performance into its component parts by attributing the individual portfolio positions to the total result. The basis for these evaluations is the portfolio structure, which lets you group investments into different categories. You can run evaluations for portfolios at different levels in the portfolio hierarchy, or for an asset category across several portfolios.

See also: [Portfolio Analyzer](#)

Integration

SAP Treasury and Risk Management is an integrated solution, in which the various components are closely linked. The financial transactions managed in the **Transaction Manager** can be evaluated and monitored using the analyzer components. In addition to the TRM analyzer components **Market Risk Analyzer**, **Portfolio Analyzer**, and **Credit Risk Analyzer**, the **Transaction Manager** is also linked to [SAP Cash Management](#).



See also:

[Roles in Treasury and Risk Management](#)

[Creating Single Roles](#)

Business Partner

Business Partner Roles in TRM

Definition

The component **Treasury and Risk Management** uses as the business partner the **SAP Business Partner for Financial Services**. For more information, see the section [SAP Business Partner](#).

Use

A business partner can assume different **business partner roles (BP roles)** for **Treasury and Risk Management**. The BP roles are used to classify the business partner from the business perspective. In the standard system, the following roles are supported for TRM:

- Issuer
- Counterparty
- Issuer
- Guarantor

Guidelines for Converting Business Partners

Purpose

SAP has introduced **SAP Business Partner** to enable standardized business partner management. For Financial Services (FS), **SAP Business Partner** was enhanced to include attributes specific to financial services and is called **SAP Business Partner for Financial Services**. **SAP Business Partner** replaced **Treasury Business Partner**. This replacement process is described as a business partner conversion.

These guidelines provide information about how to convert to SAP Business Partner. They offer a detailed description of the steps you need to take, the report programs you need to run, and the relevant tables and attributes for the respective phases.



As of **Banking 4.63/CFM 2.0**, all Financial Services applications use SAP Business Partner. Only the **Real Estate (RE)** application continues to use **Treasury Business Partner** up to **SAP ECC 5.00**. For this reason, **Treasury Business Partner** was renamed **Real Estate Business Partner** as of **Banking 4.63/CFM 2.0**.

As of **SAP R/3 Enterprise Financial Services 2.00**, the **Flexible Real Estate Management (RE FX)** application, which uses SAP Business Partner, is available in addition to the classic **Real Estate (RE)** application. You can convert **Real Estate (RE)** to **Flexible Real Estate Management (RE FX)** and consequently switch business partner processing in **Real Estate (RE)** from **Real Estate Business Partner** to **SAP Business Partner** as of **SAP ECC 6.00**.

Implementation Considerations

Whether or not you need to convert from Treasury Business Partner to SAP Business Partner depends on certain conditions.

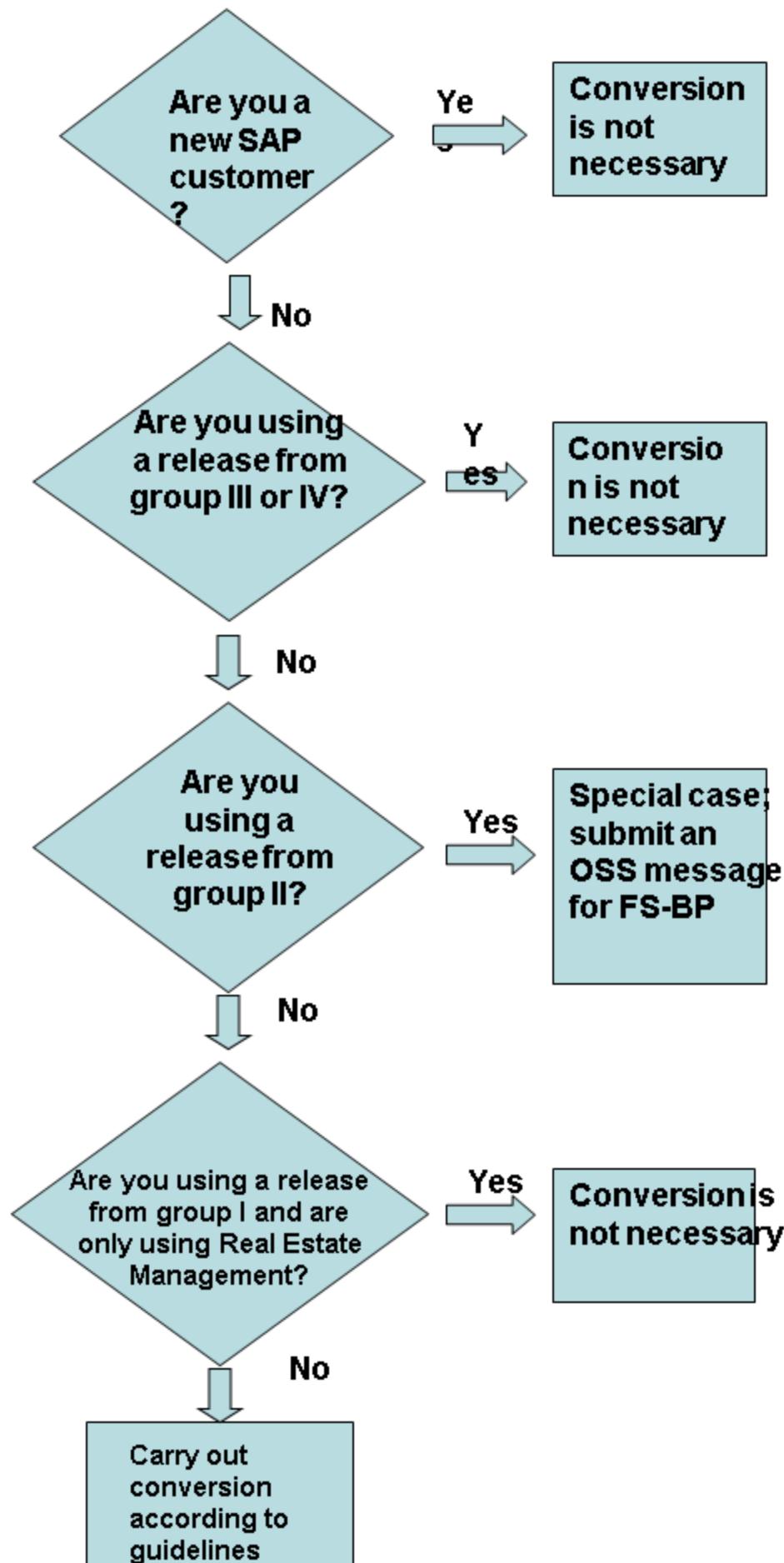
The following table provides you with an overview of the use of Treasury Business Partner and SAP Business Partner in the individual applications at various release levels. The release levels were divided into four groups, from I-IV, to make it easier to decide when to carry out the business partner conversion as described in the subsequent graphic.

Release Group	Core Release/Add-On/Extension	Application	Business Partner in Use	
			Treasury Business Partner	SAP Business Partner

	4.0B 4.6B 4.6C	FS applications: - Treasury (TR) - Statutory Reporting for Insurance (IS-IS-SR) Real Estate (RE) Classic	In use In use In use	
II	4.6C with Banking 4.62/CFM 1.0	Special case; contact SAP		
III	4.6C with Banking 4.63/CFM 2.0 4.70 with EA-FINSERV 1.10	FS applications: - Corporate Finance Management (CFM) - Bank Customer Accounts (IS-B-BCA) - SEM Banking - Loans Management (FS-CML) Real Estate (RE) Classic	In use 	In use In use In use In use
IV	4.70 with EA-FINSERV 2.0 4.70 with ECC 5.00 4.70 with ECC 6.00	Flexible Real Estate Management (RE-FX) FS applications: - Corporate Finance Management (CFM) - Bank Customer Accounts (IS-B-BCA) - SEM Banking - Loans Management (CML) Real Estate (RE) Classic	In use 	In use In use In use In use

If you are upgrading to **Banking 4.63/CFM 2.0** or higher and are using at least one of the Financial Services applications, you have to convert Treasury Business Partner to SAP Business Partner.

Check whether it is necessary to carry out the business partner conversion for the upgrade you want to implement. The following graphic should help you make your decision. The release groups in the graphic refer to the groupings in the previous table.



Similar to the euro conversion, the time required for the business partner conversion is considerably more than for a normal release upgrade.



We recommend you take account of the time required when planning the upgrade.

Note that you have to carry out all phases of the business partner conversion.

Scope of Functions

The business partner conversion must meet different customer-specific requirements. These are, for example:

- The re-numbering of the business partners or transfer of the **Treasury Business Partner** numbers to **SAP Business Partner**
- The use of **Real Estate (RE)** and/or
- The use of Financial Services applications
- Customer enhancements that have to be transferred from **Treasury Business Partner** to **SAP Business Partner for Financial Services**

To meet all these requirements, the business partner conversion takes the form of a modular process based on several, consecutive activities that are spread across the following four phases:

Phase 0: Preparation
Technical and business-related preparation of the business partner conversion.
Phase I: Duplicating Treasury Business Partners in SAP Business Partners
Transfer of the data from the Treasury Business Partner tables to the SAP Business Partner tables.
<p> For more information about the business partner conversion in phase I, and the report programs you need to run, see Business Partner Conversion (Phase I).</p>
Phase II: Technical DDIC Conversion and Content Conversion
Conversion of the references from Treasury Business Partner to SAP Business Partner in the customer applications, and content conversion of the key values in the application tables.
<p> For more information about the business partner conversion in phase II, and the report programs you need to run, see Business Partner Conversion (Phase 2).</p>
Phase III: Follow-up
Follow-up and check.

As far as possible, all the required activities have been implemented in the form of reports. This applies to the technical part of the conversion in particular, which covers the duplication of the business partner in phase I, as well as the DDIC conversion and the content conversion of the application tables in phase II. The reports are integrated in an SAP conversion tool. This tool provides an infrastructure for the reports to be carried out which ensures that the reports can be restarted and that they are connected to a log system. Reports from phase I are summarized in the conversion tool for project 0001, reports from phase II in project 0003. In addition, a number of activities are necessary that cannot be automated in reports. These include the steps required in preparing the conversion and the follow-up.

All the steps you need to perform in the four phases, as well as the steps to be performed manually and the reports in the conversion tool, are listed in the correct processing sequence in the overview under [Activities for Business Partner Conversion](#). The individual steps are described in detail in the sections that follow.

You can access the business partner conversion reports in the conversion tool for **SAP Business Partner for Financial Services**, which you will find in Customizing for **SAP Business Partner for Financial Services**. The following path in the Implementation Guide (IMG) brings you to business partner conversion control:

► **SAP Business Partner for Financial Services** ► **Settings for Financial Services** ► **Interfaces/Data Exchange** ► **Settings for Business Partner Conversion** ► **Conversion: Phase I** ► **Conversion: Phase II** ► **Execute Conversion** ► **Execute Conversion Reports**

The conversion reports and their respective statuses are listed here in the sequence in which they should be executed.



As the status of the report influences the processing of the following report, we recommend you call only the reports from this Customizing activity.

Important Information in the Overview

- Even if you use the Treasury Business Partner and the SAP Business Partner in parallel, you have to carry out the business partner conversion for all business partners at the same time. This means that you cannot start phase II of the conversion until all Treasury business partners from table BP000 have been converted.
- If you use only the Treasury Business Partner, do not carry out the business partner conversion.
- As soon as one FS application uses the SAP Business Partner, you must carry out the business partner conversion (with the exception of new customers).
- The activities for all 4 phases must **always** be carried out so that the business partner conversion can be performed in full.
- “DDIC conversion” implies the DDIC changes to customer tables in the new domains or data elements.
- “Content conversion” implies the changes to the key values and attributes in the application tables (for example, in table **VDGPO** in the field **Role**, the SAP Business Partner key **TR0100 Main Loan Partner** replaces the Treasury Business Partner key **0100 Main Loan Partner**).
- The business partner conversion is carried out separately for each client.
- The business partner conversion cannot be carried out in parallel in several clients.
- If you have your own development objects that are locked in transport requests that have not yet been released, then these requests have to be released before you can start phase II of the conversion.
- If business partners are in the release process (principle of dual control), then release these before business partner conversion. The content of the release table is not converted.
- The business partner conversion creates identical numbers for the Treasury Business Partner and the SAP Business Partner.
- Data from customer master records is not converted explicitly. The customer master record for the migrated Treasury Business Partner is assigned to each SAP Business Partner using the table **BD001 (Assignment of Customer Master Record to Business Partner)**. The corresponding customer number is used to access the customer master record tables that already exist (**KNA1**, **KNB1**, **KNB5**).
- All of the relevant notes on the business partner conversion, together with the respective support package (SP) levels for the releases, are contained in composite note **398888** .



SAP recommends that you have at least the following support package (SP) level to implement the business partner conversion for the respective releases:

Release	Recommended SP level
SAP Banking 4.63/CFM 2.0	SP 25
SAP R/3 Enterprise Financial Services 1.10	SP 17
SAP R/3 Enterprise Financial Services 2.0	SP 8
SAP ECC 5.00	SP 4

Carrying Out Business Partner Conversion

Purpose



We recommend that you carry out the business partner conversion according to the following three-step procedure.

This procedure helps you improve the quality of the business partner conversion in the production system, and reduce the amount of time spent on the conversion process.

Prerequisites

For more information about the requirements for carrying out the business partner conversion, see [Guidelines for Converting Business Partners](#).

Process Flow

1. Execute a test run for the business partner conversion in your **development system**.

The development system should roughly correspond to the production system in terms of data volume and hardware configuration, so that you can gain a realistic estimation of the runtimes for the individual reports in the conversion tool.

The test run should also show whether you will have to import other notes or make adjustments to the Customizing settings.

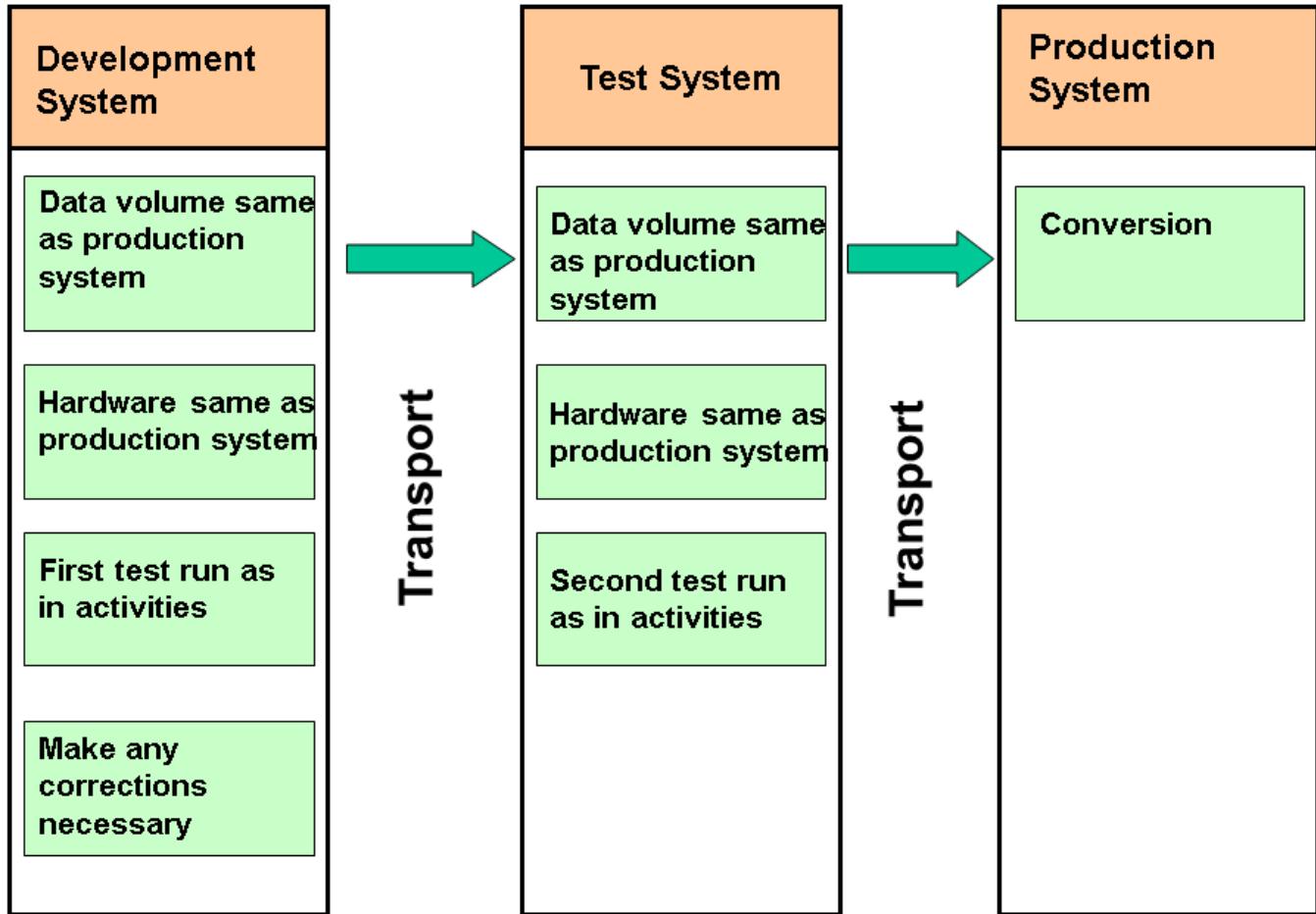
2. After you have ensured that the business partner conversion runs trouble-free in the development system, you then transport any corrections you have made to the test system.

3. Execute a second test run in the **test system**.

The data in the test system must match the data in the production system exactly. This is the only way to guarantee that any unclean data is discovered and cleaned up before you carry out the conversion in the production system. Incomplete data records are not converted by the reports in the conversion tool, but are output as errors in the log. Before you begin with the conversion in the production system, the reports should have run without errors in the test system.

4. If the business partner conversion has run without errors in the test system, execute the conversion in the **production system**.

The following graphic illustrates the process and the factors to be taken into consideration during business partner conversion:



i

Execute the test runs and the conversion in the production system as described in [Activities for Business Partner Conversion](#).

The activities contain only the steps that are relevant for the four phases of business partner conversion in the standard system. As your system may have additional special features, you may need to carry out additional steps. Each step requires you to have carried out **all** previous steps (providing they are relevant for the release to which you want to upgrade). You can find the relevant release for each activity in [Guidelines for Converting Business Partners](#).

Activities for Business Partner Conversion

Purpose

The business partner conversion involves carrying out manual activities and executing conversion reports.

You can access the business partner conversion reports in the conversion tool in Customizing for the **SAP Business Partner for Financial Services**. The following path in the Implementation Guide (IMG) brings you to business partner conversion control:

▶ **SAP Business Partner for Financial Services** ▶ **Settings for Financial Services** ▶ **Interfaces/Data Exchange** ▶ **Settings for Business Partner Conversion** ▶ **Conversion: Phase I** or ▶ **Conversion: Phase II** ▶ **Execute Conversion** ▶ **Execute Conversion Reports.**

The IMG activity **Execute Conversion Reports** enables you to execute all of the relevant conversion reports for the respective phases centrally, in the correct sequence. You should therefore access these conversion reports only through the IMG activities.



If you access the business partner conversion using the control for the IMG activity **Execute Conversion Reports**, you can display the log for each of the latest report runs using the **Last Log** function.

Prerequisites

For detailed information about the requirements for carrying out the business partner conversion, see [Guidelines for Converting Business Partners](#).

Process flow

For general information about carrying out the business partner conversion, see [Carrying Out Business Partner Conversion](#).

All of the relevant steps for carrying out the business partner conversion are listed in the following table. The overview contains the steps defined in the standard system. If there are special points to consider in your system, additional steps may be necessary.



All of the steps must be carried out for each client.

Each step requires you to have carried out all of the previous steps (providing they are relevant for the release to which you want to upgrade).



This table is meant to be used as the basis for a working document. You can use this to check that all the business partner conversion activities have been completed.

Execute	Process step	From release	Status	Remarks
Phase 0	Preparation			
Manual	Read the documentation on business partner conversion	Banking 4.63/CFM 2.0		
Manual	Check the technical requirements of your system	Banking 4.63/CFM 2.0		
Manual	Read the data model documentation for the SAP Business Partner	Banking 4.63/CFM 2.0		
Manual	Clean up Treasury Business Partner data, if necessary	Banking 4.63/CFM 2.0		
Manual	Create and save a dataset	Banking 4.63/CFM 2.0		

Manual	Prepare number assignment for the SAP Business Partner	Banking 4.63/CFM 2.0		
Manual	Initialize the reports and set conversion control phase 1	Banking 4.63/CFM 2.0		
Phase 1	Duplicating the Business Partner			
	Generation of Customizing			
Program	RFTBUC00: Initialization of Conversion Control Tables	Banking 4.63/CFM 2.0		
Program	RFTBUC01: Initialization of Customizing	Banking 4.63/CFM 2.0		
Program	RFTBUC03: Generation of Additional Customizing Tables	Banking 4.63/CFM 2.0		
Program	RFTBUC02: Customizing Generation for the SAP Business Partner	Banking 4.63/CFM 2.0		
Manual	Check the Customizing structure	Banking 4.63/CFM 2.0		
	Business Partner Conversion			
Program	RFTBUP01: Business Partner Conversion	Banking 4.63/CFM 2.0		
Program	RFTBUP02: Conversion of Business Partner Relationships	Banking 4.63/CFM 2.0		
Program	RFTBUP06: Conversion of Notes	Banking 4.63/CFM 2.0		
Program	BUPXPRA12: Conversion of Industry Sectors	R/3 Enterprise Financial Services 1.10		
Program	BUPXPRA13: Conversion of Identification Numbers	R/3 Enterprise Financial Services 1.10		
	Reconciliation of Business Partners			
Program	RFTBUP03: Determination of Duplicates	Banking 4.63/CFM 2.0		
Program	RFTBUP03_2: Reconciliation of	Banking 4.63/CFM 2.0		

	<u>Duplicates</u>			
Program	<u>RFTBUD03: Deletion of Duplicates</u>	Banking 4.63/CFM 2.0		
Phase 2	DDIC Conversion and Content Conversion			
	DDIC Conversion			
Manual	<u>Exchange data elements relevant for conversion</u>	Banking 4.63/CFM 2.0		
Program	<u>RFTBUH02_0: Copying of Control Tables</u>	Banking 4.63/CFM 2.0		
Manual	<u>Exclude business partner numbers from content conversion</u>	Banking 4.63/CFM 2.0		
Program	<u>RFTBUH02_1: Determination of Data Elements to Be Converted</u>	Banking 4.63/CFM 2.0		
Manual	<u>Flag customer data elements for DDIC conversion</u>			
Manual	<u>Create a transport request for converting customer objects</u>			
Program	<u>RFTBUH05: Copying of Data Elements to Be Converted</u>	Banking 4.63/CFM 2.0		
Program	<u>RFTBUH03: Exchange of Domains in New Data Elements</u>	Banking 4.63/CFM 2.0		
Program	<u>RFTBUH06: Exchange of Old for New Data Elements</u>	Banking 4.63/CFM 2.0		
Program	<u>RFTBUH04: Reassignment of Foreign Keys</u>	Banking 4.63/CFM 2.0		
Program	<u>RFTBUH02_2: Determination of Table Fields to Be Content Converted</u>	SAP Banking 4.63/CFM 2.0		
Program	<u>RFTBUH02_3: Analysis of Objects Relevant for Content Conversion</u>	Banking 4.63/CFM 2.0		
Program	<u>RFTBUP10_BP000: Content Conversion of</u>	Banking 4.63/CFM 2.0		

	Business Partner Numbers		
	Content conversion of field values		
Program	Content Conversion of Tables with Supplied Reports	SAP Banking 4.63/CFM 2.0	
Program	RFTBUP09: Generation of Content Conversion Reports	SAP Banking 4.63/CFM 2.0	
Program	RFTBUP11: Content Conversion of Tables with Generated Reports	Banking 4.63/CFM 2.0	
Program	RFTBUP10_TABNAME	Banking 4.63/CFM 2.0	
Phase 3	Postprocessing		
Manual	Release business partner processing		

Business Partner Conversion (Phase 0)

In the following sections you will find further information on the individual activities for business partner conversion phase 0.

Reading Documentation and Checking Technical Requirements

Use

To prepare the business partner conversion, you should read all the documentation on the business partner conversion, and check the technical requirements for your system.

Procedure

1. Read all the documentation on the business partner conversion to gain an overview of what is required.
2. Use the Note Assistant in the Internet, or transaction [OSS1](#), to read composite note 398888 in your system. This composite note contains all the SAP Notes that were previously created on the business partner conversion, together with the relevant support package release levels.

On the one hand, it deals with program corrections that you can import with the Note Assistant (SNOTE). On the other hand, it also contains Customizing corrections that have to be entered manually in your system and then transported. Several Notes were created in order to help consultants explain certain complex issues. It is therefore necessary to look at the content of all the notes to understand the problems they deal with.

3. Ensure that the collective corrections contained in SAP Note 398888 have been implemented in your system, or that your system is at the required support package level before you begin the conversion.

Reading Data Model Documentation for the SAP Business Partner

Read the documentation on the data model for the SAP Business Partner for Financial Services to gain an overview of the new data model and scope of functions for the SAP Business Partner, as well as the differences between the Treasury Business Partner and the SAP Business Partner.



You will find the documentation for the **SAP Business Partner for Financial Services** in the SAP Library under **SAP ERP Central Component** ➤ **Accounting** ➤ **SAP Banking** ➤ **SAP Business Partner for Financial Services**.

You will find the documentation for the **Treasury Business Partner** by choosing **SAP ERP Central Component** ➤ **Accounting** ➤ **SAP Banking** ➤ **Loans Management (FS-CML)** ➤ **Master Data** ➤ **Objects** ➤ **Real Estate Business Partner**.

You should gain an overview of the following topics in particular:

- Role concept for the SAP Business Partner
- Time-dependency of address usages
- Business partner **Group** category

Result

You have gained an impression of the differences, from a business perspective, between the SAP Business Partner and the Treasury Business Partner, and the work that needs to be carried out before the conversion.

Cleaning Up Treasury Business Partner Data

Use

You can clean up Treasury Business Partner data to improve the quality of the business partner conversion.

Procedure

Customer/Vendor Integration

In the standard system, the customer master record assignments to Treasury Business Partner are transferred to SAP Business Partner.



If you no longer want to use customer integration in SAP Business Partner, you could write your own program to delete the link between the customer and the business partner. Note that you should start this program only after you have converted the business partner. If the link to the customer has already been deleted before the business partner is converted, it is possible that bank details assigned to Treasury Business Partner may not be transferred to SAP Business Partner. After the business partner conversion, proceed as follows to remove the link to the customer:

1. Create a report to delete the "Customer Number 1" field (CUSTOMER field) in table BP000 for all business partners.

2. Delete all the entries in the link tables of SAP Business Partner containing the customer (BD001 and CVI_CUST_LINK, the latter exists only as of ERP 2005).

Note that you should delete these entries only if you are sure that there are no more postings linked to the business partner. Deleting these entries could result in data inconsistency if you do not check your data thoroughly beforehand. For this reason, we cannot assume any responsibility for the deletion.

For more information about customer integration, see [Master Data Synchronization](#) and [Customer/Vendor Integration](#).

Creating and Saving a Dataset

Use

To gain information on the quality of the business partner conversion, any special points to be considered, and on the converted business partners themselves, define and save the dataset to be converted.

Procedure

1. Before you begin the business partner conversion, check the number of your Real Estate Business Partners. Determine the number of business partner entries in the table **BP000 (Business Partner Master (General Data))** for the Real Estate Business Partner. Note this number!

After you have successfully carried out business partner conversion phase 1, the same number of business partner entries should have been generated in the corresponding table **BUT000 (BP: General Data I)** for the SAP Business Partner.

2. Before you carry out the business partner conversion, check whether SAP Business Partners already exist in your system. Determine the number of business partner entries in the table **BUT000 (BP: General Data)** for the SAP Business Partner.

Ideally, no SAP business partners will be in use, and there will be no entries in table **BUT000**. If you are already using both **Real Estate Business Partners** and **SAP Business Partners**, note the special points in the documentation for the respective reports.

Initializing Reports and Setting Control

Use

The control screen for the business partner conversion is a standard initial screen for using all the report programs, which you need to convert the Treasury Business Partner to the SAP Business Partner.

The following path in the Implementation Guide (IMG) brings you to business partner conversion control:

► **SAP Business Partner for Financial Services** ► **Settings for Financial Services** ► **Interfaces/Data Exchange** ► **Settings for Business Partner Conversion** ► **Conversion: Phase I** ► **Execute Conversion** ► **Execute Conversion Reports**. ▶

In this IMG activity you will find all the reports you need for converting the business partner data **sorted in the correct sequence**.

For this reason, use only this IMG activity to call the report programs, as it provides information on the status of the report.

A report program can have the following statuses:

Status	Description
--------	-------------

Not yet run	The report program was not started, either as a Test Run or as an Update Run .
Released	The test run was successful. You can now start the update run.
Not yet allowed	You cannot start the report program yet because another report program has not been run.
Not released	You cannot start the report.
Complete/repeatable	The report program has already been run, but you can run it again.

Procedure

Before the business partner conversion, the status of the reports for phase I must be **Not Yet Run**.

If this is not the case, reset the status of the reports as follows:

1. Choose transaction **SM30**
2. Enter view **V_TPU4** and choose **Change**. Choose project **0001 business partner conversion - new** or **0003 business partner phase 2** as work area.
3. Set the status of all reports to **Space**.
4. Save your entries.

Business Partner Conversion (Phase I)

Purpose

In the following sections you will find information about the individual activities for business partner conversion phase I.

You can find further information on the relevant tables for the business partner conversion under [Relevant Tables for the Business Partner Conversion](#).

Process flow

Business partner conversion phase I is divided into several blocks containing subsequent steps for which corresponding reports are available (see [Activities for Business Partner Conversion](#)):

1. You generate the Customizing for the SAP Business Partner and the conversion Customizing between the Treasury Business Partner and the SAP Business Partner.
2. You create SAP Business Partners from the existing Treasury Business Partners. This step represents the actual business partner conversion.



If you also need to reconcile data, run report RFTBUP06 after you have run the reconciliation report (report RFTBUP03_2) because the reconciliation report does not consider the notes.

3. If SAP Business Partners already exist in your system before you convert the Treasury Business Partner, it may be necessary to run the **reconciliation** report to delete any duplicate entries.

If you are already using the SAP Business Partner, you can still run the conversion from the Treasury Business Partner to the SAP Business Partner. In this case, however, you must enter the conversion Customizing manually. It may also be necessary to set different numbers in phase I.

Relevant Tables for the Business Partner Conversion

Treasury Business Partner Table	Content	Comments	SAP Business Partner Table	Content
Conversion using RFTBUP01				
BP000	Business partner master (general data)		BUT000 BUT001 BP001 BUTOBANK BD001 BC001	General data I General data II FS-specific attributes Bank details Assign customer - partner Assign vendor - partner
BP030	Address		BUT020 BUT021 BAS tables	BP: Addresses BP: Address Usages Business address services tables
BP1000	Roles		BUT100	BP roles
KNBK	Bank details		BUTOBK	BP: Bank details
SANS1	Addresses		BAS tables	Business address services tables
Conversion using RFTBUP02				
BP2000	Relationships		BUT050 BUT051 BUT053	BP relationships: general Data Attribute table without differentiation category

Treasury Business Partner Table	Content	Comments	SAP Business Partner Table	Content
Conversion using RFTBUP01				
				Attribute table Attribute table with differentiation category
Other Tables				
BP011	Employment data	Stays the same		
BP021	Fiscal year information	Stays the same		
BP1010	Credit standing data	Stays the same		
BP1020	Tax data	Stays the same		
BP1030	Regulatory reporting data	Stays the same		
BP1040	Regulatory reporting data in company code	Stays the same		
BP1050	Control data	Stays the same		
BP1060	Company code control data	Stays the same		
BP3000	Additional data	Stays the same		

Generation of Customizing

Purpose

For certain Customizing tables for the Treasury Business Partner, there are corresponding Customizing tables for the SAP Business Partner. In order to generate the SAP Business Partner Customizing, the Treasury Business Partner tables must be assigned to the corresponding SAP Business Partner tables in the conversion Customizing.

The following Customizing tables are assigned:

Tables of the Treasury Business Partner	Description	Tables of the SAP Business Partner	Description
TPZ2	Grouping	TB001	Grouping

TP14	Address ID	TB009	Address types
TPZ7	Relationship category	TBZ9	Relationship category
TPZ3	Role category	TBZ0	Role category
TP01	Form of address	TSAD3	Form of address
T016	Industry sector	TB023	Industry sector
TP08	Legal form	TB019	Legal form
TP09	Legal entity	TB032	Legal entity
TP03	Marital status	TB027	Marital status
TPZ11	Relationship type	TB905	Relationship type
TP16	Department	TB910	Department
TP15	Function	TB912	Function



Some Customizing tables do not have to be converted specifically. This is the case for attributes, which are transferred to a new table that has been defined for the SAP Business Partner (BP001). This means that after conversion, you will access the same table in the SAP Business Partner as you access in the Treasury Business Partner.

For further information about assignment tables, see [Information About Several Converted Customizing Tables](#)

Process flow

Customizing is generated differently, depending on the existing conditions:

Case 1: The SAP Business Partner is not (yet) in use / automatic assignment

If the SAP Business Partner is not yet in use, or if you do not wish to make changes to the SAP Business Partner Customizing, you can initialize the Customizing tables for the SAP Business Partner and build on them directly from the Treasury Business Partner Customizing. You can use the following report programs:

Initialize conversion control tables (RFTBUC00)

Initialize SAP Business Partner Customizing (RFTBUC01)

Generate additional Customizing tables (RFTBUC03)

You do not define occupations, academic titles, or forms of address in the Customizing for the Treasury Business Partner, but enter them in text fields instead. In the SAP Business Partner, however, you define this data in Customizing. You use this report to generate the Customizing settings in SAP Business Partner Customizing from the data for the Treasury business partners that are present in the system.

Generate Customizing for the SAP Business Partner (RFTBUC02)

Case 2: The SAP Business Partner is already in use, or you wish to make changes to the Customizing / no automatic assignment:

The Customizing settings cannot be assigned automatically if the following conditions apply:

If both the Treasury Business Partner and the SAP Business Partner are already in use, then you cannot assign the corresponding Customizing settings automatically.



This is the case even if you have created only one SAP business partner for testing purposes, for example.



For example, the form of address key for **Mr.** is **01** in the Customizing table for the Treasury Business Partner, whereas the corresponding key for the SAP Business Partner is **02**. You must therefore make these assignments manually in the conversion Customizing.

You may already have assigned an address belonging to usage **0001(private address)** to an SAP business partner. However, the corresponding address ID of the Treasury business partner is **PRIVATE (private address)**. You can make this assignment only manually.

You can also use the business partner conversion to make changes to the SAP Business Partner Customizing (for example, if you want to change the Customizing logic).



In the Treasury Business Partner, the form of address key 3 is **Miss**, and you would like to replace this with **Mrs.** in the SAP Business Partner. By making changes manually or carrying out SAP Business Partner Customizing, you can change the Customizing entries generated by the system or make the entries yourself.



If you have defined **Internal Number Assignment** for the Treasury Business Partner and you want to manage the SAP Business Partner with **Identical Numbers**, you first have to manually adapt the number ranges for the SAP Business Partner to the number ranges for the Treasury Business Partner.

Execute transaction **SNRO**.

Enter the number range object **BP_PARTNR (business partner)** for the Treasury Business Partner and choose **Number Ranges** and then **Display Intervals**.

Note the intervals and the current number.

Enter the number range object **BU_PARTNER (centralbusiness partner)** for the SAP Business Partner and choose **Number Ranges** and then **Change Intervals**.

The current number for the respective number range intervals must be the same for both objects. If necessary, adjust the current number for the SAP Business Partner to that of the Treasury Business Partner.

Initialization of Conversion Control Tables (RFTBUC00)

Use

This is the first report you must run for the business partner conversion. It initializes the tables [BPUM](#) and [BPUM_DOM](#). In table BPUM_DOM the exception indicator is initialized and a list of the domains for the Treasury Business Partner is defined. The value tables for the domains must be matched in the conversion Customizing.

During conversion, both tables are once again filled with information that is necessary for conversion phase II.



The content of fields in database tables whose data element refers to a domain listed in the tables BPUM and BPUM_DOM must be converted in phase II, if necessary, according to the rules of conversion Customizing.

Prerequisites

You have not made any previous settings in Customizing for the SAP Business Partner.

Activities

1. Start the report from the Customizing for the [SAP Business Partner for Financial Services](#) by choosing [Settings for Financial Services](#) [Interfaces/Data Exchange](#) [Settings for Business Partner Conversion](#) [Conversion: Phase I](#) [Execute Conversion](#) [Execute Conversion Reports](#).
2. Once you have selected the report, set the [InitializeControl Tables](#) indicator.
3. Execute the report.

Initialization of Customizing (RFTBUC01)

Use

You use this report program to initialize the Customizing for the SAP Business Partner and the conversion Customizing.

After you have run the report, you can generate the conversion Customizing for the SAP Business Partner from the Customizing for the Treasury Business Partner using the report [Customizing Generation for the SAP Business Partner \(RFTBUC02\)](#).

Prerequisites

You can run this report only if two conditions have been fulfilled:

- either **no** SAP Business Partner has been created in your system
- or all the existing SAP Business Partners are inactive because the archiving indicator has been set.

If you created an SAP business partner for testing purposes, or if several active SAP Business Partners already exist in your system, you can initialize the Customizing tables manually or archive the test partner.

Scope of Functions

The report initializes the entries in the following IMG activities under [SAP Banking](#) [SAP Business Partner for Financial Services](#) [General Settings](#):

- Define groupings and assign number ranges
- Define address types
- Maintain forms of address

- Maintain industry systems and industries
- Maintain legal forms
- Maintain legal entity
- Maintain marital status
- Define functions
- Define departments

The report also initializes the entries in the corresponding conversion activities, under **SAP Business Partner for Financial Services** **Settings for Financial Services** **Interfaces/Data Exchange** **Settings for Business Partner Conversion** **Conversion: Phase I** **Assign TR BP to SAP BP:**

- Groupings
- Address ID
- Notes
- Forms of address
- Industry sectors
- Legal forms
- Legal entities
- Marital statuses
- Relationship type
- Functions
- Departments

In addition, it deletes the number ranges of the SAP business partners (number range object BU_PARTNER).



The **Relationship Category** and **Role Category** tables are a special case. Here, the entries in the SAP namespace are already configured on delivery. Your entries in the customer namespace will be initialized, however.

As the Customizing table for the **Industry Sectors** is a table that is used in several FS applications, this table is copied to a conversion table, from which the content conversion is carried out.

Activities

1. Start the report from Customizing for the **SAP Business Partner for Financial Services** by choosing **Settings for Financial Services** **Interfaces/Data Exchange** **Settings for Business Partner Conversion** **Conversion: Phase I** **Execute Conversion** **Execute Conversion Reports** .
2. Execute the report program in the **Test Run** first.
3. Once the **Test Run** is successful, do an **Update Run**.

Generation of Additional Customizing Tables (RFTBUC03)

Occupations, Academic Titles, and Forms of Address

Use

In the SAP Business Partner, you define occupations, academic titles, and forms of address in Customizing, whereas in the Treasury Business Partner, the data is stored as user-defined text fields in the central master data table **BP000**. This report program automatically generates the IMG activity entries for the SAP Business Partner mentioned above using the data from the Treasury Business Partner.

Features

This report program generates the following IMG activity entries for the SAP Business Partner using Treasury Business Partner data:

- **Maintain occupations** (tables **TB028, TB028T**)

For every occupation that the report finds in table BP000, an occupation with a four-character key (assigned by the system) and a description (corresponding to the entry in **BP000**) is created in the Customizing tables mentioned above.

- **Maintain academic titles** (tables **TSAD2, TSAD2T**)

You use the same procedure to generate these Customizing tables as you use to create the occupations.

- **Maintain name suffixes** (tables **TSAD5, TSAD5T**)

You use the same procedure to generate these Customizing tables as you use to create the occupations.

- **Maintain name prefixes** (table **TSAD4**)

You use the same procedure to generate these Customizing tables as you use to create the occupations.

Indicator for hexadecimal occupation key

If you set this indicator, the four-character key for an occupation is assigned as a hexadecimal key. This means that 16 characters are available for you to assign the key (0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F). You can therefore enter up to $16^4 = 65,536$ occupations.

If you do not set this indicator, you can define a maximum of 9,999 occupations in the Customizing table.



Set this indicator if you need to define more than 9,999 occupations in Customizing. When estimating the number of occupations, you should take account of possible spelling mistakes in the user-defined text field. These can increase the number of generated Customizing entries.

Activities

1. Start the report from Customizing for the **SAP Business Partner for Financial Services** by choosing **Settings for Financial Services** **Interfaces/Data Exchange** **Settings for Business Partner Conversion** **Conversion: Phase I** **Execute Conversion** **Execute Conversion Reports**.
2. Run the report program as a **test run**.
3. After you have successfully carried out the test run, you can start the **update run**.

Customizing Generation for the SAP Business Partner (RFTBUC02)

Use

Using this report program the Customizing settings for the SAP Business Partner and the conversion tables between the Treasury Business Partner and the SAP Business Partner are generated from the Customizing settings for the Treasury Business Partner. The report program analyzes the Customizing tables for the SAP Business Partner mentioned above (see [Preparation and Structure of Customizing](#)). This analysis can reveal two possible scenarios: Either standard Customizing for the SAP Business Partner already exists, or you will have to regenerate the Customizing settings for the SAP Business Partner.

Features

There are two possible outcomes when running this report program:

Case 1: Customizing settings already exist for the SAP Business Partner

If the report program establishes that you have changed Customizing settings in one or several IMG activities for the SAP Business Partner, these settings are not overwritten. The system checks each IMG activity. The domain that belongs to the Customizing table must be marked for conversion at a later stage in the application tables, however. The report program stores this information in table [BPUM_DOM](#) (indicator FLAG_EXCEPTION initial), and the message "...are flagged for conversion" is displayed.

Case 2: There are no Customizing settings for the SAP Business Partner

If no entries exist in the Customizing tables for the SAP Business Partner, the corresponding Customizing settings are transferred from the Treasury Business Partner. This means that the corresponding IMG activities under [Settings for Business Partner Conversion](#) are filled. (The corresponding domain is excluded from the content conversion since the assignment can take place on a 1 to 1 basis).



Role categories and relationship categories are always converted. SAP determines how this takes place. Only role categories and relationship categories created in the customer namespace are treated in the same way as the other Customizing tables.

Activities

1. Start the report from Customizing for the [SAP Business Partner for Financial Services](#) by choosing [Settings for Financial Services](#) [Interfaces/Data Exchange](#) [Settings for Business Partner Conversion](#) [Conversion: Phase I](#) [Execute Conversion](#) [Execute Conversion Reports](#).
2. First, run the report program as a [test run](#).
3. Once the [test run](#) is successful, perform an [update run](#).

Information About Several Converted Customizing Tables

The new entries generated by the conversion reports in the converted Customizing tables are in Customizing under [Settings for Business Partner Conversion](#) [Conversion: Phase I](#) [Assign TR BP to SAP BP](#) [Control Data](#) or [Conversion: Phase I](#) [Assign TR BP to SAP BP](#) [Assign Customizing Settings](#).

These entries can also be found in Customizing for the SAP Business Partner under [General Settings](#) [Business Partner](#) [Basic Settings](#).

This section contains information about several of these converted Customizing tables.

Groupings

The groupings control the number assignment for creating new business partners.

When converting the Treasury Business Partner to the SAP Business Partner, the number assignment for the SAP Business Partner is controlled by the settings for the report program [Conversion Report: Treasury Partner to SAP Business Partner \(RFTBUP01\)](#), and by the settings made in the Customizing structure for the SAP Business Partner.



You must check the matching of the Treasury Business Partner groupings with those of the SAP Business Partner. For more information about matching groupings, see [Checking the Customizing Structure](#).

Address ID

Note the following special feature for parallel maintenance:

With the Treasury Business Partner, you cannot save an address without an address ID. For this reason, you must define an additional address ID (XXDEFAULT) for the conversion prior to activating parallel maintenance in the Treasury Business Partner. This must be the standard address ID in conversion Customizing. You may not assign an address type for the SAP Business Partner to this address ID. The address ID is used, however, when you save an SAP Business Partner whose standard address is not assigned to an address type.



You must check the matching of the Treasury Business Partner address ID with the address types for the SAP Business Partner. For further information about matching the address ID, see [Checking the Customizing Structure](#).

You will find further information about the address ID in SAP Note [504734](#).

Role Categories

Treasury Business Partner roles are converted to the corresponding roles for the SAP Business Partner. Role [1000 Treasury Partner](#) thus becomes role [TR0151 Counterparty](#) in the SAP Business Partner. You cannot make any more changes to the role categories for the SAP Business Partner. If you require additional roles, however, you can create these in the customer namespace.



If you have created your own role categories in the customer namespace, check the assignment of these role categories. For further information about checking assignments, see [Checking the Customizing Structure](#).

Relationship Categories

Treasury Business Partner relationship categories are converted to the corresponding relationship categories for the SAP Business Partner. This is not a 1:1 conversion. The relationship categories [020 Married Couple](#) and [030 Branch/Head Office](#) are not supplied in the standard version of the SAP Business Partner ([Conversion of Business Partner Relationships \(RFTBUP02\)](#)). If the relationship categories supplied by SAP are insufficient to meet your requirements, you can create your own relationship categories in the customer namespace.



If you have created your own relationship categories in the customer namespace, check the assignment of these relationship categories. You also need to enter settings in the IMG activity **Relationship Categories**.

For further information about checking assignments and indicator settings, see [Checking the Customizing Structure](#).

Checking the Customizing Structure

Use

After you have carried out all of the steps and executed all of the reports to prepare and generate the Customizing for the SAP Business Partner, check that the Customizing structure is correct. This check helps you ensure that no errors occur in the business partner conversion that follows.

Procedure

Check that the business partner groupings match

To call up the IMG activity **Groupings**, choose **Settings for Business Partner Conversion** → **Conversion: Phase I** → **Assign TR BP to SAP BP** → **Control Data** → **Groupings**. Here, table TPZ2 is reconciled with table TB001 (grouping number range) and TB002 (grouping texts).

For more information about groupings, see [Information About Several Converted Customizing Tables](#)

Check that the address ID matches the address type for the SAP Business Partner

To call up the IMG activity **Address ID**, choose **Settings for Business Partner Conversion** → **Conversion: Phase I** → **Assign TR BP to SAP BP** → **Assign Customizing Settings** → **Address ID**. Here, table TP14 is reconciled with table TB009.

In this IMG activity, you enter **XXDEFAULT** in the **Address** field, and set the **Default** indicator (the fields **Address Type** and **Short Text** remain empty).



There is no connection between the XXDEFAULT address ID in the Treasury Partner and the address type XXDEFAULT in the SAP Business Partner.

For more information about the address ID, see [Information About Several Converted Customizing Tables](#)

If you have created your own roles in the customer namespace, check their assignments.

To call up the IMG activity **Role Categories**, choose **Settings for Business Partner Conversion** → **Conversion: Phase I** → **Assign TR BP to SAP BP** → **Control Data** → **Role Categories**. Here, table TPZ3 is reconciled with table TBZ0.

For more information about role categories, see [Information About Several Converted Customizing Tables](#)

If you have created your own relationship categories in the customer namespace, check their assignments. Set the corresponding indicators for all of the relevant relationship categories.

To call up the IMG activity **Relationship Categories**, choose **Settings for Business Partner Conversion** → **Conversion: Phase I** → **Assign TR BP to SAP BP** → **Control Data** → **Relationship Categories**. Here, table TPZ7 is reconciled with table TBZ9.

In the following cases, set the relevant indicators:

If you convert relationship categories **0021 Wife** and **0022 Husband** to relationship category **BUR004 Marriage**, you must set the **Sequence** indicator either for relationship category 0021 or 0022. This will swap business partner 1 and business partner 2 round in this relationship category. In relationship category **BUR004 Marriage**, only the husband or the wife can exist as business partner 1.

For more information, see [Special Features When Converting Relationships](#)

The **Leading** indicator is concerned with parallel maintenance for the Treasury Business Partner from the SAP Business Partner. There are cases where several relationship categories for the Treasury Business Partner are assigned to one relationship category for the SAP Business Partner. You use this indicator to determine which Treasury Business Partner relationship category should be changed during the parallel maintenance phase, when you create the respective relationship category for the SAP Business Partner.



The indicator is only relevant if you have assigned one SAP Business Partner relationship category to several Treasury Business Partner relationship categories. If you create a corresponding SAP Business Partner relationship category (in the customer namespace) for each Treasury Business Partner relationship category, you do not need to set this indicator.

The Treasury Business Partner contains the business partner categories **Natural Person** and **Organization**. The SAP Business Partner also contains a third business partner category, namely **Group**. If you set the **Group** indicator, a business partner with this relationship category is assigned the business partner category **Group** when you execute the report program **Convert the TR Business Partner to the SAP Business Partner (RFTBUP01)**.

For more information about the relationship categories, see [Information About Several Converted Customizing Tables](#) and [Conversion of Business Partner Relationships \(RFTBUP02\)](#).

Notes

In the IMG activity **General Notes**, check whether the entries generated by the conversion report **RFTBUC02** for the SAP Business Partner are correct. The general text IDs for the Treasury Business Partner must correspond with the general text IDs for the SAP Business Partner.

In the IMG activity **Role-Dependent Notes**, check whether the entries generated by the conversion report **RFTBUC02** for the SAP Business Partner are correct. The “role category text ID” assignments for the Treasury Business Partner must correspond with the “role category text ID” assignments for the SAP Business Partner. If the system allocates the same text IDs to different roles for the SAP Business Partner, you can retain the text ID number assignment for one of these roles. You must enter new (free) numbers for the text IDs belonging to the other roles (according to the principle of consecutive number assignment) and save your entries.

If this occurs, you also need to save the new SAP Business Partner text IDs in the general text ID table TTXID (View V_TTXIDI) if they do not already exist there.

For more information, see [Conversion of Notes \(RFTBUP06\)](#).

Check that the forms of address match.

To call up the IMG activity **Forms of Address**, choose **Settings for Business Partner Conversion** → **Conversion: Phase I** → **Assign TR BP to SAP BP** → **Assign Customizing Settings** → **Forms of Address**. Here, table TP01 is reconciled with table TSAD3.

Check that the industry sectors match.

To call up the IMG activity **Industry Sectors**, choose **Settings for Business Partner Conversion** → **Conversion: Phase I** → **Assign TR BP to SAP BP** → **Assign Customizing Settings** → **Industry Sectors**. Here, table T016 is reconciled with table TB023.

Check that the legal forms match.

To call up the IMG activity **Legal Forms**, choose **Settings for Business Partner Conversion** → **Conversion: Phase I** → **Assign TR BP to SAP BP** → **Assign Customizing Settings** → **Legal Forms**. Here, table TP08 is reconciled with table TB019.

Check that the legal entities match.

To call up the IMG activity **Legal Entities**, choose **Settings for Business Partner Conversion** → **Conversion: Phase I** → **Assign TR BP to SAP BP** → **Assign Customizing Settings** → **Legal Entities**. Here, table TP09 is reconciled with table TB032.

Check that the marital statuses match.

To call up the IMG activity **Marital Statuses**, choose **Settings for Business Partner Conversion** → **Conversion: Phase I** → **Assign TR BP to SAP BP** → **Assign Customizing Settings** → **Marital Statuses**. Here, table TP03 is reconciled with table TB027.

Check that the relationship types match.

To call up the IMG activity **Relationship Type**, choose **Settings for Business Partner Conversion** → **Conversion: Phase I** → **Assign TR BP to SAP BP** → **Assign Customizing Settings** → **Relationship Type**. Here, table TPZ11 is reconciled with table TB905.

Check that the functions match.

To call up the IMG activity **Functions**, choose **Settings for Business Partner Conversion** → **Conversion: Phase I** → **Assign TR BP to SAP BP** → **Assign Customizing Settings** → **Functions**. Here, table TP15 is reconciled with table TB912.

Check that the departments match.

To call up the IMG activity **Departments**, choose **Settings for Business Partner Conversion** → **Conversion: Phase I** → **Assign TR BP to SAP BP** → **Assign Customizing Settings** → **Departments**. Here, table TP16 is reconciled with table TB910.

1:1 assignment is necessary in each case, except for the Customizing activities **Address ID**, **Relationship Categories**, and **Role Categories**.

Business Partner Conversion

Purpose

Using the following report programs, you convert the Treasury business partners that already exist in the system to SAP business partners.

For further information about business partner conversion, see [Activities for Business Partner Conversion](#).



Change documents for the Treasury Business Partner are not converted.

Process flow

You require three report programs in order to convert the existing Treasury business partners to the SAP business partners:

- [Business Partner Conversion \(RFTBUP01\)](#)
- [Conversion of Business Partner Relationships \(RFTBUP02\)](#)
- [Conversion of Notes \(RFTBUP06\)](#)

Result

You have converted your Treasury business partners to SAP business partners.

Business Partner Conversion (RFTBUP01)

Use

This report program is used to convert the business partner master data. It either creates a corresponding SAP business partner for the Treasury business partners selected or corrects the data for the corresponding SAP business partner. The business partner master data (general data), addresses, role data, bank details, and customer master data for the Treasury Business Partner is written to the SAP Business Partner tables. For further information about the relevant tables, see [Relevant Tables for the Business Partner Conversion](#)

You have to execute the report for each business partner, before you execute the other conversion reports.

Integration

For an overview of all phases of business partner conversion and other conversion reports, see [Activities for Business Partner Conversion](#).

Features

The table below describes the effects of the different indicators and selection criteria that are available with this report.

Selection

Test run (w/o DB change)	The test run checks the conversion Customizing, simulates the data conversion, and writes an error log. The database is not updated. A complete number assignment check cannot take place because numbers cannot be taken from the number ranges.
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Carry out a **test run**. Start the update run only when you can run the test run without errors.

Update run	The update run checks the conversion Customizing, converts the data, and writes a conversion log.
Only check conversion Customizing	<p>When this indicator is set, the system does not convert the data and does not read any business partner data. This variant enables you to determine whether you have made all the necessary Customizing settings for converting the business partner. The log tells you whether any postprocessing is required for the Customizing settings.</p> <p>Note that this check checks only for completeness and does not check the contents. This check option therefore does not replace the manual Customizing check/content check.</p>

The system checks that all Customizing settings have been made for the following IMG activities under **SAP Business Partner for Financial Services** → **Settings for Financial Services** → **Interfaces/Data Exchange** → **Settings for Business Partner Conversion** → **Conversion: Phase I** → **Assign TR BP to SAP BP** → **Control Data or Assign Customizing Settings**):

Groupings

Role categories

Address ID

Forms of address

Industry sectors

Legal forms

Legal entities

Marital statuses

Functions

Departments

Variants

Correct SAP BP	This run repeats the conversion for the business partners that were already converted only. There is no new number assignment (in other words, the business partner is not deleted; the business partner data is merely changed).
Create new SAP BP	Only those business partners that do not have an equivalent SAP business partner are processed (in other words, you create a new business partner).
Create and correct SAP BP	The conversion is carried out in full. In other words, you process all the Treasury partners (this involves creating new partners for SAP business partners that do not yet exist, and changing migrated SAP business partners).



In technical terms, you can tell the difference between creating a new partner and correcting an existing partner by whether field BP000-PARTNER is filled or not. This field is filled for the Treasury business partner as soon as you create a corresponding SAP business partner.

Number assignment

You create each business partner (Treasury business partner and SAP business partner) in a particular grouping. The grouping determines the number range in which a business partner is created. Also defined in the grouping for the Treasury business partner is the account group, in which you create the customer master record that is assigned to the partner. The account group, in turn, defines the number range of the customer master record. You can arrange internal or external number assignment for each of these number ranges.

The following input parameters determine number assignment for the SAP Business Partner:

Standard number assignment	If you choose this variant, the following assignments take place in accordance with the settings for the SAP business partner (external or internal number assignment): For the SAP BP grouping with internal number assignment, the system uses a function module to assign the SAP BP number to the
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	<p>number range interval.</p> <p>For the SAP BP grouping with external number assignment, the Real Estate BP number is assigned to the SAP BP number.</p> <p>i The system checks first to see if the SAP business partner number already exists.</p> <p>If the SAP BP number already exists and numbers are assigned externally, a new SAP BP number is taken from the default number range.</p>
SAP BP no. from TR BP	<p>The SAP BP is allocated the number for the TR BP (in a similar manner to grouping with external number assignment). If the system discovers that an SAP BP already exists for the SAP BP number to which the TR BP is assigned, the TR BP is not converted, but is written to a log.</p>
SAP BP no. from table	<p>A table is made available (BPZGP), in which the required SAP BP number is defined for the TR BP number. The table can be supplied with data either directly via table maintenance or via a program developed specifically for this purpose. If the system discovers that an SAP BP already exists for the SAP BP number to which the TR BP is assigned, this TR BP is not converted, but is written to a log. TR BP numbers that are not defined in the table are also not converted.</p> <p>i</p> <p>If the BP number has less than 10 digits, and the tables are maintained using a specially developed program, you must take note of the alpha conversion. For more information about alpha conversion, see the documentation for the function module CONVERSION_EXIT_ALPHA_INPUT.</p>
Delete target	<p>If the SAP BP already exists with the number just determined (this may be the case with external number assignment or content conversion tables), the SAP BP is deleted if the indicator is set. The SAP BP number is then regenerated from the TR BP.</p> <p>!</p> <p>If you use this indicator and have checked the box SAP BP no. from TR BP, any SAP BP numbers that existed previously will be deleted and regenerated from the TR BP.</p>



SAP recommends that you allocate identical numbers when assigning numbers to Treasury and SAP business partners. This is not possible in every case, for example, if SAP business partners already existed in the system prior to conversion and the number ranges overlap. If you assign identical numbers, this avoids confusion at the application level (when two different numbers appear for the business partner you have selected for a financial transaction). It also makes conversion to the SAP Business Partner in phase II easier (contract data does not need to be converted separately, as the "correct" business partner number is already entered in the application tables).



If you intend to convert a Treasury business partner to an SAP business partner that already exists (for example, when using identical numbers) without deleting the SAP business partner (for example, because the SAP business partner contains more data than the Treasury business partner), the following option is available:

You can use report program RFTBUP08 to link the Treasury business partner with the SAP business partner assigned to it (from a technical perspective, the **PARTNER** field in table **BP000** is filled with the SAP business partner number). You can use either external number assignment or the content conversion table to make this assignment. In order to exclude these Treasury business partners from conversion and adjustment, you must either restrict your selection or archive the relevant business partners in advance. If you have set only the delete indicator, the business partner will still be converted.



The report program **RFTBUP01** does not update the number range interval for the SAP Business Partner. If you convert a Real Estate business partner number that does not yet fall within the number range interval for the SAP Business Partner, you have to update the interval manually. For more information, see [Generation of Customizing](#).

Treasury Business Partner selection

You can limit the selection of Treasury business partners to be converted using the following selection criteria:

Partner number

External partner number

Partner category

Grouping

The default grouping determines the number range in which business partners are created, in cases where no number range can be determined correctly (using the “groupings” assignment table).



The grouping that you define here must be assigned to a number range with internal number assignment.

Show log details

If you do not set this indicator, only errors and warnings, and no other message types, are written to the log.

We recommend that you set this indicator.



If the indicator was set and more than 80,000 records were logged, the indicator is reset (otherwise this leads to an overflow of data in the log).

Activities

Check the conversion Customizing.

Set the **Only Check Conversion Customizing** indicator and execute the report program in the test run. No conversion will take place. However, the report program checks whether all the necessary Customizing settings have been made for converting the business partner.

Perform the data conversion in the test run.

Deactivate the **Only Check Conversion Customizing** indicator. If you have not created any SAP business partners, select **Create New SAP BP**. If you want the Treasury and SAP business partners to have identical numbers (SAP recommends this option), set the **SAP BP No. From TR BP** indicator. Set the **Show Log Details** indicator and execute the report program.

If the test run was successful, execute the report program in the **Update Run** with the settings mentioned in point 2.



If you have a large number of business partners in your system, this could impair the performance of the report program and lead to a runtime error and termination. In this case, see composite SAP Note [398888](#).

Special Features of Conversion Report RFTBUP01

Customer-defined modifications

If you add your own enhancement (append) to table BP000 (Treasury Business Partner master data), the field contents of this append are copied to table BUT000 (SAP Business Partner master data), providing BUT000 has an append of the same name with the 'ZZZ_' prefix (for example, [MIGR to ZZZ_MIGR](#)) and the fields of both appends display the same field names.

Creating additional business partner roles

If a business partner is designated as an employee, the corresponding role is assigned.

Excluding the Treasury Business Partner from the conversion

If you do not want to convert individual Treasury business partners to SAP business partners, set the deletion flag for the relevant Treasury business partners and then archive them. Note that the business partners for which the deletion flag has been set but that have not been archived, will still be converted.

Performance

See SAP Note [510288](#) with regard to performance of report RFTBUP01.

Special Case: Business Partner to Be Linked Already Exists

If you have already used your own solution to link SAP business partners and Treasury business partners in a previous release, then it is not possible to link the existing SAP business partners with the corresponding Treasury business partners using the reports for phase I of the conversion supplied in the standard version.

In this case you can use report RFTBUP08 to create the links.

Features of Report RFTBUP08

Selection

- Test run

The test run simulates the data conversion and writes an error log. The database is not updated.

- Update run

The update run converts the data and writes an error log.

- Identical numbers

Business partners are linked using the same number. Existing Treasury business partners and SAP business partners with identical business partner numbers are linked. The system only checks whether the business partner categories match.

- SAP BP number from table

Business partners are linked using a table. The system only checks whether the business partner categories match.



If the business partner data does not match, then data may be lost. It is not possible to reconcile the data using the report. This means that you have to ensure that the data for the SAP business partner matches the Treasury business partner with the same number.

You can enter the Treasury business partners to be linked individually or in intervals.

Conversion of Business Partner Relationships (RFTBUP02)

Use

This report converts Treasury business partner relationships to SAP business partner relationships. The SAP business partner relationships do not correspond exactly to the Treasury business partner relationships. If the relationship categories delivered with the system are not sufficient, you can create additional relationship categories in the customer namespace (starting with Y or Z).

Execute the report once only.



For more information about the relevant tables for the conversion, see [Relevant Tables for the Business Partner Conversion](#).

Integration

For an overview of all phases of business partner conversion and other conversion reports, see [Activities for Business Partner Conversion](#).

Features

The following relationships are converted automatically:

Rel.	Relationship Category of the Treasury Business Partner	Rel. Cat.	Relationship Category of the SAP Business Partner
0010	Contact person	BUR001	Contact person relationship
0020	Married couple	n/a	Customers define own relationship categories, if required.
0021	Wife	BUR004	Marriage

0022	Husband	BUR004	Marriage
0030	Branch/head office	n/a	Customers define own relationship categories, if required.
0040	Shared living arrangement	BUR003	Shared living arrangement
0050	Group subsidiary/parent	BURC01 FSB002	Shareholder Parent company/subsidiary
0060	Alias (partners are identical)	BUR006	Alias (identity)
0100	Joint venture/company	BURC01	Shareholder
1000	OHG, KG with general partner	BURC01	Shareholder
1001	GbR with partners	FSB002 poss. also BURC01	Parent company/subsidiary Shareholder
1002	Affiliated to	BURC01	Shareholder

For more information about the special features of business partner relationships, see [Special Features When Converting Relationships](#).

The table below describes the effects of the different indicators and selection criteria that are available with this report:

Variants	Notes
Only check conversion Customizing	<p>When this indicator is set, the system does not convert the data and does not read any business partner data. This variant enables you to determine whether you have made all the necessary Customizing settings for converting the business partner. The log tells you whether any postprocessing is required for the Customizing settings.</p> <p>The following parameters are checked:</p> <p>Company code-dependency - differentiation type (only for 0030: Branch/head office)</p> <p>Cardinality: For example, marriage: One person only can be assigned to one other person</p> <p>Conversion: Natural person / organization determines whether .</p> <p>► Partner1 ► Partner 1</p> <p>► Partner2 ► Partner 2</p> <p>or</p> <p>► Partner1 ► Partner 2</p> <p>► Partner 2 ► Partner 1</p> <p>This is determined by the Sequence indicator in the IMG activity Relationship Categories.</p>

Test run / Update run	The respective indicator determines whether the corresponding SAP BP tables are updated or not.
Show log details	If you do not set this indicator, only errors and warnings, and no other message types, are written to the log.

Treasury Business Partner selection

You can limit the selection of Treasury business partners to be converted using the following selection criteria:

- Partner 1 in the relationship (partner number)
- Relationship category

If you set the **Process Non-Converted BPs** indicator , the report selects only the relationships that were not previously converted (for example, because the conversion to **BURC01Shareholder** was not clear).

Activities

1. First carry out a **test run** .
2. Once the test run is successful, perform an **update run** once.

Special Features When Converting Relationships

Conversion of the relationship categories married couple, wife, and husband (0020, 0021, 0022)

The relationship category 0020 no longer exists, and can be replaced by a customer-specific relationship category, if required.

BUR004 Marriage replaces the relationship category 0021 Wife → Husband.

BUR004 Marriage replaces the relationship category 0022 Husband → Wife.

This means that when both relationship category 0021 and 0022 are converted to relationship category BUR004, you have to swap one of the partners in one or the other relationship category round, because you have to define either the husband or the wife as partner 1 in BUR004.

Example

Incorrect

Business partner 1	Relationship category	Business partner 2
Charles Miller	is the husband of	Clara Miller
Carol Smith	is the wife of	John Smith
Charles Miller	Marriage	Clara Miller
Carol Smith		John Smith

Correct

Business partner 1	Relationship category	Business partner 2
Charles Miller	Marriage	Clara Miller

Charles Miller	is the husband of	Clara Miller
Carol Smith	is the wife of	John Smith
Charles Miller	Marriage	Clara Miller
John Smith		Carol Smith



You swap the business partners for one relationship category by setting the **Sequence** indicator for either of the two relationship categories in the IMG activity **Relationship Category**, prior to executing the conversion report **RFTBUP02**. You will find further information under [Checking the Customizing Structure](#).

Conversion of the relationship branch/head office(0030)

The relationship category 0030 no longer exists, and can be replaced by a customer-specific relationship category, if required.



You have to make sure that this new relationship category is assigned differentiation category 1, in other words, that it is company code-dependent, otherwise an error message appears when the conversion Customizing is checked.

Conversion of the relationships group subsidiary/parent, joint venture/company, OHG, KG with general partner, GbR with partners, affiliated to (0050, 0100, 1000, 1001, 1002):

The conversion report for business partner relationships, transfers the relationships **0050** , **0100** , **1000** , **1001** , and **1002** to the relationship **BURCO1Shareholder** . In the standard system, in a business partner relationship belonging to the category **Shareholder**, business partner 1 is the “lower”, (in other words, the subordinate) and business partner 2 the “superior”, (in other words, the superordinate) organization. You can assign as many of business partner 1 to business partner 2 as you wish.

Partner 2 is the shareholder; partner 1 is the one from whom partner 2 receives the shares (issuer).

If partner 1 and partner 2 exist in more than one of these relationships (for example, as a group or an affiliate), only one of the relationships is converted. All of the others receive an error message.



If required, you can keep both relationships with both partners. After you have created your own relationship category, you can then convert the corresponding relationships again.

When converting the partners, you must ensure that for relationship categories 0050, 1000, 1001, and 1002 the following applies:

Partner1Partner1 Partner2Partner2

whereas for relationship category 0100 the following applies:

Partner1Partner2 Partner2Partner1

You can see this in the conversion Customizing for the relationship categories. If you set the **Sequence** indicator for relationship **0100** here, partner 1 and partner 2 are swapped round.

The reason for this swap is that in relationship **0100** partner 1 is the organization, and in relationship **BURCO1** partner 2 has to be the organization.

In addition, the following relationship categories were created, which you can use instead of relationship category **BURC01 Shareholder** :

FSB001 is partner of

FSB002 is subsidiary of



Some SAP Business Partner relationship categories also require one of the business partners to have a specific role category. When you convert the relationship category **BURC01 Contact Person**, this is subsequently assigned the SAP Business Partner role **Contact Person**.

Conversion of Notes (RFTBUP06)

Use

This report converts the

- assignment of the role category for the Treasury Business Partner text ID to the SAP Business Partner
- notes for the Treasury Business Partner to the notes for the SAP Business Partner

Integration

For an overview of all phases of business partner conversion and other conversion reports, see [Activities for Business Partner Conversion](#).

Prerequisites



If it is necessary to reconcile SAP Business Partners that already exist in the system with converted SAP Business Partners, carry out the reconciliation before you convert the notes because the reconciliation report does not consider the notes. For further information, see [Reconciliation of Business Partners](#).

1. You have checked whether the entries generated by the conversion report RFTBUC02 for the SAP Business Partner are correct in the IMG activity **General Notes**. The general text IDs for the Treasury Business Partner must correspond with the general text IDs for the SAP Business Partner.
2. You have checked whether the entries generated by the conversion report RFTBUC02 for the SAP Business Partner are correct in the IMG activity **Role-Dependent Notes**. The “role category text ID” assignments for the Treasury Business Partner must correspond with the “role category text ID” assignments for the SAP Business Partner.

Note that running report RFTBUC02 in table TPZ14 generates role-dependent text IDs for the SAP Business Partner from role-dependent text IDs from the Treasury Business Partner. The system assigns numbers to the generated text IDs for the SAP Business Partner in the following way (see IMG activity **Role-Dependent Notes**): The text IDs for text object BPAR are added consecutively to the text IDs for text object BPAR_ALL (see example).

3. If the system allocates the same text IDs to different roles for the SAP Business Partner, you can retain the text ID number assignment for one of these roles. You must enter new (free) numbers for the text IDs belonging to the other roles (according to the principle of consecutive number assignment) and save your entries.

4. If this occurs, you also need to save the new SAP Business Partner text IDs in the general text ID table TTXID (View V_TTXIDI) if they do not already exist there.

Example of entries generated by the system in the IMG activity Role-Dependent Notes

Treasury Business Partner				SAP Business Partner		
Text object	ID	Role		Text object	ID	Role
BPAR_ALL	0001		General notes	BUT000	0001	
BPAR_ALL	0002		Other notes	BUT000	0002	
BPAR_ALL	0003		Special notes	BUT000	0003	
BPAR	0001	0100	General notes	BUT000	0004	0100
BPAR	0002	0100	Notes on credit standing	BUT000	0005	0100
BPAR	0003	0100	Notes on regulatory reporting data	BUT000	0006	0100
BPAR	0002	1000	Notes on credit standing	BUT000	0005	1000
BPAR	0004	1000	Notes on previous tenancy agreement	BUT000	0007	1000
BPAR	0005	1000	Notes on current tenancy agreement	BUT000	0008	1000

The **Notes on Credit Standing** (text ID 0002 for the TR BP) which were created in role 0100 and role 1000 for the Treasury Business Partner are combined for the SAP Business Partner. This means that only one text ID exists in both roles. Therefore, if you want to keep both texts, one of the SAP Business Partner text IDs has to move up to text ID 0009, which does not yet exist. In addition, you have to define the text ID 0009 in the general text object table TTXID (provided that it is not contained there).



This report program also checks that the new text ID is stored in the text table TTXID. If necessary, an error message is output before the notes are converted. You then have to enter the missing data in the Customizing tables.

Activities

1. Execute the report program in the **Test Run**.
2. After a successful **Test Run**, execute the report program in the **Update Run**.

Further Information on Notes

Notes for the Treasury Business Partner

In the notes for the Treasury Business Partner, you determine the text types of a text object using note IDs. You define these note IDs as role-independent in the IMG activity [Define General Text ID](#). To specify role note types, process the activity [Define Text ID for Roles](#). To use the role note types, assign the required text IDs to the business partner roles in the IMG activity [Assign Text ID to Roles](#).

Notes for the SAP Business Partner

You process notes for the SAP Business Partner using note views. These note views contain both role-dependent and role-independent entries.

You can also determine the text types for a text object in the note views using text IDs. In the IMG activity [Define Note Views](#), you can assign note view names and text objects to these text IDs, thus providing an overall definition for the note view. In the IMG activity [Assignment of Note Views to Role](#), you determine which roles are assigned to which role-specific note views. This assignment allows you to process notes according to the role. For the SAP Business Partner, you make this assignment for application object BUPA (central business partner).

When you name the note views, you need to note the following:

You define both role-dependent and role-independent note views in the IMG activity [Define Note Views](#).

In order to distinguish clearly between role-dependent note views, we suggest you use the following naming convention: You should be able to recognize the SAP Business Partner role to be assigned to the note view in the name of the note view. Name the role-dependent note views using the character string "TR + role", for example TR0151 for the note view to be processed dependent on the role counterparty (TR0151).

Conversion of Industry Sectors (BUPXPRA12)

Use



This report program is relevant only if you previously used Treasury Business Partner and are converting to SAP Business Partner as of [R/3 Enterprise Financial Services 1.10](#).

As of [R/3 Enterprise Financial Services 1.1](#), you can process industry sectors for several industry systems in SAP Business Partner. Information is stored in the new table **BUTOIS**, and you can process data using a table control. This enables you to process several industry sectors for different industry systems. You can also set a standard industry system, as well as a standard industry sector for each industry system. The option of processing a single industry sector in SAP Business Partner (field **BUT000-IND_SECTOR**) that was available up to [4.6C](#) is replaced by this. You can no longer see this field, and it can no longer be processed.

This report program transfers the contents of the obsolete industry sector field from table **BUT000** to the new table **BUTOIS**, generating entries in both the master data table **BUTOIS** and corresponding entries in the check tables. The texts for the old industry sectors are therefore transferred too.

Integration



You may execute this report program only after the conversion report [RFTBUP01](#) ([Business Partner Conversion](#)) has been run successfully.

No change in Customizing is required, as the field group **049** for industry sectors is retained.



You have to start the report program manually; therefore you must ensure that no changes are made to the relevant control tables (TB038, TB038A, TB038B, TB038T) while the report is running, as this could result in data inconsistency. The business partners themselves are all locked. To run the report you must, therefore, unlock them. A large volume of data will result in a longer runtime, as the system reads the entire business partner position.

For more information about industry systems and their industry sectors, see [Industry](#).

Prerequisites

- Execute the report program only if you are upgrading to [R/3 Enterprise Financial Services 1.10](#), or higher, and have previously used only Treasury Business Partner, and are only now introducing SAP Business Partner.
- You have run report [RFTBUP01](#) successfully.

Activities

1. From the menu bar, choose [System](#) [Services](#) [Reporting](#) (transaction [SA38](#)).
2. Enter the program [BUPXPRA12](#) and choose [Execute](#).
3. The system runs the report.



No log is output.

Conversion of Identification Numbers (BUPXPRA13)

Use



This report program is relevant only if you previously used the Treasury Business Partner and are converting to the SAP Business Partner as of R/3 Release Enterprise Financial Services 1.10.

As of Release R/3 Enterprise Financial Services 1.10, you can process identification numbers for different identification types in the SAP Business Partner. Information is stored in the new table BUT0ID, and you can process data using a table control. You can now enter and process several numbers for each individual identification type, such as driving license numbers or Dun and Bradstreet numbers. The option of processing register entries (fields [BUT001-COMRG/CLBRG/COPRG](#)) and legitimization categories or numbers that was available for Release 4.6C is no longer available. As of R/3 Release Financial Services 1.10, you can no longer see the corresponding fields.

You use report BUPXPRA13 to transfer the contents of these fields from table BUT001 to the new table BUT0ID, generating entries in both the master data table BUT0ID and corresponding entries in the check tables. The texts for the old entries are therefore also transferred. The corresponding categories from table TB039 are automatically assigned to the generated "register identification types". This automatically adjusts any differing assignments.

Integration



You may execute this report program only after the conversion report RFTBUP01 ([Business Partner Conversion](#)) has been run successfully.

You have to start the report program manually; therefore you must ensure that no changes are made to the relevant control tables (TB039A, TB039B) while the report is running, as this could result in data inconsistency. The business partners themselves are all locked. To run the report you must, therefore, unlock them.

Prerequisites

- Execute the report program only if you are upgrading to R/3 Enterprise Financial Services 1.10, have previously used only the Treasury Business Partner, and are only now introducing the SAP Business Partner
- You have executed report RFTBUP01 ([Business Partner Conversion](#)) successfully.

Activities

1. From the menu bar, choose **System** **Services** **Reporting** (transaction SA38).
2. Under **Program**, enter BUPXPRA13 and choose **Execute**.
3. The system executes the report.



No log is output.

Reconciliation of Business Partners

Purpose

You may have to run a reconciliation report if the SAP Business Partner is already in use in the system in which the conversion takes place. The converted SAP business partners (in other words, those that were generated from Treasury business partners) are reconciled with the existing SAP business partners. You may have to run a report to delete them.

Process flow

The reconciliation is carried out in three steps:

1. Run the report RFTBUP03 to determine duplicates (business partners that exist twice in the system) and mark these for reconciliation ([Determination of Duplicates \(RFTBUP03\)](#)).
2. Run the report RFTBUP03_2 to reconcile the selected business partners ([Reconciliation of Duplicates \(RFTBUP03_2\)](#)).

The system processes the list of duplicated SAP business partners generated by report RFTBUP03. It compares the business partners with each other and copies the data from the migrated SAP business partners to the SAP business partners that already exist.

3. If necessary, delete the migrated duplicates by running the report RFTBUD03 ([Deletion of Duplicates](#)).



If you have to run a reconciliation report, execute this report before you run the conversion report [RFTBUP06 Conversion of Notes](#) because the reconciliation report does not consider the notes.

Result

You have determined and selected the duplicate business partners. The data for the migrated SAP business partners was transferred to the SAP business partners that already exist. You may also have deleted the migrated duplicate business partners.

Determination of Duplicates (RFTBUP03)

Use

You may have to run a reconciliation report if you used SAP business partners in addition to Treasury business partners before the migration. The reconciliation report is run in three steps.

You use this report to determine the duplicate partners. Existing business partners are reconciled with the migrated business partners and any duplicate partners are displayed in a list.

If you determined duplicate partners, execute report RFTBUP03_2. This report transfers the duplicate partners to the SAP Business Partner. If necessary, you can delete the migrated duplicate partners using report RFTBUD03 .

Integration

For an overview of all phases of business partner conversion and other conversion reports, see [Activities for Business Partner Conversion](#).

Scope of Functions

Report RFTBUP03 compares the names (or sort fields / external partner numbers) of the migrated SAP business partners with the names (sort fields / external partner numbers) of the non-migrated SAP business partners (in other words, SAP business partners that were created in the application). If you discover, for example, that a **TEST** partner resulted from the migration, and you have already created a **TEST** partner in the application, these will be offered for selection in the list.

Selection

Automatic Selection indicator

If you set this indicator, all the duplicate SAP business partners are automatically selected for reconciliation with the migrated SAP business partners.

Enter the criteria you want to use for the reconciliation. You can choose from the following criteria:

- [External partner number](#)
- [Sort field 1](#)
- [Sort field 2](#)
- [Matchcode name](#)

Output

After you have executed the report, a list of duplicate business partners appears. All the partners that are selected are reconciled with the migrated SAP business partners. You have the option of manually selecting/deselecting the indicator for the partners to be reconciled, or executing the report (depending on whether you have set the [Automatic Selection](#) indicator).

If several identical partners are found in the application for a migrated partner, you can only ever select one of them for reconciliation.



When the list is displayed, you have to choose **SAVE**. Only then does the system copy the selected **duplicated** partners to the reconciliation table (BPTRGP_ABGL).

Reconciliation of Duplicates (RFTBUP03_2)

Use

This report program reconciles the table that was generated using the [Determination of Duplicates \(RFTBUP03\)](#) report program.

You can use this report to transfer the data for the migrated SAP business partners stored in the reconciliation table to the **old** SAP business partners (the SAP business partners that existed before the migration).



This report does not reconcile the notes for the business partners. This is why we recommend that you run the [Conversion of Notes \(RFTBUP06\)](#) report program after you have run this report.

Integration

For an overview of all phases of business partner conversion and other conversion reports, see [Activities for Business Partner Conversion](#).

Features

Selection

You can set an indicator to make the following settings:

- Test run
- Reconcile manually
- Select all partners
- Select all addresses
- Select all roles
- Replace selected partners
- Select all bank details
- Show log details

When you run this report program, you receive a list of the partners to be reconciled.

Double click on an item to reverse the indicator.

You can copy individual partners and/or individual addresses, single roles, individual bank details of the business partner.

The master data, address data, and the bank details are copied technically by means of direct input.

If the **Test Run** indicator is not set and you choose **Save** for the list displayed, the data for the migrated business partner is transferred to the existing SAP Business Partner and the record is marked for deletion in the reconciliation table (BPTRGP_ABGL-FLG_DEL = 'X') .

Deletion of Duplicates (RFTBUD03)

Use

This report program deletes the migrated (newly generated) SAP Business Partners. The SAP Business Partners that were present before the conversion remain the same, as you may already have concluded transactions with these business partners.

Technically, the report deletes all the records of the SAP Business Partner for this business partner number. The actual record in the reconciliation table remains the same.



In the Real Estate Business Partner table **BP000**, the **PARTNER** field has been included as a reference to the SAP Business Partner. When the conversion takes place, the business partner number of the corresponding SAP Business Partner is stored in this field. The deletion report **RFTBUD03** takes this into account, and enters the new reference here.

Integration

For an overview of all phases of business partner conversion and other conversion reports, see [Activities for Business Partner Conversion](#).

Business Partner Conversion (Phase II)

Purpose

In the following sections you will find information about the individual activities for business partner conversion phase II.

Prerequisites

You have processed all open releases prior to beginning the content conversion (and thus completed all open workflow items). In the open releases there are references to the business partner number. The content of these references is not converted at the same time.

Process flow

Phase II of business partner conversion is made up of two stages that have to be carried out one after the other:

1. You have to convert the DDIC references for all the fields in the tables and structures that refer to data elements and domains belonging to the Treasury Business Partner to the corresponding data elements and domains for the SAP Business Partner. This stage is known as DDIC conversion. All SAP domains and data elements have already been converted to the SAP Business Partner and are supplied in the correct form. You can carry out the DDIC conversion for domains and data elements from customer-specific tables and structures using reports from phase II.

2. The field values in tables that previously referenced the Treasury Business Partner have to be replaced with corresponding field values of the SAP Business Partner. For example, the BP role category has changed from four to six digits. This is true for both customer-specific tables as well as field values from SAP tables. This stage of phase II is known as content conversion. The prerequisite for the content conversion is that the DDIC conversion must be completed.

Both stages are controlled by information that is managed in the control tables. The control tables are project-specific, that is there is a table record for phase I (project 0001) and for phase II (project 0003). The information available in these tables for phase I (see report [RFTBUC02](#)) is copied to table [BPUM_DOM](#) for project 0003 using report [RFTBUH02_0](#) at the start of phase II. The reports for phase II pass on the information contained in table BPUM_DOM to the tables. This is true for information about both customer-specific table fields as well as SAP fields.

Control Tables for the Business Partner Conversion

Definition

Tables that reference the fields, data elements, domains, function modules, and database tables to be converted during the conversion from the Treasury Business Partner to the SAP Business Partner, and that store data during the content conversion process.

Use

As long as you have not made any customer-defined modifications to the SAP System, you do not need to manually change the contents of these tables during the conversion process. You can also define exceptions for the conversion during this process.

The tables serve as the basis for the content conversion reports, as specified under [Activities for Business Partner Conversion](#).



Information about control tables is designed to aid understanding of the technical background of both the DDIC conversion and the content conversion. We recommend that you read this section, however, it is not essential for carrying out the conversion.

Table BPUM_DOM – List of Domains to Be Converted

Definition

Contains a list of all domains of the Treasury Business Partner that may be affected by the conversion.

Use

Fields in database tables whose data elements refer to a domain listed in table BPUM_DOM must have their content converted, if necessary, in accordance with conversion Customizing. These can be the domains for key fields in Customizing tables or the domains for business partner number fields whose content also has to be converted.

However, note the following exceptions:

1. If report RFTBUC02 generates conversion Customizing for the SAP Business Partner in phase I, that is to say if it is copied 1:1 from the Treasury Business Partner, then you do not need to convert the content of the corresponding fields. The domain is marked as an exception during phase I in the table [BPUM](#) (that is to say the FLAG_EXCEPTION indicator is set for this domain). In phase II the system passes this information on from the subsequent reports to the control tables.

2. If you have set the **Identical Numbers** indicator for the Treasury Business Partner and the SAP Business Partner, then you also have the option of excluding business partner number fields from the content conversion. Depending on the hardware available, this can reduce the runtime when converting large amounts of data.

In addition to the information mentioned, the table also contains form routines, which are used for converting the content of values, as well as report names in which form routines are held. This information is passed on to control tables generated from table BPUM_DOM.

You can process table BPUM_DOM in Customizing for the **SAP Business Partner for Financial Services** by choosing **Interfaces/Data Exchange** **Settings for Business Partner Conversion** **Conversion: Phase II** **Control Data** **Domains** .

Structure

Field Name	Description
PROJECT	Project = 0003
DOMNAME	Treasury Business Partner domain
DOMNAME_NEW	SAP Business Partner domain
CHECKTABLE	Value table that references the Treasury Business Partner domain
CHECKTABLE_NEW	Value table that references the SAP Business Partner domain
FLAG_EXCEPTION	Indicates that the domain is excluded from content conversion
UFORM	Form routine for converting content of table fields that reference these domains
CONV_REP	Module pool in which form routines are held (not relevant for project 0001 and 0003)

Table BPUM_ROL – List of Data Elements To Be Converted

Definition

Contains a list of the data elements for the fields that are relevant for conversion.

These are data elements that reference a domain in the table [BPUM_DOM](#).

Use

This table is formed using report [RFTBUH02_1](#). All data elements whose description ends with *_OLD are automatically marked as not to be converted (indicator set in the **Exception** field (NO_RELEVANCE)). However, this is not the case for data elements for business partner numbers. We have replaced all SAP data elements that are not to be converted with data elements of the same name, ending in the suffix _OLD. This means that all SAP data elements are correct and you must not change them.

You can also store the information that the content of fields belonging to value tables for data elements is not to be converted in the table in the **DB Table Field Value Is Not To Be Content Converted** field (XFELD).

The information can be provided by report RFTBUH02_1 from the **Exception** field (FLAG_EXCEPTION) in table BPUM_DOM.

You can also manually set the corresponding indicator for fields whose values do not change during conversion in the **DB Table Field Value Is Not To Be Content Converted** field (XFELD) for table BPUM_ROL.

You can process table BPUM_ROL in Customizing for the **SAP Business Partner for Financial Services** by choosing ► **Interfaces/Data Exchange** ► **Settings for Business Partner Conversion** ► **Conversion: Phase II** ► **Control Data** ► **Data Elements** ▶

Structure

Field Name	Description
PROJECT	Project = 0003
ROLLNAME	Data element
DOMNAME	Treasury Business Partner domain
DOMNAME_NEW	SAP Business Partner domain
XFELD	Indicates that domains are excluded from content conversion; is passed on from table BPUM_DOM, field FLAG_EXCEPTION.
NO_RELEVANCE	Indicates that the data element is excluded from the DDIC conversion (data element BRSCH that is used in the customer fields and cannot be converted to the new domain, for example).
NO_KFM	Indicates data elements that are used in both objects whose content cannot be converted (treasury business partner objects, for example) and in objects whose content must be converted (data element BP_PARTNR, for example).

BPUM Table – List of Table Fields to Be Content Converted

Definition

Contains a list of tables, together with their fields, whose content has to be converted.

Use

Report [RFTBUH02_2](#) fills the table with information from control table [BPUM_ROL](#).

You can process table BPUM in Customizing for the **SAP Business Partner for Financial Services** by choosing ► **Interfaces/Data Exchange** ► **Settings for Business Partner Conversion** ► **Conversion: Phase II** ► **Control Data** ► **Convert Tables** ▶.

In this IMG activity you can also change the information about content conversion passed on from table BPUM_ROL. The contents of table BPUM are the basis for generating and controlling content conversion reports.

Structure

Field Name	Description
PROJECT	Project = 0003

TABNAME	Table
FIELDNAME	A table field that references a data element. This data element is stored in table BPUM_ROL and the indicator NO_RELEVANCE is not set for the corresponding field
KEYFLAG	Indicates that a field is a key field. The content conversion logic in the generated reports is different for key fields than it is for attributes.
ROLLNAME	Data element
DOMNAME	SAP Business Partner domain
CONVERT_TAB	Indicates that a table field is excluded from the content conversion; is passed on from table BPUM_ROL, field XFELD
EXCEPTION_TAB	Indicates that a table field is generally excluded from content conversion
CONV_NO	Indicates the status of the content conversion for the table: 0 Conversion allowed 1 Conversion not released (following test run in which errors have occurred) 2 Conversion terminated 3 Conversion released (following test run in which errors have occurred) 4 Conversion carried out (following successful update run that can be repeated) 5 No values exist (table BPUM is empty) 6 Backup terminated (is reset if the restart fails following termination) 7 Conversion blocked (following successful update run that can be repeated)
UFORM	Form routine used to convert the content of the field; this routine is generated in the conversion program
LINE	Line at which conversion terminates (relevant for restart)
CONVERT_CUST	Obsolete
CONV REP	Include for content conversion routines (to store customer content conversion routines)
REPNAME	Generated program that converts the content of the table
BLOCK	Termination block (relevant for restart)

Table BPUM_TAB – List of Obsolete Database Tables

Definition

Contains a list of tables that are to be replaced by the conversion to the SAP business partner.

Use

Table BPUM_TAB forms the basis for the selection in report program [RFTBUH02_3](#), which generates a list of all the programs that access these tables. You can use this list to determine which programs need to be modified by customers after the business partner conversion.

You can enhance table BPUM_TAB with customer tables in Customizing for the **SAP Business Partner for Financial Services** by choosing **Interfaces/Data Exchange** **Settings for Business Partner Conversion** **Conversion: Phase II** **Control Data** **Tables**.

Table BPUM_FUNC – List of Affected Function Modules

Definition

Basis for the selection in report program [RFTBUH02_3](#) which generates a list of all programs that access function modules whose calls may have to be changed manually as a result of business partner conversion.

Use

SAP delivers BPUM_FUNC empty.

You can use the list from the relevant report to determine which calls need to be modified by customers after the business partner conversion.

You can process the table in Customizing for the **SAP Business Partner for Financial Services** by choosing **Interfaces/Data Exchange** **Settings for Business Partner Conversion** **Conversion: Phase II** **Control Data** **Function Modules** and store the corresponding function modules there.

Managing the Content Conversion Using Control Tables

When using control tables for the content conversion, information about either exceptions or the execution of content conversion is passed on to subsequent control tables by means of checkboxes. This happens automatically when you execute the reports in the sequence specified. You may manually intervene in content conversion management but only to the extent described in [Activities for Business Partner Conversion](#).

The following tables show an example of the status of control tables and database tables **after** the relevant report has been executed. The first table shows the status for exceptions from the content conversion and the second table shows the status for cases where the content conversion was carried out:

Report Sequence	Control Table	Checkbox	DB Domain	DB Field Value
RFTBUH02_0	BPUM_DOM	FLAG_EXCEPTION set	SADRNR	1000068112
RFTBUH02_1	BPUM_ROL	XFELD	SADRNR	1000068112
RFTBUH02_2	BPUM	CONVERT_TAB not set	SADRNR	1000068112
RFTBUP09 (does not generate)	BPUM	CONVERT_TAB not set	SADRNR	1000068112

Report Sequence	Control Table	Checkbox	DB Domain	DB Field Value
RFTBUP_TABNAME)				

Report Sequence	Control Table	Checkbox	DB Domain	DB Field Value
RFTBUH02_0	BPUM_DOM	FLAG_EXCEPTION not set	BP_ROLETYPE	0100
RFTBUH02_1	BPUM_ROL	XFELD not set	BP_ROLETYPE	0100
RFTBUH02_2	BPUM	CONVERT_TAB set	BP_ROLETYPE	0100
RFTBUP09 (generates RFTBUP10_TABNAME)	BPUM	CONVERT_TAB set	BP_ROLETYPE	0100
RFTBUP10_TABNAME	BPUM	CONVERT_TAB set	BP_ROLETYPE	TR0100

Managing the DDIC Conversion Using Control Tables

When using control tables for the DDIC conversion, information about either exceptions or the execution of DDIC conversion is passed on to subsequent control tables by means of checkboxes. This happens automatically when you execute the reports in the sequence specified. You may manually intervene in DDIC conversion management but only to the extent described in [Activities for Business Partner Conversion](#).

The following tables show an example of the status of control tables and database tables after the relevant report has been executed. The first table shows the status for exceptions from the DDIC conversion and the second table shows the status for cases where the DDIC conversion was carried out:

Report Sequence	Control Table	Checkbox	Domain	Data Element
RFTBUH02_1	BPUM_ROL	NO_RELEVANCE set	BP_PARTNR	Z_CK_TEST_OLD
RFTBUH02_2	BPUM (no entry is generated)			

Report Sequence	Control Table	Checkbox	Domain	Data Element
RFTBUH02_1	BPUM_ROL	NO_KFM not set	BP_PARTNR	BPUM_ROL
RFTBUH05 (copy data element to *_NEW)	BPUM_ROL	NO_KFM set (manually)	BP_PARTNR	BPUM_ROL
	BPUM_ROL	NO_KFM not set	BP_PARTNR	BPUM_ROL
RFTBUH03 (exchange domains in DB)	BPUM_ROL	NO_KFM set	BP_PARTNR	BPUM_ROL
	BPUM_ROL	NO_KFM not set	BU_PARTNER	BPUM_ROL
RFTBUH06 (exchange data elements in DB)	BPUM_ROL	NO_KFM not set	BU_PARTNER	BPUM_ROL
RFTBUH04 (reassign foreign keys)	Values not changed	Values not changed	Values not changed	Values not changed

Activities and Reports to Be Carried Out in Phase II

In the following you find detailed information about all activities and reports that are to be carried out in phase II.

For an overview of all activities for phase II, see [Activities for Business Partner Conversion](#).

Manual: Exchange Data Elements Relevant for Conversion

Procedure

Before you can start the reports for phase II, you may have to exchange data elements in customer-specific tables or structures. This is necessary in two cases:

- You use SAP data elements that are relevant for conversion. The control table [BPUM_ROL](#) lists all SAP data elements that are relevant for conversion. If you use an SAP data element from this list that is to reference the Treasury Business Partner after the conversion, you have to exchange it for the corresponding data element <NAME>_OLD in your table or structure. If you use an SAP data element from this list that is to reference the SAP Business Partner after the conversion, you have to exchange it for the corresponding data element <NAME>_NEW in your table or structure.
- If you have created data elements in the customer namespace that are to reference the Treasury Business Partner after the conversion, you have to exchange them for corresponding elements <ZNAME>_OLD in your own tables or structures.

Copying of Control Tables (RFTBUH02_0)

Use

As part of [Business Partner Conversion \(Phase I\)](#) (project 0001) report RFTBUH02 stores information about which domains are relevant for content conversion in control table [BPUM_DOM](#).

Report RFTBUH02_0 copies the information to [Business Partner Conversion \(Phase II\)](#) (project 0003).

This ensures that the exception indicators are set correctly for all domains and cannot be changed manually, apart from the [Exclude Business Partner Numbers from Content Conversion](#) indicator.

Integration

For an overview of all phases of business partner conversion and other conversion reports, see [Activities for Business Partner Conversion](#).

Activities

As this information is client-dependent, execute the report for each client.

The system displays the initial screen for the report:

1. In the **Project** section choose the **0003 Business Partner Phase 2** conversion project.
2. In the **Control** section choose whether the report is to be carried out in **Check Run (No DB Changes)** or **Update Run (Changes to DB)**.
3. In the **Control** section, choose the **001 Business Partner Conversion –New** source project.

Manual: Exclude Business Partner Numbers from Content Conversion

If you have set the **Identical Numbers** indicator for the Treasury Business Partner and the SAP Business Partner, and the business partner number has therefore not changed during conversion, then you may manually set the **Exception** indicator for the BP_PARTNR domain (business partner number) and for the SPARTNR domain (partner number) in the table [BPUM_DOM](#).

No content conversion coding is subsequently generated for fields that reference this domain. If the content of all fields in a table is not to be converted, then no content conversion report is generated. If you have a large number of business partners in the system, this can reduce the runtime of the business partner conversion.

Determination of Data Elements to Be Converted (RFTBUH02_1)

Use

This report generates table [BPUM_ROL](#).

This report determines all the data elements that are assigned to the domains defined in table [BPUM_DOM](#) and lists them in table [BPUM_ROL](#). If the domains are flagged as not relevant for content conversion in table [BPUM_DOM](#), this exception is transferred to the data elements and the **DB Table Field Value Is Not to Be Content Converted** checkbox (XFELD) is set for all assigned data elements in table [BPUM_ROL](#).

This report also flags all data elements whose description ends with the suffix _OLD as not relevant for conversion. (The system sets the checkbox in the "Exception" field (NO_RELEVANCE)).

This does not include data elements that refer to business partner numbers.

SAP data elements that are not relevant for conversion are delivered with the suffix _OLD.

You have to flag customer-specific data elements with the suffix _OLD before the report is executed (see [Exchange Data Elements Relevant for Conversion](#)).

Integration

For an overview of all phases of business partner conversion and other conversion reports, see [Activities for Business Partner Conversion](#).

Activities

As this information is client-dependent, execute the report for each client.

The system displays the initial screen for the report:

1. In the **Project** section, enter the **0003 Business Partner Phase 2** conversion project.
2. In the **Control** section, choose whether the report is to be carried out as a **Check Run (No DB Changes)** or **Update Run (Changes to DB)**.

Manual: Flagging Customer Data Elements for DDIC Conversion

Use

A DDIC conversion has to be carried out for customer-specific data elements that are to reference the SAP Business Partner following the business partner conversion. This will be carried out automatically by reports.

Procedure

To flag data elements for conversion by reports, set the **Original System** indicator (NO_KFM) for all relevant data elements in the control table [BPUM_ROL](#) before you run the report [RFTBUH05](#).



All SAP data elements have been supplied in the correct form and you must not change them.

Creating a Transport Request for Converting Customer Objects

The following reports make the DDIC changes to your objects:

- [RFTBUH05](#)
- [RFTBUH03](#)
- [RFTBUH06](#)
- [RFTBUH04](#)

You need a transport request to transport the converted objects from the original system to the following systems.

Procedure

Before you execute report RFTBUH05, create a Workbench request.

On the **SAP Easy Access** screen choose **Tools** **Administration** **Transports** **Transport Organizer**

Due to the fact that the status management of reports is client-dependent, you have to execute these reports in each client. However, as the DDIC changes are applicable across all clients, you need only one transport request in the original system.

Copying of Data Elements to Be Converted (RFTBUH05)

Use

This report copies all customer-specific data elements <ZNAME> to data elements <ZNAME>_NEW for which the "Original System" checkbox (NO_KFM) has been set manually in table [BPUM_ROL](#) (see [Flagging Customer Data Elements for DDIC Conversion](#)).

You must run the report for each client.



The report can make changes in the ABAP Dictionary. For this reason you can start the report in the first client of the original system only once in update run.

Integration

For an overview of all phases of business partner conversion and other conversion reports, see [Activities for Business Partner Conversion](#).

Activities

Run the report program in test mode first.

Check the log for error messages. If there are no errors in the log, then you can start the report in the update run.

To enter the transport request number, deselect the **Test Mode** checkbox and choose **Enter**.

Exchange of Domains in New Data Elements (RFTBUH03)

Use

The report replaces the old domain for the Treasury Business Partner with the new domain for the SAP Business Partner for all data elements in table [BPUM_ROL](#) for which neither the **Original System** indicator (NO_KFM) nor the **Exception** indicator (NO_RELEVANCE) has been set. The report determines the information about the assignment of old and new domains from table [BPUM_DOM](#).

The report is relevant only for your own data elements.

All SAP data elements are supplied with the correct domains.

You must run the report for **each client**.



The report can make changes in the ABAP Dictionary. For this reason you can start the report in the first client of the original system only once in update run.

Integration

For an overview of all phases of business partner conversion and other conversion reports, see [Activities for Business Partner Conversion](#).

Activities

Run the report program in test mode first.

Check the log for error messages. If there are no errors in the log, then you can start the report in the update run.

If you have your own data elements in which domains are exchanged, these are also included in the transport request that has been created for report [RFTBUH05](#) (see [Creating Transport Requests for Converting Customer-Specific Objects](#)). You can view the objects that are included in the request in the log.

Exchange of Old for New Data Elements (RFTBUH06)

Use

The report exchanges customer-specific data elements <ZNAME> for corresponding data elements <ZNAME>_NEW in all tables and structures for those data elements for which the **Original System** indicator (NO_KFM) is set in table [BPUM_ROL](#).

You must run the report for **each client**.



The report can make changes in the ABAP Dictionary. For this reason you can start the report in the first client of the original system only once in update run.

Integration

For an overview of all phases of business partner conversion and other conversion reports, see [Activities for Business Partner Conversion](#).

Activities

Run the report program in test mode first.

Check the log for error messages. If there are no errors in the log, then you can start the report in the update run.

Customer-specific data elements that have been changed are also included in the transport request that was created previously.

Reassignment of Foreign Keys (RFTBUH04)

Use

The report corrects the foreign key relationships in tables and structures that are incorrect following the exchange of domains because the check tables for the old and new domains are no longer identical.

You must run the report for each client.



The report can make changes in the ABAP Dictionary. For this reason you can start the report in the first client of the original system only once in update run.

Integration

For an overview of all phases of business partner conversion and other conversion reports, see [Activities for Business Partner Conversion](#).

Activities

Run the report program in test mode first.

Check the log for error messages. If there are no errors in the log, then you can start the report in the update run.

Customer-specific data elements that have been changed are also included in the transport request that was created previously.

If one or more of the DDIC reports [RFTBUH05](#), [RFTBUH03](#), [RFTBUH06](#), and RFTBUH04 include objects in the transport request, then the mass activation report RADMASGO is started automatically for all the changed objects at the end of report RFTBUH04.

Determination of Fields to Be Content Converted (RFTBUH02_2)

Use

This report determines all the table fields that are assigned to the data elements in table [BPUM_ROL](#) and saves them with the assigned tables in table [BPUM](#). The report passes on the **DB Table Field Value Is Not To Be Content Converted** indicator (XFELD) that is set for the data element in table BPUM_ROL for all table fields assigned to the data element to the **Convert Business Partner** field (CONVERT_TAB) in table BPUM. If the indicator is set in table BPUM_ROL, then the **Convert Business Partner** indicator (CONVERT_TAB) is not set in table BPUM. The field is then excluded from the content conversion. However, if the indicator is not set in table BPUM_ROL, the **Convert Business Partner** indicator (CONVERT_TAB) is set for all accompanying fields in table BPUM. The content is then converted for these fields. As this information is used to convert content of the fields, the report processes fields from database tables only.

If a field is flagged as "relevant for content conversion", then the report checks the relevant table against the tables that are excluded from the conversion. These tables are listed in table [BPUM_TAB](#). These are tables that refer only to the Treasury Business Partner or for which content is converted using reports that have been supplied.

If the table in question is a table belonging to the Treasury Business Partner, then the field is excluded from the content conversion (the **Convert Business Partner** indicator (CONVERT_TAB) is not set in table BPUM). If the table listed in table BPUM has at least one field whose domain does not have identical keys, report [RFTBUP09](#) generates a content conversion report for this table. If the content of all fields in a table is not relevant for conversion, then no content conversion report is generated.

Integration

For an overview of all phases of business partner conversion and other conversion reports, see [Activities for Business Partner Conversion](#).

Features

Output

In the standard version the system outputs all where-used lists with the SAP List Viewer .

Activities

The system displays the initial screen for the report:

1. In the **Project** section choose the **0003 Business Partner Phase 2** conversion project.
2. In the **Control Data** section you can choose whether you run the report in **Check Run (No DB Changes)** or in **Update Run (Changes to DB)**.
3. In addition you can set the **Call Up Excel** indicator under **Control Data** to transfer the list of where-used lists as a text file to Excel and to save it for further processing.

Analysis of Objects Relevant for Content Conversion (RFTBUH02_3)

Use

The report generates the following where-used lists for the SAP objects that are relevant for content conversion:

- Tables in programs
- Modules in programs
- Data elements on screens
- Data elements in tables
- Data elements in views
- Foreign keys
- Data elements in structures

The following tables shows the basis for each where-used list:

Where-used list	Table upon which it is based
Data elements	BPUM_ROL
Function modules	BPUM_FUNC
Tables	BPUM_TAB

You can use the lists to determine which programs, screens, tables, views, and structures you may need to adjust after the conversion.

The report does not make any changes to the database and can therefore be executed as often as required, at any time, and in any client.

Integration

For an overview of all phases of business partner conversion and other conversion reports, see [Activities for Business Partner Conversion](#).

Activities

The system displays the initial screen for the report:

1. In the **Project** section choose the **0003 Business Partner Phase 2** conversion project.
2. You can set the following indicators in the **Control Data** section:

- **Only display new (tables)**

You can use this function only for the where-used lists for data elements. If you set the indicator, the report displays only the data elements that you created.

- **Call up Excel**

In the standard version the system outputs all where-used lists with the SAP List Viewer. If you set the indicator, the list is transferred as a text file to EXCEL, and you can save it for further processing.

3. Select the where-used list you want to display.

Content Conversion of Business Partner Numbers (RFTBUP10_BP000)

Use

This report converts the content of Treasury business partner numbers to SAP business partner numbers. The report has to ensure that the Treasury Business Partner and the SAP Business Partner have identical numbers by adjusting the Treasury business partner numbers to the SAP business partner numbers.

The Treasury business partner number before the content conversion is stored in the PARTNR_OLD field in the master data table for the Treasury Business Partner.

The report must be carried out even if the numbers are already identical because you can fill the PARTNR_OLD field only by executing this report. The subsequent content conversion reports build on this field.

Integration

For an overview of all phases of business partner conversion and other conversion reports, see [Activities for Business Partner Conversion](#).

Example

The following tables show the values for the business partner number fields in table BP000 for the Treasury Business Partner before and after the report has been executed:

PARTNR	PARTNR_OLD	PARTNER
0000000001	0000000001	SAPGP00001
0000000002	0000000002	SAPGP00002
0000000003	0000000003	SAPGP00003
0000000004	0000000004	SAPGP00004
0000000005	0000000005	SAPGP00005

PARTNR	PARTNR_OLD	PARTNER
SAPGP00001	0000000001	SAPGP00001
SAPGP00002	0000000002	SAPGP00002
SAPGP00003	0000000003	SAPGP00003
SAPGP00004	0000000004	SAPGP00004
SAPGP00005	0000000005	SAPGP00005

Content Conversion of Tables with Supplied Reports

Use

Content conversion reports are always generated in the same way. The reports generated all follow the same logic: If the content of a table field cannot be converted using this general logic due to special features of this table, then no content conversion report can be generated for this table. Content conversion reports with hard-coded logic exist for these tables. These reports are not generated during the conversion but are a component of the delivery.

This table provides an overview of the tables that are supplied with the relevant reports:

Subproject	Report	Additional Information
RFTBUP10_1	RFTBUP10_ATLAR	Conversion report for table ATLAR
RFTBUP10_2	RFTBUP10_ATLSF	Conversion report for table ATLSF
RFTBUP10_3	RFTBUP10_TZKN2	Conversion report for table TZKN2
RFTBUP10_4	RFTBUP10_TZKN2T	Conversion report for table TZKN2T
RFTBUP10_5	RFTBUP10_ATLA	Conversion report for table ATLA
RFTBUP10_6	RFTBUP10_VTB_RULESET_PA	Conversion report for table VTB_RULESET_PA
VDGPO	RFTBUP10_VDGPO	Conversion report for table VDGPO
TZV07	RFTBUP10_TZV07	Conversion report for table TZV07
TPZ6	RFTBUP10_TPZ6	Conversion report for table TPZ6
ADDRESS	RFSADT0010	Conversion of object addresses (keeping object key)

Activities

The system displays the initial screen for the report in question:

1. In the **Project** section enter the **0003 Business Partner Phase 2** conversion project.
2. In the **Control** section you can make other settings for the report:
 - Check run (no DB changes)
 - Include check run (DB changes)
 - Ignore check run (DB changes)
 - Show log details
 - Process as job

Generation of Content Conversion Reports (RFTBUP09)

Use

The report generates the content conversion coding for all entries currently assigned to the project in table [BPUM](#). The following entries are included in table BPUM:

- All entries that are not marked as an exception ([Flag Domain/Data Element/Table as Exception](#) field EXCEPTION_TAB)

- All entries that are admissible for the conversion ([Convert Business Partner field CONVERT_TAB](#))

If the system finds at least one field for which the content is to be converted, then it generates a report. The field contents of UFORM (form routine) and CONV_REP (module pool for form routines) from table BPUM are used as conversion routines.

The generated report is created as a local private object with the name RFTBUP10_table name. If a report of the same name exists already, then the report is not generated.

A sub-project \$CH_NNNNNN, with NNNNNN as sequential number, is created and registered in order to carry out the conversion project using the control tool. Successful generation is logged with the entry [Generation of conversion report RFTBUP10_table name for table TABNAME](#).



If you reconstruct or change table BPUM after you have run the report, then you have to run the report again. Changes in table BPUM can result in changes in coding for the content conversion reports.

You can run the report as many times as you like. However, you have to run it at least once in every client.

Integration

For an overview of all phases of business partner conversion and other conversion reports, see [Activities for Business Partner Conversion](#).

Activities

The system displays the initial screen for the report:

1. In the **Project** section, enter the **0003 Business Partner Phase 2** conversion project.
2. In the **Control** section, you can set the **Delete Conversion Reports Only** checkbox. If the checkbox is set, then you can delete all generated content conversion reports from your \$TEMP directory after you have successfully completed the business partner conversion by executing the report.

Content Conversion of Tables with Generated Reports (RFTBUP11)

Use

To make the content conversion easier, this report provides the basis for processing the content conversion reports generated by report [RFTBUP09](#). This ensures that the content of all relevant fields in the application tables is converted.

All the content conversion reports are processed that do not have status **No Values Exist**.

This report generally executes all generated reports. If this is not the case, you can repeat the report. Reports that have already been executed are not executed again.

If individual \$CH reports are not executed in spite of executing the report several times, you can individually select and manually start these reports. Due to the fact that the generated content conversion reports are not dependent on each other, the order in which they are processed is irrelevant. If you call a content conversion report directly, then the system outputs an individual log for the content conversion report.

Integration

For an overview of all phases of business partner conversion and other conversion reports, see [Activities for Business Partner Conversion](#).

Activities

The system displays the initial screen for the report:

In the **Project** section, enter the **0003 Business Partner Phase 2** conversion project.

1. In the **Control** section, you can make the following settings:

- Check run (no DB changes)

If you set this parameter, the report carries out all checks and the content conversion. However, it does not save this to the database.

- Include check run (DB changes)

The report carries out the content conversion and saves it to the database, only if a check run has been carried out and no errors have been found.

- Ignore check run (DB changes)

The report carries out a content conversion and saves it to the database irrespective of the results of the previous check run.

- Show log details

If you do not set this checkbox, only errors and warnings, and no other message types, are written to the log. If you set this checkbox, all messages are written to the log.

- Process as job

The content conversion reports are called sequentially. This means that the content of the individual tables is converted sequentially. In order to improve performance, you can designate and execute one job per content conversion report. The generated jobs receive the names CONVERSION_contentconversionreportname and are processed in parallel.

Releasing a Transport Request

Procedure

Before you can start the conversion in the follow-up system, the transport request has to be released in the original system. The transport ensures that customer-specific objects are changed correctly. You have to execute the reports for DDIC conversion in the follow-up system. They do not generate any further changes and therefore do not require a transport request.

Business Partner Conversion (Phase 3)

In the following sections you will find further information on the individual activities for business partner conversion phase 3.

Release Business Partner Processing

Use

After you have carried out the business partner conversion, or if you are a new customer and want to release business partner processing, set the **SAP Business Partner for Financial Services Released** checkbox in Customizing for **SAP Business Partner for Financial Services** under **Settings for Financial Services** **Interfaces/Data Exchange** **Settings for Conversion** **Release System for Business Partner** .

This checkbox activates SAP Business Partner for Financial Services for processing in this client.

You make this setting because the business partner cannot automatically recognize whether real estate business partners were processed in the past.



If you also want to use customer/vendor integration (business partners in the BP roles **Customer/Vendor**) after your upgrade, make all the Customizing settings for master data synchronization according to your synchronization scenarios before you process business partners. You do this under **Cross-Application Components** **Master Data Synchronization** . Also ensure that you make settings in the Customizing activity **Activate Creation of Postprocessing Orders** in the **Postprocessing Office**, and make the settings described in the Customizing activity **Activate Function Modules in SAP Business Partner for Financial Services** under **Activate Function Modules for Customer/Vendor Integration**.

When you have set the checkbox and made the required settings for master data synchronization, you can work productively with SAP Business Partner for Financial Services.

Read the documentation for the Customizing activity **Release System for Business Partner** and SAP Note [398888](#).

For more information about customer/vendor integration, see [Master Data Synchronization](#).

Archiving Real Estate Business Partners

Note

The Real Estate Business Partner replaces what was formerly the Treasury Business Partner. Given that all Financial Services applications - apart from Real Estate Management (RE) - now use the SAP Business Partner, the Treasury Business Partner has been renamed Real Estate Business Partner as of Banking Release 4.63/CFM 2.0. The Real Estate Business Partner is supported only up to Release SAP ECC 6.18.

You can use archiving object TRTM_BPAR to archive business partner data.

Tables

TRTM_BPAR archives data from different tables. To check which tables these are, call up transaction SARA, enter the archiving object, and choose **Database Tables**. You can display the relevant tables in the lower part of the screen.

Archiving Classes

TRTM_BPAR may trigger further archiving classes to write additional data, such as change documents, to the archive. To check which classes these are, call up transaction A0BJ, select your archiving object and choose **Archiving Classes Used**.

Programs

To find out which programs this archiving object offers, call up transaction A0BJ and double-click on your archiving object.

Prerequisites

The following prerequisites must be fulfilled before a **Geschäftspartner** can be archived:

- The application areas **Loans (CML)** and **Real Estate Management** need to have 'released' the business partner for archiving. This means:
 - In the **Loans** area, you can archive a business partner if this business partner is not assigned in any role to a loan or a loan object.
 - In the **Real Estate Management** area, you can archive a business partner if the business partner is not linked to a real estate object.
- The business partner must not be linked via a relationship to another business partner that you do not intend to archive.
- The business partner must not be defined as alternative payer/payee or alternative dunning recipient in a business partner that is not going to be archived.

ILM-Related Information for the Archiving Object

You can use this archiving object with the **TRTM_BPAR** ILM object as part of SAP Information Lifecycle Management. In transaction **IRMPOL**, you can create policies for residence or retention rules, depending on the available policy category. Here you can also see the available time references and which condition fields exist, and decide which of them shall be used in which order to define your rule structure.

The following condition fields are available:

- **CUSTOMER** (Customer Number)
- **PARTNR** (Business Partner Number)
- **TYPE** (Business Partner Type)

The following time references are available:

- **LAST_CHANGE_DATE** (Last Change Date)
- **START_RET_DATE** (Start of Retention Period)

For more information, see .

Defining Write Variants

When you schedule the archiving run, you must enter an existing variant or create a new one. You can do so in transaction **SARA**.

A write variant contains the parameters for the business partners that you want to archive.

SAP delivers the following parameters:

- Partner Data
 - Business Partner Grouping
 - Partner
 - Customer Number
 - Name 1

- Name 2
- Role Category
- Personnel Number
- User Name
- Address Data
 - Address Category
 - Country Key
 - Postal Code
 - City
 - District
 - Street and House Number
 - Postal Delivery Area
- Other Accruals/Deferrals
 - Employee Indicator
 - Natural Persons
 - Legal Persons

Defining Reloading Variants

The following parameters are available when you execute the reload program:

- Test Run
- Update Run
- Display Log

You can run the reload program by using transaction SARA.

Basic Functions

The **Basic Functions** area of **Treasury and Risk Management (TRM)** contains the following:

- Central master data management (See [Master Data](#))
- [Market Data Management](#)
- [User Roles in Treasury and Risk Management](#)

Master Data

In the **Master Data** section under **Basic Functions** you can edit the details for **Banks (General)** and **House Banks**.

The master data for banks is stored centrally in the SAP System in a bank directory. You can access this data from the application, for example, if you want to enter bank details for a business partner.

This is also where you enter the details of your own house banks.

See also:

[Banks \(General\)](#)

[House Banks](#)

Banks

Bank master data is contained in the bank directory. It includes bank address data and control data such as the SWIFT code (Society for Worldwide Interbank Financial Telecommunication) and the bank group.

You must set the corresponding flag for post office bank accounts.

The bank directory must contain master data on all the banks that you require for payment transactions with your business partners. This includes your house banks and the banks of your business partners.

There are two ways to create the bank directory:

- **automatically**

If you have the master data for the bank directory on tape or disk, you can import it into the System using a special program. You can generally obtain a national bank directory on a data medium from one of your country's banking organizations. You should update the bank directory regularly. The System contains a program for Switzerland , Germany , Italy and Spain which transfers the bank directory into the System.

- **manually**

You can use one function to create master data for all banks.

You can enter the master data of your business partners' banks when maintaining master data. When you create a vendor or a customer master record, or enter a document for a one-time account, the System automatically branches to the screen for maintaining the bank directory if you specify bank details which are not contained in the directory.

You can define the master data of your banks in Customizing.

Refer to:

[Banks: Create](#)

[Banks: Change](#)

[Banks: Display](#)

[Set deletion indicator](#)

[Display changes](#)

Banks: Create

1. Choose **Master data** **Banks** **Create**.

2. Enter the Bank country and the Bank key in the initial screen.

3. This takes you to the initial screen for Address and Control data for the bank you wish to create.

4. Save your entries. The bank has now been created in the system.

Banks: Change

1. Choose **Master Data** **Banks** **Change**.

2. If appropriate, change the **Bank Country** and the **Bank Key** in the initial screen.

3. Press **ENTER**.

4. This takes you to the initial screen for **Address** and **Control Data** for the bank you wish to change.

5. Save the changes to your entries.

6. Using the **Change Documents** function, you can display all the fields changed so far.

Double-click on a changed field name to receive detailed information about this field.

Banks: Display

The search function provides you with an overview of all banks in the system.

If you wish to display your bank master data, proceed as follows:

Choose **Master data** **Banks** **Display**.

In the initial screen, enter the **Bank country** and the **Bank key** of the bank you wish to call up.

Press **ENTER**.

This takes you to the display screen for **Address** and **Control data** for the bank you have selected.

Using the **Change documents** function, you can display all the fields changed so far. Double-click on a changed field name to receive detailed information about this field.

Set Deletion Flag

Use

You can archive bank master data that you do not need. Archiving data means that the selected data is extracted from the SAP database, deleted and placed in a file. You can then transfer this file to an archive system.

You cannot immediately delete bank master data. The SAP System must first check if the master data can be deleted. You therefore set a deletion indicator for the bank master data to be deleted in the first step.

For bank master data that is to be physically deleted, there must not be any reference to it in the SAP System. This means that you need to make sure that the bank is neither entered in the master records nor defined as a house bank.

Procedure

1. In the SAP Menu, choose ►Treasury and Risk Management ► Basic Functions ► Master Data ► Banks ► Set Deletion Flag (F106) ▶.
2. On the initial screen, enter the **Bank Country** and the **Bank Key** of the bank for which you wish to set a deletion flag and choose **Enter**.
3. This takes you to the initial screen for setting the **deletion flag** for the bank you wish to delete.
4. Set the deletion flag.
5. Save the deletion flag.
6. Using the **Change Documents** function, you can display all the fields changed so far.

Double-click on a field name such as **Deletion Flag** for detailed information about this field.

Display Changes

If you wish to display the changes made to bank master data, choose **Basic Functions**:

1. ►Master Data ► Banks ► Display Changes ▶

This takes you to the screen headed: **Bank Data Changes: Initial Screen**.

2. Enter the Bank country and the Bank key of the bank you wish to call up. Also enter the date from which you wish to see the change displayed. You may also enter the name of the user who made the changes as a further selection criterion.
3. Press **ENTER**.

The System shows you the fields which have changed.

4. You can call up more detailed information on the changed fields using the buttons

Choose

All changes

i Note

Double-click on a field name to get detailed information about this field.

House Banks

Each house bank in a company code is represented in the System by a bank ID and each account maintained with a house bank is represented by an account ID.

You use the bank ID and the account ID in the System to enter bank details. These entries are used to determine the bank details for a particular payment for automatic payment transactions, for example.

Standard Configuration

Some house banks are delivered in the standard system as examples to show you how the payment program works.

i Note

For German banks, you should enter the bank number in the field “Bank key” and for other banks, you enter the SWIFT code in this field.

For Belgium , the first three characters of the house bank ID must be numeric.

To enter the settings for your house bank, choose:

1. ►Master data ► House banks. ▶

2. Enter the Company code for your house bank.

3. Via ►Goto ► House banks, you can call up a list of all house banks in the selected company code. ▶

Via ►Goto ► Bank accounts ▶, you can view a list of all bank accounts in the specified company code.

Double-click on an entry in one of the lists to reach the input screen of the related house bank or bank account.

4. If you wish to create a new bank in the current company code, choose:

►Edit ► Create bank. ▶

Enter the house bank and the bank country, and confirm your entries by pressing ENTER .

This takes you to the initial screen for house bank data.

Here, you can also enter data for data medium exchange, bank accounts and related bank accounts.

Save your entries.

5. ►If you wish to create a new bank account in the current company code, choose:Edit ► Create account. ▶

Enter the House bank, the Account ID and a Text for the account and confirm your entries by pressing ENTER .

This takes you to the initial screen for bank account data.

6. Save your entries.

You can automatically assign house banks to transactions via standing instructions.

Maintain Repetitive Codes

Use

You can use this function to maintain the master data of repetitive codes in accordance with the company code and the house bank. You choose between the target account assignments:

- Bank-to-bank transfer
- Business partners
- Vendor

Integration

You require this master data

- for fast entry of [payments with repetitive codes](#)

- for payments with repetitive codes when you generate payment requests online
- for bank-to-bank transfers with repetitive codes when you generate payment requests from cash management advices

If you use **SAP Enterprise Financial Services**, see for more details on how repetitive codes are used in the **Transaction** and in the **Standing instructions**.

Prerequisites

If you use repetitive codes by arrangement with your banks (USA), you must have agreed upon the repetitive codes you want to create with your house banks beforehand.

If you use repetitive codes internally to ease your workload, you do not need this agreement.

Features

This function allows you to perform the following activities for repetitive codes:

- Create
- Change
- Release
- Block
- Delete

You can assign authorizations for the individual activities. The standard setting is one release approval level. If you want to incorporate a second release approval level, you must set it up yourself using Business Transaction Event OPEN_FI_PERFORM_00001850_P. This would allow you to require one person to create the repetitive code, and two different employees to release it.

You can also group individual repetitive codes together with possible overlaps. The groups can then be used by clerks to allow them to make personalized selections when they use the fast entry function for payments with repetitive codes.

You can also display and print out a list of the existing repetitive codes. You can configure this using the ALV functions.

Activities

To maintain the master data, choose **Accounting** **Financial Accounting** **Banks** **Master Data** **Repetitive Codes** in the application menu .

Market Data Management

The following sections describe the tools for transferring market data. Market data can be transferred to the system from a file interface or via realtime datafeed. You can also use the function for market data transfer from spreadsheets.

- [Market data transfer from spreadsheet](#)
- The **Market data file interface** features the following functions:
 - You can upload a file with external market data, check and update the operative database tables containing market data.

- You can display a list of all actions and errors.
 - You can retrieve the master data defined in the system for the market data and generate a list of requested market data in notation.
- The list can be saved in the form of a file.
- Import statistical data.
- The functions provided by the **Real-time datafeed interface** allow you to work effectively and efficiently with market data. You need an external interface program supplied by your datafeed provider which delivers the market data to the system in a suitable form.

The following functions are available:

- Market data/error buffer management

The system can list and analyze current market data and the most recent errors which occurred during data transfer or delivery.

- External data transfer

You can transfer current and historical market data in datafeed notation using a report.

- User log

Each access to the datafeed interface is documented in the user log. You can display, print out or archive this user log. You can also download it as an ASCII file.

- **Current settings** This function describes Customizing activities which you carry out outside the IMG (Implementation Guide).

Manual Market Data Entry

Use

By using the manual market data input, you will find the initial screen for Customizing activities to maintain market data.

You can enter the following market data:

- [Exchange rates](#)
- Forex swap rates
- [Reference interest rates](#)
- Yield curve
- [Security prices](#)
- [Index values](#)
- Interest rate volatilities
- Interest rate volatility curve
- Currency volatilities
- Security volatilities
- Index volatilities

- Correlations
- Beta factors

Activities

Choose **Market Data** **Manual Market Data Entries** .

Market Data Transfer from Spreadsheet

Use

This function allows you to call up market data directly in the system from a spreadsheet and transfer the data.

Prerequisites

A spreadsheet program must be installed on your PC.

This function is exclusively designed for the Enjoy screen size of 27 lines and 120 columns.

Read the report documentation **Importing Market Data via the File Interface** (RFTBFF00) and **Output of the Requirements List** (RFTBFF01). The requirements regarding field length, field meaning, and so on are also valid here.

Features

You can import existing market data files.

Note

You can transfer a maximum of 1000 rates and prices to the system at the same time via the spreadsheet. If you wish to transfer more rates and prices, you should use the file interface or datafeed.

You can create new files. The master data that has been defined in the system is transferred as the table framework so that only the values still have to be entered.

Activities

1. Choose **Basic Functions** **Market Data Management** **Spreadsheet** .
2. Press the **Spreadsheet** button that controls the interface parameters of the report.
 - **Application that is to be started:** Use the F4-Help to choose the spreadsheet that you wish to use. (The spreadsheet must support the **Table** category).
 - **Document template (WEB repository):** You enter a template here that is copied from the WEB repository to the current document when you create a new spreadsheet.
 - **First and second macro to be run:** Specify the macros that are called up to transfer the table information in the work file of your spreadsheet. The first macro transfers data back into the system (**TableBackToR3**). The second macro fetches the data from the system. (**FillTableFromR3**).

Note

SAP delivers an Excel template with the relevant macros. Only change the standard macro names if you wish to create your own template with its own macros and wish to use your own macro names.

If you wish to import an existing file, then enter its name and path where you can find it.

If you wish to create a new file, you can specify the market data you wish to enter under **Market data selection for new creation**. The table is then preconfigured so that you can enter the values for all defined characteristics of this market data.

Switch to the **Spreadsheet** tab page.

Choose **Create** to enter new files and then enter the data. Use the **Import market data** function to load data into the system.

When you import an existing file, the spreadsheet is opened. Use the **Import market data** function to load data into the system.

File Interfaces

Refer to:

[Rates and prices](#)

[Statistical data](#)

Rates and Prices

The **Import market data** function allows you to import the market data you need to the system.

i Note

Make sure you have the correct market data file format.

To call up a selection list in which you can specify the market data you require, you use the **Generate requirements list** function. You can save the list in file format.

See also:

[Importing market data](#)

[Generate requirements list](#)

Import Market Data

Choose **Tools** **Market Data File** **Rates and Prices** **Import**.

The screen entitled **File Interface: Import Market Data** appears. **Import Market Data**.

Under the heading **File**, enter the directory path and the file name of the market data file you want to import in the field marked, **Name**.

If you check the box marked **Test run** under the heading **Other**, the system will only run a simulation of the market data import.

Choose **Program** **Execute**.

The system now imports the market data.

Generate Requirements List

Choose **Market data management** → **File interfaces Rates and prices** → **Generate requirements list** or the corresponding path in SEM Banking.

The screen entitled **File Interface: Generate Requirements List** appears.

Under the heading **Output**, in the field marked **File name**, enter the directory path and the file name of the file in which the requirements list is to be output. The directory path must already exist on the application server.

You can restrict the requirements list to be generated by selecting the following **Instrument Classes**:

Currencies

Securities

Interest rates

Indexes

Under **Selection**, you can enter further restrictions for the requirements list by entering master data and instrument properties.

Choose **Program** → **Execute**

The system displays a selection list for requesting market data. You select the requested market data by marking the relevant entries in the column marked **OK**.

Choose **Market Data** → **Save** to save the requirements list to the output file

Importing Statistical Data

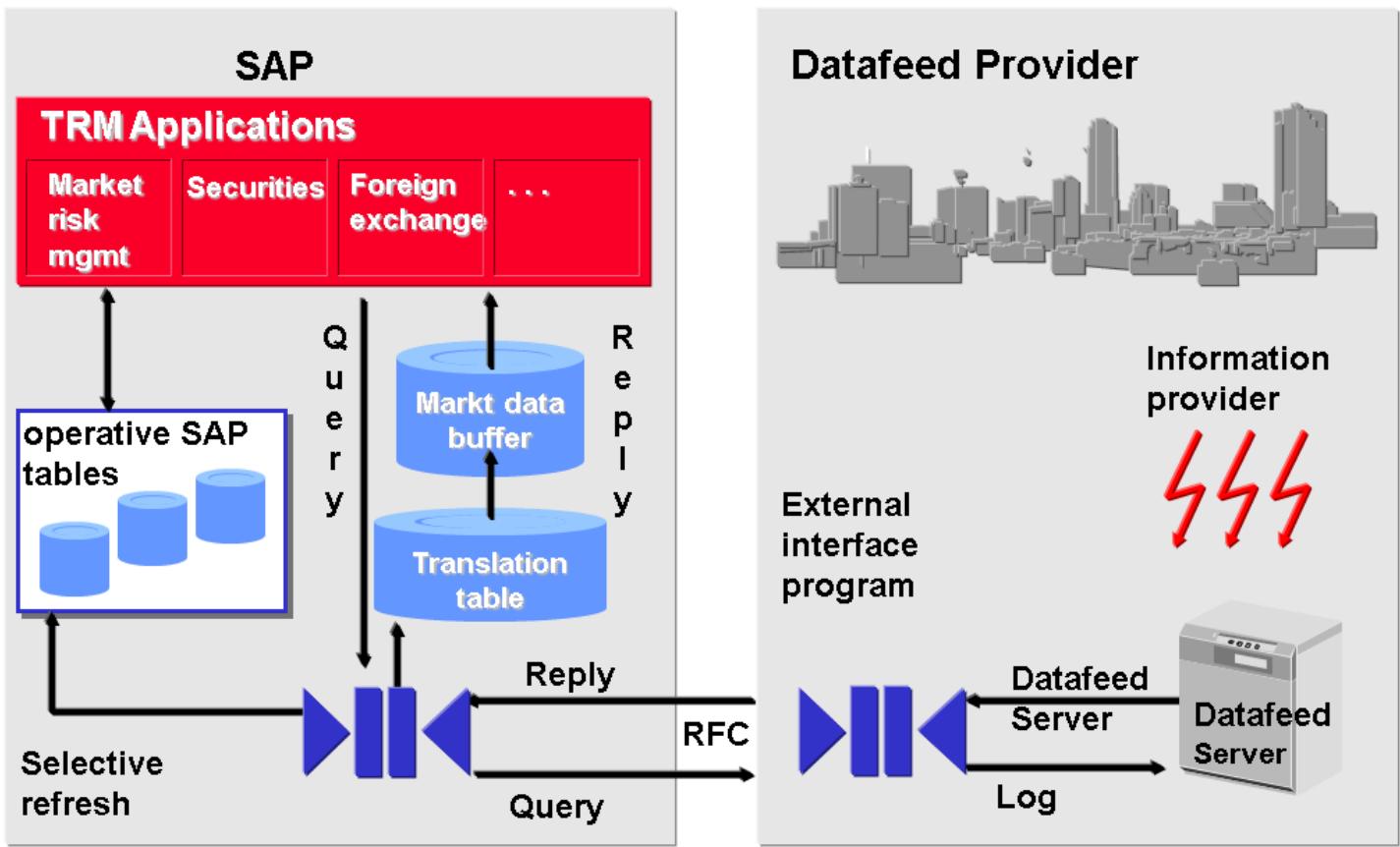
Procedure

1. Choose **Tools** → **Market data file** → **Statistical data** or the corresponding path in SEM Banking.
2. Make the following entries on the selection screen:
 - o Specify the file name for the data you wish to import.
 - o If you want to import the data from a diskette or hard disk, select the **PC upload** field.
 - o If you want to simulate a data import run, mark the **Test run** field.
3. To start the import procedure, choose **Execute**.

Datafeed

Use

You can use the Treasury datafeed to incorporate current market data in your financial transactions via an open interface. The following graphic provides an overview of the use of datafeed in the system.



Prerequisites

You have a real-time datafeed in operation in your company.

The system platform of your real-time datafeed provider supports the datafeed.

Features

Market data buffer containing current market price information

Standardized communication structures compatible for all providers

Reports to request and receive price information from datafeed providers

Reports for directly evaluating the market data buffer and for saving information on exchange rates, interest rates and securities in the relevant standard tables

Flexible conversion of financial instrument names

Query log to document access to the data buffer

Datafeed Workflow - Handling Errors The workflow recognizes transfer errors or Customizing errors and informs the relevant processor who can then deal with the error.

User Exit for Rate/Price Calculations To calculate average rates/prices, invert rates/prices, etc, you can use TRTMDFO1. You have access to rates/prices that are permanently in the system and can calculate new ones if necessary.

Rates/prices via the Internet Make the necessary settings in Customizing via [Internet Settings for the External Partner Program](#) such as Universal Resource Indicator (URI), user and password (coded).



Note that you can only use this functionality if you connect to the WEB server of a SAP certified partner whose certificate is also valid for internet access.

You can transfer the following types of market data via the datafeed interface:

Exchange rates

Security prices

Reference interest rates (e.g. LIBOR, FIBOR)

Indexes

Forex swap rates (Forwards)

Currency volatilities

Securities volatilities

Index volatilities

Interest rate volatilities

Commodities

Displaying Market Data

Use

Depending on the selection criteria you define, the **Display market data** function generates a list of the most recently imported market data and of any errors by calling up report RFTBDF00.

You can select, display or print out market data from this list.

Activities

1. Choose **Tools > Datafeed > Display Market Data** or the corresponding path in SEM Banking.

The system displays the screen headed Datafeed: Market Data Management.

2. **Enter your selection data for the market data you wish to display.**

3. **Choose Program > Execute.**

The system lists the market data you selected.

4. **You can now select or flag the market data to view detailed information.**

5. **You can print out the list of market data via the menu path Market data > Print.**

Market Data Provision

Requesting Current Market Data

Use

Current market data is requested using report RFTBDF07. The selected market data is obtained via the datafeed interface and written to a market data buffer.

Features

The master data table (Exchange rates, securities prices, etc.) is only updated with this report if an update is explicitly asked for in the selection. To do this, you must select **Save market data permanently, if defined in Customizing**. The System only updates market data if you set the **Refresh** indicator during Customizing. All others are updated in the market data buffer only.

You can generate an error log and/or a market data list as required.

Prerequisites

- The link with the partner system/coupling program is working
- Customizing settings are maintained in datafeed
- At the start of the report, ensure that you have the following RFC authorizations:
 - Authorization object S_RFC with field attributes RFC-TYPE='FUGR', RFC_NAME='TBDF' and ACTVT=16 (Execute) and
 - Authorization object F_T_FBNAMES for asynchronous calling up with field attributes ACTVT=01 (add or generate) and FNMA='TB_DATAFEED_RATE_R'.

These authorization objects are contained in the F_DTFEED_ALL profile.
- To maintain the rates/prices in the operative SAP tables, you need the following authorization groups:
 - FC32 (Currencies)
 - FC16 (Interest rates)
 - TRZ (Indexes)
 - FC00 (Currency volatilities)
 - TRMK (Interest rate volatilities).

Features

Report RFTBDF07 generates an inquiry on one occasion that leads to a delivery of rates/prices.

i Note

If your external datafeed supports realtime rate/price provision, you can initialize a [Real-time-rate/price provision](#) with report RFTBDF14. In this case, the market data buffer and, if necessary, the master data table is updated then and several times via the external datafeed.

Activities

1. Choose ►Market data management ► Datafeed ► Market data ► Request current market data or the corresponding path in SEM Banking. ▶

This takes you to the screen entitled Datafeed: Refresh Market Data and Tables.

2. Enter the data necessary for your selection.

3. ►ChooseProgram ► Execute. ▶

The System calls up the market data management basic list generated according to your selection criteria.

4. You can now select or flag the market data to view detailed information.

5. ►You can print out the list of market data via the menu pathMarket data ► Print. ▶

Request Historical Time Series

Use

Report RFTBDF04 is used to request historical data.

Prerequisites

- You can only use this program if your external datafeed provider and the corresponding interface program can deliver historical data. Check with your datafeed provider if necessary.
- Ensure that you have the following RFC authorizations before you start the report: For authorization object S_RFC with field attributes RFC_TYPE = 'FUGR', RFC_NAME = 'TBDF' and ACTVT = 16 (Execute). For asynchronous retrieval of data, you need authorization for authorization object F_T_FBNNAME with field attributes ACTVT = 01 (add or generate) and FNMA = 'TB_DATAFEED_RATE_R'. These authorization objects are contained in the F_DTFEED_ALL profile.

Activities

1. Choose Tools → Datafeed → Market Data → Request Historical Market Data or the corresponding path in SEM Banking.

The system displays the screen headed Datafeed: Request Historical Market Data.

2. Enter the data necessary for your selection.

3. ►ChooseProgram ► Execute. ▶

The system calls up the market data administration basic list generated according to your selection criteria.

4. You can now select or flag the market data to view detailed information.

5. ►You can print out the list of market data via the menu pathMarket Data ► Print. ▶

Start Continuous Market Data Supply

Use

Report RFTBDF14 initializes the external partner program of the datafeed provider. All entries in the translation table with the "real-time" indicator are transferred to the external partner program. From this point in time, the external partner program is responsible for delivering market data regularly when there are price and rate changes. The market data buffer is also updated here.

i Note

The master data table (exchange rates, securities prices, etc.) is only updated with this report if an update is explicitly requested in Customizing of the translation table.

An error or information list can be generated if necessary.

Prerequisites

- The link with the external partner system/coupling program is working
- The external partner program supports real-time market data provision.
- Customizing Settings are maintained for datafeed, especially the 'real-time' button in the translation table.

Features

Report RFTBDF14 initializes real-time market data provision.

It should always be used if the system (or batch management) is started up again and/or the external partner program has to be initialized again.

Activities

1. Choose **Tools** → **Datafeed** → **Market data** → **Initialize realtime** or the corresponding path in SEM Banking

The system displays the screen headed **Initialize Realtime Market Data Provision Externally**.

2. **Choose the external market data provider.**
3. **Execute the report program.**

File Upload in Datafeed Notation

Use

A file interface has been developed for transferring market data into the system. Using this file interface, you can run a report (RFTBDF06) to transfer both current and historical market data in datafeed notation to the datafeed module and to the TRM applications.

You need to enter an input date with the rate/price dates in a certain form (see below) and the entries are then added to the master data, provided that they are error-free.

Prerequisite

- The translation table must contain the datafeed notations that are to be translated.

The input file must have the following form:

Name	Category	Length	Example
Instrument name	CHAR	20	=FSAG
Instrument property	CHAR	15	CLOSE
Date (MMDDYYYY)	CHAR	08	10091995
Time (HHMMSS)	CHAR	06	173015
Value of instrumentproperty	CHAR	20	250.03
Currency	CHAR	5	DEM
Price notation (only for securities, optional)	CHAR	5	market cleared; stocks continued to attract buying interest
From factor Currency ratio (only enter for currencies)	CHAR	7	100
To factor Currency ratio (only enter for currencies)	CHAR	7	1
Term (only for volatilities, optional)	CHAR	10	

i Note

All file lines of the file that will be available must have this structure. All file lines are not permissible. Each of the fields must be filled in, even an empty field length must be filled with a blank character. Tabulators are not permissible. Unnecessary fields must be filled in with a blank character.

- In order to import via the applications server (i.e. no PC upload), you need authorizations to access files from ABAP programs.
- For rate/price maintenance of the operative SAP Tables, you need authorization groups FC32 (Currencies), FC16 (Interest rates), TRZ (Indexes), FC00 (Currency volatilities) and TRMK (Interest rate volatilities).

i Note

There must be corresponding entries in datafeed Customizing in order to use this report. The datafeed notations must be defined in the corresponding translation tables.

Activities

1. Choose Tools Datafeed Transfer external data or the corresponding path in SEM Banking.

The screen entitled Datafeed: Import External Market Data in Datafeed Notation appears.

2. Enter the data necessary for importing the data.

3. Choose Program Execute.

Monitors

Real-Time Monitor

Use

Via the real-time monitor, you can display how many rates/prices are determined in realtime.

Activities

Choose **Tools** → **Datafeed** → **Monitors** → **Real-time monitor** or the corresponding path in SEM Banking.

Enter the provider and execute the program.

The **Datafeed: Real-Time Monitor** screen appears. It consists of the two areas, **Logon data** and **Customizing settings**.

From the logon data, take the user name and the time of the last logon for real-time transfer.

Take the **Total number of entries with real-time transfer**, the **total number of entries in the translation table** and the **ratio of real-time entries/all entries in %** from the Customizing settings.

You can print and/or save/send the list.

RFC Monitor

How to handle RFC errors

If errors occur during **R**emote **F**unction **C**all, these are processed in individual error handling in the standard system. For each incorrect RFC, the system schedules a batch job which starts the RFC repeatedly until processing is successful. If the link to the destination system is interrupted, this can lead to a large number of batch jobs being created, thus placing a heavy load on the transmitting system that is processing the jobs.

When the system is in use, it is absolutely necessary that you use the collective error handling facility to improve system performance. When you use this method, RFC transmissions are not automatically repeated immediately. Instead, a periodically scheduled batch job collects the incorrect RFCs and transmits them again as a package. As a result, the number of batch jobs is kept to a low level. This feature is available for system and TCP/IP links.

To carry out the error handling procedure:

1. Choose **Tools** → **Datafeed** → **Monitors** → **RFC monitor** or the corresponding path in SEM Banking.

► You can also access the RFC monitor in other ways - e.g. from the main menu, choose **Tools** → **Administration** → **Monitor** → **Transactional RFC**. **►**

2. Enter the User name and the dates for the Display period.

3. Choose **Execute**.

→ Recommendation

Schedule a periodic batch job for error handling.

Before you go live, practice the error handling procedure for Remote Function Call errors.

i Note

The user name SAP* may not be used for Remote Function Calls by the destination system.

Datafeed: User Log

Definition

The user log is a log file which is updated continuously. It is therefore advisable to reorganize the file from time to time.

Integration

You have the opportunity to archive the user log. There are two archiving methods:

- You can use transaction SARA to archive the file.

The related archiving object is called DATAFDLOG.

When you carry out a productive archiving run, the SARA transaction automatically archives the files and then runs the delete program.

i Note

For more detailed documentation, call up transaction SARA under  Help > Extended help. 

- The function [Archive user log](#) and the activities contained in the menu can also be used to archive the user log.

See also:

[Display user log](#)

[Archive user log](#)

[Reload archive](#)

[Archive administration](#)

[Read archive](#)

Datafeed: Display User Log

Use

You can display and print out the user log.

Procedure

Choose Tools Datafeed User Log Display or the corresponding path in SEM Banking

The system displays the screen headed Datafeed: User Log Display.

Enter the following selection criteria:

a. Name (name of datafeed; if you only have one datafeed, the system defaults to it).

b. Date (defaults to the current date)

c. Time (defaults to a 24-hour interval)

d. Status (enter a single value or a range of values)

e. User Name (enter a single value or a range of values)

You may overwrite the default values as required.

5. Choose Program Execute.

The system shows you the user log with the market data you selected.

If you want to print the list, choose .

Datafeed Archiving: Usage Log

Use

When the user log is archived, the data is written to an external file.

Activities

Choose Financial Supply Chain Management Treasury and Risk Management Basic Functions Market Data Management Datafeed Usage Log Archive or the corresponding path in SEM Banking.

This takes you to the screen entitled Archive Management: Create Archive Files.

Enter the variant needed to start the archiving program and maintain the fields, Start date and Spool parameters.

Choose to start the archiving.

You can reload, manage, and read the archive.

Reload Archive

Use

The archived user log is reloaded again into the database.

Procedure

Choose ► Financial Supply Chain Management ► Treasury and Risk Management ► Basic Functions ► Market Data Management ► Datafeed ► Usage Log ► Reload Archive or the corresponding path in SEM Banking. ▶

This takes you to the screen entitled Archive Management: Reload Archive.

Enter the variant needed to start the archiving program, Archive selection, Start date and Spool parameters .

Choose ► Edit ► Create job ▶ to reload the file.

Archive Management

Choose ► Financial Supply Chain Management ► Treasury and Risk Management ► Basic Functions ► Market Data Management ► Tools ► Datafeed ► Usage Log ► Manage Archive or the corresponding path in SEM Banking, ▶

This takes you to the screen entitled Archive Management: Display Control Records.

Here you see the control records of the existing user logs.

You can now change the archive path and the related notes.

If you make any changes, be sure to save your entries.

Read Archive

Use

With the help of a report, you can read an external file in archive format DATAFDLOG.

Procedure

Choose ► Basic Functions ► Market Data Management ► Datafeed ► Usage Log ► Read Archive ▶ or the corresponding path in SEM Banking.

The system calls up a screen where you can select the files of the archived user logs.

Select the user log you need to read.

Press **ENTER** .

The archived user log is read and displayed.

Roles in Treasury and Risk Management (TRM)

This section contains the single roles for the **Treasury and Risk Management (TRM)** component:

Role	Description
SAP_TRM_ADMINISTRATOR	Administrator
SAP_TRM DEALER	Dealer

Role	Description
SAP_TRM_LIMIT_MANAGER	Limit Manager
SAP_TRM_RISK_CONTROLLER	Risk Controller
SAP_TRM_TM_BACKOFFICE_PROCES	Back Office Processor
SAP_TRM_TM_FUND_MANAGER	Fund Manager
SAP_TRM_TM_STAFF_ACCOUNTANT	Staff Accountant
SAP_TRM_TM_TRADE_CONTROLLER	Trade Controller
SAP_TRM_TREASURY_MANAGER	Treasury Manager

Administrator

Technical name: SAP_TRM_ADMINISTRATOR

Tasks

The administrator is responsible for fundamental administrative tasks in the Treasury area. This person also keeps the system up-to-date.

Activities in Treasury and Risk Management

This role involves the following activities:

- Assignment of authorizations (traders, business partners, basis)
- Customizing
- Job scheduling
- Import of market data
- Initiation of archiving
- Creation of house banks
- Import of electronic bank statements
- Import of SWIFT files

Trader

Technical name: SAP_TRM DEALER

Tasks

The trader uses the information in **Cash Management** and **Market Risk Management**, maintains direct contact with the business partners, negotiates and executes transactions or orders, exercises options and other rights, and enters transactions and positions. In doing so, this person takes into account current market data and the limits and utilizations for business partners, and also keeps track of the transactions due to expire.

Activities in Treasury and Risk Management

- Trading for money market, forex, derivatives and securities (including borrower's note loans)
- Entering, executing, rolling over, giving notice on and reversing orders and transactions
- Releasing orders (colleague or superior)

Limit Manager

Technical name: SAP_TRM_LIMIT_MANAGER

Tasks

The Limit Manager is responsible for implementing the necessary limits to restrict the counterparty/issuer default risk. This involves the following:

- Maintaining limits for the organization's internal limit types
- Releasing limits
- Maintaining collateral items
- Implementing netting groups

Risk Controller

Technical name: SAP_TRM_RISK_CONTROLLER

Tasks

The risk controller calculates and analyzes the company's risks and opportunities on the basis of market data, with the aim of developing risk-oriented strategies and assessing the consequences of certain decisions. This person is also responsible for keeping the counterparty/issuer default risk within certain limits. This involves monitoring the extent to which internal limits have been utilized and evaluating the results.

Activities in Treasury and Risk Management

In the **market risk management** area:

- Value at risk (VaR)
- Scenarios
- Exposure

In the **limit management** area:

- Evaluation of current limit utilizations
- Control and limitation of the counterparty/issuer default risk
- Generation of evaluation reports

Back Office Processor

Technical name: SAP_TRM_TM_BACKOFFICE_PROCES

Tasks

The back office processor confirms and checks transaction activities carried out by the trader. This person is responsible for managing business partners and master agreements, entering and transferring payment flows, making interest rate adjustments, as well as the tasks involved with checking and changing treasury positions.

Activities in Treasury and Risk Management

- Settlement of money market, forex, derivatives and securities transactions
- Processing confirmations/counterconfirmations
- Maintaining of business partner standing instructions
- Releasing business partners (colleague or superior)
- Releasing transactions for accounting (colleague or superior)

Fund Manager

Technical name: SAP_TRM_TM_FUND_MANAGER

Tasks

The fund manager is responsible for providing information about the short- and medium-term financial situation as a basis for financial planning. This person analyzes the liquidity situation of the company. In contrast to cash managers, fund managers concentrate on medium-term periods in the future.

Activities in Treasury and Risk Management

This role involves the following activities:

- Liquidity forecast
- Medium-term investment
- Cash budget management

Staff Accountant

Technical name: SAP_TRM_TM_STAFF_ACCOUNTANT

Tasks

The staff accountant takes on the transactions that have been processed by the back office staff, and carries out the necessary postings, accruals/deferrals and valuations. This person is responsible for transferring the flows and posting information to Financial Accounting.

Activities in Treasury and Risk Management

This role involves the following activities:

- Transaction postings
- Valuation
- Accrual/deferral
- Generating accounting reports
- Reversals
- Posting and monitoring incoming payments
- Clearing

Trade Controller

Technical name: SAP_TRM_TM_TRADE_CONTROLLER

Tasks

The trade controller attempts to assess achievements, identify promising strategies and monitor their effects. This person is responsible for preparing the basis for future decisions for the corresponding area and supporting the implementation of decisions made.

Activities in Treasury and Risk Management

This role involves the following activities:

- Limit management
- Generation of exposure lists
- Definition and monitoring of investment strategies
- Checking transactions concluded against the corresponding strategy
- Determination of results and performance
- Regulatory reporting

Treasury Manager

Technical name: SAP_TRM_TREASURY_MANAGER

Tasks

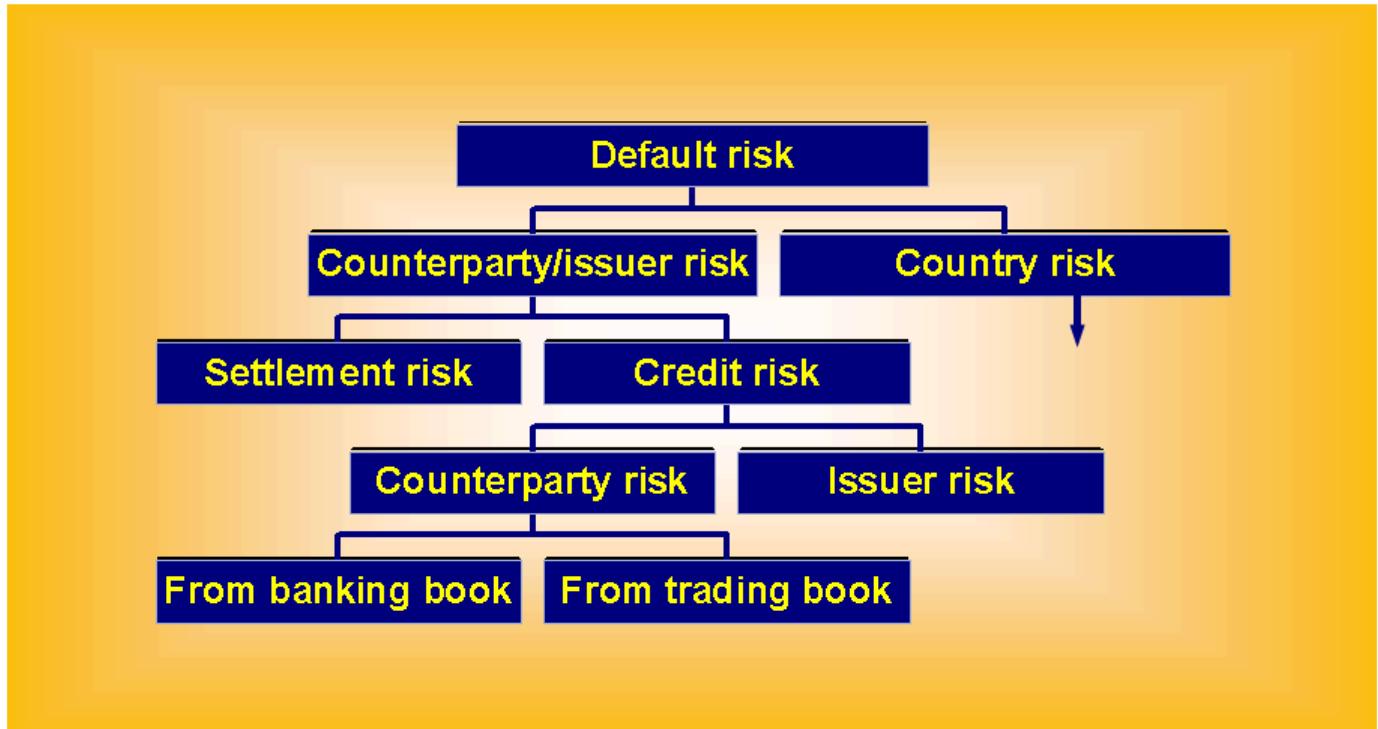
The Treasury Manager is responsible for managing all the company's treasury activities. Using evaluation reports, this person ensures that the various strategies defined for trading, market risk management, limit management and cash management have been observed.

Alternative title: **Capital Investment Manager**

Credit Risk Analyzer

Purpose

This TRM component enables you to measure, analyze, and control **default risks**. Default risk refers to the potential loss arising from a financial transaction should the business partner not fulfill his contractual obligations either due to specific, economic or political reasons. Default risks are classified as follows:



Counterparty/issuer risk describes the danger of a loss in the value of a receivable due to a worsening of the creditworthiness of the business partner. Country risks arise when either the country of the business partner or the country of the transaction currency becomes insolvent. Counterparty/issuer risks are subdivided into credit risk and settlement risk. The existence of both these risks depends on the timing of the analysis of the transactions. Credit risks exist over the whole term of the transactions. Settlement risks exist only during the settlement period. Credit risk can consist in a pure counterparty risk or an issuer risk, depending on the transaction category (for example, securities transactions).

i Note

The functions for country risk were developed only as part of a **project solution** and have not been released for the market. The relevant functions are referred to in the documentation.

Implementation Considerations

The tightening of regulations on risk controlling endorses the increasing significance of analyzing and limiting insolvency risks. Out of commercial considerations too it is essential to have a system that supports the measurement, analysis, control and limitation of counterparty/issuer risks.

Features

Attributable Amount Determination - Market-Based Quantification of Various Exposures

The system calculates attributable amounts for each single transaction entered, showing the risk content of the respective transaction. Credit and settlement risks from classic credit transactions and trading book transactions are taken into account when quantifying default risk. Default risk is calculated based on counterparties and issuers.

The level of the default risk arising from classic credit transactions is determined by the amount of the capital commitment of the contract and the current drawings.

In the case of trading transactions, the level of the default risk is governed by the potential replacement cost that would arise in the case of default by a business partner. The potential additional loss from a potential positive market value change of an existing transaction can be covered by transaction-specific markup rates.

The calculated risks are assigned to all affected portfolio segments, for example, the counterparty, the industry sector, the product, or a combination of these.

Limit Management – Controlling Risk by Setting up and Monitoring Limits

Different limits are stored in central limit management. These can relate to one or more criteria ([Limit Characteristics](#)). Limits reflect the organization's allocations.

Updating Limits and Comparing Attributable Amounts with Limits

The integrated default risk limit check assesses the risk of each single transaction at the time the transaction is created in TRM Transaction Manager. Each transaction is checked against the relevant limits and updated. You can also let the system update limit utilizations by revaluing all items in end-of-day processing. For risk control purposes, the relevant limit utilizations are shown in aggregated form.

Additional Notes

You can find the functions of Credit Risk Analyzer in the application by choosing [Accounting](#) [Financial Supply Chain Management](#) [Treasury and Risk Management](#) [Credit Risk Analyzer](#) .

All subsequent menu paths contained in the documentation for Credit Risk Analyzer start from this point.

You can find the relevant settings in Customizing under [Financial Supply Chain Management](#) [Treasury and Risk Management](#) [Credit Risk Analyzer](#).

Note

The integrated default risk limit check is to be understood as an integrated single transaction check. Therefore, information provided for the single transaction check in sections of the documentation not specifically referring to the single transaction check (for example updating limit utilizations), applies also for the integrated default risk limit check.

Exposure versus the Attributable Amount

Exposure basically refers to the amount subject to default risk. No further analysis takes place. Hence the exposure corresponds to the credit equivalent amount. The system can determine the **attributable amount** on the basis of the exposure. The attributable amount shows how high the risk is that arises from the transaction. If default was a certainty, then the exact amount of the exposure could be taken as the attributable amount (volume-oriented attributable amount). In reality, default is subject to certain laws of probability. These uncertainties are therefore reflected in the calculation of attributable amount by taking into account default quotas and repayment quotas, for example. This results in risk-oriented attributable amounts.

Depending upon the nature of the transaction itself, the system differentiates between the terms primary and secondary exposure, and primary and secondary attributable amounts. The **primary transaction** is the original transaction with the business partner.

Secondary transactions are made only in the context of a particular primary transaction. Examples include collateral and facilities.

Depending on whether the risk-reducing effects of collateral are considered, a distinction can be made between **net** and **gross** for all concepts. Gross shows the maximum possible amount per partial transaction. For example, the net attributable amount of a transaction results from the gross attributable amount of the transaction minus the attributable amounts for the collateral that can be allocated to the transaction.

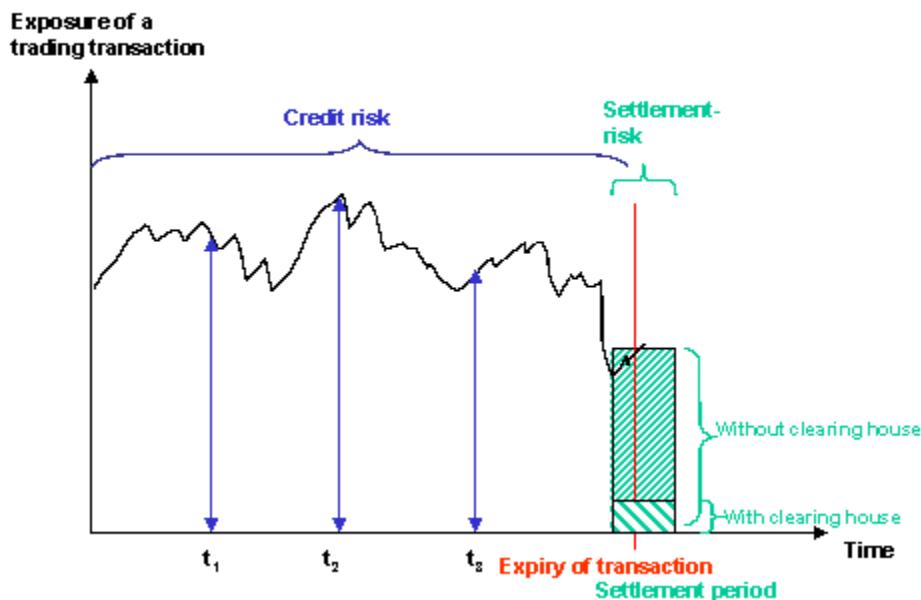
The system calculates attributable amounts for each individual transaction, irrespective of whether it is a primary or secondary transaction. **Utilizations**, or drawn amounts, are referred to at the level of the limits, which are defined by characteristics.

Attributable Amount Determination

The attributable amount is a measure of the default risk that arises when a transaction is concluded. The attributable amount should depict both the **expected loss** and the **unexpected loss** arising from a financial transaction. The system determines an attributable amount for every expected incoming cash flow or asset.

The credit risk of a trading transaction exists for the entire term of the transaction, and reflects the counterparty risk from the trading book plus any term-related and risk-related add-on for covering potential positive market value changes. In the case of classic credit transactions, the credit risk is influenced by the committed contract capital and the actual drawings in accordance with their amounts.

only exists at certain points in time during the "life" of the transaction. It exists during the period from the triggering of the advance payment until receipt of the return payment. Whether the settlement takes place via a clearing house or directly also influences the level of settlement risk.



Use

Depending on the type of financial transaction, the system determines amounts that quantify the risk involved in the transaction. If a transaction contains more than one risk at one point in time (counterparty credit risk, issuer credit risk, settlement risk) then the

system generates several attributable amounts at the same time. At single transaction level, the unit of measure is the currency in which the transaction was concluded. The system displays totals records in the currency of the company code.

The provides you with an overview of the possible risk categories for each transaction. In the case of an OTC option (long call) on a stock, for example, the system determines the credit risk of the counterparty of the option and the credit risk of the issuer of the stock. In the case of swaps with principal swaps, in addition to the counterparty credit risk the system also shows the settlement risk toward the counterparty from the time the advance payment is triggered until receipt of the return payment.

Prerequisites

You need to have already made the settings necessary in Customizing for the **determination procedures** for all transactions. You need to ensure that for all transactions existing in the system there is a financial object with the corresponding [default risk data](#) and a **default risk rule**.

Features

The system calculates attributable amounts for each transaction type and risk type using a particular combination of determination procedure and default risk rule.

In order to calculate the attributable amounts, the system accesses **formulas** that link particular **variables** (base key figures) containing additional parameters (for example, add-on factors, default probabilities) to the final attributable amounts. The NPV and nominal amount are used as the base key figures for credit risk, and the return payment amount is the usual key figure for settlement risk (depending on whether a clearing house is involved). You can either let the SAP system determine the base key figures, or you can import them.

i Note

To display attributable amounts for settlement risk after the expiry date of the transaction, you need to maintain the validity end date of the transaction in the financial object.

Note that for country-risk-relevant financial objects, the end date has to be entered in the field **Transaction End CPR** because there is no field called **Transaction End Country Risk**.

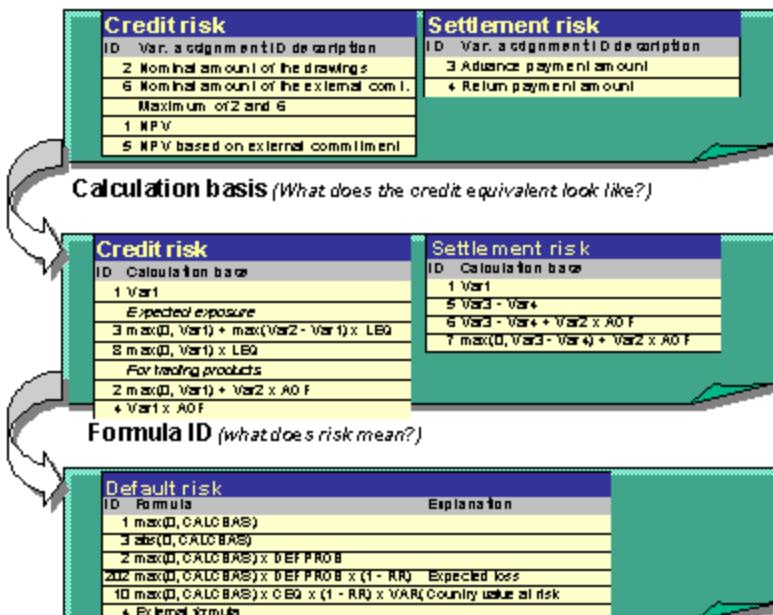
Setting Up of Formulas

Use

In Customizing, you set up formulas for each combination of determination procedure and default risk rule. These formulas are then used in the calculation of attributable amounts.

So that the system can calculate both volume-based and risk-based attributable amounts, the final formulas consist of **variables**, **formula IDs**, and **calculation bases**.

Variable assignment ID (which values does the transaction need?)



Prerequisites

- In Customizing, you can store any number of combinations of **4 variables** by choosing **Attributable Amount Determination** **Define Variable Assignment ID**. You can use the following basic key figures as values for these 4 variables. The basic key figures are either calculated by the system, or you can import them:
 - Net present value
 - Nominal amount
 - Return payment amount
 - Advance payment amount
 - Net present value based on external commitment
 - Nominal amount based on external commitment
 - Book value in transaction currency (you have to import this)
 - Or other [external key figures](#)
 - You assign a combination of **formula ID**, **calculation base** and **variable ID** to each combination of determination procedure and default risk rule. The 6 formula IDs and 8 calculation bases are predefined in the system, and are in turn based on the assignment of the variables. This enables you to depict any number of formulas.
- In addition to the four variables, the following abbreviations are used in the formula IDs and calculation bases:
- CALCBAS: Calculation base
 - DEFPROB: [Default probability](#)
 - ABS: Absolute amount
 - CEQ: Credit equivalent (used only if the country risk functions have been activated)
 - RR: [Recovery rate](#)
 - VAR%: Value-at-risk weighting factor (used only if the country risk functions have been activated)

- AOF: [Add-on factor](#)
- LEQ: Loss equivalent (used only if the country risk functions have been activated)

Features

The system uses the formulas defined, the determination procedure, and the default risk rule to calculate attributable amounts for each transaction.

The following overviews show how the system uses the settings (formulas and calculation bases) in the determination procedure to meet the requirements for calculating counterparty/issuer risk and country risk.

Formulas	Counterparty/Issuer Risk	Country Risk
Max(0,CALCBAS)	Yes	Yes
Max(0,CALCBAS) x DEFPROB	Yes	No ⁽¹⁾
ABS(CALCBAS)	Yes (from TRM)	No
Max(0,CACLBAS) x CEQ x (1 - RR) x VAR%	No	Yes
Max(0,CALCBAS) x (1 - RR)	Yes	No ⁽²⁾
Max(0,CALCBAS) x weighting factor	Yes, settlement risk	No
Max(0,CALCBAS) x DEFPROB x (1 - RR)	Yes	No

Is possible, depending on the customer's own requirements. Note here that in the secondary risk display, collateral is multiplied by the country default probability of both the collateral provider and the transaction.

Is possible, depending on the customer's own requirements.

CALCBAS	Counterparty/Issuer Risk	Country Risk
Var1	Yes	Yes
Max(0, Var1) + Var2 x AOF	Yes	No
Max(0, Var1) + Max(0, Var2 – Var1) x LEQ	No	Yes, CVAR only in formula 010
Var1 x AOF	Yes	No
Var3 - Var4	Yes, settlement risk	No
Var3 - Var4 + Var2 x AOF	Yes, settlement risk	No
Max(0, Var1) x LEQ	No	Yes, CVAR only in formula 010

Negative attributable amounts are considered in the netting procedure only.

Basic Key Figures Calculated by the SAP System

The system calculates the **NPV** of a transaction in the following way:

Transaction Form	Net Present Value
Loans, money market transactions	Net present value of incoming cash flows
Generic transactions	Net present value according to the selected transaction
All other transactions	Current net present value

The system calculates the **nominal amount** of a transaction in the following way:

Transaction Form	Nominal Amount
Stocks	Net present value of the stock item
Index-based transactions	Value of the index item
Forward exchange transactions	Nominal amount of incoming cash flows in transaction currency
Interest instruments, loans	The amount outstanding on the evaluation date
Swaps with principal swap	Amount of the highest occurring nominal amount after the evaluation date in transaction currency
Swaps without principal swap	Current, decisive nominal amount of the swap
FRA	Nominal volume
Caps/floors	Nominal volumes of the current caplets/floorlets
Stock options	Net present value of the stock item
Index options	Value of the index item
Options on forward exchange transactions	Nominal amount of incoming cash flows in transaction currency
Options on interest instruments	Nominal amount of the interest instruments
Options on swaps	Current nominal amount of the swap
Warrants	Same as for options (subscription ratio is also taken into account)
Generic transactions	Net present value according to the selected transaction

The system calculates the **advance payment amount** of a transaction in the following way:

Transaction Form	Advance Payment Amount
Foreign exchange spot and forward transactions	Nominal amount of outgoing cash flows in transaction currency
Securities forward transactions	Purchases – agreed purchase price, sales – NPV of the security item that is to be delivered
Swaps	The amount of the outgoing cash flow due after the current evaluation date

The system calculates the **return payment amount** of a transaction in the following way:

Transaction Form	Return Payment Amount
Foreign exchange spot and forward transactions	Nominal amount of incoming cash flows in transaction currency
Securities forward transactions	Sales – agreed purchase price, purchases – NPV of the security item that is to be delivered
Swaps	The amount of the incoming cash flow due after the current evaluation date
Money market transactions	Nominal amount + last incoming cash flow
Loans	Nominal amount

The **net present value** and the **nominal amount based on the external commitments** of a transaction are calculated as follows:

Transaction Form	Net Present Value and Nominal Amount Based on External Commitment
Loans	Commitment capital
Variable transactions (not relevant in the TRM component), BCA accounts	External commitment

⚠ Caution

This setting cannot be used for any other transactions.

If you set the **Maximum Commitment/Utilization** indicator when you define the variable assignment ID, you can have even greater control over how basic key figures are assigned for loans, variable transactions, and BCA accounts. This function is only effective if you use the basic key figures **net present value** (0001), **nominal amount** (0002), **net present value based on external commitment** (0005) or **nominal amount based on external commitment** (0006) in the variable assignment.

If you do **not** set the indicator, then the system calculates basic key figures as follows:

Key Figure	Loan	Variable Transaction	BCA Account
0001 NPV	NPV of incoming cash flows	Current balance	Current balance
0002 Nominal amount	Residual capital	Current balance	Current balance
0005 NPV based on external commitment	External commitment	External credit line	External account limit
0006 Nominal amount based on external commitment	Commitment capital	External credit line	External account limit

If you have set the indicator, then the system calculates the maximum amount of the key figures **net present value** and **net present value based on the external commitment**, or **nominal amount** and **nominal amount based on the external commitment**.

❖ Example

Variable 1: Net present value

Variable 2: Nominal amount

Max. Commitment/Utilization indicator is set.

If this setting is made, then for loans, variable transactions and BCA accounts the system checks the following:

Variable 1: Maximum of variable 0001 net present value and 0005 net present value of the external commitment

Variable 2: Maximum of variable 0002 nominal amount and 0006 nominal amount of external commitment.

Add-On

Definition

The add-on is a risk markup that takes into account the default risk arising from transactions, the market value of which can increase over a particular period. The add-on is calculated by multiplying the assessment basis by an add-on factor. You define the add-on factor in Customizing under **Attributable Amount Determination** **Edit Add-on Factors** and entering the add-on factor as a percentage rate depending on the **risk sensitivity** and the **market value change period**.

Example

		Risk Sensitivity				
Function Add-On Factor		Interest-related transactions	Interest and currency-related transactions	Currency-related transactions	Stock and currency-related transactions	Stock-price-related transactions
Market Value Change Period	Up to 1 year	0,0%	1,0%	1,0%	6,0%	6,0%
	Over 1 to 5 years	0,5%	5,0%	5,0%	8,0%	8,0%
	Over 5 to 10 years	1,5%	7,5%	7,5%	10,0%	10,0%
	Over 10 Years	2,5%	10,0%	10,0%	12,0%	12,0%

Structure

Risk factors, such as interest rate risk, exchange rate risk, stock price risk, are assigned to individual transactions by means of the **risk sensitivity**.

The **market value change period** describes the period of time that is significant for valuing trading transactions when determining potential market value changes. In Customizing, you store how the market value change period is to be determined in the definition of the default risk rule. You can use the data from the transaction or fixed values in the calculation basis. The following values are available for the determination of the market value change period:

- End of the term of the transaction

The end of the term of the underlying is used in the case of options whose underlying has a definite term (for example, bonds, FRAs, swaps). In the case of options on indexes, shares and foreign exchange, the term is calculated from the end of term of the option.

- Interest commitment
- Capital commitment

- If the calculation basis is to use **fixed values**, then you must also specify the market value change period in months.
- If the market value change period is not relevant, then select the value **to be ignored**.

Integration

The system can find the respective add-on factor for a single transaction in the way described in the table above. This is because the risk sensitivity is assigned to the default risk rule in Customizing (under **Basic Settings** **Assignments** **Assignments to Default Risk Rule** **Assign Risk Sensitivities**); or under **Basic Settings** **Assignments** **Assign Risk Sensitivities**) and the market value change period is determined by means of the default risk rule.

Probability of Default

Definition

The default probability is a percentage rate that specifies the probability of a loss on receivables in a given time period.

Integration

The default probability is stored in Customizing under **Attributable Amount Determination** **Edit Counterparty Default Probabilities** or **Edit Country Default Probabilities**. It is stored as a percentage depending on the **rating** of the business partner stored in the business partner master data (or from the financial object) and the **risk commitment period**. Additionally, you can adapt the default probability by assigning different valuation factors for different valuation procedures (for example, internal procedure, German Banking Act procedure).

Example

		Risk Commitment Period			
Probability of Default		Up to 1 year	Over 1 year to 5 years	Over 5 years to 10 years	Over 10 Years
Rating	AAA	0,02%	0,05%	0,1%	0,2%
	AA	0,05%	0,15%	0,3%	0,5%
	BBB	0,15%	0,3%	0,6%	1,0%
	BB	0,3%	0,6%	1,0%	2,0%

Risk Commitment Period

Definition

The risk commitment period describes the period during which termination of the commitment is not possible, or possible only with extreme difficulty. You can generate risk cost-term grids by defining default risk probabilities that are based on the risk commitment period. This reflects the fact that in reality the default risk increases with the length of the term of the transaction.

Use

In Customizing: **Basic Settings** **Definitions** **Define Default Risk Rule**, you define how the system is to calculate the risk commitment period. You can use dates from the transaction or fixed values in the calculation basis. The following values can be used to calculate the risk commitment period:

- End of the term of the transaction

i Note

For FRAs, the day of settlement is chosen as the end of the term.

- Interest commitment
- Capital commitment
- Fixed values (the value of the risk commitment period is entered in months)
- Ignore.

Interpolation of the Default Probability

Use

Basically, the value of the stored risk commitment period nearest to the one that is to be determined is taken as the default probability. If no larger risk commitment period exists, then the system takes the next smallest value. To use a more exact default probability value for determining the attributable amount, you can allow the system to calculate the default probability by linear interpolation between two risk commitment values.

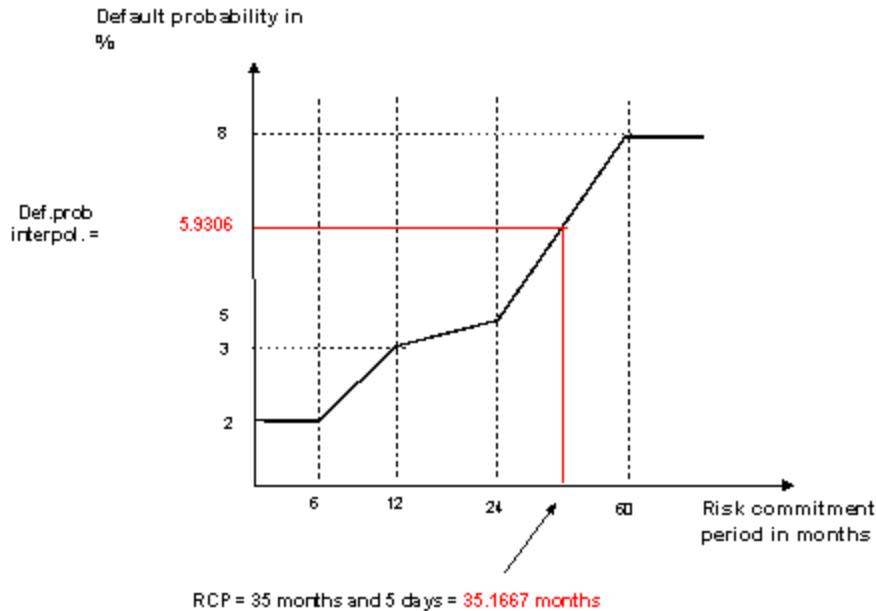
Prerequisites

To be able to carry out interpolation you need to have made the following settings in Customizing: In **Basic Settings** **Definitions** **Define Determination Procedures**, you need to have set the **interpolation of default probability** indicator. Interpolation of the default probability is only meaningful if formulas that take the default probabilities into account are assigned to the determination procedure.

Features

The system performs interpolation if the determined risk commitment period falls between two values. This gives an accuracy of 1/30 month to four decimal places. If there is only one value, precisely this monthly value applies for the determination of the default probability.

Example



Interpolation of the Default Probability

Recovery Rates

The recovery rate is an estimate in percentage for the part of a receivable for which there is no collateral but which can still be recovered in the event of a default. This part of the assets of the bankrupt, which can be used to cover the receivables, reduces the attributable amount.

Prerequisites

1. In Customizing under **Attributable Amount Determination** **Edit Determination-Procedure-Specific Settings**, you have to assign formulas, which take recovery rates into account, to the respective combination of determination procedure and default risk rule.
2. In Customizing under **Basic Settings** **Definitions** **Define Recovery Rate Class**, you need to have created a recovery rate class.

i Note

It is helpful to the user if you choose descriptions that allow the percentage rate of the recovery rate to be inferred (for example, R0010 for 10%).

3. In Customizing under **Attributable Amount Determination** **Edit Recovery Rates**, you need to have stored the relevant percentages.

You do so for each valuation factor determination, recovery rate class, and date.

Features

The system calculates the relevant recovery rate on the basis of the financial object. You need to have either stored a recovery rate class in the financial object or assigned a default risk rule by means of which the system can then find a default recovery rate. You define how the system uses the default risk rule to determine the recovery rate class. You do this in Customizing under **Basic Settings** **Definitions** **Define Default Risk Rule**.

- No default setting ⇒ You need to store the recovery rate directly in the financial object.
- From default risk rule ⇒ The default recovery rate is also stored in the **Recovery Rate Class** field.
- From valuation factor determination ⇒ The system checks the recovery rate basis stored in Customizing under **Basic Settings** → **Definitions** → **Define Valuation Factor Determination**.

If the business partner rating is defined as the recovery rate basis, then the system calculates the recovery rate using the rating of the business partner. The rating is either determined from the business partner master data or entered in the financial object of an individual transaction. If it is entered in the financial object, then this value overrides the rating from the business partner data.

You assign the rating to the recovery rate class in Customizing under **SAP Banking** → **SEM Banking** → **Default Risk and Limit System** → **Basic Settings** → **Assignments** → **Assign Credit Rating** or **Assignments to the Country**. For CFM, this activity is found under **Corporate Finance Management** → **Credit Risk Analyzer** → **Basic Settings** → **Assignments** → **Assignments to Recovery Rate** → **Assign Credit Rating**.

i Note

If no recovery rates are defined in the system, even though they are required for attributable amount determination, the recovery rate is set to 0.

Netting

Use

If netting agreements exist between two business partners, then if it is legally permissible (for example, the German Banking Act I §12) payments and receivables between partners can be netted off. This has the effect of reducing the counterparty/issuer risk of a bank's transactions with a particular counterparty.

In the Default Risk and Limit System, netting refers to bilateral liquidation netting, which means an agreement is made with the contract partner that in the case of the termination of the entire contract (in the case of bankruptcy, for example) all mutual claims and receivables are terminated, fall due, are valued at market conditions, and the resulting balance is calculated (balancing by netting). This has the effect of reducing the attributable amount for the credit risk. Settlement risk is unaffected.

Prerequisites

The determination procedure must permit netting.

When you define the determination procedure in Customizing by choosing... → **Basic Settings** → **Definitions** → **Define Determination Procedures** you need to set the **Netting Active** indicator.

In addition you need to make an entry in the **Add-On Weighting** field. The weighting factor shows to what extent the total add-on affects the calculation of the netting add-on. The total add-on is derived from the total of all open transactions that can be netted, and that involve the same counterparty.

Definition of a netting group

In Customizing choose: → **Basic Settings** → **Definitions** → **Define Netting Group**. You need to set up a netting group that defines for which business partner the transactions are to be balanced.

When you define the netting group, you also store the default risk rule, which the system uses to calculate the netting attributable amount. Any transactions in the netting group that are in a different currency are converted to the currency of the netting group, and then netted.

The financial object of the transactions that are to be netted contains either the **netting ID** or the **collateral ID**. This is stored in the data for the default risk limit part in the data group **Transaction assignment**.

The system permits a two-level netting procedure. Within a netting group, collateral can be provided in the form of a [collateral agreement](#). When you create collateral agreements, you need to assign them to the relevant netting group.

Features

If netting is active, the system calculates the attributable amount as follows:

Determination of all open (still valid, not yet due) single transactions concluded with the business partner in a certain company code.

From the selected open transactions, the system then finds all the transactions that assigned to one netting group (can be netted), and all unassigned (cannot be netted) transactions.

Then, it calculates the attributable amounts of all transactions that cannot be netted. The total of the attributable amounts of these single transactions is calculated and then displayed.

For the transactions that can be netted, the system first finds all the single transactions that belong to a netting group. The following figures are then calculated for the transactions of this netting group:

Total of all net present values (total (net present values))

Total of all positive net present values (total (net present values_pos))

Total of all add-ons (total (add-ons))

Net/gross ratio (NGR)

NGR = max (0, total (NPV) / total (NPV_pos)) if the total of the NPVs (pos) is equal to or greater than zero; otherwise zero.

Add-on netting

Add onNetting = total (add-on)single transaction x (a + b x NGR) where b = 1 - a

a = weighting factor for the entire add-on

b = weighting factor for the net/gross ratio (NGR)

Average probability factor

Calculating Attributable Amounts for Netting Groups

Use

You can use report RKLNT to calculate attributable amounts for netting groups without having to run end-of-day processing. This evaluation also generates detailed logs of the calculation of the attributable amount.

Procedure

1. ► Choose: ► Information System ► Reporting ► Counterparty Risk of Netting Group ▶

The system displays the screen **Counterparty Risk of Netting Group**.

2. Enter the selection criteria you require. These include:

Netting group

Determination procedure (this must be a determination procedure that is relevant for netting)

Valuation date

3. To start the attributable amount determination for the netting groups choose  **Execute**.

Result

The system displays an **overview list**. On this screen, you see the netting attributable amount for each netting group and determination procedure you selected. Additional data is shown that was required for calculating the attributable amount (for example, the netting add-on, net/gross ratio, total of the NPVs, average default probability).

By choosing **Group Details**, or by double clicking on a row, you can display the **detail log** for each netting group and each determination procedure. The detail log contains additional data about the transactions assigned to the respective netting group. This data is displayed in several blocks, which are sorted by the type of attribution.

- **Key figures before the inclusion of collateral**

All the transactions in the netting group are listed.

- **Key figures after inclusion of single transaction-related collateral for netting transactions**

This block contains all the transaction data that results from the inclusion of the single-transaction-related collateral. The single-transaction-related collateral first reduces the positive net present value, and then the add-on.

- **Key figures after inclusion of collateral agreements**

If the transactions in this netting group have also been assigned to a collateral agreement, they are listed in this section along with the collateral agreement data.

- **Key figures for the collateral agreements of the netting group**

- **Results for the netting group**

The results contain the individual results required for the calculation of the netting attributable amount.

The detail log also contains the following functions:

Pushbutton	Function
 Transaction Details	The system displays the screen showing the transaction master data
 NPV Determination	The log showing the cash flow discounting is displayed
 Collateral Agreement Details	This takes you to the transaction in which collateral agreements are displayed.
 Key Figures for Collateral Agreements	The system displays information about how the attributable amounts for the collateral agreement were calculated.

User Exit for Attributable Amount Determination

Use

To achieve greater flexibility in the area of attributable amount determination, you have the option of defining your own calculation procedure for the determination of the attributable amount.

Prerequisites

In Customizing under **Attributable Amount Determination** **Edit Determination Procedure Settings** you need to have stored formula ID 999.

Activities

Create a project as per the enhancement concept and activate it. You need enhancement FKLR0001. For more information, refer to the documentation on function module EXIT_SAPLKLEX_001.

You need knowledge of the [Enhancement Concept](#).

Limit Management

Use

Due to risk controlling regulations, and for purely business reasons, banks need to measure, analyze, and control counterparty/issuer risks and country risks.

By setting different maximum risk amounts it should be possible to limit the potential harm caused by the insolvency of a business partner. It is also possible to control the actions of traders by using a system of limits.

This function helps you control counterparty/issuer risks and country risk by means of limits and online monitoring. It also enables you to create comprehensive reports that can be used for internal and external purposes.

Integration

If you link Limit Management to the drilldown reporting function, then you can use all functions available in drilldown to obtain detailed analyses of limit utilizations.

Features

Central Limit Management contains the functions for risk controlling by means of limits, which you set up, and for monitoring those limits to ensure that they are not exceeded. You can combine the characteristics available in any way, which gives you a highly flexible means of managing limits.

Limit Characteristics

Definition

There are four types of limit characteristics:

- Direct limit characteristics

- Derived characteristics
- Free (or custom) limit characteristics
- Generated characteristics

Use

You need to assign at least one limit characteristic to each [limit type](#). In the application, you can then in turn store a limit for any combination of limit characteristic values.

Structure

You can differentiate between direct and derived limit characteristics. Direct limit characteristics are those derived directly from the data of a transaction. Derived limit characteristics are those derived from direct characteristics, such as the business partner.

Direct characteristics:

- Company code
- Business partner
- Limit product group
- Portfolio
- Trader
- Currency as a limit characteristic
- Monitoring unit
- Internal organizational unit
- Country risk country

Derived characteristics:

- Country (from business partner)
- Industry (from business partner)
- Rating (from business partner)
- Country rating (from country risk country)

i Note

The limit characteristics **internal organizational unit**, **country risk country** and **country rating** are dependent on the use of the country risk functions that are only available in Banking.

Free (custom) characteristics:

You also have the option of creating 15 [free characteristics](#) as limit characteristics. You can derive these from the characteristics provided by SAP with the help of the SAP enhancement concept. One example of a free limit characteristic could be a geographical group of countries with the characteristic values **Asia**, **Latin America**, **North America** and **Western Europe**. In this case, the values would be derived from the characteristic **country of the business partner**.

Generated characteristics:

You are also able to take characteristics from the active analysis structure in the **Market Risk** component, generate them in Limit Management, and use them there as limit characteristics. If you are using [generated characteristics](#), you are able to use them in all Limit Management functions in the same way as direct characteristics.

Creating Free Characteristics and Characteristic Values

Use

To achieve greater flexibility with regard to the selection of the limit characteristics, you can also derive free characteristics from existing limit characteristics. When you do this, limit characteristic values are grouped together to create a new free characteristic value.

Prerequisites

If you want to use free characteristics and set up values for these free characteristics, particular customer exits have to be activated in SAP enhancement management. This involves some additional steps, which are described below.

Procedure

To assign descriptions to the free characteristics, you first need to do the following:

Create a project by using transaction code CMOD.

The system displays the **Project Management of SAP Enhancements** screen.



Choose to display a description of customer exits for SAP transactions. You can find a detailed description in the documentation about the [Enhancement Concept](#).

Create a project as per the enhancement concept.

Assign enhancementLTBLX001to the project.

Save the project by choosing and activate it with **Activate Project**.



The exit is not performed unless it is activated.

Changing the description of free characteristics

Choose **Goto** → **Text Enhancements** → **Keywords** → **Change**, and then specify one of the data elements described below, for which you wish to change the text.



In the Customizing for the definition of free characteristics and their characteristic values you can find free characteristics 01-15, to which are assigned data elements TB_RCID01 to TB_RCID15.

The system displays the [Change Key Word](#) screen.

Enter the required descriptions for the selected free characteristic.

You can define multiple free characteristic texts simultaneously.

Choose  [Save](#) to save your entries.



You can group together the characteristic values for free characteristic values by using customer exit EXIT_SAPLTBLX_001.



You can use the sample coding in INCLUDE LXTBL1F01 to help you.

Now, using the customer exit, you derive the free characteristics you defined from the characteristics provided by SAP, and activate the exit.

To assign the defined characteristic values to the free characteristics, do the following:

In Customizing choose ... → [Limit Management](#) → [Define Free Characteristics and Characteristic Values](#).

The system displays the screen [Display View "Selection of Characteristic IDs": Overview](#).

Select a free characteristic and choose [Assignment of Values](#).

Choose [New Entries](#), assign the characteristic values to the selected free characteristic and save your entries with .

In transaction CMOD you can also display the SAP documentation about SAP enhancements. To do so, on the screen display [Project Management of SAP Enhancements](#), choose the project and then choose [Display](#) to display the SAP enhancements. Select an enhancement and choose  [Enhancements](#).

Result

You have now:

Entered descriptions for free characteristics

Grouped characteristic values into free characteristic values, and activated exit EXIT_SAPLTBLX_001.

Assigned free characteristic values to free characteristics.

Generated Characteristics

Definition

Generated characteristics are the characteristics that are generated from the active analysis structure of the **Market Risk** component, and that are used there as limit characteristics.

Use

By using generated characteristics, you are able to define your own additional characteristics (compared to customer-defined characteristics, which are derived from existing limit characteristics).

Generated characteristics are transferred from Market Risk to Limit Management in Customizing under **Limit Management** **Generated Characteristics** .

To do this, you first need to make some settings in the Customizing for Market Risk. You find the settings under the path given above. You can still use the generated characteristics even if you are not using the **Market Risk** component.

Provided you have transferred the generated characteristics, you are able to use these in all Limit Management functions in the same way as direct characteristics. Note, however, that in financial object maintenance, you do not maintain the values of analysis characteristics in the default risk limit part. Instead, you maintain these values in the screen **Maintain Financial Object: General Part**, which you access by clicking on the button **Analysis (RM)** in the application toolbar.

Note

You can use service report RFTBLT05 to check the consistency of the generated analysis characteristics, and service report RFTBLT04 for their reorganization. For more information see the relevant report documentation.

Example

If you want to break down and limit the default risk by profit center, you can generate the characteristic **Profit Center** in Limit Management.

Limit Types

Definition

The limit type comprises limits and limit utilizations. When you define a limit type, you can assign individual limit characteristics or combinations of the various limit characteristics that are available in the system settings.

Note

When you create a limit type filter, you use limit characteristics to restrict the respective limit type by freely definable ranges. Use of the limit type filter is optional. You can use it to create additional criteria to the limit characteristics of a limit type to help you make decisions, such as whether transactions are to be attributed to a particular limit type. You create limit type filters in the same place in Customizing in which you create limit types.

Use

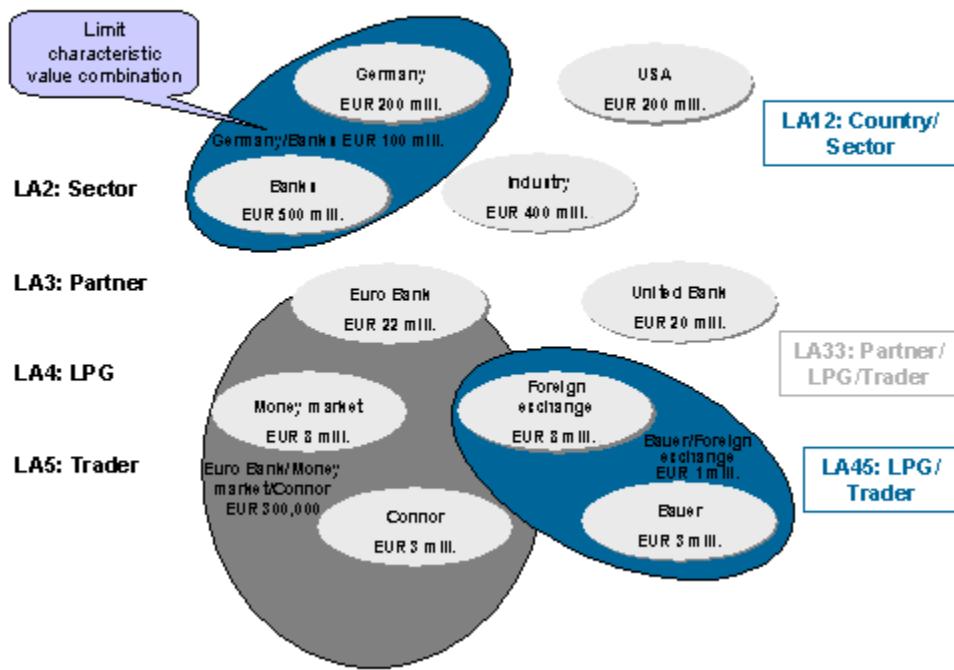
Using the combination of the characteristic values of the limit type, the system selects the risks of the respective transactions and compares the total of these with the limits. You create limit types in Customizing by choosing **Limit Management** **Define Limit Types**.

Example

The following limit types were created in Customizing:

One-dimensional limit types	Multi-dimensional limit types
Country	Country/industry
Industry	Partner/limit product group/trader
Partner	Limit product group/trader
Limit product group (LGP)	
Trader	

In the example, the limit type **partner/limit product group/trader** is a combination of the limit characteristics **business partner number**, **limit product group** and **trader**.



The limit of EUR300,000 can, for example, be assigned to the values of the limit characteristics **Euro Bank**, **money market** and **trader Connor**. This means that trader Connor is allowed to conclude money market transactions with the Euro Bank up to a limit of EUR300,000.

Display Filters

Definition

The display filter allows you to display the data relevant to you. As it is stored centrally, you can use the filter in all Limit Management applications.

Use

You can maintain any number of characteristics for each user according to his/her area of responsibility.

You can use the display filter in the following areas:

Limit maintenance

All the reporting tools (ALV, drilldown, query)

Activities

You can define the display filter in the Customizing for the Limit Management component, or directly in the application:

Customizing: → **Limit Management** → **Define Display Filters for Limit Management**.

Application: → **Environment** → **Current Settings** → **Define Display Filters for Limit Management**.

Defining display filters:

Choose **New Entries**.

Enter a name for the display filter.

Enter a short, medium, and long field label.

Save your entries by clicking on .

You have now created a display filter to which you can assign limit characteristics in the following steps:

Select the display filter, and then choose **Assign Limit Characteristics to Display Filters**.

Choose **New Entries**.

Enter a limit characteristic.

If required, assign a filter number. You only need to do this if you want to store more than one filter for the same limit type.

Enter the lower limit for the characteristic.

If required, enter an upper limit for the characteristic. Using the field **Incl/excl**, you can define whether the system should calculate everything within the specified range, or everything outside the specified range.

Save your entries by clicking on .

Limits

Definition

A limit is the maximum amount of limit utilizations, or drawings. It refers to certain values of the limit characteristics of a limit type.

Use

The limit acts as an amount against which checks are made to determine whether the limit has been exceeded. Each limit has a validity period.

If you want to change the value of the limit, then instead of invalidating the limit and creating a new one, you can simply split the validity period of the limit. You can define whether you want to change the future part of the limit only, or change the history of the limit as well. The new part of the limit is different from the old part of the limit only in terms of its amount and its validity period. The validity period of the new limit is the remaining validity period of the original limit. If the split limit contains one or more interim limits, then the system adjusts these appropriately.

Structure

A limit, which applies for certain limit characteristic values, is comprised of the following:

- A 'valid from' date
- An internal 'valid to' date
- An external 'valid to' date
- A limit currency (you can change the currency even after you have saved the limit)
- An internal limit amount
- An external limit amount
- A critical limit utilization
- A maximum risk commitment period
- Administration data (origin of the limit, [release status](#) and [review date](#)).
- Data about the [interim limit](#)
- Data about the [limit transfer](#)

Editing Limits

Use

You can create characteristic values for each combination of limit characteristics defined in a limit type.

Prerequisites

Before you can create limits, you need to have already created at least one [limit type](#).

i Note

►You create limit types in Customizing by choosing ► Limit Management ► Define Limit Types. ▶

Procedure

1. ►Choose ... ► Master Data ► Limits ► Maintain ▶ or Edit . The system displays the view **Limits: Choose Limit Types**.
2. Select one or more limit types.

3. Select one of the following functions:

-  **Create Limits** (CTRL + F3)
-  **Change Limits** (shift + F4);  ...with Selection **Change Limits Using Preselection** (shift + F5)
-  **Display Limits** (shift + F6);  ...with Selection **Display Limits Using Preselection** (shift + F7)

Creating Limits

1. To create a limit choose  **Create Limits**. The system displays a dialog box in which you enter the characteristics relevant for the limit type.

2. Choose  **Continue**.

The system then displays the screen **Edit Limits for Limit Type xxx: Create New Limit**.

Enter the following data:

Limits	Explanation
Valid From Date	Default value: Today's date
Valid To (Internal)	Default value: 12/31/9999
Valid To (External)	<p>The external valid to date and the internal valid to date (which is not dependent on the external valid to date) together form a time range. The traffic light display in the overview of limit utilizations is yellow (warning) if today's date falls within this range.</p> <p>Default value: Blank</p>  <p>Since the Limit amount and Validity date parameters are independent, the traffic light is set to yellow in the following cases:</p> <ul style="list-style-type: none"> • If the external validity of the limit has expired and the external limit amount has not been exceeded; if the external limit amount has been exceeded, but the external validity period has not expired. • If the external validity period has expired (validity period has passed) but the external limit amount has been exceeded
Limit - Check/No Check	<p>This field prompts the system to check the limit in reporting or in the single transaction check against the existing utilizations. If the field is set to Check, a red traffic light is displayed in reporting if the limit is exceeded. If it is set to Do not check, then in reporting and in the single transaction check no red traffic light is displayed for exceeded limits.</p>
Limit Currency	<p>You can enter a default currency in the Limit Currency field in the Customizing for the limit type. If no such setting was made in Customizing, the default value is the currency of the company code.</p> <p>You can change the currency even after you have saved the limit.</p>

Limits	Explanation
	The system converts the currency of all transactions attributed to this credit line to the limit currency.
Internal Limit Amount	The internal limit amount is always greater than the external limit amount and critical limit usage.
External Limit Amount	<p>The external limit amount is always less than the internal limit amount. It triggers a warning (yellow traffic light) once a certain amount has been exceeded.</p> <p></p> <p>In Customizing, you define whether the early warning is triggered by an external limit amount or by a percentage of the internal limit amount.</p>
Critical Limit Utilization in %	<p>This triggers a warning (yellow traffic light) once a particular percentage of the internal limit amount has been exceeded.</p> <p></p> <p>In Customizing, you define whether the early warning is triggered by an external limit amount or by a percentage of the internal limit amount.</p>
Maximum Risk Commitment Period in Months	The maximum risk commitment period specifies with which risk commitment period a transaction may still be attributed to the limit.

Note

When entering limits, use the input help: **T** for thousand and **M** for million.

Administrative Data	Explanation
Origin of Limit	The entry in this field specifies whether a limit was created manually, automatically during generation of the limit utilizations, or by a limit transfer. The system enters this information automatically.
Release Status	In Customizing, you can activate the release procedure for each limit type.
Automatic Review	The settings made in Customizing determine whether this indicator is displayed. You can also review limits manually.
Review Recipient	The review recipient is set by default to the user who entered the limit. You can change this in any way you like.
Review Date	

Interim Limits	Explanation
Start	Start date of the interim limit
End	End date of the interim limit

Interim Limits	Explanation
Internal Delta	See Internal Limit Amount
External Delta	See External Limit Amount
Currency	The currency of the interim limit can differ from that of the limit itself or of other interim limits. You can also change it even after you have saved the interim limit.
Release Status	<ul style="list-style-type: none"> • Not subject to release • Not released • Flagged • Released
Released By	The user name of the person who created the limit is the default setting.
Name	Free entry

→ Recommendation

For more information about interim limits see [Interim Limits](#).

Limit Transfer	Explanation
Start	Start of the validity of the limit transfer
End	End of the validity of the limit transfer
+/- Sign	The plus/minus sign specifies whether the respective amount of the limit transfer is to be added to or deducted from the limit.
Internal Delta	See Internal Limit Amount
External Delta	See External Limit Amount
Currency	The currency of the limit transfer can differ from that of the limit to or from which it is to be transferred.
Name	Free entry
 Display ,  Change and  Delete	If a limit transfer already exists, you can use these icons to branch to the display or change screen, or to delete the limit transfer.

→ Recommendation

For more detailed information about limit transfers, see [Limit Transfers](#).

i Note

Limit maintenance has its own authorization object: F_T_VTBLV.

Automatic Creation of Limits

You can create limits automatically by using a report. This takes place by either direct input or batch input.

Direct Input:

1. You access the main menu for the direct input system by choosing **System** **Services** **Direct Input**.

2. Choose the program **TB_LIMITS_INSERT_DI**.

3. For more information about the procedure and the function module, choose **Help** **Application Help**.

Batch Input:

4. You access the main menu for the batch input system by choosing **System** **Services** **Batch Input** **Sessions**.

5. Call the program **RFTBLBI1**.

6. You can view the report documentation that contains information on the next steps by choosing **Help** **Application help**.

Changing Limits

1. To edit a limit choose **Change**.

i Note

...with Selection enables you first to restrict the selection to particular characteristic values. In addition, you can use a predefined [display filter](#) here.

2. The system displays the screen **Edit Limits for Limit Types: Overview**. All limits are listed there that exist for the selected limit type and, if applicable, the selection criteria.

- a. You can display the documents for changes made to these limits by choosing **Change Documents**.

- b. You can enter notes by choosing **Notes**. For more detailed information see .

- c. You can branch to the display mode of the definition of limit types in Customizing by choosing **Customizing**.

3. To change a limit double click the relevant limit. The system displays the screen **Overview of Utilizations – Selection Using Direct Characteristics**.

Select the relevant limit utilization, and then choose **Maintain Limit**.

The system displays the screen **Edit Limits for Limit Type xxx: Detail**.

4. Change the limits as required and in the same as you would for creating a limit. To save your changes choose **Save**.

i Note

When you have changed an internal or external limit amount, the system asks you whether the change to the limit amount should apply retrospectively, or whether you want to split the limit.

If the limit amount should apply retrospectively, choose **Change**. If you want to split the limit, choose **Split**.

Displaying Limits

1. You can display a limit by choosing **Display**.

i Note

 ...with Selection enables you first to restrict the selection to particular characteristic values. In addition, you can use a predefined [display filter](#) here.

You can also display limits by using the report [Overview of Limits](#).

2. The system displays the screen [Display Limits for Limit Types: Overview](#). Here all the limits are listed that exist for the selected limit type.

a. You can display the documents for changes made to these limits by choosing  [Change Documents](#).

b. You can enter notes by choosing  [Notes](#). For more detailed information see .

c. You can branch to the display mode of the definition of limit types in Customizing by choosing [Customizing](#).

3. Select the limit you require. Choose [Choose Limit](#). The system displays the screen [Display Limits for Limit Type xxx: Detail](#), where you can view all the details for a limit.

Additional Information

i Note

The system contains customer exit EXIT_SAPLTBL_002 for the administration of limits and for the [overview of limit utilizations](#). You use this customer exit to prevent users displaying certain limits or utilizations. You might want to do this for loans to employees, for example. The authorization check is triggered again when the user branches to single record level.

INCLUDE LXTBL1F02 contains sample coding. You can find a detailed description of the SAP enhancements in the documentation about the [Enhancement Concept](#).

Editing Interim Limits

Use

The interim limit is a temporary increase in the limit, which can be converted into a new limit. Interim limits have their own release and approval procedure that you can use for a simplified organizational process.

You can generate more than one interim limit for a limit. They can have overlapping time periods. You can also assign these interim limits different currencies.

Prerequisites

As the interim limit is closely linked to the limit, the processing of interim limits takes place within the [limit processing](#). Only the mass release of interim limits takes place in a different part of the menu (see below). The following prerequisite applies:

The system displays one of the following screens:

- [Edit Limits for Limit Type xxx: Create New Limit](#)
- [Edit Limits for Limit Type xxx: Detail](#)
- [Display Limits for Limit Type xxx: Detail](#)
- [Report for Mass Release of Interim Limits](#)

Procedure

You can edit an interim limit as follows:

- Create
- Change
- Display
- Release
- Transfer

Creating interim limits

1. The system displays one of the following screens:

- a. Edit Limits for Limit Type xxx: Create New Limit
- b. Edit Limits for Limit Type xxx: Detail

2. Maintain the following fields in the **Interim Limits** table:

Start	Date on which the interim limit for a limit becomes valid
End	Date on which the interim limit for a limit becomes invalid
Internal limit amount	Temporary increase of the internal limit
External limit amount	Temporary increase of the external limit
Currency	The currency of the interim limit can be different from the currency of the limit itself, and can be changed at any time.
Release status	<ul style="list-style-type: none"> ○ Not subject to release: The release procedure has not been activated for the limit type. ○ Not released: The interim limit has not been released yet. ○ Flagged for release: This release status is set automatically after the interim limit has been created if the release procedure is activated. It is the first step in the release procedure, as per the principle of dual control. ○ Released: The interim limit was released, and is therefore effective.
Released by	The name of the user who created the limit appears here automatically after the limit has been created.
Name	Free entry

3. Choose  to save your entries.

Changing and deleting interim limits

1. The system displays the screen **Edit Limits for Limit Type xxx: Detail**.

2. Proceed in the same way as for creating an interim limit.

3. To make the changes you require, overwrite the exiting entries. To delete an interim limit, select it and then choose  **Delete**.

4. Choose  to save your changes.

- o If the release procedure is active, the release status of the interim limit is set back one step by the change(flagged). The interim limit needs to be released again.
- o If the release procedure is not active, the change is active immediately after you have saved the data.

Displaying interim limits

1. The system displays the screen **Display Limits for Limit Type xxx: Detail**.

2. You can view the existing entries for the interim limit in the **Interim Limits** table.

Releasing interim limits

You can release interim limits either individually, or you can use a report to release them all together in a mass release.

i Note

You need to use the release procedure for interim limits only if the release procedure is active in Limit Management. Note that you use the release procedure in accordance with the principle of dual control.

Releasing individual interim limits

1. Call up the screen **Edit Limits for Limit Type xxx : Detail** in the same way as for changing interim limits.

2. Select the interim limits you want to release.

3. Choose  **Interim** and  to save your entries.

Releasing multiple interim limits (mass release using report TBIR)

1.  Choose ... > Master Data > Limits > Release > Interim Limits.

2. The system displays the selection screen **Report for Mass Release of Interim Limits**.

3. Here you can select your interim limits by entering the following selection criteria:

- o Limit type (you can enter a range of values)
- o Valid from date of the limit (you can enter a range of value)
- o Valid to date of the limit (range of values)
- o Release status of the interim limit
 - Interim limits not subject to release (depending on the settings in Customizing)
 - Interim limits not released
 - Flagged interim limits
 - Released interim limits
- o Last released by

4. Start the report with  **Execute**.

5. Select the interim limits you want to release.

6. Choose  **Release** and  to save your entries.

Transferring interim limits

1. Call up the maintenance screen **Edit Limits for Limit Type xxx : Detail** in the same way as for changing interim limits
2. Select your interim limit and choose **Transfer** (to limit amount). Transferring the interim limit to a new limit represents a permanent increase in the limit. The transfer sets back the release status of the limit.

Note

The interim limit must already be released.

3. The system then displays the dialog box **Limit Split: Date**. Here you enter the date as of when the new limit with the increased limit amount is valid. The original limit becomes invalid on the day before the date of the split. The validity end date of the new limit is transferred from the old limit.

4. Choose  to save your entries.

Processing Limit Transfers

Use

You can reduce the free amount of one limit by a fixed amount and for a specified time period in order to increase the free amount of another limit. Transferring limits enables you to allocate risk capital efficiently.

During their period of validity, limit transfers are included in the overview of utilizations and in the single transaction check.

By choosing  **Notes**, you are able to create notes, and display existing notes in various places when you are processing limits. You define notes in Customizing under → **Limit Management** → **Note IDs** → **Define Note IDs for Limit Transfers**.

Creating Limit Transfers

You can create limit transfers in various ways:

From the overview screen of limit maintenance

From the overview screen of utilizations

By copying an existing limit transfer in collective processing (see the documentation about the [Collective Processing of Limit Transfers](#))

From the overview screen of limit maintenance/utilizations, you create limit transfers in the following way:

Select both limits.

Choose  **Limit Transfer**.

The system displays the screen **Create Limit Transfer : Data**

Enter a name for the transfer.

Enter the start date and the end date.

Specify the currency, the internal, and, if appropriate, the external delta.

Using the selection button, define to which limit the amount is to be added.

Choose  **Save** to save your entries.

Displaying Limit Transfers

You can display limit transfers in various ways:

In collective processing

In the maintenance screen for individual limits by choosing the tab page **Limit Transfer** (you can display the information in detail by choosing  **Display**)

By double-clicking on the limit amount in the overview of limit utilizations or in limit maintenance.



The values are displayed in a dialog box. Note, however, that in this view it is not possible to distinguish between interim limits and limit transfers. To look at them more closely you need to compare the tab pages **Interim Limit** and **Limit Transfer** in the individual maintenance of the limit.

Changing Limit Transfers

You can change limit transfers in various ways:

In collective processing

By branching to the maintenance screen for individual limits from

the overview screen of limit maintenance (by clicking **Choose Limit**) or

the overview screen for utilizations (by clicking  **Maintain Limit**)

To change a limit transfer from the screen for maintaining limits individually, you select the **Limit Transfer** tab page.

Select the limit transfers you require and choose  **Change**.

The system displays the screen **Change Limit Transfer: Data**.

Make the changes you require and choose  **Save** to save the data.

Deleting Limit Transfers

You can delete limit transfers in various ways:

In the maintenance screen for individual limits by choosing the tab page **Limit Transfers** and then  **Delete**.

In collective processing



To be able to create limit transfers you need authorization object F_T_VTBL. When you assign authorizations, note that limit transfers are not subject to a release procedure.



The maximum amount that can be transferred is the total amount of the limit and any existing interim limits. The amount of the interim limit can be transferred only for the period in which it is valid. When you create a limit transfer, the system checks this.

Collective Processing of Limit Transfers

Use

The collective processing function gives you an overview of all limit transfers and enables you to process transfers centrally. You find this function in the **SAP Easy Access** menu under **...Master Data > Limits > Collective Processing of Limit Transfers**.

You can enter the following criteria in the initial screen for the collective processing of limit transfers:

- Limit type
- Limit transfer number
- Valid to date
- User who created the limit transfer
- User who last changed the limit transfer

i Note

By choosing **Notes**, you are able to create notes, and display existing notes in various places when you are processing limits. You define notes in Customizing for SEM Banking under **Limit Management > Note IDs > Define Note IDs for Limit Transfers**, and in Customizing for CFM under ... **Limit Management > Define Note IDs > Define Note IDs for Limit Transfers**.

Displaying Limit Transfers

1. In the overview, select the limit transfer for which you want to view more detailed information.
2. In the application toolbar choose **Display**.
3. The system displays the screen **Display Limit Transfer: Data**. Here you can see which limits are affected by this limit transfer.

Creating Limit Transfers

It is possible to create a limit transfer in collective processing only if a limit transfer already exists for this particular limit. Only existing limit transfers can be copied in collective processing.

1. Select the existing limit transfer, which affects the same limits as those for which you want to create an additional limit transfer.
2. In the application toolbar choose  **Copy**.
3. The system displays the screen **Create Limit Transfer : Data**
4. Enter a name for the transfer and make the required changes.
5. Choose  **Save** to save your entries.

Changing Limit Transfers

1. In the overview screen, select the limit transfer you want to change.
2. In the application toolbar choose  **Edit**.
3. The system displays the screen **Change Limit Transfer: Data**.
4. Make the changes you require and choose  **Save** to save the data.

Deleting Limit Transfers

Limit transfers that have been deleted still appear in the overview screen. However, they are shown with a deletion flag. Once limit transfers are marked with a deletion flag, they are no longer included in the overview of utilizations or in the single transaction check.

1. In the overview screen, select the limit transfer you want to delete.
2. In the application toolbar choose  **Deletion Flag**.
3. The limit transfer is marked with a deletion flag (X in a red background).

Caution

You cannot display, change or copy any limit transfer marked with a deletion flag. Note, also, that you **cannot revoke** the deletion flag.

4. You do not need to save the data once you have set the deletion flag.

Note

By choosing  **Display Changes** you can display the change documents.

Locking and Unlocking Limits

Use

You can identify changes to business conditions (such as a worsening credit rating of the partner) by setting a **lock flag** in the limits for utilizations from new transactions.

Prerequisites

You can apply the lock when a limit has been created for a limit type . This limit can also be created automatically.

Procedure

You can lock and unlock each limit individually. You can also use a report to lock and unlock multiple limit types simultaneously according to their characteristic values.

Locking and Unlocking Individual Limits

You use this procedure to set or remove the lock.

1. Choose ... Master Data Limits Edit.
2. Select the limit type for which you want to lock or unlock the limit. Then choose Change Limits.
3. Position your cursor on any line of this characteristic combination, and choose Lock/Unlock .

Locking Multiple Limits by Selected Limit Characteristics

1. Choose ... Master Data Limits Lock/Unlock. The system displays the screen **Lock/Unlock Limits According to Limit Characteristics**.
2. The default limit characteristic is the business partner. If you want to add other limit characteristics as lock criteria choose **New Field Selection**. On the left side of the screen the system displays an overview of all limit characteristics. Select the limit characteristics you require and add them by choosing Copy selected . By choosing Delete Selections you can in the same way delete any limit characteristics that have already been selected.
3. By choosing Lock you can lock the limits referred to by the combination of all the limit characteristics you specified. Similarly, Unlock unlocks the limits.

Result

If you set the lock, the system shows this in the header row of the locked limit by inserting the symbol . If you choose this symbol, the system displays the following dialog box:

Lock set by user XY, date: dd.mm.yyyy

In the single transaction check, the system displays a message saying that the limit is locked. Setting a lock does not effect how () of an exceeded limits are displayed.

i Note

on the database (technical locks) are not to be confused with the lock flags mentioned above (business locks).

Displaying an Overview of Limits

Use

You can use the overview of the limits to obtain an overview of the limit structure. From the overview, you can branch to the individual utilizations of each limit, display business partner information, and display change documents. You can also branch to the Customizing for limit types.

Prerequisites

You need to have already created limits (see [Creating Limits](#)).

Procedure

1. Choose ... Information System Reporting Limits Overview of Limits.

The system displays the screen **Overview of Limits**.

2. Enter the required selection criteria. The various selection criteria are described in the following table.

Area	Selection Options
General Access Options	<p>Limit type</p> <p>Currency</p> <p>Make sure you specify the currency in which limits are managed in the system.</p>
Selection	<p>If you choose Selection of Limits by Key Date, the system selects the limits that have a validity period that includes the specified key date.</p> <p>If you choose Selection of Limits by Validity Interval, you then need to specify the valid from and valid to dates.</p>
Review	<p>Recipient: Recipient of the limit under review. The name of the recipient is stored in limit maintenance.</p> <p>Review Date</p> <p>Display Review Data: Set this indicator if you want the system to display the review data. You need to set this indicator if you want to send the limit for review manually.</p>
Selection using Limit Characteristics	<p>Direct characteristics: Company code, business partner, portfolio, trader, currency, monitoring unit, limit product group (if you are using the country risk functions, you can also use internal organizational unit and country for country risk).</p> <p>Derived characteristics: Characteristics derived from the business partner: Country, sector, rating. (If you are using the country risk functions, the country rating from the country risk country is also available.)</p> <p>Free characteristics: Free characteristics 01 – 15.</p> <p>Generated characteristics: Free characteristics that were generated from the active analysis structure in the Market Risk component and transferred to Limit Management.</p>

i Note

Make use of the option for saving the parameters you entered as a variant. To do this, choose **Goto** **Variants** **Save as Variant** . You can call up the saved selections at any time by choosing .

3. Choose **Execute** to start the function.

The system displays the **Overview** screen, where you can see the list of the limits selected. They are sorted by limit type.

Result

You receive the required overview of all the limits for the limit types you selected.

i Note

You have various options for formatting the overview of the data. For information on editing these lists, see the [Documentation on the List Viewer](#).

i Note

As an alternative, you can display the overview of limits using [SAP Query](#).

Displaying Changes to Limits

Use

You can create one limit per characteristic value combination for each combination of limit characteristics defined in a limit type. You can use a report to display any changes made to limits.

Procedure

1. Choose ... Information System Reporting Limits Display Changes to Limits. The system displays the [Changes to Limits](#) screen.
2. Enter the following ranges as selection criteria for the changes to the limits:

Selection Ranges	What you need to know
Limit type	
Date	The date describes the point in time for which the change documents are to be displayed.
User	The user is the user-name for whom the change documents are to be displayed.

i Note

Make use of the option for saving the parameters you entered as a variant. To do this, choose Goto Variants Save as Variant . You can display and reuse the selection criteria you saved as variant at any time by choosing .

3. Choose [Execute](#).

The system displays a list of changes to the limits, sorted by change document objects, and in ascending date order. This list provides you with details about old and new entries for the limits, who changed the limit, the change document, and other information.

i Note

Use the function to search in extensive lists for any text you want.

Result

The system displays the required list of changes to the limits.

Reviewing Limits

Use

You use the review function to forward information about limits to any recipient. You can either specify the timing of the review manually, or you can let the system determine the dates. The same applies for the actual sending of the limit for review.

Integration

The review information is sent to the review's office inbox. This means that every user logged on to the system can send and receive information about limits. When the limit reviewer logs on to the SAP system, a dialog box appears informing him or her that there is an item in his/her inbox.

Prerequisites

Before you can use the review function, [limit types](#) must already have been defined.

Procedure

You can either enter the timing of the review manually, or let the system determine it.

In SEM Banking choose ... → **Master Data** → **Limits** → **Edit**; in CFM choose ... → **Master Data** → **Limits** → **Maintain**.

The system displays the screen **Limits : Choose Limit Types**.

Select the limit types you require and choose **Change Limits**.

Position the cursor on a limit line, and then choose **Choose Limit**.

The system displays the screen **Edit Limits for Limit Type xxx : Detail**.

Choose the tab page **Administrative Data**, and enter the name of the recipient in field **Review Recipient**.

i

A user can also enter him/herself as the recipient.

Determining the timing of the review:

i

You can store a factory calendar to check the date entry. In this way the system checks for public holidays and weekends in a specific country. The factory calendar is stored in Customizing under → **Limit Management** → **Enter Basic Settings for Limit Management**.

Manually: Maintain the **Review Date** field

Automatically: Set the **Automatic Review** indicator.

In order to be able to use the automatic review, you need to have made the following settings in Customizing:

In Customizing choose ... → **Limit Management** → **Define Limit Types**.

The system displays the screen **Change View "Define Limit Types": Overview**

Select a limit type, and then choose  **Details** to access the detail view. Enter data in the following fields:

Review Period : The period after which a review recipient receives limit information.

Review deadline before validity period end : On this date, the limit is presented for the last time before it expires.



The system takes the earlier of the two dates below as the review date:

(Day's date) + (number of days in the review period)

(End of the validity of the limit) - (number of days of the review deadline before the end of the validity period)

The day's date corresponds in this case to the date on which the limit was created or changed.

Features

You can use the following functions:

Displaying the Data Relevant for the Review

Choose ... → **Information System** → **Reporting** → **Limits** → **Overview of Limits**.

The system displays the screen **Overview of Limits**.

First enter the general access options required.

Set the **Display Review Data** indicator.



You can also select the limits by review **Recipient** or **Review Date**.

Start the report with  **Execute**. You can see who the review recipient of the limit is, and the date the limit is next due to be reviewed.

Sending Limits for Review

Sending Limits for Review Manually

In the [overview of limits](#) (as in point 1. [Display the data relevant for the review](#)) choose the limits you wish to send. Choose  **Execute** to start the evaluation.

By choosing **Choose Limits** you can transfer the relevant limits to a batch of items that are to be sent for review. By positioning your cursor

on the header line (this means all limits for this combination of characteristics)

on the item line (this means just one limit)

or by not positioning it at all, you can copy all the displayed limits to the batch of items that are to be sent for review.

Send the limits by choosing  [Send List to Specified Review Recipients](#).

Sending Limits for Review Automatically

To do this, you need to schedule a variant of report RFTBLRSM as batch job, and let the report run daily. The program selects all limits with a certain review date and sends them to the recipients. At the same time, if automatic determination is used, the review date is recalculated.

Change of Personnel

You use this function to select limits by using a selection screen, and then either changing, creating or deleting the recipients.

You access the selection screen by choosing ... → **Master Data** → **Limits** → **Change Review Recipient**

You have the following options:

Change	Old review recipient <name>; new review recipient <name>
Create	Old review recipient <space>; new review recipient <name>
Delete	Old review recipient <space>; new review recipient <space>



You can also change a review recipient manually in each limit.

Releasing Limits

Use

A release procedure, which works in accordance with the principle of dual control, can be activated for the creation and changing of limits, and for each limit type.

Prerequisites

You need to have set the  [Release Active indicator](#) in the Customizing for the limit types that you have already created. In Customizing choose  **Limit Management**  **Define Limit Types**. 

Procedure

You can release limits individually, or collectively by using report TBLR.

Releasing individual limits:

1. Choose ... Master Data Limits Edit.
2. Select the limit types of the limits that you want to release and choose Change Limits.
3. The system displays the current release status of the limit in column Release .

Without release (w/o release)	The limit is not subject to a release procedure (meaning that the release procedure is not set to active in Customizing).
Not released	The limit has not yet been released.
Flagged	Either one (of the two required) releases has occurred, or the initial status of the release has been set to 1 (limit is flagged for release).
Released	Both releases have been made, the limit is released.

4. Two users are required to release a limit (principle of dual control). The first user can create the limit and set the status to **Flagged**. This is the first release. The release made by the second user actually releases the limit (status is **Released**). This is the second release.
5. To release the limit, position your cursor on the line of the limit and choose **Choose Limit**. In the next screen, choose **Limit** and save your change with **Save**, so that the database is updated.

Releasing Multiple Limits (Mass Release)

1. Choose ... Master Data Limits Release Limits.
2. The system displays the screen **Mass Release of Limits**.
3. In the general selections you can enter just one limit type or a range of limit types.

In the mass release function, you can select limits by release status. You do this by setting the following indicators:

- Limits not Released
 - Limits Flagged for Release
 - Released Limits
4. You can also select limits by specifying the user who last changed the release status.
 5. When you have started the program, the system selects the limits and displays them in a list. You have to select the limits you want to release.
 6. Choose **Release**. The release status is increased by one level, and shown accordingly in the limit.
 7. Choose **Save** to save the entries and to update the database.

Result

The release status is increased by one level respectively:

i Note

If the initial value of the release status is 1 (flagged), only **one** further release is necessary.

The system displays the current release status in the limit. If you click on the release status of a limit, the system displays the user who last changed the release status.

Editing Custom Fields

Use

You can use the SAP enhancement LTBLX003 to create and maintain additional fields (known as customer subscreens). In these fields you can store additional information about the limit.

The enhancement consists of:

Menu enhancement and pushbutton for limit maintenance

Entry for a subscreen to be defined by the customer

Customer exit 003 for transporting limit fields to the subscreen

Customer exit 004 for transporting limit fields back from the subscreen

Prerequisites

Knowledge of the [SAP Enhancement Concept](#) and ABAP.

Procedure

Entering Custom Fields

Using transaction SE11, create a structure containing the additional fields you require.

Using transaction SE11, create an append for table VTBLV (limits) and enter a name for the append in the above structure.

Using transaction CMOD, create an enhancement project for this SAP enhancement LTBLX003.

Create your own maintenance screen SAPLXTBL1, no. 9000 for the maintenance of your own fields (in the attributes, select "Subscreen").

Activate your project.

Populating Custom Fields with Data

Choose ... → **Master Data** → **Limits** → **Maintain** or **Edit**.

Select your required limit type and choose .

If you have created several individual time-based limits, you access the limit maintenance screen by selecting the respective individual limit and choosing **Choose Limit**.

Now select **Additional Fields** to maintain the fields of the customer subscreen.

Choose  to save your limit.

 i

Making entries in these fields resets the release status.

 i

For the additional fields to be output in [reporting](#) (limit utilization overview), you first need to include the ALV functionality [Define display variants](#).

Updating Limit Utilizations

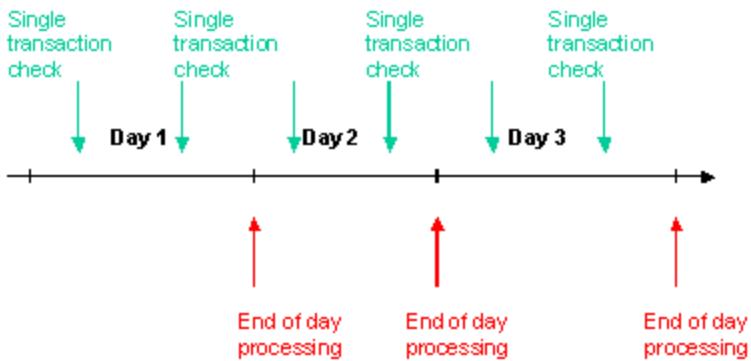
The limit utilization of the single record or transaction is the risk amount calculated for a single transaction by the attributable amount determination function.

Using the limit characteristics and their values, the system combines the utilizations of the single records with the limit utilizations of the totals records or the limit.

The limit utilization of a certain limit is, therefore, the total of the attributable amounts of all transactions attributed to the limit on the basis of their characteristic values. The system compares this amount with the corresponding internal or external limit amount as part of the single transaction check, [reporting](#), the [query](#) or the [drilldown](#).

Use

Up-to-the-minute monitoring of compliance with the existing limits requires regular updating of all limit utilizations. For this purpose, you can use the [single transaction check](#) to update limits during the day, and make a final update at the end of the day by using [end of day processing](#).



When the single transaction check is applied to a transaction, the system updates it in Limit Management in status 2. If an additional STC is applied to this transaction on the same day, then the status 2 is updated with the current data. If a transaction is included in end-of-day processing, then the system updates it in Limit Management in statuses 1 and 2.

Which key figures are determined and updated depends on the combination of default risk rule and determination procedure. The default risk rule is stored in the financial object. For transactions that do not yet exist in the data pool, or those have not yet been included in end-of-day processing, the default risk rule is determined by the [STC product](#).

Integrated Single Transaction Check

Use

You can use this function when you create trading or credit transactions to check them against the relevant [limits](#). You can define that the integrated single transaction check generates a workflow if limits are exceeded, and that a message is sent automatically to the treasury manager, for example. This enables you to monitor risks as they occur.

In the integrated default risk limit check, the system calculates the relevant attributable amounts for the data entered and for all risk categories. It checks the maximum risk commitment period that was defined, and the internal and external limits, or the critical limit utilization. You can also define limits for each product type and transaction type, and check whether they are exceeded.

i Note

For more information, see the documentation for the general single transaction check (for example, the section about updating limit utilizations).

Prerequisites

- Default risk limit check has been activated

In the Customizing for [Credit Risk Analyzer](#), you have activated the integrated single transaction check. You do this under [Basic Settings](#) [Activate Integrated Default Risk Limit Check](#).

- **Optional: Limit check for each product type and transaction type has been activated**

You have activated the integrated single transaction check in the Customizing for **Credit Risk Analyzer** under ► **Attributable Amount Determination** ► **Edit Settings for Determination Procedures** .

- **Automatic financial object integration has been activated**

You have activated the automatic financial object integration for the relevant product types and company codes. You do this in the Customizing for **Credit Risk Analyzer** under ► **Basic Settings** ► **Automatic Integration of Financial Objects in Transaction Master Data** for the product types in question.

The tab page **Default Risk Limitation** is available in Transaction Manager only if you have activated automatic financial object integration. You use this tab page to store the relevant information for counterparty/issuer risk.

- **The update category has been defined**

You have stored the update category **Update when limit utilizations are generated and online** in the Customizing for **Credit Risk Analyzer** under ► **Limit Management** ► **Define Limit Types** . The update category specifies for which limit type an update of the limit utilization is to be carried out in the course of the day. The system uses this information to calculate the current utilization of the individual limits.

- **Limits have been defined**

The integrated default risk and limit check gives correct results only if the utilization of the limits is defined, or limits are defined for each product type and transaction type:

- You have run end-of-day processing for the previous day in order to calculate the utilization of the limits affected by the limit characteristics of existing transactions.
- You have created limits for each product type and transaction type. To do so, in the **SAP Easy Access** screen choose ► **Credit Risk Analyzer** ► **Master Data** ► **Limits** ► **Edit Limits for Each Product Type and Transaction Type** .

- **Optional: Workflow has been switched on**

You have activated the connection to the workflow function in the Customizing for **Credit Risk Analyzer** under ► **Basic Settings** ► **Global Settings** . To define the recipient of the workflow, you have either defined an HR organigram in the Customizing for SAP NetWeaver under ► **SAP Web Application Server** ► **Business Management** ► **SAP Business Workflow** ► **Edit Organizational Plan;** or you have assigned the sender and recipient directly in the Customizing for **Credit Risk Analyzer** under ► **Basic Settings** ► **Assignments** ► **Assignment of Senders to Recipients** ► **Assign Senders of Workflows to Recipients** .

Features

When entering or editing transactions, you can trigger the integrated default risk limit check in the following ways:

- **By using the Check pushbutton**

The system only checks the transaction against the relevant limits. It does not update the limits.

- **When saving the transaction**

The system checks the transaction against the relevant limits, and updates them. If you activated the workflow function, and the limits were exceeded, the system also generates a workflow.

In the integrated default risk limit check, the system does the following:

1. It checks for compliance with the limits

When the system checks the limits for each product type and transaction type, it compares the limits defined for the respective product type and transaction type.

When the system checks the credit lines, it does the following:

- a. It determines which limits are relevant for the integrated default risk limit check.
- b. It calculates the attributable amounts of the transaction.
- c. It calculates the current limit utilizations of the limits relevant for the check.
2. It reports the results of the check to the user processing the transaction.
3. It generates a log containing the results of the check for documentation purposes in Limit Management.
4. It updates the limit utilizations (see [Updating of Limit Utilizations](#)) when the transaction is saved.
5. If limits were exceeded, and the workflow function is active, it generates a workflow.

Activities

1. Enter a financial transaction in Transaction Manager.
2. Choose the **Default Risk Limitation** tab page, and enter the information about counterparty/issuer risk for the financial object of the transaction.

To be able to use the integrated default risk limit check, in the financial object you have set the **Counterparty/Issuer Risk** indicator to active, and store a default risk rule. You still have to do this if you have created limits for limit product groups. You can enter this data manually when you create or change the transaction. If you have defined that the control parameters are to be derived for the product type in question, the system stores the information automatically.

3. Choose  **Check**.

The system checks whether the transactions exceed the limits, and it displays the result of the check in a dialog box.

4. Choose **Limit utilization details** in order to see which attributable amount the system calculated for the transaction and to which limit type this amount was assigned. Once you have saved the transaction, you can branch from here to the logs of the single transaction check.
5. Choose **Save**.

The system updates the transaction in Limit Management. If you activated the workflow function, and the limits were exceeded, the system also generates a workflow.

Result

You have checked whether a new or a changed transaction is within the limit or exceeds the limit, and by saving you have triggered the updating of the transaction. If the limits were exceeded, you have generated a workflow. The system reports the limit usage by displaying a warning light under **Transaction check**.

i Note

Note that limit types that have a determination procedure that takes netting into account are not subject to the integrated default risk limit check, and are not displayed in the detail log.

If you created a transaction in Transaction Manager, and want to edit it using the single transaction check, before you created the transaction, you need to have defined a default STC product for the product type in question in the Customizing for **Credit Risk Analyzer** under  **Basic Settings**  **Definitions**  **Define Single Transaction Check Product**.

Single Transaction Check

Use

The term **single transaction check** (STC) refers to all check activities relating to the relevant [limits](#) that can be applied to a single trading or credit transaction when you enter or edit it. You can trigger the single transaction check in the following ways:

In the application menu (STC transaction)

By using an RFC module

By using the integrated default risk limit check (the [integrated default risk limit check](#) is available in SAP Treasury and Risk Management only)

The relevant attributable amounts are determined for the data supplied and for all the risk categories that are released for a single transaction check. The system checks the maximum risk commitment period that was defined, the internal and external limits, and the critical limit utilization.

The single transaction check is a tool you can use for up-to-date risk monitoring. This is controlled by determination procedures.

Depending on the settings in Customizing, you can activate [24-hour capability](#) for the single transaction check. This means that you can trigger the single transaction check at any time, even when end-of-day processing is running.

Prerequisites

When you define the limit type, you need to enter [Update category 2](#) if you want the system to determine the current limit usage for the individual limits. The update category of a limit type specifies whether limit utilization is updated during the day. In Customizing choose... → [Limit Management](#) → [Define Limit Types](#).

You also need an STC product, which you define in Customizing. In Customizing choose... → [Basic Settings](#) → [Definitions](#) → [Define Single Transaction Check Product](#).

The results of the single transaction check are valid only if the utilization of the limits was calculated in an end-of-day processing run, the key date of which is in the past. The limits referred to here are the ones affected by the limit characteristics of the transaction that is to be checked.

To be able to use all the functions of the single transaction check, authorization profile F_T_FTLM_ALL with authorization object J_B_KLSDC1 must be stored in your user master record. Depending on the extent of your authorization, you can obtain further information by branching from the functions of the STC.

Features

You have the following options for triggering the single transaction check:

Manually in the application menu

Your options include

[Checking new transactions](#)

[Checking existing transactions](#)

[Deactivating external transactions](#)

[Displaying an overview of transactions](#)

Using this interface you can create a direct connection between the bank's own front-end system and the limit system. Refer to the technical documentation on the function module in the ABAP Workbench.

When you enter or edit transactions in an external system (upstream with regard to Limit Management), the single transaction check involves the following steps:

Call-up of the interface for the single transaction check

Determination of the limits relevant for the single transaction check

Calculation of the attributable amounts of the transaction

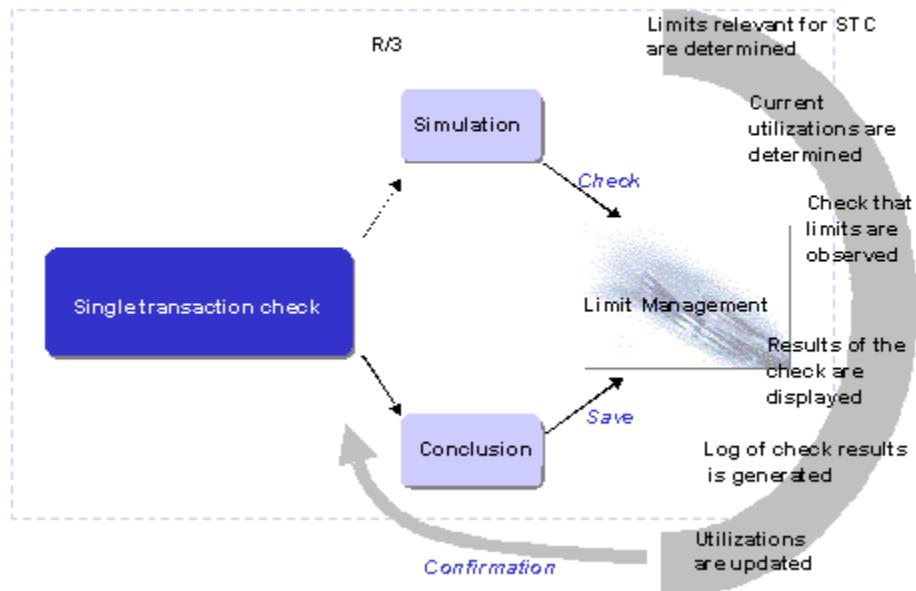
Calculation of the current limit utilizations of the limits relevant for the check

Check for compliance with the limits

Reporting of the results of the check to the user processing the transaction

Generation of a log of the results of the check for the documentation in Limit Management

Updating of limit utilizations



In addition to updating limit utilizations, you have the option of just checking a transaction. During the check, the system determines an attributable amount. This is checked against the limits, and the result is reported back to the user. The limit utilization is not updated.

Integration

All transactions that are created in the SAP system by means of the single transaction check are initially recognized by the system only as [external transactions](#). For the check made in end-of-day processing, the transaction data can still be transferred from the operational system to the SEM data pool (by means of external data transfer or online maintenance). During the next end-of-day

processing run, using the transaction key the system compares the external transactions and the new SAP-internal transactions to avoid duplicating any data. If no data pool transaction exists, the external transaction remains in Limit Management even after the end-of-day processing run.

Activities

During the single transaction check, the system checks the transactions without accessing any transaction information that might exist in the data pool. This means that the system needs to be provided with all limit-relevant data. You have to supply the following data:

Indicator for simulation	Indicator showing whether a simulated (check) or valid (save) transaction is involved.
External administration key	This identifies the transaction.
Limit characteristics	
Base date of the fictitious transaction	This date is the value date from which there is a potential settlement risk.
Base date for the calculation of the market value change period	
Base date for the calculation of the risk commitment period	
Default risk rule	
Calendar ID	
Basic key figures	
Validity date	Date on which the data specific to the transaction and to attribution becomes valid



Counterparty risks and issuer risks can be calculated for individual transactions, (for stock options, for example). If both risks are to be taken into account in the single transaction check, you need to supply the key of the position concerned.

24-Hour Capability of the Single Transaction Check

Definition

The purpose of the 24-hour capability is to enable you to carry out a [single transaction check \(STC\)](#) at any time, and in particular when [end-of-day processing](#) is running. This also affects the integrated default risk limit check, which is available in TRM Credit Risk Analyzer only. Furthermore, the 24-hour capability enables you to enter [reservations](#) at any time.

Caution

If you use the **non-integrated** single transaction check, as it is used in Banking, in conjunction with the 24-hour capability, the results are consistent only for new transactions and external transactions. Note that changes to data pool transactions can be taken into account only if the transactions are first changed using EDT, and are then additionally changed using the single transaction check. The single transaction check is required in this case for triggering the post-run update.

Use

► You activate the 24-hour capability in Customizing by choosing: ► Limit Management ► Enter Basic Settings for Limit Management. In addition to activating 24-hour capability, you make other settings here for the single transaction check:

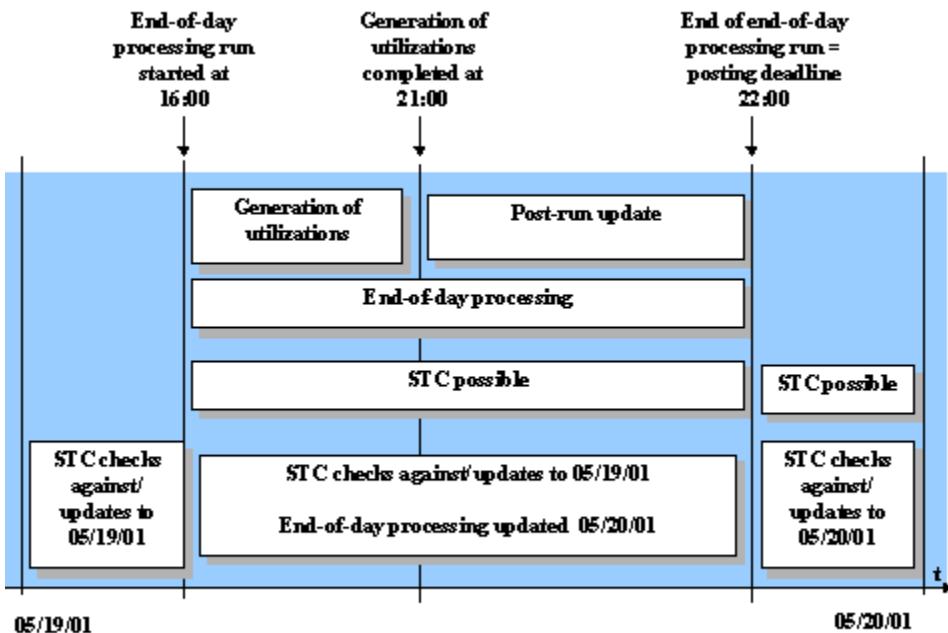
- Waiting time for the single transaction check
- Posting deadline
- Waiting time for the post-run update
- Setting the indicator for 24-hour capability

When using the single transaction check, it may sometimes be the case that the limit you are checking is blocked by another user. For this reason, you have to enter a maximum waiting time in the basic settings. As part of the 24-hour capability, by entering a posting deadline you are able to specify a fixed point in time after which risk amounts are to be attributed to the following day. The waiting time for the post-run update specifies the time gap between the post-run update and the posting deadline.

Structure

End-of-day processing comprises the generation of utilizations and the post-run update. (As the post-run update is part of end-of-day processing, updating takes place in status 1 and 2.) All the transactions for the day, which were checked by the single transaction check during the generation of utilizations, are updated in the post-run update. In this way, it is possible to apply the single transaction check even during the end-of-day processing run.

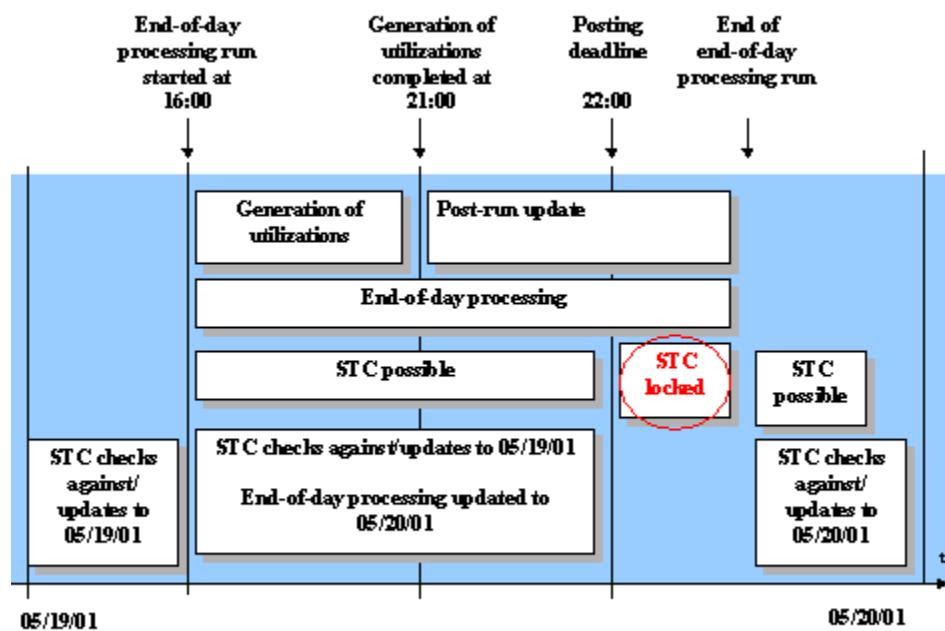
If a single transaction check function is started before the end-of-day processing run has finished, the transactions checked by the single transaction check function are updated to the date of the previous end-of-day processing run. The current end-of-day processing run then updates these transactions to the new date.



Exception

When you enter the settings in Customizing, ensure that there is sufficient time between the end of the generation of utilizations and the posting deadline to allow for the post-run update. If this is not the case, it can cause the post-run update to exceed the

posting deadline. In this case, the single transaction check is locked for the period of time between the posting deadline and the final completion of the end-of-day processing run.



i Note

To avoid this, in Customizing you can leave the field for the posting deadline blank.

External Transactions

Definition

External transactions are transactions that have the following features:

- They exist as raw transactions in the SAP system but have not yet been saved in the data pool.
- They have already been saved in the data pool and were updated during the day but which have not yet been updated by end-of-day processing.

Structure

All basic key figures and limit characteristics must be provided for these transactions. These can be imported from your bank's own front-end system by means of the RFC interface, or you can use the function for starting the single transaction check manually in the application. In Treasury and Risk Management (TRM), you can use the integrated limit check.

Integration

In the Default Risk and Limit System, you can calculate attributable amounts for these transactions, and update the limit utilizations using the limit characteristics.

STC Product

Definition

The STC product is the central control element for the single transaction check transaction (STC transaction). The following functions of the STC transaction are affected by the Customizing settings you make for the STC product.

- Authorization check
- Control internal / external key assignment
- Inclusion of the issuer risk
- Defaulting of the limit product group

In addition, the following control elements are stored with the

STC product:

- Cash / forward indicator
- Credit risk rule

The credit risk rule stored with the STC product is overridden by that stored with the financial object for those transactions for which end of day processing has already been performed.

Checking New Transactions

Use

This function enables you to check transactions that are as yet unknown to the SAP system (meaning neither as external transactions nor as transactions in the data pool). Using the values entered, the system checks whether a new transaction complies with the limit.



In the single transaction check, you can use the mass data capability to check complex constructions, such as generic transactions.

Procedure

Choose: → Tools → Single Transaction Check → Check New Transaction . The system displays the screen Single Transaction Check: Initial Screen for New Transaction

Specify the business partner, the STC product, the evaluation date (is always today's date) and the company code of the transaction you want to check.



Choose Check to check that your entries are consistent.

Choose Continue.

On the **Transaction** tab page choose:

Check Limit Utilization to determine whether the new transaction will exceed the limit, or

Check and Update Limit Utilization to check the new transaction, and update it in Limit Management.

On the **Additional Data** tab page you can edit the limit characteristic values for the transaction.

By setting the **CP Risk Active** or **Country Risk Active** indicators, you control whether the transaction is relevant for counterparty/issuer risk or country risk. If you set the country risk indicator to active, you need to make some settings in the **Country Risk Information** area. (The country risk functions are available in Banking only.)

The limit characteristic **Trader** is set to the name of the user by default.

On the **Generated Char.** tab page you can edit the values of the generated characteristics of the transaction.

Result

You have checked whether a new transaction complies with or exceeds the limit, and possibly updated the limit. In the data group **Limit Check Result** the system reports the utilization of the limit by means of a traffic-light display, and the status of the update.

Details about limit utilization

To view detailed information about the limit utilization choose **Limit Utilization Details**.

The system displays a dialogue box. Choose **Single Utilizations** to view the individual utilizations.

The system displays another dialogue box. Choose **STC Log** to display the single transaction check log.

Printing the results of the check

Choose **Print Check Results** to print a trader's note. This summarizes information about the transaction, the result of the check, and the transaction's key figures.

Checking Existing Transactions

Use

If you want to change basic key figures, you use this function to check transactions that were created externally, and those already in the data pool.

i

In the single transaction check, you can use the mass data capability to check complex constructions, such as generic transactions.

Procedure

Choose → **Tools** → **Single Transaction Check** → **Check Existing Transaction**.

The system displays the screen **Single Transaction Check: Initial Screen: Change Transaction**

2. Enter the Evaluation Date, the STC Product and the Company Code. Specify the transaction more clearly by entering a transaction number.

i

Choose **Check** to check that your entries are consistent.

Choose **Continue**.

On the **Transaction** tab page choose:

Check Limit Utilization to determine whether the new transaction will exceed the limit.

Check and Update Limit Utilization to check the new transaction, and update it in Limit Management.

On the **Additional Data** tab page you can edit the limit characteristic values for the transaction.

By setting the **CP Risk Active** or **Country Risk Active** indicators, you control whether the transaction is relevant for counterparty/issuer risk or country risk. If you set the country risk indicator to active, you need to make some settings in the **Country Risk Information** area. (The country risk functions are available in Banking only.)

The limit characteristic **trader** is set to the name of the user by default.

On the **Generated Char.** tab page you can edit the values of the generated characteristics of the transaction.

Result

You have checked whether the changed transaction exceeds the limit, and possibly updated the transaction in Limit Management. In the **Limit Check Result** data group, the system reports the utilization of the limit by means of a traffic light display and the status of the update.

Details about limit utilization

To view detailed information about the limit utilization choose **Limit Utilization Details**.

The system displays a dialogue box. Choose **Single Utilizations** to view the individual utilizations.

The system displays another dialogue box. Choose **STC Log** to display the single transaction check log.

Printing the results of the check

Choose **Print Check Results** to print a trader's note. This summarizes information about the transaction, the result of the check, and the transaction's key figures.

Deactivating the Update for External Transactions

Use

If you do not want to update limits for external transactions, you need to deactivate the external transaction.

Caution

This function cannot be used for transactions that have already been saved in the data pool, or for those that have already been updated in end-of-day processing. You can still deactivate a transaction if it has been saved in the data pool but its limit utilization has not yet been updated by end-of-day processing.

Procedure

1. Choose  Tools  Single Transaction Check  Deactivate External Transaction 

The system displays the screen Single Transaction Check: Deactivate External Transaction .

2. Enter the required data.

Note

Choose  Check to check that your entries are consistent.

3. Choose  Deactivate Trans. , to exclude the transaction from limit updating.

Result

Under **Result of Deactivation** , the system displays the status of the transaction. Choose  Display Log to view the log of the deactivation process.

Displaying an Overview of Transactions

Use

You can use this application to obtain a list of the external transactions and data pool transactions for which a single transaction check can be performed.

Procedure

1.  Choose ...  Tools  Single Transaction Check  Display Transactions. 

2. The system displays the screen Single Transaction Check: Display Transactions .

3. On the left part of the screen you can navigate through the structure containing the STC products.

4. End nodes that are in a different color are the STC products that were defined in Customizing as default values for STC products.

5. On the right part of the screen you can see which transactions exist for the portfolio you selected.

Result

You can display **additional information** about each transaction by using the following functions:

	Details
 Counterparty	Limit characteristics of the counterparty
 Counterparty	The basic key figures of the transaction that are required for calculating amounts that are to be attributed to the counterparty.
 Issuer	Limit characteristics of the issuer
 Issuer	The basic key figures of the transaction that are required for calculating the amounts that are to be attributed to the issuer.

You can also call other functions directly from this screen:

- Choose  **Postprocess** to change the attributable amount of the selected transaction.
- Choose  **Deactivate** to deactivate the selected transaction.

Displaying the Single Transaction Check Log

This list provides you with details of the system message received by the trader or loans employee after entering the transaction data.

A traffic light symbol indicates if a limit has been exceeded:

 : Internal limit has been exceeded

 : External limit or the critical limit usage has been exceeded

 : No limits have been exceeded

You have the option of branching from the log entries to the transaction data of the underlying transaction. Choose  **Transaction details**.

Procedure

Choose ... → **Information System** → **Reporting** → **Single Transaction Check: Logs**.

This brings you to the screen **Logs fromSingle Transaction Checks**.

Enter the selection criteria you require.

STC user (user who initiated the transaction)

Date of the check

Limit type

Selection by limit characteristics

3. Choose  **Execute**.



You can delete STC logs by using the [archiving function](#).

End-of-Day Processing

Use

In end-of-day processing, the system determines and updates [limit utilizations](#) based on the transactions and positions contained in the data pool and also the external transactions that were entered. (See [External Transactions](#)).

Integration

End-of-day processing is closely linked with the [single transaction check](#) ► In Customizing under: ► Limit Management ► Enter Basic Settings for Limit Management you can specify whether [24-hour capability](#) is to be used. 24-hour capability enables you to apply the single transaction check at any point in time, even when end-of-day processing is running.

Prerequisites

The calculation is product-type-specific and takes place according to the settings made in Customizing. For a detailed description of the how the system calculates the attributable amount, refer to the documentation about the [attributable amount determination](#) function.

Features

In the end-of-day processing run, the system selects the transactions that, on the valuation date, are active and credit-limit-relevant. It determines attributable amounts regarding counterparty risks and issuer risks for these transactions. Attributable amounts are updated in [Limit Management](#). Depending on the settings in Customizing, you can, if required, create [new limits](#).

If, in Customizing, you have not stored a selection filter in the limit type, then in end-of-day processing all transactions flow into the limit type that are defined in the determination procedure as relevant to that particular limit type. If you have stored a selection filter in the limit type, in end-of-day processing only a certain section of the credit portfolio is analyzed in Limit Management. This means that only those transactions are attributed to the limit type that have values matching those of the selection filter. For more detailed information about the selection filter see the Implementation Guide under... ► Basic Settings ► Definitions ► Define Selection Filter .

Activities

To update the limit utilizations you need to trigger a report, which you start in batch mode. Once the system has determined the utilizations in this process, they are updated in the respective limit.

Generating Utilizations

Use

To analyze the drawn amounts (utilizations) for the respective position, you need to generate the utilizations in the end-of-day processing run.

Prerequisites

You can run end-of-day processing only if financial objects have been created for the existing transactions.

Procedure

Choose ... → Tools → End-of-Day Processing → Generate Utilizations.

The system displays the screen **End-of-Day Processing**.

You can use the following selection criteria:

Valuation date	Today's date is the default setting.
Determination procedure	<p>You can specify a range of determination procedures for which end-of-day processing is to be performed.</p> <p>You can specify more than one determination procedure by using the  Multiple Selection function.</p>
Control	
Log level	By specifying the log level, you define the level of detail of the results contained in the log for the program.
Separate Processing indicator (This indicator is available only if you are using the country risk functions.)	If you set the Separate Processing indicator, the system saves the limit utilizations separately by valuation date in the database. The utilizations already determined on this valuation date are retained.



You can save your entries as a variant by choosing **Goto** → **Variants** → **Save as variant**. You can call them up later by choosing .

Once you have entered your selection criteria, choose  **Execute** to start the program.

The system runs end-of-day processing. Once the end-of-day processing run is complete, the log is displayed automatically. It contains information about any errors that occurred during the determination of counterparty or issuer risks.

Result

You have run end-of-day processing and generated utilizations.



You can now display the limit utilizations that were updated by end-of-day processing in the [overview of limit utilizations](#). You can manage [end-of-day processing logs](#) at any time by choosing ... → **Information System** → **Reporting** → **End-of-Day Processing: Logs**.



The error log contains long texts for the error messages. To view the long text, select an error message and choose  **Long Text**.



You can also send error logs to other users. To do this choose **Log → Save to PC File**. Save the list in the required format.

Then you can send the list by choosing **Office → Work Place → Outbox**. In your office outbox, choose **Documents** and enter a name for the document. Then choose the function **Import**. Open the saved list. Select the document that was generated for the error log, and send it by choosing **Send**. On the **Create Document and Send** screen enter the user name of the recipient, and then choose **Send**.

The recipients of the error logs can display the documents by choosing **Office → Work Place → Inbox**.

See also:

[Postprocessing of incorrect transactions](#)

Postprocessing

Use

Using the postprocessing function, you can update and correct during the day any erroneous transactions that already exist in the data pool but were not processed, and hence not updated, in end-of-day processing. You can also use postprocessing to re-post transactions for which end-of-day processing was run successfully (meaning there were no errors) but which were changed afterwards.

Postprocessing updates both status 1 and status 2 (see the documentation on [updating limit utilizations](#)).

i Note

Complex constructions can be checked in postprocessing using the mass data capability. Complex constructions include the generic transaction, netting groups, and facilities, plus the collateral assigned to them.

If the processing of certain transactions is terminated, the system automatically creates a worklist, which you can use to complete the processing of these transactions.

You can call each worklist separately in the application **Display Worklist** (report RAFO_WORK_STOCK_SHOW), which uses the [SAP List Viewer](#). You can also delete worklists by removing them from the list (see also [Reorganization Tools](#)).

Procedure

The counterparty risk and the issuer risk are determined for the data pool transaction for both update categories (status 1 and 2).

1. **Choose ...** **Tools** **End-of-Day Processing** **Execute Postprocessing**

The system displays the screen **Postprocessing of Data Pool Transactions** .

2. Enter the object number of the transaction you want to process, or enter the ID of the worklist.

i Note

If you want to postprocess a facility, enter the object number of the facility. If you want to postprocess a netting group, you need to enter just one transaction from the netting group.

i Note

The system postprocesses the transactions by using an evaluation type that identifies the market and valuation parameters of an evaluation from Market Risk Analysis. The evaluation type is stored in the Customizing for **SEM Banking** under ...**Basic Settings** **Enter Global Settings** , and for **TRM** under ... **Basic Settings** **Global Settings**.

3. To start the attributable amount determination for the facilities choose **Execute**.

i Note

To view detailed information about the limit utilization choose **Long Text**.

Result

Having successfully calculated the utilizations, the system displays the attributions to the respective limit types in a dialog box.

i Note

This function does not take into account any offsetting effect of global collateral.

Logs Generated in End-of-Day Processing

Use

You use this function to display and manage logs generated in end-of-day processing.

Activities

1. **Choose ...** **Information System** **Reporting** **End-of-Day Processing: Logs**.

The system displays the screen **Edit Logs**.

2. Enter the selection criteria you require. These include:

Time Restriction	<ul style="list-style-type: none"> <input type="radio"/> Date <input type="radio"/> Start Time <input type="radio"/> End Time
Activity	<ul style="list-style-type: none"> <input type="radio"/> Display Log <input type="radio"/> Display All Logs <input type="radio"/> Delete Log <input type="radio"/> Delete All Logs

3. Choose **Execute**.

4. The system displays the screen **Log Display**, and the logs you selected.

How Data is Selected in End-of-Day Processing

Purpose

In end-of-day processing, the system selects data by taking the start date and end date of the transaction from the financial object, and reading the **counterparty risk active** and **country risk active** indicators. For collateral, it checks the active indicator in the master record.

Maintaining the transaction start/end dates in the financial object is optional. However, if you do maintain these dates you can do the following:

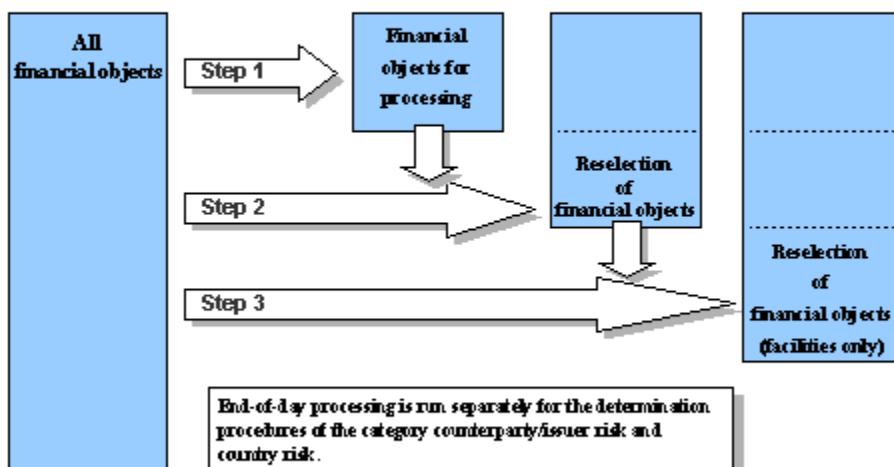
- Run historical evaluations
- Influence the extent of the basic data set, and hence the performance of the system.

The indicators in the collateral are interpreted as follows:

- The **counterparty risk active** and **country risk active** indicators in the financial object control the actual secondary risk display.
- The active indicator in the master record of the collateral forms its primary risk-reducing effect, and its potential secondary risk display.

Process

The process in which financial objects are selected for the generation of utilizations has three steps (sequence in end-of-day processing):



Step 1:	Selection of the basic data set of financial objects
Step 2:	Reselection of transactions (and, if applicable, facilities) when the system reads the data for collateral

Step 3:	Reselection of facilities when the system reads data for the drawings on a facility
---------	---

i Note

Facilities can currently be used in SEM Banking only. Otherwise, only the first two steps occur in end-of-day processing.

Selection of the Basic Data Set of Financial Objects

Use

When selecting the basic data set, the system takes into account the category of the determination procedure (counterparty/issuer risk or country risk), and the value date you entered.

i Note

The country risk functions are only available in Banking.

Integration

For technical reasons, it is not possible to mix counterparty/issuer risk determination procedures with the country risk determination procedures. Hence the selection follows this pattern:

- Selection criteria for counterparty/issuer risk determination procedures:
 1. a. In the default risk limit part of the financial object, you need to have set the **Counterparty Risk Active** indicator.
 2. b. If the fields **Transaction Start CPR** and **Transaction End CPR** in the financial object are filled, the valuation data must be within this time period (up to and including these dates).
- Selection criteria for country risk determination procedures:
 1. a. In the default risk limit part of the financial object, you need to have set the **Country Risk Active** indicator.
 2. b. If the field **Transaction Start Country Risk** is filled, the valuation date must be the same as, or later than, the date specified in this field. As there is not a **Transaction End Country Risk** field, the system takes the date from the field **Transaction End Counterparty Risk**. You can, for example, enter the end date for the transaction in the country-risk relevant financial object in the field **Transaction End Counterparty Risk**, even though the financial object is not relevant for counterparty/issuer risk. If you specify the transaction end date for counterparty/issuer risk, the system selects the country risk-relevant financial object in the same way as it selects the financial objects relevant for counterparty/issuer risk.

Example

The following table explains the selection criteria:

Valuation date	Transaction start	Transaction end	Counterparty/country risk relevant	Selection
06/30/2001	06/30/2001	10/30/2001	X	Yes
10/31/2001	06/30/2001	10/30/2001	X	No

Valuation date	Transaction start	Transaction end	Counterparty/country risk relevant	Selection
06/15/2001	06/30/2001	10/30/2001	X	No
10/31/2001	06/30/2001		X	Yes
06/15/2001		10/30/2001	X	Yes
10/31/2001			X	Yes
07/01/2001	06/30/2001	10/30/2001		No

Reselection of Transactions

Use

The reselection of transactions is triggered when, during the analysis of collateral items, the basic set of data contains the financial object of a single-transaction-related collateral item but not the financial object of the transaction to which the collateral is assigned. The following conditions apply for the reselection of transactions:

1. The collateral assigned to the transaction must already be in the basic data set.
2. The valuation date must be within the term of the financial object of the transaction. This is because collateral is not effective for a transaction that has already expired.

Only those transactions are reselected that are not in the selected basic set because the field for the counterparty/issuer risk or country risk is inactive.

Example

The following example explains which conditions have to be met in order for the system to be able to reselect a transaction. We assume here that the determination procedure is one relevant for counterparty/issuer risk.

Case	1	2	3	4	5	6	7	8	9

Financial object of the collateral item is activated for counterparty/issuer risk				X	X		X	X	X
Valuation date is within term of financial object					X	X	X	X	X
Collateral is active in the master data						X	X	X	X

Collateral is in the selected basic set							X	X	X

Financial object of the transaction is activated for counterparty/issuer risk	X	X						X	X
Valuation date is within the term of the financial object of the transaction	X		X	X	X	X	X		X

Transaction is in the selected basic set	X								X

Transaction is reselected							X		

As you can see in the table, the reselection of a transaction takes place in case 7 only. This case fulfills all the conditions required for reselection.

Information System

Definition

The information system contains the following functions for displaying and analyzing data:

- [Display Drilldown Report](#)
- [Display Utilizations](#)
- [Extended Reporting for Limits](#) for absolute and relative limits
- [SAP Queries](#)

Displaying Drilldown Reports

Use

You can use the drilldown reports predefined in the system to analyze transaction data without needing to have extensive knowledge of drilldown reporting. Reports OReport01 to OReport03 are based on the form OPattern01; reports OReport01-T to OReport03-T are based on the form OPattern02.

To view all the information about using drilldown, refer to the General Drilldown Manual.

Prerequisites

The predefined reports analyze the limit utilizations of the limit types 001 (company code) and 002 (business partner). These limit types are part of Sample Customizing, and absolutely vital for reports 02 to 03 and 02-T to 03-T. Reports OReport01 and OReport01-T analyze limit utilizations by all limit characteristics.

Procedure

1. Choose ... > Information System > Drilldown Reporting.

The system displays the screen [Execute Limit Report: Initial Screen](#).

2. Choose a report, and confirm with  Execute .

The system then displays the selection screen for the report .

3. Enter the selection criteria you require, and then choose  Execute .

The system displays the overview of the report parameters.

Result

The report delivers the selected limits and utilizations. Undrawn limits are also displayed. These are shown with an amount of 0.00.

Now you can navigate through the various characteristics. Also use the [report-report interface](#), which enables you to drill down to other reports or transactions.

Displaying Utilizations

Use

The two reports [Selection Using All Characteristics](#) and [Selection Using Direct Characteristics](#) enable you to monitor existing limits and their utilizations.

Procedure

Choose ... → Information System → Reporting → Utilizations → Overview: Selection Using All Characteristics or Selection Using Direct Characteristics .



The selection using all characteristics also contains derived characteristics and free (customer-defined) characteristics.

The system displays the screen **Overview of Utilizations - Selection Using all/Direct Characteristics** in which you can enter the following selection criteria:

General Access Options	(Applies for both reports)
Limit type	
Limit currency	Here you specify that limits in a particular currency only are to be displayed.
Determination procedure	

Selection of Utilizations	(Applies for both reports)
Status of limit utilization	Utilizations are calculated in end-of-day processing, and updated online depending on the settings you have made in Customizing. Utilizations contain a relevant determination status, which you can specify here.
Validity date	The validity date specifies when a limit utilization is valid.
Determination date	<p>The determination date is the date on which limit utilization determination was started.</p> <p>Note that the determination date can be different from the validity date.</p> <p>You can also set the Latest Determination per Limit Type indicator to view the latest values. In this case, the system overrides the determination date. Utilizations with a determination date in the future are not displayed.</p>

Selection of limits for the report Selection Using all Limit Characteristics	You can define which limits are selected by specifying the characteristic values of the limit characteristics. The system does not determine derived characteristics. You must therefore enter all the selection criteria you require.
Selection of limits	If you set this indicator and enter a date, the system also displays limits that have not been utilized and that have not yet expired.
Limits without utilizations	
Limits valid from	
Display filter	You can select a predefined display filter .
Direct characteristics	Company code, business partner, limit product group, portfolio, trader, currency as limit characteristic, monitoring unit, and, if you have activated the country risk functions, the internal organizational unit and country for country risk are also available.
Derived characteristics	Country, industry, rating from the business partner, and, if you have activated the country risk functions, the country rating from the country for country risk are also available.
Free characteristics	Free characteristics 01 -15
Generated characteristics	Free characteristics that were generated from the active analysis structure in the Market Risk component and transferred to Limit Management.

Selection of limits for the report Selection Using Direct Characteristics	When you enter direct characteristics, the system automatically determines derived characteristics, free characteristics, and any affiliated business partners, based on the direct characteristics you entered, and for the date you specified. It then displays all the relevant limits.
Display filter	You can select a predefined display filter .
Limit characteristics	<p>Direct characteristics: Company code, business partner, limit product group, portfolio, trader, currency as limit characteristic, monitoring unit, and, if you have activated the country risk functions, the internal organizational unit and country for country risk are also available.</p> <p>Generated characteristics: Free characteristics that were generated from the active analysis structure in the Market Risk component and transferred to Limit Management.</p>
Derived characteristics for	This field specifies for which validity date the system is to determine the derived limit characteristics. If you do not enter a date, the system determines utilizations for all validity dates of the relevant limit utilizations.
Selection of limits Limits without utilizations Limits valid from	If you set this indicator and enter a date, the system also displays limits that have not been utilized and that have not yet expired.

Output Control	(Applies for both reports)
Display currency	The system converts amounts to the display currency that would otherwise be shown in the limit currency.
Rounding factor	You choose the rounding factor if you want the system to display all amounts in thousands, for example.
Warning when limit exceeded	Sets the traffic light to red if an internal limit is exceeded.
Warning when RCP exceeded	Sets the traffic light to red if the risk commitment period stored in the limit is exceeded.
Utilization only on workdays	If you set the Utilization only on workdays indicator, then the system compares the date entries with the factory calendar stored in Customizing.
Display layout	You can use the input help to choose and set the layouts for totals records, single records, grouping levels 1 and 2. Note that you can assign the layouts only to the lists for which they were created.

Exception Reporting Control	(Applies for both reports)
Exceeded limits only	You can define whether the system is to display only exceeded limits, or only exceeded characteristic combinations.
Only exceeded characteristic combinations	



Make use of the option for saving the parameters you entered as a variant. To do this, choose **Goto → Variants → Save as Variant**. You can display the saved parameters again at any time by choosing **Goto → Variants → Get** or by choosing .

Start the report containing your parameters by choosing  **Execute**

The system displays the screen **Overview of Utilizations**. In accordance with your selections, the system displays as header information the selected limit type, and as line information the validity period, the amounts of the internal and external limit, and the utilizations of these limits. A red traffic light is shown if the internal limit is exceeded. A yellow traffic light is shown if the external limit or critical limit usage is exceeded.



You can branch from reporting to the maintenance screen for limits by choosing  **Maintain limit**. You are able to make changes here.

Drilldown options

Grouping reporting	Grouping reporting enables you to break down totals records by any limit characteristic. Using grouping level 1, you can, for example, drill down to one or more limit for a country by business partner. By branching to the second level, you are able to view the individual transactions and their attributable amounts per determination procedure.
Grouping level 1	<p>Grouping level 1 allows you to drill down to the single records by all limit characteristics.</p> <p>Select the entry you want to process and choose  Grouping, level 1.</p> <p>Select the required limit characteristics and choose  Copy.</p> <p>The system displays the drilldown.</p>
Grouping level 2	<p>Grouping level 2 allows you to drill down in the single records by single transactions with attributable amounts shown per determination procedure.</p> <p>Select the entry you want to process and choose  Grouping, level 2.</p> <p>The system displays the drilldown.</p> <p>The second level can also be accessed directly from the totals record list.</p>



From the totals records and from the single utilizations, you are able to branch to the STC logs for transactions imported intraday.

Drilldown to	What you need to know

Business partner	Select a limit utilization and choose Partner details .
Single utilizations	Select a limit utilization and choose Individual utilizations . The system displays the single utilization records.
Calling up the STC log	Select a utilization with status 2 and choose STC log
Customizing	Select a utilization and choose Customizing .

You have other drilldown options from the screen displaying the single records:

Drilldown to	What you need to know
Master data	Select a transaction or a position and choose Master data For transactions, the system displays the underlying transaction. For positions in which a total of position-relevant transactions are based, the system first lists the key figures for issuer risk. Select one of the transactions or a position and then choose Goto → Transaction details again. If you chose a position, the system displays the position object. If you chose a transaction, the system displays the transaction data.
Collateral	Select a transaction or a position and choose Collateral
Calling up the STC log	Select a transaction or a position and choose STC log.
Attributable amount determination	Select a transaction or a position and choose Attributable amount determination. Specify an evaluation type and choose Program → Execute.

Result

The system displays an overview of the limit utilizations in accordance with your selection criteria. You can display more detailed information by calling up the detailed logs.

1

By using user exits you are able to include in the display of utilizations customer-defined fields that can be filled with your own data. This takes place in EXIT-SAPLTBLX-005 and EXIT-SAPLTBLX-006 respectively.



For the limit utilizations overview, and for the administration of the limits, customer exit EXIT_SAPLTBL_002 is included that can prevent a user displaying a particular limit or utilization. You might want to do this for loans to employees, for example. Note that when you use the drill down the system rechecks the authorization.

INCLUDE LXTBL1F02 contains sample coding. You can find a detailed description of the SAP enhancements in the documentation about the [Enhancement Concept](#).



For more information about the formatting of lists, see the documentation about the [SAP List View \(ALV\)](#).

Extended Reporting for Limits

Use

You use this function to calculate the utilizations of absolute and [relative limits](#), and to display these. In this function, the system analyzes data sets stored in the Results Database, and displays the utilizations of the limits for each data set. It selects all the data sets that contain limits that were exceeded.

You can branch from each row in the report to the single transaction display. This means that you can check the book values and NPVs of the transactions, and the utilizations of the limits and the limit ratio for each key date.

Integration

The system calculates the utilizations based on the analysis that you start in the [Portfolio Analyzer](#) component, and the results of these analyses that are stored in the Results Database (RDB).

Prerequisites

You have calculated net present values and book values for selected portfolio hierarchy nodes, and stored the results in the Results Database. For more information, see [Evaluations Using the Results Database](#).

You have created relative and absolute limits. You access the function for doing so by choosing the following path on the [SAP Easy Access](#) screen: **► Accounting ► Financial Supply Chain Management ► Treasury and Risk Management ► Credit Risk Analyzer ► Master Data ► Limits ► Limits**.

Features

The system calculates a utilization indicator, which is defined as follows:

$$\text{Utilization Indicator} = \max(\text{Absolute UI}; \text{Relative UI})$$

where **absolute UI** and **relative UI** are defined as follows:

$$\text{Absolute UI} = \begin{cases} \frac{\text{Limit Utilization}}{\text{Upper Limit}} & , \text{ only Upper Limit given} \\ \frac{\text{Lower Limit}}{\text{Limit Utilization}} & , \text{ only Lower Limit given} \\ \frac{\text{abs}(\text{Limit Utilization} - M)}{\text{Upper Limit} - M} \text{ where } M = \frac{\text{Upper Limit} + \text{Lower Limit}}{2} & , \text{ Upper and Lower Limit given} \end{cases}$$

where the key figures are absolute numbers. The relative UI key figure is calculated using the same formula, but the values used are percentages.

The utilization indicator is defined so that it provides values that can be interpreted, regardless of how the limits are defined. If the limits specified for the absolute and relative limits have not been reached, the value of the utilization indicator is between 0 and 100 percent. If a limit has been reached, the value is 100 percent. If the limits have been exceeded, the value is greater than 100 percent.

If you want to define a lower limit as well as an upper limit, the value of the utilization indicator is 0 percent if the limit utilization is exactly in the middle of the range defined by the lower and upper limit.

Activities

1. On the SAP Easy Access screen choose **Accounting** **Financial Supply Chain Management** **Treasury and Risk Management** **Credit Risk Analyzer** **Information System** **Reporting** **Limits** **Extended Limit Reporting**.

The system displays a selection screen.

2. Specify the limit IDs and the validity period for which you want to display the utilization of the limits. Choose an evaluation type, the display currency, and the layout ID for displaying the data from the RDB.

You can also specify an ALV layout.

3. Choose **Execute**.

The system reads the limit utilizations and limit references from the RDB, converts them to the evaluation currency, and calculates the relative limits and the value of the utilization indicator. It then displays the data sets that were selected in the navigation structure in the left-hand part of the screen.

Action

To display the data choose a row in the navigation structure.

On the right-hand side of the screen the system displays a list that contains the following information:

- **Status**

The status is green if no errors occurred during the calculation process. Else the status is red. The system writes a log of all errors and warnings.

- Limit ID and valid-from date
- Limit utilization (portfolio node, key figure, and amount)

The system displays all currency amounts in the display currency that you specified in the selection screen.

- **Amount of the limit reference (portfolio node, key figure, and amount)**
- Limit ratio (lower and upper limits for the limit utilization for relative limits)
- Upper and lower limit for absolute limits
- Relative limit in percentage
- Utilization indicator in percentage

To display the results at single transaction level, in the right-hand part of the screen double click a row.

The system branches to the [Analyzer Information System](#) and displays the values for the selected portfolio hierarchy node.

Relative Limits

Definition

Relative limits define the minimum or maximum limit utilization as a percentage of a reference limit, such as the book value of a portfolio of transactions.

Use

When you create a premium reserve fund, you may want to restrict the portion of certain product categories in the fund. The portion of each product category in the fund is often restricted in reference to the total investment volume or to certain asset classes. For example, an insurance company can insist that securities comprise a maximum of 30 percent of a portfolio, and that fixed-term deposits represent at least 10 of the portfolio.

In addition to internal limits, there are also legal limits, such as those governing insurance companies' stock investments. Internal limits are usually defined by market values, whereas legal limits are based on book values.

You use relative limits to map these requirements. To create relative limits, on the **SAP Easy Access** screen choose **Accounting** **Financial Supply Chain Management** **Treasury and Risk Management** **Credit Risk Analyzer** **Master Data** **Limits** **Limits** .

To check whether any limits have been exceeded, you use the [extended reporting for limits](#).

Structure

Relative limits are defined as the quotient of the limit utilization and a limit reference. The limit utilization specifies the investments that are to be subject to a limit, and the limit reference is the associated total investment volume. You define both these figures by specifying a portfolio hierarchy node and a key figure.

The nodes in the [portfolio hierarchies](#) are the portfolios that are to be compared. You usually define one portfolio hierarchy for the limit utilization, and one for the limit reference. You can use all the NPVs and book values that you assigned to your portfolio hierarchy as key figures. You can compare the same key figures for different portfolios or different key figures for the same portfolio.

You can define a lower limit and an upper limit for the relative limits. You can also define only one of these limits (either the lower limit or the upper limit). You enter these values as percentages.

SAP Query

Definition

You can use the SAP Query to define reports without having to carry out any programming. You can also include your own data.

Use

In this component you can use the following Queries:

- Overview of limits
- Overview of limit utilizations

You should use the Queries offered here as examples. Alternatively, you can use these reports: [Displaying an Overview of Limits](#), [Displaying Utilizations](#). You can copy these using the standard SAP Query tool by choosing Tools SAP Query, and you can use them as a template for the queries and infosets you define yourself.

Integration

The SAP Query is a standard tool. You can view the documentation about the general usage of SAP Queries in [Query](#).

Tools

Collateral

Use

In the [Default Risk and Limit System](#), certain information about collateral is required to enable the system to calculate attributable amounts correctly, and record secondary risk appropriately. Only collateral data that is relevant for these purposes is entered in the SAP system. Seen from a general business perspective, collateral has far more complex data.

The Default Risk and Limit System distinguishes between the following levels of collateral:

- **Global collateral (not used in TRM Credit Risk Analyzer)**

Global collateral can secure multiple financial transactions, which are defined by assigning the relevant characteristic values. Global collateral reduces the consumption of the [limit](#) for the relevant limit characteristics. This means it affects the utilizations and not the individual attributable amounts.

- **Single-transaction-related collateral**

You assign single-transaction-related collateral to a particular financial transaction. You can assign more than one collateral item to a single transaction. When appropriate, this reduces the attributable amounts.

- **Collateral agreements**

A collateral agreement is a contract agreeing the provision of collateral for trading transactions between two business partners. Collateral agreements reduce risk at the level of the attributable amounts.

Prerequisites

You need authorization object J_B_KLTCOD in order to process collateral (regardless of the level of the collateral). This is contained in authorization profiles F_T_FTLM_ALL and J_B_ISB_ALL.

Integration

General administration of collateral should be done by an external data processing system. To ensure consistent datasets, we recommend that you set up an interface between the SAP Limit System and your collateral management system. You can link the systems by using the RFC-enabled module KLSI01_SI_SAVE_RFC.

You are also able to import collateral using external data transfer (EDT) and transfer category 44. You do this by choosing the following path from the **SAP Easy Access** screen: **Accounting** **Bank Applications** **SEM Banking** **Data Pool** **Tools** **External Data Transfer (EDT)** . For more information about this, see the Implementation Guide under **SAP Banking** **SEM Banking** **Data Pool** **Tools** **External Data Transfer** **General Information** **Transfer Categories** **Transfer Category 044: Collateral Provisions** .

Features

The system can calculate attributable amounts (secondary attributable amounts) for collateral. When collateral is taken into account, the system displays a net attributable amount for the primary transaction, and not a gross attributable amount.

Example

The company Meier's Mill has taken a loan of EUR 100,000. There are 2 single-transaction-related collateral items. The Deutsche Bank provides a guarantee of EUR 80,000. Mr. Meier provides a mortgage (tangible collateral) of EUR 40,000.

Business Partner	Meier's Mill	Deutsche Bank	Mr. Meier
Product	Loan	Guarantee	Land charge
Nominal amount	100,000	80,000	40,000
Priority		1	1
Counterparty exposure (gross) per business partner	100,000	80,000	0 (because of tangible collateral)
Adjustment rate		2/3	1/3
Counterparty exposure (net, secondary)		66,666	0
Counterparty exposure (net, primary)	0		

Processing Single-Transaction-Related Collateral

Use

You assign single-transaction-related collateral to a particular financial transaction.

The system distinguishes between the following collateral value categories:

- Percentual collateralization

- Collateralization using a collateral amount
- Collateralization using securities

You can assign more than one collateral provision to a financial object within a collateral value category. The collateral provisions can then be processed in accordance with the collateral priorities. In the case of **collateral using securities**, only one class per collateral provision is permitted.

Prerequisites

So that single-transaction-related collateral is included in the calculation of attributable amounts, you need to have entered the following settings in Customizing:

- You need to have already created a collateral type. You do this in Customizing under **SAP Banking** **SEM Banking** **Default Risk and Limit System** **Basic Settings** **Master Data** **Define Collateral Type** or **Financial Supply Chain Management** **Treasury and Risk Management** **Credit Risk Analyzer** **Basic Settings** **Master Data** **Define Collateral Type**.
- You need to have already created a collateral priority. You do this in Customizing under **SAP Banking** **SEM Banking** **Default Risk and Limit System** **Basic Settings** **Master Data** **Define Collateral Priority** or **Financial Supply Chain Management** **Treasury and Risk Management** **Credit Risk Analyzer** **Basic Settings** **Master Data** **Define Collateral Priority**.
- You need to have already created a collateral valuation rule. You do this in Customizing under **SAP Banking** **SEM Banking** **Default Risk and Limit System** **Basic Settings** **Definition** **Define Collateral Valuation Rule** or **Financial Supply Chain Management** **Treasury and Risk Management** **Credit Risk Analyzer** **Basic Settings** **Definitions** **Define Collateral Valuation Rule**.

Procedure for Creating Single-Transaction-Related Collateral

1. In the **SAP Easy Access** screen, choose **Accounting** **Bank Applications** **SEM Banking** **Data Pool** **Bank Transactions** **Collateral Provision** **Create** or **Accounting** **Financial Supply Chain Management** **Treasury and Risk Management** **Credit Risk Analyzer** **Tools** **Collateral Provision** **Create**.

The system displays the screen **Create Collateral Provision : Initial Screen**.

2. Enter an **ExternalCollateral ID**, choose the classification **Single-Transaction-Related Collateral** and **Continue**.

Alternatively, you can choose **Copy From...** to copy an existing collateral item.

The system displays the screen **Create Collateral Provision : Overview**.

3. Enter a long name and a short name for the collateral.
4. In the data group **Collateral Classification** specify the **Collateral Value Type** and the **Collateral Type**.
5. You make the connection to the single transaction by specifying the financial object number on the **Assignment** tab page.
6. On the **Administration** tab page, the **Record active** indicator has to be set. This ensures that the collateral provision is included in the determination of attributable amounts. This indicator is set by default. By deselecting this indicator you are then able to delete the collateral provision. Here you can also enter the collateral provider (if the type of collateral is personal) and the priority of the collateral provision.
7. On the tab page **Items**, the collateral value category you chose earlier determines which data you need to enter.

Collateral Value Category	Fields Requiring Entries
Percentual collateralization	Valid from date, percentage (economic and political)
Collateralization using a collateral amount	Valid from date, collateral amount, currency
Collateralization using securities	Valid from date, security ID number, number of units or amount

8. Choose  **Save**.

9. For the primary or secondary risk-reducing effect of the collateral to be taken into account in the attributable amount determination, a financial object for the single-transaction-related collateral item is required. Once you have saved the collateral, if you then choose  **Financial Object** in the application toolbar, you branch directly to financial object creation.

Caution

Note that in the function for maintaining financial objects for single-transaction-related collateral, the system, when selecting data, does not take into account the validity end date stored in the financial object.

Procedure for Changing Single-Transaction-Related Collateral

1. In the SAP Easy Access screen, choose  **Accounting**  **Bank Applications**  **SEM Banking**  **Data Pool**  **Bank Transactions**  **Collateral Provision**  **Change**   **Financial Supply Chain Management**   **Treasury and Risk Management**   **Collateral Provision**  **Change**.

The system displays the screen **Change Collateral Provision**.

2. Enter the **External Collateral ID** and choose  **Continue**.

3. Make the changes required and choose .

4. You can branch directly to financial object maintenance by choosing  **Financial Object**. Note that in the function for maintaining financial objects for single-transaction-related collateral, the system, when selecting data, does not take into account the validity end date stored in the financial object.

Result

If a net determination procedure is used, the single-transaction-related collateral is offset against the attributable amount of the transaction. This therefore reduces the amount of limit utilized. You need to note, however, that tangible collateral does not increase the counterparty/issuer risk of the guarantor, but instead reduces the risk of the primary transaction.

In a [netting group](#), a single-transaction-related collateral item first reduces the positive net present value of the single transaction, and then the add-on. (The reduction by the collateral affects the determination of the net/gross ratio and the total of the single transactions' add-on and, therefore, the netting add-on.)

The attributable amount of the collateral is calculated as follows:

Percentual collateralization	Attributable amount (collateral) = CALCBAS (transaction) x % (collateral)
Collateral amount	Attributable amount (collateral) = collateral amount In the case of risk-adjusted attributable amount determination, the collateral amount is also risk-weighted.

Collateralization using securities	Attributable amount (collateral) = [max (0, NPV s) – nominal amount s x AOF s] x (1 - DEFPROB s)
------------------------------------	---

where:

ABS	absolute amount
CALCBAS	Calculation base
AOF c	Collateral add-on factor
DEFPROBc	Default probability of the collateral

Collateral Agreement

Definition

A collateral agreement is a contract regarding the provision of collateral for trading transactions between two business partners. The agreement involves the transfer of collaterals (usually securities, cash collaterals) as soon as the market value of the trading transactions requiring collateral exceeds a **threshold amount** (ThA). The threshold amount the contract partners grant each other can vary.

Both exposures from open trading transactions and values from collaterals already provided fluctuate, depending on the market. For this reason there must be a comparison of the exposures and the collateral per counterparty or issuer at agreed time intervals (daily, monthly, for example). To restrict transaction costs, additional payment obligations arising from the threshold amount being exceeded do not have to be met immediately on the valuation key date, but rather in phases, each time what is known as the **minimum transfer amount** (MTA) is exceeded.

Caution

The attribution of collateral agreements **only** takes place in [end of day processing](#). The [single transaction check](#) does not support collateral agreements.

Processing Collateral Agreements

Prerequisites

So that collateral agreements are included in the determination of attributable amounts, you need to have defined the following settings in Customizing:

You need to have already defined a netting group, to which the collateral ID can be assigned. You create netting groups in Customizing under  [SAP Banking](#)  [SEM Banking](#)  [Default Risk and Limit System](#)  [Basic Settings](#)  [Definitions](#)  [Define Netting Group](#) , or under  [Financial Supply Chain Management](#)  [Treasury and Risk Management](#)  [Credit Risk Analyzer](#)  [Basic Settings](#) 

In addition, you need to have entered a collateral ID in the default risk data in the financial object.

Procedure for Creating Collateral Agreements

1. In the [SAP Easy Access](#) screen, choose  [Accounting](#)  [Bank Applications](#)  [SEM Banking](#)  [Data Pool](#) 

The system displays the screen **Create Collateral Provision : Initial Screen**.

2. Enter an **ExternalCollateral ID**, choose the classification **Collateral Agreement as Collateral**. Then choose  **Continue**.

The system displays the screen **Create Collateral Provision : Overview**.

3. Enter a long name and a short name for the collateral.

- In the tab page **Contract** enter the netting group in which the transactions of the collateral agreement are to be netted. Also enter the threshold amount and the minimum transfer amount. The system determines the currency of these amounts from the netting group.
- On the **Administration** tab page, you need to set the **Record active** indicator. This ensures that the collateral is considered when attributable amounts are calculated. This indicator is set by default. By deselecting this indicator you are then able to delete the collateral provision.
- On the tab page **Accumulated payments** you can enter the valid from date, amount and currency of the accumulated payments.

4. Choose  **Save**.

Result

If a net determination procedure is used, collateral agreements are offset against the attributable amount, reducing the attributable amounts of all the transactions assigned to a collateral group, and thus reducing the amount of the limit that is utilized.

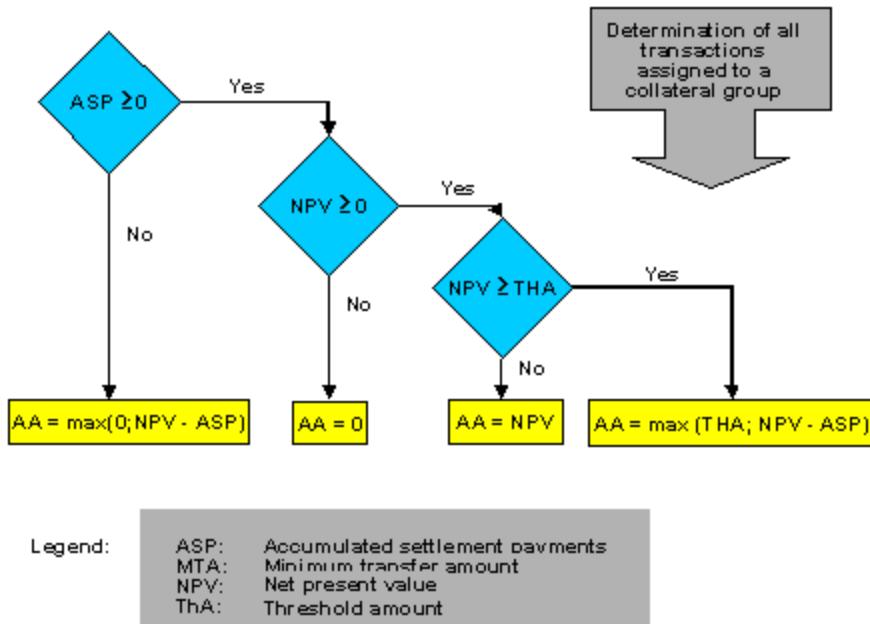
Attributable Amount of a Collateral Group

For single transactions of a netting group that belong to a collateral agreement, the system determines an attributable amount per collateral agreement. The way in which the attributable amount is determined depends on whether risk determination within the netting group takes place in a risk-adjusted or volume-oriented way.

The system determines and shows the attributable amounts individually per collateral group. To obtain the attributable amount for a collateral agreement, in the first step the system calculates the net present value of a collateral group from all the included transactions by totaling all net present values.

Net present value (NPV) = $\sum(PV_i)$

A distinction must be made between the following cases for the determination of the attributable amount of the collateral group. When considering these cases, the threshold amount and the accumulated settlement payments are included:



Depending on the netting group settings, the attributable amount of the collateral group can be additionally weighted with an average default probability.

$$\text{Default probability} = \frac{\sum_{i=1}^n \max(0; NPV_i) \times DEFPROB_i \times (1 - RR_i)}{\sum_{i=1}^n NPV_i}$$

i Note

The add-on of the single transactions is not offset, but displayed in reporting.

Displaying an Overview of Collateral

Use

This evaluation provides you with an overview of stored collateral provisions.

Procedure

1. Choose: Information System Reporting Collateral Overview

The system displays the screen **CreditLimit : Display Collateral Provision**.

1. Enter the selection criteria you require. Your options include:

Layout of Display	In the overview of collateral, you can define a display layout that you can use when you call up the overview at a later point in time.
Selection of Collateral Provision	<ul style="list-style-type: none"> • External Collateral ID • Key Date

Status of Collateral Provision	<ul style="list-style-type: none"> • Active Collateral Provision • Inactive Collateral Provision • All Collateral Provision
Level of Collateral Provision	<ul style="list-style-type: none"> • All • Global Collateral • Single Transaction Collateral • Collateral Agreements
Additional Selection For:	<ul style="list-style-type: none"> • Global Collateral • Single Transaction Collateral • Collateral Agreements

1. Choose .

Result

You receive a list displaying all the selected collateral provisions. Only those items are shown that are valid on the key date you specified.

By double clicking on a row you can branch to detailed information about the collateral.

Note

You can change the layout by choosing . To select from layouts that already exist choose  , and you can save the layout with  . If you define and save your own layout, you can use it in the future by entering it as a selection criterion.

Displaying Change Documents for Collateral

Use

The system logs changes made to collateral in what are called **change documents** . A new document with an internal number is created each time the data for collateral is changed. This function provides continuous logging of all changes.

Note

No change document is generated when the data is initially created.

The following data is recorded in the change documents:

- Document number (internal number assignment)
- Changed by (name of the user)
- Date and time of the change

- Category of the basic key figure
- Key figure valid from: If you change an item , the valid from date is recorded. For changes to all other data, this field shows its initial value.

Procedure

1. You do this by choosing the following path from the SAP Easy Access screen: Accounting Bank Applications SEM Banking Data Pool Bank Transactions Collateral Provision Change.

The system displays the screen **Change Collateral Provision**.

2. Select the collateral item you require and choose **Continue**.

The system displays the screen **Change Collateral Provision**.

3. Choose **Goto** **Change Documents**.

Result

The system displays a list of change documents.

By choosing **Line Items** you can view the following information for each change document:

- The technical name of the field whose data was changed
- A description of the changed field
- The old and new values of the field
- The type of change

Reservations

Use

The reservation function enables you to reserve a free limit for a certain period. The attributable amounts can either be calculated by using basic key figures, or entered with the reservation.

You can store a note by choosing **Edit Note**. For more information about notes see .

Prerequisites

There is an authorization object especially for the maintenance of reservations: F_T_VTBLR.

Integration

Reservations are taken into account both during the single transaction check and in end-of-day processing.

i

To simplify the creation of reservations, in Customizing you can store default values (in particular the default risk rule) for reservations. In Customizing choose → **Limit Management** → **EnterBasic Settings for Limit Management**.



If you are using [24-hour capability](#), you can still use the reservation function whilst end-of-day processing is running, or during a single transaction check.

Activities

Creating Reservations

Choose ... → **Master Date** → **Reservations** → **Create**.

When you create a reservation, you have to choose between entering the attributable amount directly or letting the system calculate it using the basic key figures.

Entering Attributable Amounts Directly

Reservation ID	The number is assigned automatically
Name	Free text
Search term	Free text
Reservation Data	
Effective from	Today's date
Valid to	Expiry date of the reservation.
Limit Characteristics	The reservation is applied to all limits that correspond to the characteristic values entered here, and to the determination procedures.
Administrative Data	
Deletion Flag	If you set this indicator, the reservation will be ignored the next time utilizations are generated, and it will not be taken into account in the current day balance (status 2).
Attributable Amounts	
Determination Procedure	The determination procedure defines which limit types are affected by a utilization.
Validity Date of Utilization	This field is filled only for determination procedures that take account of settlement risks. Leave the field blank for credit risks, as the most recent determination date is used as the default value.
Reservation Amount	Attributable amount of the reservation
Reservation Currency	Currency of the reservation amount

Choose **Save** to save your entries. Before you save, you can choose **Check** to check the reservation against the relevant limit.

Using Basic Key Figures to Calculate Attributable Amounts

Reservation ID	The number is assigned automatically
Name	Free text
Search term	Free text
Reservation Data	
Counterparty risk active (CP Risk Active) or Country Risk Active	By setting the CP Risk Active or Country Risk Active indicators, you define whether the transaction is relevant for counterparty/issuer risk or country risk. (The country risk functions are available in Banking only.)
Default Risk Rule	Default value for the default risk rule. This can be overwritten.
Validity Period	<p>Effective from : Today's date</p> <p>Valid to : Expiry date of the reservation.</p>
Date Fields	<p>Start of Original Term : Enables the reservation to be applied to the correct maturity band, and is based on the underlying transaction.</p> <p>End of Original Term : Enables the system to derive the remaining term and the original term. Is based on the underlying transaction, and ensures that the reservation is applied to the correct maturity band.</p> <p>Date for Market Value Change Period : The market value change period is the time period applied in the valuation of trading transactions to calculate the potential change in the market value of the transaction. The market value change period is the difference between the base date and the valuation key date.</p>
Limit Characteristics	The reservation is applied to all limits that correspond to the characteristic values entered here, and to the derived determination procedures.
Basic key figures	Using your entries (default risk rule, limit characteristics) the limit system checks which basic key figures are needed to calculate the various attributable amounts. These entries are required entries.
Country risk information	If you set the country risk indicator, you need to make some settings in the Country Risk Information area.
Generated characteristics	You can edit the values for the generated characteristics here.
Administrative data	
Deletion flag	If you set this indicator, the reservation will be ignored the next time utilizations are generated, and it will not be taken into account in the current day balance (status 2).
Attributable amounts	The system automatically fills the fields for the attributable amounts.
Determination procedure	The determination procedure defines which limit types are affected by a utilization.
Validity date of utilization	This field is filled only for determination procedures that take account of settlement risks. The field remains blank for credit risks.

	as the most recent determination date is used as the default value.
Reservation amount	Attributable amount of the reservation
Reservation currency	Currency of the reservation amount

Choose **Save** to save your entries. Before you save, you can choose **Check** to check the reservation against the relevant limit.

Changing Reservations

Choose ... → **Master Date** → **Reservations** → **Change**.

Enter the reservation ID and choose **Enter**.

Overwrite the existing entries, and then choose **Save** to save your changes.



You need to set the deletion flag so that the reservation is ignored the next time the system generates the utilizations. To do this, set the flag in the **Administrative data** area. If the flag is set, you can delete the reservation in Customizing by choosing... → **Limit Management** → **Reorganization** → **DeleteReservations**

Displaying Reservations

Choose ... → **Master Data** → **Reservations** → **Display**.

Enter the reservation ID and choose **Enter**.

You can display the existing entries.

Collective Processing

To ensure efficient processing of more than one limit, you can use collective processing for the functions described above. Choose ... → **Master Data** → **Reservations** → **Collective Processing**.

Once you have created/changed/displayed the reservations as required, you can use the following additional functions:

Copy reservations by choosing **Copy**.

Extend reservations using **Extend**.

Enter notes using **Notes**.

Change Documents

The system keeps a record, in the form of a change document, of all changes made to reservations.

You can view change documents either for each reservation ID in display/change mode, or by using a report:

In change/display mode: **Reservations** → **Change Documents**.

Report: **Information System** → **Reporting** → **Reservations** → **Display Changes**. In this report, you can select your reservations by the reservation ID (range), the date on which the last change was made, and the user who last changed the reservation. You display the reservations by choosing **Execute**.

Field Selection Control

Use

The field selection control allows you to control fields in certain applications in Limit Management and Reporting according to the field status.

Before you can stipulate the field status of a certain field, you first need to make an entry in the maintenance table in Customizing for each application, limit type, and mode.

Activities

In Customizing choose → **Limit Management – Field Selection Control**.

The system displays the screen: **Change View " Maintenance View for Field Selection Control for Limit Types"**.

To enter the following data, choose **New entries**:

Limit type (LT)	An entry in the field selection control table applies to a certain limit type.
Program name	The settings apply to a particular application. For the following programs, you can control fields by their status: RFTBLE01 Report: Overview of Utilizations – Selection Using Direct Characteristics RFTBLE02 Report: Overview of Utilizations – Selection Using All Characteristics RFTBLL01 Report: Overview of Limits SAPLTBL1 Limit Maintenance: Overview SAPLTBL1 Limit Maintenance: Details (screen 1010) SAPLTBL10 Report: Utilizations - Single Records SAPLTBL10 Report: Utilizations - Grouping Level 1 SAPLTBL10 Report: Utilizations - Grouping Level 2
Table name	Name of the table containing the field you want to control
Field name	Name of the field you want to control. (The field is entered automatically when you select the table/field)
Mode description	The mode specifies whether the field is set up for 1 = Display mode 2 = Maintenance mode. If you want to control the field status for both modes, you need to define them both separately.
Possible field modes	Undefined = Default setting Optional entry = Field is ready for data entry Required entry = Field is ready for data entry and must be filled Hide = Field is hidden in the application



If you define the field selection control for a report by specifying a program name, then the settings you make here apply only if the report is run just for this particular limit type.

Choose to save your settings.

Parallel Processing Control

Use

This function allows you, as you require, to distribute to several different servers the evaluations in Market Risk Analysis, the simulations of the Strategic Analyzer, and all reports on utilizations (in end-of-day processing) in the Default Risk and Limit System. This increases the efficiency of your system.

i Note

When parallel processing control is active, no detail log is generated for those single value analyses that generate logs.

Prerequisites

You need to have already activated one or more servers for your SAP system. You can display a list of servers under **Tools > Administration > Administration > Network > RFC Destinations** under **Internal connections**. Choose **RFC > RFC groups** to be able to bundle the servers into groups.

Activities

1. Enter your user name and the evaluation type (field ET).
2. Set the indicator **Multi-tasking** to active.
3. Specify the **Package size**.
4. In the field **Max no. tasks**, you can restrict the burden for each server group.
5. In the **Server group** field, enter a group of servers that you want to use to process the tasks of the evaluation in parallel.
6. Choose  **Save**.

i Note

You can display the active servers of your SAP system and the tasks that are currently running on them under **Tools > Administration > Monitor > System Monitoring > Servers**. For further information see also: [Displaying the Status of the Application Server](#).

→ Recommendation

If you use the Default Risk and Limit System, read the section .

Archiving Limits and Limit Utilizations

Use

When Limit Management is used in your productive system, over time a great deal of data is saved. To avoid evaluations from being slowed down by excessively large volumes of data, you have the option of deleting limits and utilizations from the system.

However, you can delete this data from the system only if it has been archived, meaning it has been copied to an external memory.

It is possible to reload archived and deleted data in another step.

Prerequisites

Data to be archived already exists in the system:

[Limits](#)

[Limit utilizations](#)

Procedure

Archiving is a standard application that is used for numerous SAP applications.

Choose .. → **Tools** → **Reorganization Tools** → **Limit Management: Archiving**.

The system displays the screen **Archive Administration: Initial Screen**.



The relevant object name for this component **TRTM_LM** (TR Limit Management: Limits, Utilizations) is already entered.

Archiving

In the **Actions** area, choose **Write (Schedule Writing)**.

The system displays the **Archive Administration : Create Archive Files** screen.

Enter a name for your variant and choose **Maintain**.



You have to maintain separate variants for test runs and update runs. Using the input help, you can reuse or change variants that have already been created.

Go to the next input screen by choosing **Continue**.

In the selection screen **Maintain Variant: Report RFTBARC1, Variant xy**, you have several options for selecting the data that is to be archived: For more information see the report documentation.

If you want to carry out an update run, remove the indicator from the **Test Run** field. Enter an additional comment for the archive.

Choose to save your variant. Then choose to return to the **Archive Administration: Generate Archive Files** screen.



If you create a new variant, you have to enter and save an additional description of the variant.

Enter the start date. Here you have the following options:

Start archiving immediately

Start archiving on/at a certain date/time

Start archiving directly after another job

Start archiving after a specified event

You also have the option of archiving data periodically.

Then choose  to save your entries.

Enter the spool parameters.

Here you specify the printer for the data that is to be printed. Then confirm your entries with  **Continue**.

Start the archiving run with  **Execute**.

Once you have started the archiving run, by choosing the pushbuttons  **Job Overview** and  **Refresh**, you can monitor the status of the job and also review the **Job Log**.



You can also call up the log of archived objects by choosing  **Spool** and then  **Display**. You can display the data in the following formats:

Graphical

Raw

Hexadecimal



In the same way you can view message texts by choosing  **Job log**.

Managing Archiving Runs

Choose the **Administration** pushbutton to display all the archiving runs created so far. The individual runs are sorted by their status:

Incomplete: Objects have been archived

Complete: Objects have been archived and deleted

Incorrect: Errors occurred during archiving - postprocessing is necessary



You cannot use the **Delete** and **Reload** functions until all the data has been archived.

Deleting Archived Data

For information about deleting archived data see the report documentation for report RFTBARC2.

Reloading Archived Data

For information about reloading archived data see the report documentation for report RFTBARC3.

Result

The archiving process copies the selected data to an external memory. However, the data still exists in the limit system.

In the deletion process, the data that is already archived is deleted from the limit system.

In the reloading process, the selected data is restored to the limit system.



For more information about archiving, refer to the documentation [CA - Archiving and Deleting of Application Data](#). For viewing archived data you can use the [archived information system](#). The system contains the following archived information structures: SAP_TRTM_LM_EXP and SAP_TRTM_LM_LIM.

Financial Objects

Use

Once you have saved the master data for a bank transaction, further information must also be saved in order to use the SEM components of **SAP Banking**. You enter this data in the **financial object**. The financial object acts as a link between the respective bank transaction and the valuation routines required for **SAP Banking**.

Structure

A bank transaction's financial object contains all of the information necessary for the implemented SEM components. The following entry screens exist:

- **General Part**

On this screen, you enter the general information for a financial object. This information is relevant to **all** SEM components.

- **Profitability Analysis**

On this screen, you enter the financial object information that relates to the **Profitability Analysis** component.

- **Analysis (RM)**

On this screen you enter financial object data that are relevant for the components **Market Risk Analysis** and **Asset Liability Management**.

- **Default Risk and Limit System**

On this screen, you enter the financial object information that relates to **Default Risk and Limitation**.

- **External Key Figures**

External key figures are items of information that you can store in the SAP system for further calculations. They take the form of amounts, quantities, or percentages. The key figures themselves are not calculated in the SAP system.

External key figures are currently only used in the components **Default Risk and Limit System** (for determining the settlement amount) and **Asset Liability Management**.

As a prerequisite for this, you must have stored the customer-specific key figure categories (customer name space Y or Z) needed to store the customer-specific key figures. You can do this in Customizing under **SAP Banking** **SEM Banking** **Data Pool** **Define External Key Figures**.

- **Additional Data**

The object number for financial transactions is displayed as additional data.

Prerequisite

Before you can create a financial object for a bank transaction, you must have created the [master data](#) for that bank transaction.

Editing Financial Objects

1. In the **SAP Easy Access** menu choose **Accounting** **Bank Applications** **SEM Banking** **Data Pool** **Edit Financial Object**.
2. Use the selection options on the initial screen to identify the bank transaction (single transaction or single position) upon which the financial object is based.
3. Enter the **Company Code** for which the bank transaction was created.
4. Select the contract type of the bank transaction and enter a key in the corresponding field that will uniquely identify the master data of the bank transaction. The key can be one of the following:
 - Account number for account transactions
 - Contract number for loan transactions
 - Order number for security transactions
 - Financial transaction number for derivative, money market and forex transactions
 - Position number for positions (such as securities positions, forex positions, and listed derivative positions)
 - Balance sheet item number for non-interest-bearing positions
 - Service number for services
 - Account number for a BCA account
 - Transaction number of a variable transaction
 - Transaction number of a generic transaction
 - Position number of a fictitious/simulated transaction position
 - External facility ID for a facility
 - External security ID for a security

- ID number and securities account of a securities account class position
- ID number and securities account of a class position in a futures account
- ID number of non-interest profit and loss item

5. Choose **►Financial Object ► Create ▶**.

i Note

When you create a financial object in the system, it is automatically assigned a financial object number.

6. **Enter general details about the master data (represented by the original key) on the General Part screen .**

- a. Enter the source system.
- b. For securities transactions, forex transactions, and transactions with listed derivatives (single transactions only), choose **Additional Data to enter the reference price required for calculating the trading terms contribution within the Single Transaction Costing component**.

7. Create a Profitability Analysis part, analysis parameters and/or default risk and limit data for the financial object depending on how you want to use it.

8. Save your entries.

i Note

When you create financial objects for loan transactions, **cash flows** are generated (commitment cash flow and possibly rollover cash flows). Cash flow generation is triggered when you save the financial object. Before saving, make sure that you have entered all the information for the loan transaction.

i Note

You can delete financial objects for variable transactions, loans and accounts using particular programs. For more information, see the following units:

Creating Data for Default Risk and Limit

Choose **Default Risk Limit**.

Set the indicator **Counterparty/Issuer Risk Active (CP Risk Active)** or **Country Risk Active**, so that an attributable amount is calculated for the transaction.

Enter the following limit characteristics:

Limit Product Group (the limit product group you enter here overwrites the default limit product group.)

Monitoring Unit (freely definable reporting characteristic)

Rating (the rating you enter here overwrites the rating for the business partner, but this is not the case for the integrated external business partner).

Enter the following evaluation parameters:

Default Risk Rule (the default risk rule you enter here will override the one set in Customizing).

Recovery Rate

Enter the following netting information:

Netting ID or

Collateral ID

Transaction Start CPR: Start of validity of transaction for Counterparty/Issuer Risk

Transaction End CPR/CR: End of validity of transaction for Counterparty/Issuer Risk and Country Risk

Transaction Start CR: Start of validity of transaction for country risk



As there is no separate field for the transaction end date for country risk, the system takes the date from the field **Transaction End CPR/CR** as the end date for the country risk as well. Therefore, when you create financial objects that are relevant for country risk, ensure that you enter the end date in field **Transaction End CPR/CR**, even if the financial object is not relevant for counterparty/issuer risk.

If you are using generated characteristics, you must maintain them in the analysis (RM) part of the financial object. To do this, return to the screen **Process Financial Object: General Part** and choose **Analysis (RM)**.

Result

In the next end-of-day processing run, the system calculates an attributable amount for the transaction to which you assigned this financial object.



External transactions do not have to be assigned a financial object in order for them to be taken into account when the attributable amount is calculated.

Automatic Integration of Financial Objects

Use

In the automatic financial object integration (FO Integration) function, you can enter financial object data manually when you create the master data, or let the system derive the financial object data. You can use this function when you create the data for the transactions given below. The following rules apply:

- **Group 1**
 - BCA account
 - Variable transactions (applies for the **SAP Banking** application component only)
 - Generic transactions
 - Facilities in SAP Banking

You can generate the relevant parts of the financial object (analysis parameters, profitability analysis, default risk and limit, external key figures) as tab pages. You can fill these in when you create transactions. You cannot create the **Profitability Analysis** tab page for facilities.

- **Group 2**

- Loan transactions
- Money market transactions
- Foreign exchange transactions
- OTC derivatives
- Securities and listed derivatives
 - Securities account class position
 - Futures account class position
 - Security transactions

The tab pages **Analysis Parameters**, **Default Risk Limit** (not for futures account class position) and **Profitability Analysis** (not for securities account class position and futures account class position) are created for each company code.

Prerequisites

Group 1:

To be able to use financial object integration, you must have set the **FO Integration Active/Component Active** indicator for each transaction type (BCA account, variable transaction, generic transaction, facility) in Customizing under **Activate/Deactivate Automatic Financial Object Integration**. In Customizing, choose:

► SAP Banking ► SEM Banking ► Profitability Analysis ► Single Transaction Costing ► Automatic Integration of Financial Objects in Transaction Master Data or

► SAP Banking ► SEM Banking ► Common Settings for Market Risk and Asset/Liability Management ► Automatic Integration of Financial Objects in Transaction Master Data or

► SAP Banking ► SEM Banking ► Default Risk and Limit System ► Basic Settings ► Automatic Integration of Financial Objects in Transaction Master Data or

► Financial Supply Chain Management ► Treasury and Risk Management ► Basic Analyzer Settings ► Automatic Integration of Financial Objects in Transaction Master Data ► Other Transactions or

► Financial Supply Chain Management ► Treasury and Risk Management ► Credit Risk Analyzer ► Basic Settings ► Automatic Integration of Financial Objects in Transaction Master Data ► Other Transactions

and then

► BCA Account ► Activate/Deactivate Automatic Financial Object Integration

► Variable Transaction ► Activate/Deactivate Automatic Financial Object Integration

► Generic Transaction ► Activate/Deactivate Automatic Financial Object Integration

► Facilities ► Activate/Deactivate Automatic Financial Object Integration

The system generates the relevant parts of the financial object (analysis parameters, profitability analysis, default risk and limit, external key figures) as tab pages for the activated components. If at least one component is active, the system automatically sets the general part of the financial object and the tab page for the external key figures to **active**.

i Note

For BCA accounts, you can activate automatic financial object integration separately for each bank area and product type.

Group 2:

To be able to use financial object integration, the **Component Active** indicator must have been set in Customizing for the individual transactions and the selected components. In Customizing, choose:

► SAP Banking ► SEM Banking ► Profitability Analysis ► Single Transaction Costing ► Automatic Integration of Financial Objects in Transaction Master Data or

► SAP Banking ► SEM Banking ► Common Settings for Market Risk and Asset/Liability Management ► Automatic Integration of Financial Objects in Transaction Master Data or

► SAP Banking ► SEM Banking ► Default Risk and Limit System ► Basic Settings ► Automatic Integration of Financial Objects in Transaction Master Data or

► Financial Supply Chain Management ► Treasury and Risk Management ► Basic Analyzer Settings ► Automatic Integration of Financial Objects in Transaction Master Data or

► Financial Supply Chain Management ► Treasury and Risk Management ► Credit Risk Analyzer ► Basic Settings ► Automatic Integration of Financial Objects in Transaction Master Data ► Other Transactions

and then

► Loans ► Activate/Deactivate Automatic Financial Object Integration

► Foreign Exchange ► Activate/Deactivate Automatic Financial Object Integration

► OTC Derivatives ► Activate/Deactivate Automatic Financial Object Integration .

► Money Market ► Activate/Deactivate Automatic Financial Object Integration

► Securities and Listed Derivatives ► Activate/Deactivate Automatic Financial Object Integration (not for profitability analysis)

i Note

You can activate automatic financial object integration separately for each company code and product type for the following transactions:

Loan transactions

Money market transactions

Foreign exchange transactions

OTC derivatives

The company code can also be used for class positions in securities accounts and class position in futures accounts.

Groups 1 and 2:

If you want the system to derive the financial object data, instead of the user entering the data manually, you have to define [derivation strategies](#). Derivation strategies describe what information needs to be derived from the transaction master data.

Features

If you have activated automatic financial object integration for a particular component, when you maintain the transaction data for that component, the system provides online entry screens in which the financial object data can be entered or derived using the relevant derivation steps from Customizing.

i Note

The following information applies to the transaction forms 'option spread' and 'currency option.' You must generate two financial objects for these transactions. There is therefore no interface for these transactions, and the system does not check the data before it is saved.

When you save the transaction, the system checks the information in the various parts of the financial object. If one of the financial object parts **contains errors**, the system reacts in one of the following ways, depending on the Customizing setting:

- The master data cannot be saved, so neither the transaction itself nor the financial object with the components activated for automatic FO integration are saved on the database. This is the case if the function for the automatic integration of financial objects is **fully active**.
- The master data can be saved, but the financial object part that contains errors is not saved. If all the components activated for automatic FO integration contain invalid data, the general part of the financial object is not saved on the database either. This is the case if the function for the automatic integration of financial objects is **partially active**.

The following table shows the system's responses by taking the transaction category **Generic Transaction** as an example:

Case 1: Automatic FO integration is active only for component X

Customizing Settings			Is the data saved on the database?		
Automatic FO integration active	System reaction when there are errors	Status of data	Generic transaction	General part of FO	Part for component X in FO
Component X	Data cannot be saved(completely active)	X data correct	Yes	Yes	Yes
Component X	Data can be saved without the data of the part for component X (partially active)	X data correct	Yes	Yes	Yes
Component X	Data cannot be saved(completely active)	X data contains errors	No	No	No
Component X	Data can be saved without the data of the part for	X data contains errors	Yes	No	No

	component X (partially active)			
--	-----------------------------------	--	--	--

Case 2: Automatic FO integration is active for component Y as well

Customizing Settings			Saved to Database:			
Automatic FO integration active	System reaction when there are errors	Status of data	Generic transaction	General part of FO	Part for component X in FO	Part for component Y in FO
Component X	Data cannot be saved(completely active)	Y data contains errors	No	No	No	No
Component X	Data can be saved but without the data of the part for component Y (partially active)	Y data contains errors	Yes	Yes	Yes	No
Component X	Data cannot be saved(completely active)	X data contains errors	No	No	No	No
Component X	Data can be saved without the data of the part for component X (partially active)	X data contains errors	Yes	Yes	No	Yes

Consequences

If financial object integration is active for a transaction category, this changes the way in which the system derives characteristics for the Market Risk Analysis and Default Risk and Limit System components. See [Editing Characteristic Derivations](#).

Control Parameters

Use

In the Default Risk and Limit System, the default risk rule and the limit product group are derived. If you use integrated financial object maintenance, the system also derives the setting for the "Counterparty/issuer risk active" (SARAKT) indicator. If you are using the country risk functions, the system is also able to derive the CEQ class, LEQ class and the transaction start date for CL country risk (DLRBFG).

i Note

The country risk functions are available in Banking only.

You define derivation strategies in Customizing. In the Default Risk and Limit System, a distinction is made between the following derivation strategies:

Types	Customizing (strategy maintenance)
Type 1	... ► Basic Settings ► Derive Default Risk Control Parameters ▶
Type 2	... ► Basic Settings ► Automatic Integration of Financial Objects in Transaction Master Data ▶

The system applies the following derivation types depending on the context:

- **Non-Integrated Financial Object Maintenance**

Type 1 derivation is used. If financial object integration is set to active, no derivation occurs for the active object categories.

- **External Data Transfer**

► Type 1 derivation is used if financial objects are transferred. However, instead of transferring financial objects by EDT, you can generate them by using a generation report. In this case Type 2 derivation is used. You can use generation reports for loans, class positions in securities accounts, and money market, foreign exchange, and derivative transactions. You find generation reports by choosing... ► Tools ► Reorganization Tools ► Financial Object ► Financial Object Integration. In the same way... ► Tools ► Reorganization Tools ▶ you can also find reports for changing financial object data.

- [Automatic Financial Object Integration](#)

Type 2 derivation is used.

- **Mass Processing of Financial Objects**

- Type 1 derivation is used.

► You access mass processing of financial objects using Type 1 derivation in SEM Banking by choosing ► Tools ► Reorganization Tools ► Financial Object ► Non-Integrated Processing of Financial Objects ► Process Financial Objects (Counterparty/Issuer Risk) ▶ or Process Financial Object (Country Risk) ; and in CFM by choosing ► Tools ► Reorganization Tools ► Financial Object ► Maintain Financial Objects ► Edit Financial Objects ▶ . In the selection screen, those transactions are hidden for which financial object integration is set to active. By choosing Selection using FO Numbers, you can use Type 1 derivation for all transactions.

- Type 2 derivation is used.

► You access mass processing of financial objects using Type 2 derivation by choosing ► Tools ► Reorganization Tools ► Financial Object ► Financial Object Integration ▶ .

Prerequisites

To be able to define derivation strategies you need authorization object J_B_KLCUS1. This is contained in authorization profile F_T_FTLM_ALL, which in turn belongs to profile J_B_ISB_ALL.

Integration

If the derivation strategy is activated, the control parameters for TR-TM transactions, BCA accounts and variable transactions are derived by means of the strategy only. Derivation using the derivation strategy takes place in external data transfer (Type 1), manual creation of the financial object (Type 1) and integrated financial object maintenance (Type 2).

i Note

For a detailed description of the derivation tool, refer to the documentation of the CO-PA (Profitability Analysis) component: [Derivation Types](#) .

Reorganization Tools

Use

The reports described below as reorganization tools are used to ensure that data in the data pool for the risk analysis evaluations is consistent. You can find all the reorganization tools in the menu for the Default Risk and Limit System by choosing **Tools > Reorganization Tools > Financial Object**.

Features

The following functions are available:

Menu Path	Function and tips for using the function
►Non-Integrated Processing of Financial Objects > Process Financial Objects (Counterparty/Issuer Risks) ▶ and Process Financial Object (Country Risk)	<p>You use this report to process a large number of non-integrated financial objects. It contains the programs for processing financial objects relevant for counterparty/issuer risk (report KLMASSUPD) and those relevant for country risk (report KLGPUPDLR).</p> <p>i Note</p> <p>For more information about the transactions, see Additional Notes on the Mass Processing of Financial Objects.</p> <p>A type 1 derivation takes place.</p> <p>The following functions are provided:</p> <ul style="list-style-type: none"> • Save: The system reads the financial objects from the database and saves them again. In doing so, derivations are re-run if appropriate. • Activate limit part: The same as when saving, but the limit part is activated in addition. • Deactivate limit part: The same as when saving, but the limit part is deactivated in addition. • Check: The system checks the consistency of the selected limit parts. No changes are made on the database.
►Non-Integrated Processing of Financial Objects > Display Logs ▶	<p>Overview of the logs for the non-integrated generation of financial objects.</p>
►Financial Object Integration > Generate Financial Objects for Loans, Class Positions in Securities Accounts ▶ and Financial Transactions	<p>You use this report to generate financial objects for transactions that already exist in the system.</p> <p>A type 2 derivation takes place.</p>
►Financial Object Integration > Edit Financial Objects for Loans, Class Positions in Securities Accounts ▶ and Financial Transactions	<p>Using this report you can save the generated financial objects of more than one transaction, and activate, deactivate or check the financial objects. A type 2 derivation takes place.</p>
►Financial Object Integration > Financial Object Integration: Postprocessing ▶	<p>You can branch directly from postprocessing to the transaction (loans, financial transactions) or to financial object maintenance (class positions in securities accounts) in order to make the relevant corrections.</p>
►Financial Object Integration > Financial Object Integration :Logs ▶	<p>Overview of all logs that were created during the integrated generation of financial objects.</p>

Menu Path	Function and tips for using the function
 Financial Object Integration  Update Financial Objects for Generic Transactions 	<p>You use this report to update the financial objects for multiple generic transactions.</p> <p>For example, you use this function to modify the financial objects of generic transactions in a mass run after you have changed the derivation strategies that you use in the automatic integration of financial objects.</p> <p>You can use this transaction to select generic transactions by their internal and external numbers, change date, and the name of the user who last changed them. You can use the test run to check whether the financial objects would be updated correctly. The system creates an application log that contains the financial objects that are incorrect.</p>

Archiving

Purpose

You can use this process to archive data of implemented archiving objects in which the structure and composition of the data to be archived is specified. In doing so, the data is replicated, after various checks, to archived data external to the SAP System. Finally, a test read of the archived data is made and, if successful, the data is removed from the database in the working system. Data archiving is required to meet the following objectives:

- Reduction of the system load on the server
- Minimization of the total amount of data
- Minimization of index trees
- Minimization of amounts selected in queries
- Optimization of buffer load
- Minimization of number of hits
- Avoidance of override mechanisms
- Minimization of network load

In the context of SEM Banking, data archiving is enabled for the following **archiving objects**:

Archiving objects in SEM Banking

Technical Name	Archiving Object	Parallel Processing
JB_COLL	SEM Banking: Global Collateral	X
JB_FCTY	SEM Banking: Facilities	X
JB_FOBJ	SEM Banking: Financial Object	X
JB_FOCF	SEM Banking: Financial Object - Cash Flows	X
JB_GETR	SEM Banking: Generic Transaction	X

Technical Name	Archiving Object	Parallel Processing
JB_GPAN	SEM Banking: GAP Analysis	X
JB_GPTP	SEM Banking: Opportunity Interest Rates from GAP Analysis	X
JB_GTVS	SEM Banking: Generic Transaction - Versions	X
JB_LOAN	SEM Banking: Loans Data Pool	X
JB_VTBA	SEM Banking: Generic Transaction - Balances	X
JB_VTMD	SEM Banking: Generic Transaction - Master Data	X
JB_VTTO	SEM Banking: Generic Transaction - Turnover	X
COPA1_*	Costing-Based CO-PA, Operating concern*	
RDBRA_REC	SEM Banking+TRM: RDB Risk Analyzer Individual Records	
RM_SVSTATE	SEM Banking+TRM: Risk Management Data Pool Statuses	
RM_BDS	SEM Banking+TRM: RM Report Data Memory	
TRTM_LM	SEM Banking+TRM: TR Limit Management - Limits, Utilizations	

Prerequisites

In Customizing, under **SAP Banking** **SEM Banking** **Data Pool** **Tools** **Archiving** or **Parallel Processing** you have made the necessary settings:

- Archiving** **Maintain File Names and Paths Across All Clients**:

You must have maintained the path and the convention for forming archive file names for each archiving object using the FILE basic settings (logical file path and file names).

- Archiving** **Edit Basic Settings for Archiving Objects**:

You must have maintained the archiving objects fully in the AOBJ basic settings.

- Archiving** **Archiving with Parallel Processing** **Create Number Range for Activity Log**
- Archiving** **Archiving with Parallel Processing** **Use Global Archiving Control**
- Archiving** **Archiving with Parallel Processing** **Use Global Archiving Control**:

You have maintained the global control of archiving and the check table for the global control for all implemented archiving objects.

- Archiving** **Archiving with Parallel Processing** **Define Residence Time for...**:

You have maintained the residence periods for the archiving objects in the object-specific Customizing settings.

- ▶ **Parallel Processing** ▶ **Maintain Job Distribution:** ▶

You have maintained the **job distribution for parallel processing** for the application types assigned to the archiving objects.

You are authorized to perform the archiving process. The system checks authorization object **S_ARCHIVE** for all activities

Process Flow

i Note

Note that the following process applies only to **archiving objects with parallel processing**.

The archiving process is scheduled via the normal SAP job control. This can be executed by using SM36 or archive administration SARA. The archiving process is designed in such a way that it can run in parallel with the productive operations. The archiving process basically consists of three subprocesses: Analysis, Write, and Delete. These are linked together in the standard setup. Both the Analysis and Write subprocesses are processed in parallel using the parallel processing tool. This is done by forming suitable data packages that are then processed in parallel by different package administrators (jobs).

All subprocesses flag their activities in the archiving activity log, which can be displayed using the monitoring program. The monitoring program is the central tool for monitoring and logging archiving runs.

1. Analysis

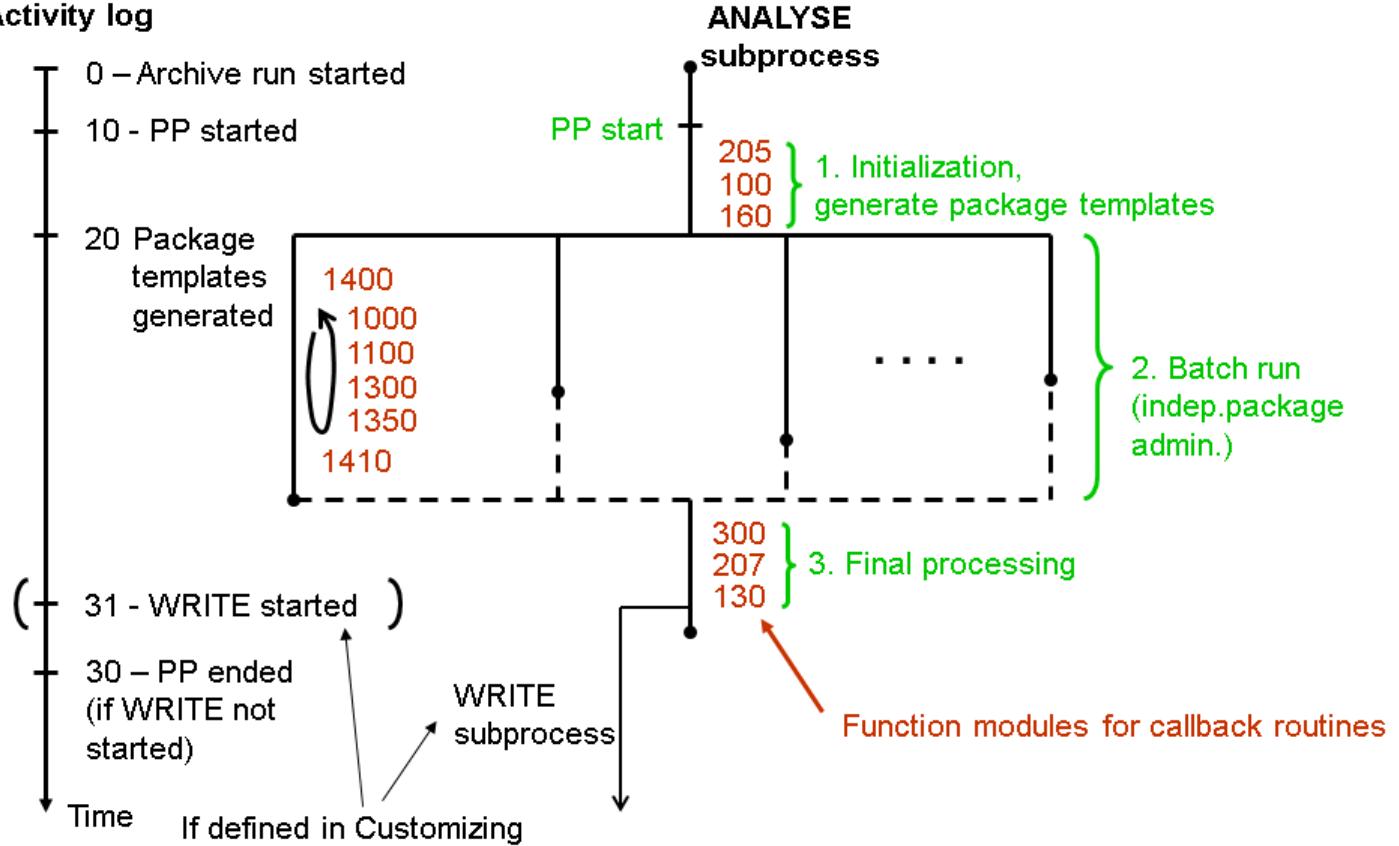
The analysis subprocess examines the data of an archiving object and determines the archiving status and resubmission date, if applicable. Two checks are always made for this:

- Has the data completed the retention periods defined in the Customizing settings (minimum storage period for data in the operational database)?
- Have all the business-related requirements been met for the data to be archived? This test is implemented using a check module of the application.

If both checks are successful, the archiving status is set to **Can Be Archived**. If not, the status is set to **Cannot Be Archived** and the resubmission date to **Today's Date + Resubmission Period**. resubmission period specifies the time periods for resubmission after the retention period has been completed and is defined in the global Customizing settings for each archiving object. ensures that the data is not analyzed again until after the resubmission period, thereby reducing the amount of data that has to be processed and saving time in the analysis.

To increase efficiency, the data is divided into separate packages that are analyzed by package administrators (mutually independent jobs). Packages contain a partial amount of the data to be processed; this amount is precisely defined by key limits.

The following figure depicts parallel processing. parallel processing starts, the parallel processing tool takes control. This calls up callback routines to execute the individual substeps of the process. Archiving provides these routines for each application type (cross-product of archiving object and subprocess to be executed in parallel [in other words, Analysis and Write]). You make settings in Customizing for parallel processing to determine the number of package administrators that you want to be used for each application type. Package administrators process different subpackages that they take from a worklist shared with all the other package administrators.

Activity log**Parallelization**

The time sequence for the process status is depicted on the left-hand side of the figure. activity log always shows the most up-to-date status of a process. There are two possible final statuses indicating a successfully completed process, depending on the Customizing settings: 31 indicates that a WRITE subprocess has started automatically and 30 indicates that the ANALYSIS subprocess has ended and no WRITE process has started.

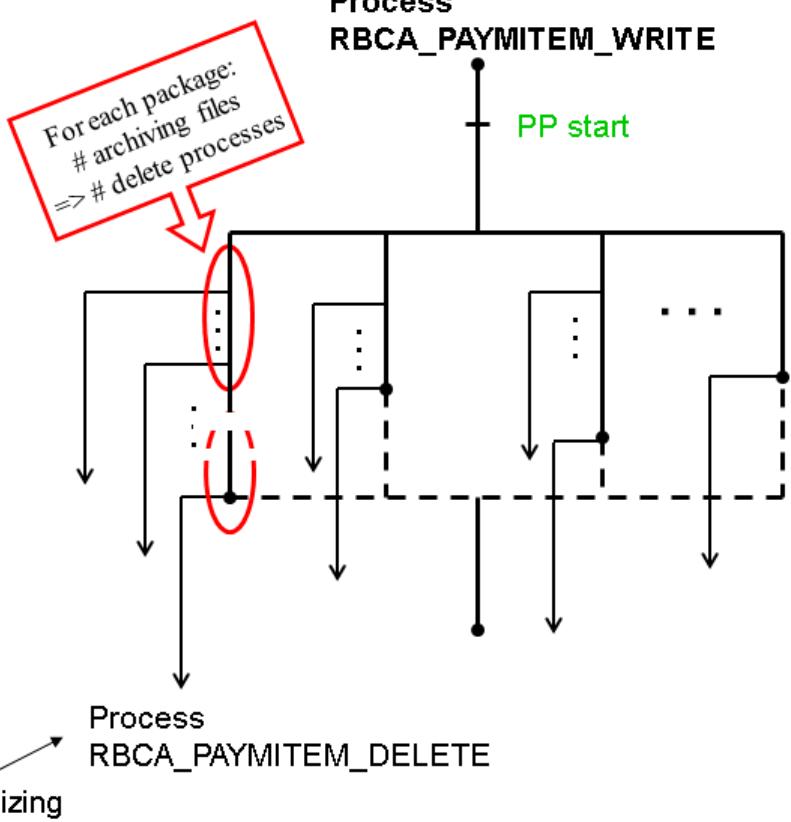
2. Write

In the standard setup, the write program is started automatically by the analysis program and duplicates the data flagged previously by the analysis subprocess (status **Can Be Archived**) from the operational database to new archive files. The actual data archiving is therefore executed in this step.

Data is written, as in the Analysis process, in parallel in mutually independent jobs (package administrators see figure). All package administrators process different subpackages that they take from the joint worklist. There is always just one archive package created per package administrator in parallel processing; this may consist of one or more archive files.

Activity log

- 0 – Start archive run
 - 10 – PP started
 - 20 Package template generated
 - (- 32 – DELETE started)
 - 30 – PP ended
(if no DELETE was started)
- Time

**Overview****3. Delete**

Once the data has been duplicated to the archive files, it is removed from the operational database by using the Delete subprocess. To do this, the archived data is read from the archive files and only deleted from the database if it is read successfully from the archive. This procedure ensures that data is only removed from the database if it has been archived successfully.

If the write process has closed an individual archive file successfully, a separate delete process is started automatically in the standard setup. There are therefore only ever as many delete processes created per package in the write program parallel processing as the number of archive files this package created.

If the test reading of an archive file fails, the data remains in the operational system with the status **Can Be Archived** and is processed again during the write process in the next archiving run. The archive files that have already been created can be deleted manually or simply left in the archive. The latter option is safe, as no reference is made to the files from the operational system.

Result**Successful Conclusion**

Once archiving has been completed according to rule, the data that can be archived, from a business-related and technical perspective, is moved from the operational database into archive files. You can use the sequential read programs and the archiving information system (transaction SARI) to display the archiving files.

Reloading the Data

You have the option of recovering archived data using reload programs. During this process, data is read from the archive files and inserted into the operational database. This is, however, only permitted as an emergency strategy (incorrect Customizing settings,

technical problems). To prevent this function from being misused and inconsistencies from occurring owing to old data being imported into the operational system, data may only be reloaded within a period of five days after successful archiving. The archive information structures are not updated during the reload process and can be restructured explicitly by the user via transaction SARI. The **Archive Status** attribute of the reloaded data records is set to **Cannot Be Archived** and the resubmission date is not adjusted. Note: The reloaded data records are written to the archive again in the next archiving run. (If you do not want this to occur, you must alter the Customizing setting for the retention periods accordingly).

Storing the Archive Files

Storing the Archive Files It is generally not sufficient just to write the data that is to be archived to archive files and remove it from the database. The archive files themselves must be stored safely and managed to permit any access required at a later time. There are several different options for this:

- HSM systems (hierarchical storage management)

An unlimited file system is simulated for an HSM system. The file system into which the data is archived is integrated into the memory hierarchy of the HSM system. It is sufficient to maintain the file path accordingly in the archiving Customizing settings. No communication via the SAP ArchiveLink is required.

- Storage system via SAP ArchiveLink

If a storage system of a third-party administrator is connected via the SAP ArchiveLink, this storage system is ordered to store the processed archive file at the end of a successfully completed delete program.

- Manual management

If you do not want the files to be stored in a storage system, the IT department can manage the archive files independently instead.

Example

The **Variable Transaction** archiving object is used in this example.

More Information

For more information, see the program documentation for the archiving objects.

The names of the programs are constructed as follows:

- Analysis RJBD_*_ARCH_ANALYZE
- Write RJBD_*_ARCH_WRITE
- Delete RJBD_*_ARCH_DELETE
- Reload RJBD_*_ARCH_RELOAD

Replace * with the technical name of the archiving object (see table at the start of this document) without the JB_.

Example:

- The program names of archiving object JB_VTMD (variable transaction master data) are as follows:
- Analysis RJBD_VTMD_ARCH_ANALYZE
- Write RJBD_VTMD_ARCH_WRITE
- Delete RJBD_VTMD_ARCH_DELETE

- Reload RJBD_VTMD_ARCH_RELOAD

Note that in the case of archiving object GAP opportunity interest rates (JB_GPTP), the program names start with RJBR, for example RJBR_GPTP_ARCH_WRITE for the Write program.

For the other archiving objects (see table) the program names are as follows:

RDBRA_REC (RDB Risk Analyzer individual records)

- Write program: RDBRA_REC_ARC
- Delete program: RDBRA_REC_DEL

TRTM_LM (TR Limit Management: Limits, Utilizations)

- Write program: RFTBARC1
- Delete program: RFTBARC2
- Reload program: RFTBARC3

COPA1_* (Costing-Based CO-PA, Operating Concern *): See the online documentation under [Accounting](#) [Controlling](#) [Profitability Analysis \(CO-PA\)](#) [Tools](#) [Archiving](#).

Transactions in Portfolio Analyzer

Portfolio Analyzer contains the following transactions:

Function	Transaction Code
Edit Characteristic Values	JBRCV
Transport Characteristic Values	JBRCT
Edit Characteristic Hierarchy	JBWH
Translate Characteristic Hierarchy	JBHTL
Create Portfolio Hierarchy	AFWPH
Display Portfolio Hierarchy	JBRK
Delete/Deactivate Portfolio Hierarchy	JBR4E
Generate Portfolio Hierarchy	JBRW
Update Portfolio Hierarchy	JBRPO
Define Filter	AFWF
Edit Key Figures and Evaluation Procedures	AFWKF_PA
Monitor: Key Figures and Evaluation Procedures	AFWKF_MD
Determination of Single Records	PAEP1
Determination of Single Records: Monitoring	AFWO1

Function	Transaction Code
Determination of Final Results	PAEP2
Determination of Final Results: Monitoring	AFWO2
Delete single records that have not been archived	PASRPDEL
Analyzer Information System	AIS_STDREP
Single Value Analysis: Profit and Loss	AISPL
Edit Master Data for Benchmarks	AFWBM
Assign Benchmarks to Nodes in the Portfolio Hierarchy	AFWBMPH
Calculate Benchmark Key Figures	PAEPBM
Calculation of Benchmark Key Figures: Overview	AFWOBM
Define Initial Layout	S_KFM_86000129
Define Formulas for the Analyzer Information System	AIS_FORMULA_DEF

The Basics

Portfolio Hierarchies

Definition

Portfolio hierarchies are used to arrange the characteristics of a view into a structure.

Use

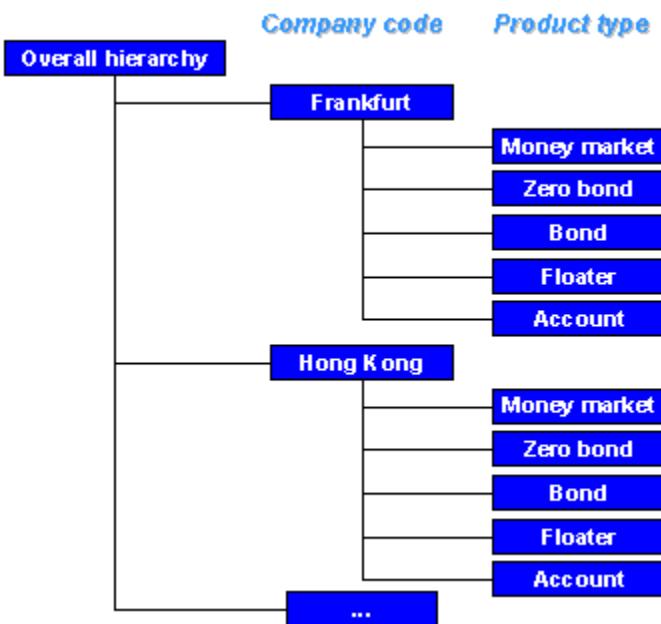
Risk values can be calculated on an aggregated basis. Portfolio hierarchies are used to aggregate, on different hierarchy levels, financial transactions stored in the data pool.

Editing portfolio hierarchies

Defining and generating portfolio hierarchies

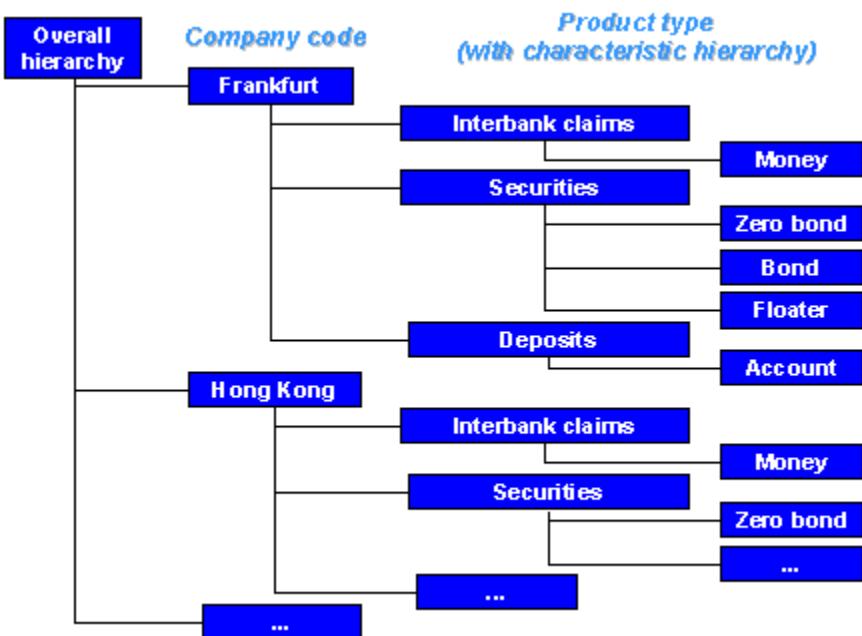
When you define a portfolio hierarchy, choose characteristics from a view, and put in the order required. When you generate a portfolio hierarchy, the system combines each characteristic value with the other characteristic values in succession until all possible combinations ([base portfolios](#)) exist. This results in a tree structure, in which larger evaluation units are divided into increasingly smaller ones.

The following example shows a portfolio hierarchy consisting in the characteristics **company code** and **product type**.

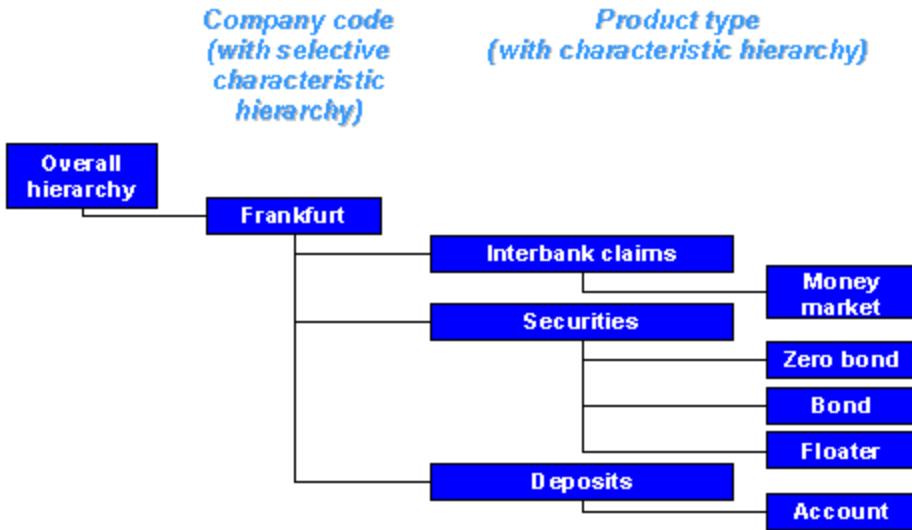


The system then creates base portfolios if transactions exist that have the relevant (new) combination of characteristic values. If the analysis structure does not contain any transactions, then there are no base portfolios, and the portfolio hierarchy consists of its overall structure only.

If multiple characteristic values exist, then we recommend that you use [characteristic hierarchies](#), which you need to have already defined. You use characteristic hierarchies to group your characteristics, which makes them easier to manage. The following example shows a portfolio hierarchy consisting in the characteristic **company code** and **product type**, and a characteristic hierarchy for the **product type** characteristic.



Based on a view, you can create multiple portfolio hierarchies, whose structures depend upon the sequence of the characteristics, and upon the characteristic hierarchies used. If you want to analyze only certain characteristic values, then you can flag the relevant characteristic hierarchies as **selective**. The following example shows a selective portfolio hierarchy, which is restricted to the value **Frankfurt** for the characteristic **company code**.



When you define hierarchies, you are defining the range of options available to you in the various analysis functions in the Risk Management system. If you create a large number of hierarchies, then you can run evaluations at a relatively detailed level. However, this can lead to long run times, so you have to balance the level of detail you need with system performance.

Extending portfolio hierarchies

You can make the entities you use for evaluations smaller at any time. To do this, you insert one or more new characteristics into the lowest level of the hierarchy. You cannot change the higher levels of the hierarchy, which means that you cannot change the sequence in which the characteristics appear in the hierarchy, or delete characteristics. This would mean that the program could no longer access evaluation data.

Deactivating and reactivating portfolio hierarchies

If a portfolio hierarchy is no longer relevant for evaluations, you can deactivate it. You can even deactivate it if evaluation data based on the portfolio hierarchy is stored in the report data memory, or in the procedure for final results for a result database. Deactivated portfolio hierarchies can only be used to display existing results, and are not updated when financial objects are created. You cannot use a deactivated portfolio hierarchy to select transactions, or run calculations.

When you reactivate a deactivated portfolio hierarchy, the system regenerates it, and, in so doing, updates it. Providing that no nodes have been deleted in the current definition of the characteristic hierarchy, then the system also updates the characteristic hierarchy. It then adds all new base portfolios to the tree structure.

Deleting portfolio hierarchies

If the report data memory, or a procedure for final results for a result database, does not contain any evaluation data, and no archived evaluation data, that are based on a particular portfolio hierarchy, then you can delete that portfolio hierarchy. Otherwise, you must first delete the evaluation data that is based upon it. You do this by using the administration transaction of the respective application. When you delete a portfolio hierarchy, you delete all components of the hierarchy. These include the link between the portfolio hierarchy and the views, the structure, and all texts and attributes.

Updating portfolio hierarchies

The system usually updates the portfolio hierarchy when an analysis structure is created for a financial object. This occurs during data transfer. However, this automatic update is not possible if another user is editing the portfolio hierarchy (in change mode) at the same time. In this case, the system informs you that the portfolio hierarchy has to be updated manually at a later point in time.

For more information about updating and generating portfolio hierarchies, and about reorganizing base portfolios, see [reorganization tools](#).

Editing Portfolio Hierarchies

Defining and Changing Portfolio Hierarchies

1. In the Implementation Guide (IMG) choose the following path, depending on which component you are using:

- o **For SAP Banking** choose SAP Banking SEM Banking Common Settings for Market Risk and ALM Views and Portfolio Hierarchies Define Portfolio Hierarchy.
- o **Financial Supply Chain Management** Treasury and Risk Management Basic Analyzer Settings Define Portfolio Hierarchy.

If you are using your system as a productive system, then you can access this transaction from the **SAP Easy Access** screen under the respective components by choosing **Evaluation Control** **Portfolio Hierarchy** **Define**.

2. Define the portfolio hierarchy as follows:

- a. Choose **New Entries**. The system displays the table in which you define the portfolio hierarchy.
- b. Choose the view upon which the portfolio hierarchy is to be based (not relevant for TRM).
- c. Enter a three-digit number, a name, and a short and long description for the portfolio hierarchy.
- d. If required you can enter an authorization group.
- e. Choose Save.

3. Define the structure of the portfolio hierarchy as follows:

- a. Select the portfolio hierarchy .
- b. Choose **Structure** .
- c. Choose **New Entries**. The system displays the table in which you edit the characteristics.
- d. In the **Characteristic** column choose the required characteristics from the view.
- e. In the **Sort** column, use numbers, which do not have to be sequential, to define the order of the characteristics. The lowest number means the highest level of the hierarchy.
- f. If required, in the **CHie** (characteristic hierarchy) column you can choose a [characteristic hierarchy](#).
- g. In the **Cat** . (category) column, specify whether the characteristic hierarchy is to be used selectively, or not selectively.
- h. Choose Save.

If you want to change the portfolio hierarchy at a later point in time, then you need to repeat Steps 1 and 3a through 3h.

If, in the meantime, evaluation data has been generated based on the portfolio hierarchy, you can only extend the portfolio hierarchy. In this case, you cannot delete any characteristics, or change their sequence. You can add characteristics only at the lowest level of the hierarchy, which means that you have to give them higher sort order numbers.

If a portfolio hierarchy has been deactivated, then you can change only its description.

Displaying Portfolio Hierarchies

1. From the SAP Easy Access screen, under the respective component choose Evaluation Control Portfolio Hierarchy Display.
2. Choose the view (not relevant for TRM), and then the portfolio hierarchy.

In the right-hand part of the screen, the system displays all the base portfolios that exist for the selected portfolio hierarchy.

Deactivating, Reactivating, and Deleting Portfolio Hierarchies

1. On the SAP Easy Access screen, in the respective component choose Evaluation Control Portfolio Hierarchy Delete/Deactivate. In the left-hand part of the screen, the system displays a list of the portfolio hierarchies, sorted by their views, and their current status.
2. Choose the portfolio hierarchy whose status you want to edit.
3. To deactivate a portfolio hierarchy, choose Deactivate. The system sets the status of the portfolio hierarchy to **inactive**.

To reactivate an inactive portfolio hierarchy, choose Inactive -> Active. The system sets the status of the portfolio hierarchy to **active**.

To delete a portfolio hierarchy choose Delete. The system deletes the portfolio hierarchy if no dependent data exists for it.

For information about other options for processing portfolio hierarchies, see [Reorganization Tools](#).

Evaluations using the Results Database

Purpose

The results database is used in the following components:

- Market Risk Analysis in SAP Banking
- Market Risk Analyzer in Treasury and Risk Management
- Portfolio Analyzer

You use the results database as part of end-of-day processing to calculate defined key figure values, and to save these figures and analyze them as you require. This is in addition to the previous options for saving and displaying evaluation results (for example, saving report data in drilldown reporting).

The results database differs from former techniques for generating and saving the results of evaluations in that the generation and reporting of the results is carried out separately. This has the following advantages:

You need to generate results data only once in order to be able to use this data in different reports as many times as you want (different combinations of key figures, different layout) without having to carry out any recalculations.

The evaluation results are available permanently, even after a change of release, and can be archived.

You are able to make subsequent changes and corrections to the results. This is necessary if the transaction position changes, or in the event of valuation errors.

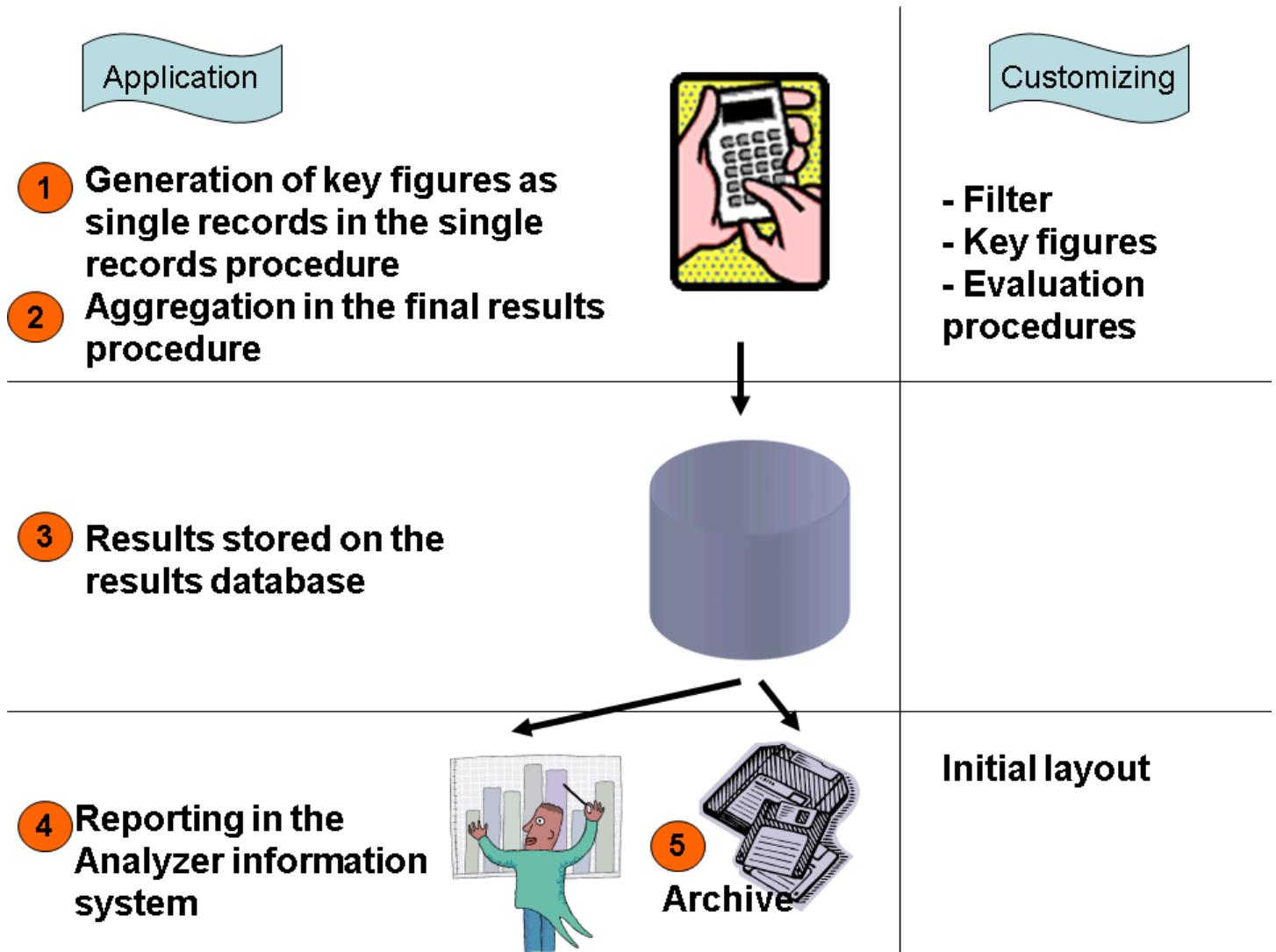
Prerequisites

The key figures that are to be calculated, and the evaluation procedures, must already be defined in Customizing. In particular, the key figures must have been assigned to evaluation procedures. We also recommend that you define a filter to restrict the analysis to particular transactions. You need to have already defined a layout in order to be able to display the results. Note the additional information about Customizing for the respective activity in the Implementation Guide:

- Define Filters (IMG)
- Edit Key Figures and Evaluation Procedures (IMG)
- Define Initial Layout (IMG)

Process

The system can calculate values only for those key figures that are contained in the predefined [hierarchies for key figure categories](#). This shows how key figures interrelate from a calculation point of view. There are two types of key figures: single records key figures, and final results key figures. Single records key figures are calculated for each single transaction; final results key figures are calculated by aggregating the values of single records key figures across an entire portfolio hierarchy.



Generate the values for single records key figures for the selected financial objects, and save them on the database. To do this, choose [Tools](#) → [Results Database](#) → [Determine Single Records](#).

You need to distinguish between the following runs when generating the single records:

Run	Description
Basic Run/Basic Run with Test Selections from Filter	Key figure values are calculated
Correction Run with Test Selections from Filter	Key figure values are calculated for the following transactions: Transactions that were imported into the system after the generation of single records was started Incorrect transactions from the basic run which have been changed after the basic run was carried out
Reversal Run	The single records acquire reversed status, and can be regenerated in a basic run

If you choose a save ID, you can use a saved data set to analyze an individual record. This is useful for some analyses, and for backtesting in particular.

Generate the key figures value for the final results on the basis of the single results that have already been generated. Save the data on the database. To do this, choose **Tools** → **Results Database** → **Determine Final Results**.



If, having carried out a basic run for single records, you start a basic run for the final results, and then start an adjustment run for the single records, your data may be inconsistent. Therefore, you need to ensure that you delete the final results in a deletion run, and restart the basic run for final results after the correction run for the single records has finished.

Result

The key figure values at single record and final results level (3) are stored on the results database. You can use the [Analyzer information system](#) to display them (4). Single records generated in this way can be archived (5).

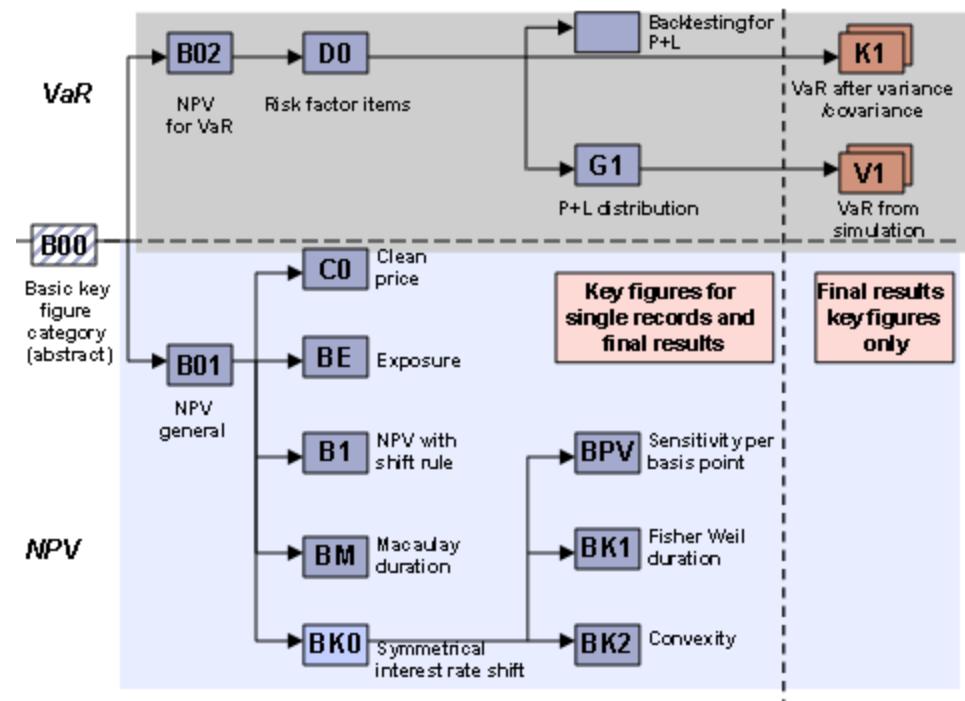
See also:

[Archiving](#)

Hierarchies of Key Figure Categories

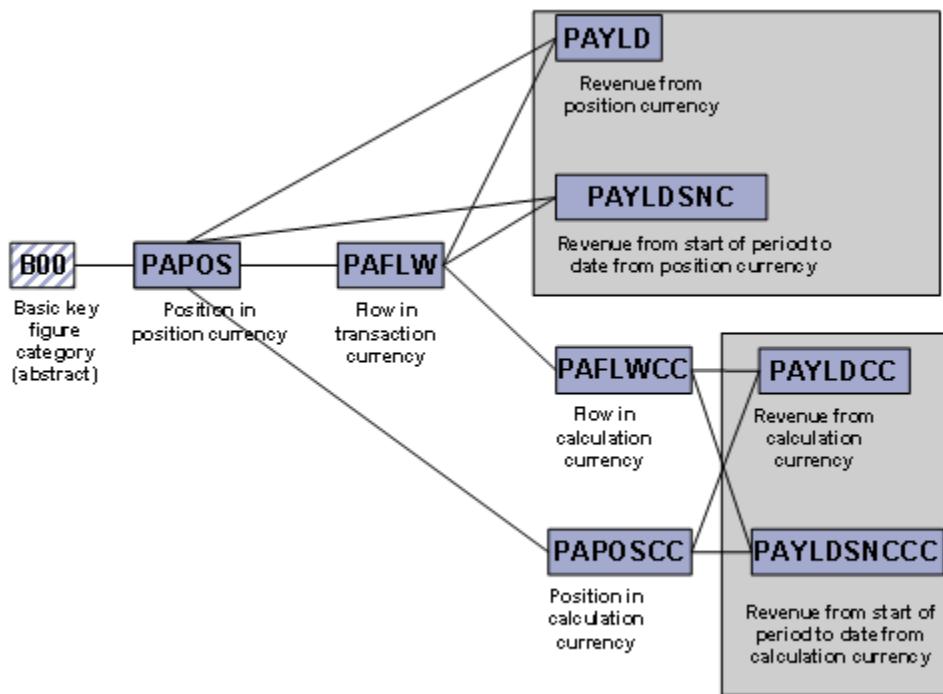
The system can calculate values only for those key figures that are contained in the predefined hierarchies for key figures (each key figure has to have defined attributes). The individual key figures are interdependent both from a business and calculation point of view. The interdependencies for the components are shown in the diagrams below:

Market Risk Analyzer



The symmetrical interest rate shifts are purely single record key figures. The following key figures are additive: NPV general, NPV with shift, exposure, symmetrical interest rate shift, clean price, and NPV for VaR.

Portfolio Analyzer



Key figures for the calculation of revenue (shown in gray) have two basic key figures. The following key figures are additive: position in position currency, flow in transaction currency, flow in calculation currency, and the position in calculation currency.

Use of the Results Database in Portfolio Analyzer

Basis

Portfolio Analyzer saves the results of all evaluations in the Results Database (RDB); it does not contain any online runs.

Unlike Market Risk Analysis, which also uses the Results Database, the final results procedure is a two-step method in Portfolio Analyzer. The final results are calculated as follows:

- **Single record procedure**

The positions and flows are transferred to the Results Database.

- **Final results procedure 1**

Values are translated into the evaluation currency.

- **Final results procedure 2**

Rate-of-return (yield) key figures are calculated.

Key Figure Types

Portfolio Analyzer calculates all key figures based on the key figure categories, which are predefined in the system. You assign each key figure to an evaluation procedure. You can assign more than one key figure to each evaluation procedure, but each key figure can be assigned once only. When you define key figures, you can access key figure categories for positions (PAPOS and PAPOSCC), flows (PAFLW and PAFLWCC), and rates of return (PAYLDCC and PAYLDSNCCC). The following table shows which key figure categories you can use in which evaluation procedures:

Evaluation Procedure	Key Figure Types	Reason for Creating Multiple Evaluation Procedures
Single record procedure	<ul style="list-style-type: none"> • PAPOS (position in position currency) • PAFLOW (flow in transaction currency) 	
Final results procedure 1	<ul style="list-style-type: none"> • PAPOSCC (position in evaluation currency) • PAFLWCC (flow in evaluation currency) 	Key figures that have the same basic key figure but different evaluation currencies
Final results procedure 2	<ul style="list-style-type: none"> • PAYLDCC (rates of return with fixed yield periods from the evaluation currency) • PAYLDSNCCC (rate of return from start of period to date from the evaluation currency) 	Key figures that have the same basic key figures but rate-of-return methods or different rate-of-return periods

In Customizing for **Financial Supply Chain Management** choose **Treasury and Risk Management** **Portfolio Analyzer** **Results Database** **Edit Key Figures and Evaluation Procedures** . In this IMG activity, you can create key figures by choosing a key figure category and entering the attributes of the key figure. You can also use existing key figures as the basis for defining new key figures. You do this by specifying a basic key figure when you define the new key figure. The system then copies the values of the basic key figure and adds them to the new key figure.

i Note

If you use basic key figures to define new key figures, the results of single records methods that have already been calculated are retained. You then only need to define the new final results procedure you require.

Single Record Procedure (SRP)

In the single record procedure, the system takes the position values stored in Treasury and Risk Management and loads them into the Results Database. The step takes a long time, as the system has to calculate the NPVs of all items in the positions. You must assign two key figures to the single records procedure: one for the position (key figure category PAPOS) and one for the flows (key figure category PAFLW).

i Note

To delete single records, on the **SAP Easy Access** screen choose **Accounting** **Financial Supply Chain Management** **Treasury and Risk Management** **Portfolio Analyzer** **Tools** **Results Database** **Delete Non-Archived Single Records** .

You should use this transaction in your test system only. In your productive system, you should delete single records. On the **SAP Easy Access** screen choose **Accounting** **Financial Supply Chain Management** **Treasury and Risk Management** **Portfolio Analyzer** **Tools** **Results Database** **Determine Single Records** .

i Note

To run the single records procedure as a parallel job, on the **SAP Easy Access** screen choose **Treasury and Risk Management** **Portfolio Analyzer** **Tools** **Parallel Processing** .

Final Results Procedure 1 (FRP 1)

In final results procedure 1, the system translates the position values and flows calculated in the single records procedure into the evaluation currency. For each evaluation currency, you assign two key figures to the final results procedure: one category PAPOSCC key figure and one PAFLWCC key figure.

❖ Example

If, for example, you want to analyze a portfolio in EUR and CHF, then you must define four key figures for the final results procedure. Each key figure should have the same abstract basic key figure; you should use the key figures of the single results procedure (key figure category PAPOS or PAFLW). This ensures that the system calculates the key figures of final results procedure 1 on the basis of the results of the single record procedure.

i Note

Since single record procedure 1 contains additive key figures only (those that can be totaled, which are positions and flows in the evaluation currency), it is independent of the portfolio hierarchy.

Final Results Procedure 2 (FRP 2)

In final results procedure 2, the system calculates the non-additive key figures. In Portfolio Analyzer, these are rate-of-return (yield) key figures. You can assign only the key figures of the key figure category that has the prefix PAYLD* to final results procedure 2. Furthermore, you must assign a portfolio hierarchy to final results procedure 2.

Note that the rate-of-return key figures that you assign to final results procedure 2 must have the same interval category. Therefore, for each procedure you can use either the key figure categories PAYLD and PAYLDCC, or the key figure categories PAYLDSNC and PAYLDSNCCC. The system checks whether all the key figures assigned to the procedure have the same period.

The key figures of category PAYLD and PAYLDCC should therefore have the same values for the **Yield Period Start** indicator: In the same way, key figures of category PAYLDSNC or PAYLDSNCCC must have the same value in the **Interval for Periods** field. If this is not the case, the system displays a warning message.

i Note

The results for the final results procedure are based on the data of a single records procedure, and can be recreated at any point in time provided that the single records still exist. This means that you can delete the final results from the database if required.

Additional Notes

If you want to improve system performance during the evaluations, note the following:

- Choose only a small number of analysis characteristics.
- Do not use characteristics that refer to too small an entity (such as business partner number or transaction number).
- Specify the start date and the end date in the analysis parameters of the financial objects.
- Use the continuous compounding method in the yield curve to improve the runtime.
- Ensure that portfolio hierarchies do not contain more than 10,000 end nodes.

Calculation of Rates of Return

Use

You use this function to calculate the rates of return for the nodes of a portfolio hierarchy.

Prerequisites

In Customizing for **Financial Supply Chain Management** under  **Treasury and Risk Management**  **Portfolio Analyzer**  **Results Database**  **Edit Key Figures and Valuation Procedures** , you have entered the following settings:

- You have defined key figures for the calculation of rates of return, and assigned each of them the required yield method.

The system calculates the rate of return in the evaluation currency. You can use the following key figure categories:

- PAYLDCC (Key figure category for rates of return with a fixed evaluation period)

You define the yield period in the **Interval for Periods** field. SAP supplies valuation periods for days, months, quarters, and years. You can define additional evaluation periods in Customizing for **Portfolio Analyzer** under  **Results Database**  **Define Yield Ranges** .

- PAYLDSNCCC (Key figure category for period-to-date yields)

By setting the **Yield Period Start** indicator, you define whether the system is to start calculating the yield one year, half a year, one quarter, or one month before the key date.

- You have defined a single records procedure and a final results procedure.
- You have assigned the key figures for the rate of return (yield calculation to the single records procedure and final results procedure).

- You have assigned at least one portfolio hierarchy to final results procedure 2 (FRP2). You have to do this so that the system can calculate the rate-of-return key figures for each portfolio hierarchy node.

For more information, see [Use of the Results Database in Portfolio Analyzer](#).

Features

The system contains the following rate of return methods:

- Time-weighted rate of return (TWRR)

The time-weighted rate of return describes the returns that result simply from the actions of the portfolio manager. The rate of return is calculated net of the effect of the deposits into or withdrawals from the portfolio made by customers, which are factors that cannot be influenced by the portfolio manager.

The system first breaks down the analysis period into subperiods so that exogenous cash flows fall only at the end of the subperiods, and not within them. The first subperiod ends with the first exogenous cash flow; each subsequent exogenous cash flow defines a new subperiod. The last subperiod ends at the end of the analysis period.

Return R_i for subperiod i is defined as follows:

$$1 + R_i = \frac{MVE_i}{MVB_i} = \frac{PAPOSCC_i + CF_i}{PAPOSCC_{i-1}}, \quad i = 1, \dots, n$$

where MVE_i is the market value of the portfolio at the end of subperiod i , which is calculated as the total of the NPV $PAPOSCC_i$ of the portfolio on the end date of subperiod i and the flows CF_i on the end date of subperiod i . MVB_i is the market value of the portfolio at the start of subperiod i , which is the NPV $PAPOSCC_{i-1}$ of the portfolio on the previous day. The time-weighted rate of return R_{TWRR} for the whole analysis period is calculated as follows:

$$1 + R_{TWRR} = \prod_{i=1}^n (1 + R_i)$$

- Money-weighted rate of return (MWRR)

Exogenous incoming and outgoing flows of cash are not removed before the money-weighted rate of return is calculated. It is defined as rate of return R_{MWRR} , which is used to calculate the interest rate of the portfolio, including all incoming and outgoing cash flows. The system first calculates the annualized money-weighted rate of return:

$$MVB \cdot (1 + R_{MWRR}^2)^{\frac{T}{360}} + \sum_{i=1}^n CF_i \cdot (1 + R_{MWRR}^2)^{\frac{T-d_i}{360}} = MVE$$

where MVB is the market value of the portfolio at the start of the period, and MVE is the market value of the portfolio at the end of the period; T is the length of the period in days, and CF_i incoming and outgoing cash flows; d_i specifies on which day, calculated from the start of the period, cash flow CF_i flows. The system then calculates the weighted rate of return for the analysis period:

$$1 + R_{MWRR} = (1 + R_{MWRR}^2)^{\frac{T}{360}}$$

Whereas the time-weighted rate of return can be understood as the rate of return obtained by the portfolio manager, the money-weighted rate of return is the rate of return achieved by the owner of the portfolio.

- Modified Dietz Method

The modified Dietz method is an approximation method for calculating the time-weighted rate of return; it is used to calculate the internal interest rate earned from the portfolio. The analysis period is divided into time periods i . A linear interest calculation method is used within these time periods. rate of return of a subperiod is defined as the quotient of the net growth of the subperiod and the average capital invested in the period. Incoming and outgoing cash flows are time-weighted in a linear way, and used to calculate the average capital that is invested:

$$R_i = \frac{MVE_i - MVB_i + \sum_{j=1}^{n_i} CF_{i,j}}{MVB_i + \sum_{j=1}^{n_i} \frac{T_i - d_{i,j}}{T_i} \cdot CF_{i,j}}$$

where MVB_i is the market value of the portfolio at the start of subperiod i and MVE_i is the market value at the end of subperiod i ; T_i is the length of subperiod i in days and $CF_{i,j}$ the incoming and outgoing cash flows in subperiod i ; $d_{i,j}$ specifies on which day, calculated from the start of subperiod i , cash flow $CF_{i,j}$ flows.

Rate of return R_{MDI} is calculated in the modified Dietz method as follows:

$$1 + R_{MDI} = \prod_{i=1}^n (1 + R_i)$$

The subperiods are not longer than one month.

- Dietz Method

In the Dietz method, the rate of return is not calculated for each flow of capital. The system divides the analysis period into equal subperiods. A constant rate of return is assumed for these subperiods. It is also assumed that all flows of capital take place in the middle of the subperiods. Unlike in the modified Dietz method, the flows are not weighted by the length of time over which they have an effect.

Activities

To calculate rates of return, on the **SAP Easy Access** screen, choose **Financial Supply Chain Management**  **Treasury and Risk Management**  **Portfolio Analyzer**  **Tools**  **Determine Single Records** , and then **Determine Final Results**.

The system calculates the results as follows:

1. It calculates single records. It calculates only the additive key figures of the categories PAPOS and PAFLW.
2. It applies Final Results Procedure 1 (FRP1).

this process, it aggregates the additive key figures and converts the single records into the evaluation currency (key figure categories PAPOSC and PAFLWCC).

3. The system applies Final Results Procedure 2 (FRP2) in order to calculate non-additive key figures (key figure categories PAYLDCC and PAYLDSNCCC).

i Note

Subdivision of the final results procedure into two steps is necessary to be able to execute an attribution analysis later.

To display the results of the calculation of rates of return **SAP Easy Access** screen, choose **Financial Supply Chain Management**  **Treasury and Risk Management**  **Portfolio Analyzer**  **Information System**  **Analyzer Information System** .

Benchmarking

Use

Benchmarks are used to analyze how the value of financial assets develops. Benchmarks are based on market data, or are constructed so that they give the most useful information possible about the portfolio in question.

In Portfolio Analyzer, you can define your own benchmarks, and display them in the nodes in the portfolio hierarchy. Benchmarks are analyzed in the framework of the Results Database (RDB). This enables you to compare yields in the Analyzer Information System (AIS). You can define benchmarks by referencing them to market data, such as a security or a reference interest rate. You can also define composite benchmarks, which contain multiple benchmarks, each of which has a weighting that you can define. This enables you to define benchmarks so that they reflect your portfolio as closely as possible, and can hence be used for the purposes of comparison.

The system does not use the evaluation procedures already contained in the RDB in order to calculate benchmark values. Instead, it uses a separate benchmark run, which you start independently of the evaluations in the Results Database. In a separate step, you must also assign your benchmarks to the relevant portfolio hierarchy nodes.

Procedure

Define the master data for the benchmarks

In the Customizing for **Financial Supply Chain Management** choose **Treasury and Risk Management** → **Portfolio Analyzer** → **Benchmarks** → **Edit Master Data for Benchmarks**. For more information, see [Editing Master Data for Benchmarks](#).

Assign the benchmarks to the nodes of your portfolio hierarchy

In the Customizing for **Financial Supply Chain Management** choose **Treasury and Risk Management** → **Portfolio Analyzer** → **Benchmarks** → **Assign Benchmarks to Nodes in the Portfolio Hierarchy**. For more information, see [Assignment of Benchmarks to Portfolio Hierarchy Nodes](#).

Define benchmark key figures

In the Customizing for **Financial Supply Chain Management** choose **Treasury and Risk Management** → **Portfolio Analyzer** → **Results Database** → **Monitor: Key Figures and Evaluation Procedures**.

Note the following:

You do not assign evaluation procedures to benchmark key figures, as the system calculates benchmark key figures in a separate job.

The system stores the market data for benchmarks in the following position key figures:

PAPOS (position in position currency)

PAPOSCC (position in evaluation currency)

The system calculates the benchmark rates of return in the followings key figures:

PAYLDCC (rate of return on investment from evaluation currency)

PAYLDSNCCC (rate of return from start of period to date from the evaluation currency)

You link the benchmark master data to the benchmark key figures when you start the benchmark run. For more information, see [Calculation of Benchmark Key Figures in the Benchmark Run](#).

Define an initial layout for the Analyzer Information System (AIS)

In Customizing choose **Financial Supply Chain Management Treasury and Risk Management** → **Portfolio Analyzer** → **Results Database** → **Define Initial Layout**, and assign your benchmark key figures to the portfolio hierarchy area.

If required, define formula-based key figures

In the Customizing for **Financial Supply Chain Management** choose **Treasury and Risk Management** → **Portfolio Analyzer** → **Results Database** → **Define Formulas for Analyzer Information System**. For more information, see [Formula Editor](#).



Note that you have to create formulas for each assignment variant you created for benchmark key figures. Therefore, in the formula editor the system displays the key figures for all assignment variants.

Result

You have defined the properties of the benchmarks, assigned them to the portfolio hierarchy, defined the benchmark key figures that the system is to calculate, and set up the layout for the display of results.

You can now start a benchmark run and display the results in the Analyzer Information System (AIS). In the selection screen in the Analyzer Information System, specify the assignment variant you require. In reporting, the system displays the names of the master data of the assignment variant selected, and the key figures, as per the definition of the layout.

See also:

[Calculation of Benchmark Key Figures in the Benchmark Run](#)

[Analyzer Information System](#)

Editing of Master Data for Benchmarks

Use

You use this function to create, display, and change benchmarks.

Integration

Once you have created the master data for benchmarks, you need to do the following before you can use benchmarks in Portfolio Analyzer:

[Assign benchmarks to the portfolio hierarchy.](#)

Create benchmark key figures in the framework of the Results Database.

[Start a benchmark run](#). This links the benchmark master data you created with the benchmark key figures, and calculates the benchmark values.

Features

The system contains the following benchmark categories:

Basic benchmark

Basic benchmarks are benchmarks that have a direct reference to market data. These include benchmarks for indexes and exchange rates. The system also contains the following benchmark categories:

Fixed interest rate, which you can use to store an interest rate

Variable interest rate, which you can use to store a variable interest rate

Reference portfolio, which you can use to benchmark against the portfolio yield of some reference portfolio

Composite benchmark

You use composite benchmarks to combine the benchmarks you defined. You specify the weighting of each sub-benchmark in the composite benchmark. The total weights of all sub-benchmarks must be 100%.

You can use the **Readjustment** field in the composite benchmark to define how often the system resets the weighting to the original values. You need to enter this information, as the weighting of the sub-benchmarks in the composite benchmark can change, depending on how the values of the sub-benchmarks change over time.



If you need time periods for the readjustment other than the periods **day**, **month**, **quarter**, and **year** that are predefined in the system, then you can create them in the Customizing for **Financial Supply Chain Management** under **Treasury and Risk Management** **Portfolio Analyzer** **Results Database** **Define Yield Ranges**

You assign a currency to each benchmark. You can also store other information in the benchmark, such as the authorization group, and you can enter comments to document any changes you make to the benchmarks.

Versioning

The system creates versions of benchmarks by means of the validity date. This enables you to create multiple versions of benchmarks, and each version can have different master data. The versions of a benchmark apply from the validity date specified through to the validity date of the next version. You can create versions for dates that are in the past.

When the system calculates the values of the benchmark, it uses the version of the benchmark master data that is valid on the evaluation date.

The benchmark category is defined when the first version of the benchmark is created. It cannot be changed. You can change other properties of the benchmark only if no key figures have been calculated for the benchmark. Note that if you change the currency of a benchmark, all the older versions of the benchmark are then assigned the new currency. It is not possible to create versions that have different currencies.



For more information about versioning, see the field help for the **Valid From** field in the selection screen of the transaction for editing the master data of benchmarks.

Activities

In Customizing, choose **Financial Supply Chain Management** **Treasury and Risk Management** **Portfolio Analyzer** **Benchmarks** **Edit Master Data for Benchmarks**, and enter a name and validity date for the benchmark.

Interaction in the Selection Screen

Action	Function
Create	If the system does not contain a benchmark that has the name you entered, the system creates a new benchmark that has this name. If the system already contains a benchmark with this name, it creates a new version for the date specified.
Change	You can change the properties of the benchmark to those that are valid on the date you specify.
Display	You can display the properties of the benchmark that are valid on the date you specify. If you do not enter a date, the system displays the version that is valid on today's date. The input help for the date field contains the dates of all the versions that exist for the benchmark.
Copy	For the date specified, the system creates a new benchmark that has the same properties as the benchmark specified.
Delete	The system deletes the version of the benchmark that is valid on the date specified.
Display History	The system displays all the changes made to the benchmark specified.
Higher-Level Benchmark	The system displays all the composite benchmarks that contains the benchmark you specified.
Benchmark Delete Benchmark	The system deletes all the version of the benchmark specified.
Goto Maintain Portfolio Hierarchy Assignment	The system branches to the transaction in which you can assign the specified benchmark to a portfolio hierarchy node (see also Assignment of Benchmarks to Portfolio Hierarchy Nodes).
Benchmark Analysis Data	The system displays all the key figure calculations for the benchmark specified. The benchmark key figures and the evaluations periods are displayed. You can use this function to check whether there are any gaps in the calculation of key figures. If you want to change the benchmarks, you can check which key figures you need to delete before you change the benchmarks.

Action	Function
 Check Benchmark	The system checks whether the definition of the benchmark is complete and consistent.
 Assignment of Analysis Characteristic	The system displays the analysis characteristics that are available. You can enter values for analysis characteristics. This enables the system to link the values calculated for the benchmarks to the analysis characteristics.



You can display and change the master data for benchmarks from within the area menu. In the SAP Easy Access screen, choose ► **Accounting** ► **Financial Supply Chain Management** ► **Treasury and Risk Management** ► **Portfolio Analyzer** ► **Master Data** ► **Benchmark** ► **Edit Master Data for Benchmarks** ►.

Assignment of Benchmarks to Portfolio Hierarchy Nodes

Use

You use this function to assign benchmarks to the nodes of your portfolio hierarchy. The system displays benchmarks in the Analyzer Information System only if you have assigned the benchmarks to portfolio hierarchy nodes.

You assign benchmarks to the portfolio hierarchy by using assignment variants. You use assignment variants when you start the [benchmark run](#) in order to control how the system calculates key figure values. When you call the Analyzer Information System, you define which assignment variants the system is to display.



For more information, see [Benchmarking](#).

Prerequisites

You have defined benchmarks in the Customizing for **Financial Supply Chain Management** under **Treasury and Risk Management** → **Portfolio Analyzer** → **Benchmarks** → **Edit Master Data for Benchmarks**.

Features

You can create up to five assignment variants for each portfolio hierarchy. However, normally you need just one or two assignment variants per portfolio hierarchy.

You can define whether a benchmark is assigned just to the selected node of the portfolio hierarchy, or whether this assignment applies to the lower-level nodes as well.

The system creates versions of assignment variants by means of the validity date. The versions of an assignment variant apply from the validity date specified through to the validity date of the next version. When the system calculates the values of the benchmark, it uses the version of the assignment variant that is valid on the evaluation date.



For more information about versioning, see the field help for the **Valid From** field in the selection screen of the transaction for assigning benchmarks to the portfolio hierarchy.

Activities

In the Customizing for **FinancialSupplyChainManagement**, choose **Portfolio Analyzer** → **Benchmarks** → **Assign Benchmarks to Nodes in the Portfolio Hierarchy**

The system displays a selection screen. You have the following options:

Interaction in the Selection Screen

Action	Function
Create	If there is no assignment variant that has the name you entered, the system creates a new assignment variant that has this name. If the system already contains an assignment variant with this name, it creates a new version for the date specified.
Change	You can change the assignment variant that is valid on the date specified.
Display	You can display the assignment variant that is valid on the date specified.
Copy	For the date specified, the system creates a new assignment variant that has the same properties as the assignment variant specified.
Delete	The system deletes the version of the assignment variant that is valid on the date specified.
Display History	The system displays all the changes made to the assignment variant specified.
Assignment Variant → Delete Variant	The system deletes all the version of the assignment variant specified.
Goto → Master Data for Benchmark	The system branches to the transaction for editing the master data of benchmarks .

Action	Function
Benchmark	The system displays the master data of the benchmark selected.
PH Assignment	The system assigns the selected benchmark to the portfolio hierarchy node that is selected in the right-hand area of the screen.
Delete Assignment	The system removes the benchmark that was assigned to the portfolio hierarchy node selected.

Example

Create an assignment variant as follows:

Choose a view and a portfolio hierarchy node, and enter a name and validity date for the assignment variant. Choose  [Create](#).

The system displays the tab page **Assign Benchmark to PH Nodes**. The left-hand part of the screen contains the benchmarks you defined. The right-hand part of the screen contains the portfolio hierarchy.

In the right-hand part of the screen, open the portfolio hierarchy down to the node to which you want to assign a benchmark.

Using Drag&Drop, assign the benchmark to the portfolio hierarchy node.

Choose the **General Properties/Comments** tab page

The system displays the attributes of the assignment variant. The upper part of the screen contains the attributes that are valid for all versions of the assignment variant. The lower part of the screen contains the attributes that are valid only for the current version of the assignment variant.

Using the **Type of PH Assignment** indicator define whether the assignment of the benchmark applies just for one portfolio hierarchy node, or for all the lower-level nodes as well if they have not been assigned any other benchmarks.

By setting this indicator, you define that the benchmarks are displayed on entire branches of the portfolio hierarchy.

Choose  with the quick info [Save](#).



You can display and change the assignment variants from within the area menu. In the **SAP Easy Access** screen choose **Accounting → Financial Supply Chain Management → Treasury and Risk Management → Portfolio Analyzer → Master Data → Benchmark → Assign Benchmarks to Nodes in the Portfolio Hierarchy**

Calculation of Benchmark Key Figures in the Benchmark Run

Use

You use this function to start benchmark runs. In these runs, the system calculates the values of the benchmarks you defined, and saves the results in the relevant benchmark key figures in the Results Database.

Once the benchmark runs have finished, you can display the results in the [Analyzer Information System](#) (AIS).

Integration

Although the system uses the framework of the Results Database to save and display benchmarks, you have to start the benchmark runs without using the evaluation procedures of the Results Database.

The system does not link the benchmark master data you created with the relevant benchmark key figures until the benchmark run is started.

It calculates the benchmark values only for the portfolio hierarchy nodes to which you assigned benchmarks. For this reason, you enter one or more assignment variants when you start benchmark runs.

Prerequisites

- You have defined at least one benchmark in the Customizing for **Financial Supply Chain Management** under **Treasury and Risk Management** **Portfolio Analyzer** **Benchmarks** **Edit Master Data for Benchmarks**.
- You have created at least one assignment variant in the Customizing for **Financial Supply Chain Management** under **Portfolio Analyzer** **Benchmarks** **Assign Benchmarks to Nodes in the Portfolio Hierarchy**.
- You have created the key figures that you want to use for benchmarking. You create these in the Customizing for **Financial Supply Chain Management** under **Portfolio Analyzer** **Results Database** **Edit Key Figures and Evaluation Procedures**.
For more information, see [Benchmarking](#).

Features

You can start benchmark runs in the following modes:

- **Basic Run**

You use the following selection parameters to define the scope of the benchmark run: portfolio hierarchy, assignment variant, benchmark, benchmark key figure, and evaluation period. You can enter multiple benchmarks and benchmark key figures. The system calculates key figure values for each combination of benchmark and benchmark key figure you entered.

- **Deletion Run**

You use the deletion run to delete benchmark values that have already been calculated. The system also deletes all composite benchmarks that contain the benchmarks that are to be deleted. You start a deletion run if you want to change the master data of benchmarks, for example, for which the system has already calculated and saved key figure values. In this case, before you change the master data of the benchmarks you must delete the key figure values that were saved.

You can start the basic run and the deletion run as **test runs** in order to check which data is selected, and which benchmark values are calculated without this data being saved in the Results Database.

Saving Worklists

In the basic run and the deletion run, you can save the selection criteria you used for the benchmarks as worklists. You can then use these worklists for a new basic run. The system does the following:

In the basic run, the system saves the selection criteria of all key figure calculations that were terminated.

In the deletion run, it saves the selection criteria of the run. The worklist contains the selection criteria for all the benchmarks that you specified for deletion. It also contains the selection criteria of the higher-level benchmarks, since the system also deletes the key figure values of these composite benchmarks in the deletion run.

You should use the **Save as Worklist** option for deletion runs that you start when you want to change the master data of a benchmark yet the Results Database already contains key figure values for the version of the benchmark in question. You can do this as follows:

1. Choose the **Save as Worklist Option**, and start the run.

The system deletes the relevant key figure values.

2. Change the master data or market data of the benchmark as required.

3. Start the basic run using the worklist that the system created during the deletion run. You can find the name of the worklist by looking in the log of the deletion run.

The system reproduces all the key figure values that were deleted.

Activities

In the SAP Easy Access screen choose **Accounting** **Financial Supply Chain Management** **Treasury and Risk Management** **Portfolio Analyzer** **Tools** **Results Database** **Calculation of Benchmark Key Figures**.

The system displays a selection screen.

Enter the run parameters you require and choose  with the quick info **Execute**.

The system starts the benchmark run.

i Note

To display benchmark runs that already exist, in the SAP Easy Access screen choose **Accounting** **Financial Supply Chain Management** **Treasury and Risk Management** **Portfolio Analyzer** **Tools** **Results Database** **Overview of the Calculation of Benchmark Key Figures**.

Determination of Risk-Adjusted Measures

Use

In this function, you can use key figures as the basis for risk measurement to gain a better/deeper understanding of the quality of return. Depending on measure key figure that you select, the system determines intermediate results that have been automatically calculated and saved. The description for the intermediate results of these key figures is set as a combination of the description of the key figure and the related/corresponding intermediate result.

Prerequisites

The “risk-adjusted measure” ratio key-figures require a portfolio yield and a benchmark yield key figure for calculation (the only exception is Jensen's alpha key figure, which requires a risk-free yield in addition to the portfolio and benchmark yield). As the first step:

You have defined and evaluated for the required dates, a portfolio yield key figure. For the detailed procedure, see [Calculation of Rates of Return](#).

You have defined and evaluated for the required dates, a benchmark yield key figure. For the detailed procedure, see [Calculation of Benchmark Key Figures in the Benchmark Run](#).

For a risk free yield, the same benchmark yield key figure can be used or a different benchmark yield key figure can be defined and evaluated.

You have defined the risk-adjusted measure key-figure which you want to evaluate. To do this, go to SAP IMG and choose **Financial Supply Chain Management** → **Treasury and Risk Management** → **Portfolio Analyzer** → **Results Database** → **Edit Key Figures and Evaluation Procedures**

You have assigned the previously evaluated portfolio and benchmark yield key-figures to the risk-adjusted measure key-figure.

You have associated the appropriate assignment variant to the benchmark yield key figures. The assignment variant should be the one for which you have run the evaluation of benchmark yield key-figure.

Features

To get a better understanding of the quality of the yields, the following key figures are used:

The Sharpe ratio measures the return per unit of risk. The higher the Sharpe ratio, the better is the combined performance of risk and return. For the calculation of the Sharpe ratio the following formula

$$SR = \frac{r_p - b}{\sigma_p}$$

Where r_p = annualized portfolio return, b = annualized benchmark return, σ_p = annualized portfolio risk (standard deviation of the portfolio return).

The standard deviations of the portfolio return and the benchmark return are calculated and stored as intermediate results. As these intermediate results are based on yield key figures, they can only be calculated when the yields are already calculated and stored in the results database (RDB).

Depending on the selected evaluation date and the definition of the number of observations in the attributes of the Sharpe ratio key figure, the dates for the yield-values are determined. If yield-values are missing an error message will appear saying that data for the calculation are missing. If all values are available, the calculation will be done with the following formula:

Standard Deviation $\sigma = \sqrt{\frac{\sum_{i=1}^n (r_i - \bar{r})^2}{n}}$

where n = number of observations, r_i = selected yield-values (of portfolio or benchmark) and

Expected value $\mu = r = \frac{\sum_{i=1}^n r_i}{n}$

Jensen's alpha is the excess return adjusted for the systematic risk. For the calculation of the Jensen's Alpha the following formula is used:

$$\alpha = r_p - r_f - \beta_p * (b - r_f)$$

Where r_p = annualized portfolio return, r_f = annualized return of the risk free rate, b = annualized benchmark return, β_p = regression beta (as defined for Treynor Ratio). The regression beta is calculated and stored as an intermediate result.

The Treynor ratio is similar to the Sharpe ratio. It is a gauge of risk-adjusted performance calculated by dividing the excess return of a portfolio above the risk-free rate by its beta. Higher values are desirable and indicate greater return per unit of risk. For the calculation of the Treynor ratio, the following formula is used:

$$TR = \frac{r_p - b}{\beta_p},$$

Where r_p = annualized portfolio return, b = annualized benchmark return, β_p = regression beta. The regression beta is calculated by the following formula and stored as intermediate result:

$$\beta_p = \frac{\sum_{i=1}^n [(r_i - \bar{r}) * (b_i - \bar{b})]}{\sum_{i=1}^n (b_i - \bar{b})^2}$$

where r_i = return of portfolio, \bar{r} = mean of portfolio return

b_i = return of benchmark, \bar{b} = geometric mean of benchmark return (depending on the choice defined in the key figure definition), n = number of observations

The Information ratio is similar to the Sharpe ratio, but here the excess return is compared to the tracking error or the relative risk. For the calculation of the information ratio the following formula is used:

$$IR = \frac{\text{Annualized excess return}}{\text{Annualized tracking error}}$$

Where the annualized excess return is calculated as:

$$\text{Annualized Arithmetic excess return} = r_p - b$$

The tracking error (TE) is the standard deviation of excess return. It is calculated by the following formula and stored as intermediate result:

$$TE = \sqrt{\frac{\sum_{i=1}^n (a_i - \bar{a})^2}{n}}, \text{ where}$$

a_i = i-th observed excess return

\bar{a} = mean excess return

The Sortino ratio is also similar to Sharpe ratio and the Treynor ratio, but here the return is compared to the downside risk, which means that the focus is set to the variability of underperformance. For the calculation of the Sortino Ratio the following formula is used:

$$\text{Sortino ratio} = \frac{(r_p - r_T)}{\sigma_D}$$

Where σ_D is the Downside Risk, which is calculated by the following formula and stored as intermediate result:

$$\sigma_D = \sqrt{\sum_{i=1}^n \frac{\min[(r_i - b_i), 0]^2}{n}}$$

The minimum target return r_T is the annualized benchmark return of the related benchmark key figure as defined in the Sortino ratio key figure.

Activities

In SAP Menu, go to **Accounting Financial Supply Chain Management Treasury and Risk Management Portfolio Analyzer Tools Results Database Calculate Benchmark Ratio Key Figures**. Here the system displays a selection screen.

Select the risk-adjusted measure key figures you want to evaluate, along with a proper evaluation period.

Once the results are calculated, they can be displayed in the **Analyzer Information System** (AIS). In the selection screen of AIS, you can enter the key dates and the initial layout, which decides what key figures will be displayed in the reporting.

To define an initial layout, go to [SAP Menu Accounting Financial Supply Chain Management Treasury and Risk Management Portfolio Analyzer Tools Analyzer Information System Define Initial Layout](#) (AIS_LAY_DEF).

To run the [Analyzer Information System](#) reporting, go to [SAP Menu Accounting Financial Supply Chain Management Treasury and Risk Management Portfolio Analyzer Information System Analyzer Information System](#) (AIS_STDREP)

Using Book Values

Use

In the Analyzer Information System (AIS), the system usually displays only the key figures calculated in Market Risk Analyzer and Portfolio Analyzer and that were saved in the Results Database. In addition to these risk key figures, in the Analyzer Information System you can display book values from operational components. This enables you to compare risk key figures with the book values used in external reporting.

Other central key figures, such as excess fair value, combine book values and key figures from Risk Management. You can use the [formula editor](#) to link book values and risk key figures to formula-based key figures, so that this data can be displayed in the Analyzer Information System.

The system contains function modules that you can use to transfer book values in order to save them in the Results Database. You add these function modules in the Customizing for the price calculator. You can transfer book values from the following components:

[Transaction Manager in SAP Treasury and Risk Management](#) (TRM-TM)

[SAP Loans Management](#) (FS-CML)

Prerequisites

The book values that you want to transfer have to be key-date book values.

You have created an RFC connection for the transfer of the book values. In the [SAP Easy Access](#) screen choose **Tools** → **Administration** → **Administration** → **Network** → **RFC Destinations**.

Procedure

To transfer book values to the Results Database, do the following:

Define the function modules that are to be used to transfer the book values

You need a separate implementation of the RFC interface of the price calculator. This function module, which you make known to the price calculator in the Customizing for the evaluation type, reads the relevant key figures from the operational system and saves them in the Results Database.

RFCT2_BOOKVALUE_PC (transfer of book values from TRM, in position currency)

RFCT2_BOOKVALUE_LC (transfer of book values from TRM, in local currency)

These function modules take, for example, the book values of contracts and securities positions from valuation area 001. You can copy the function modules to the custom namespace, and change them to meet your requirements.



To create function modules, in the **SAP Easy Access** screen choose Tools → **ABAP Workbench** → **Overview** → **Object Navigator**. For more information about adapting the function modules predefined in the system see the coding of the function modules given above.

Define an **evaluation type**

Create an evaluation type in the Customizing for **SAP Banking**. To do so, under **SEM Banking** choose **Common Settings for Market Risk and Asset/Liability Management** → **Valuation** → **Define Evaluation Type**; under **Financial Supply Chain Management** choose **Treasury and Risk Management** → **Basic Analyzer Settings** → **Valuation** → **Define and Set Up Evaluation Types**. Then do the following:

Choose the **External Function Control** tab page.

Set the **External Valuation** indicator.

In the **External Valuation** area, in the **RFC Destination** field, enter the target system. In the **RFC Function Name** field, enter the name of the function module that you want to use to transfer book values.

Define key figures and evaluation procedures

In the Customizing for **Financial Supply Chain Management** under **Treasury and Risk Management** → **Portfolio Analyzer** → **Results Database** → **Edit Key Figures and Evaluation Procedures**, for each key figure, specify the book value that you want to transfer.

Define a separate key figure for each book value.

When doing so, choose a suitable key figure category.

The system does not contain separate key figures for transferring book values. We recommend that you use the following key figure categories from Portfolio Analyzer:

PAPOS (position in position currency)

PAPOSOC (position in evaluation currency)

By using these key figure categories, you ensure that the system translates values into the evaluation currency correctly, and that it displays these values correctly.

When you define the key figure, enter the evaluation type that you specified earlier.

Define the initial layout that contains the required key figures

In the Customizing for **SAP Banking**, choose **SEM Banking** → **Market Risk Analysis** → **Results Database** → **Define Initial Layout**, or in the Customizing for **Financial Supply Chain Management** choose **Treasury and Risk Management** → **Market Risk Analyzer** or **Portfolio Analyzer** → **Results Database** → **Define Initial Layout** and create an initial layout.

Assign the key figures you defined to one of the following areas:

Portfolio hierarchy

Single records

Position trend

If required, define formula-based key figures

You use the [formula editor](#) to do this.

Save the book values in the Results Database (RDB)

In the **SAP Easy Access** screen choose **Accounting** → **Financial Supply Chain Management** → **Treasury and Risk Management** → **Portfolio Analyzer** → **Tools** → **Determine Single Records**.

In the **SAP Easy Access** screen, then choose **Accounting** → **Financial Supply Chain Management** → **Treasury and Risk Management** → **Portfolio Analyzer** → **Tools** → **Determine Final Results**.

Result

You have transferred the required book values to the SAP system, and stored them in the Results Database (RDB). You can now display the book value, and the formula-based key figures derived from them, in the [Analyzer Information System](#).

Note the following constraints:

The system does not automatically update the book values you transferred. If the book values stored in the operational system change, you have to transfer these values again for the dates required, and store them in the Results Database (RDB).

Note that you can use the **SAP Query** function to transfer key figures from **Market Risk Analysis** and **Portfolio Analyzer** to **Treasury and Risk Management (TRM)**. Therefore, the book values that you transfer to the Results Database can also be risk key figures.

See also:

[Transaction Codes for the Transfer of Book Values](#)

Transaction Codes for the Transfer of Book Values

The following table contains the transaction codes that you use when you transfer book values:

Short Description	Transaction Code
Define the RFC connection	SM59
Define function modules for reading book values	SE80 Templates: RFCT2_BOOKVALUE_PC and RFCT2_BOOKVALUE_LC
Define evaluation types	JBREVAL
Define key figures and evaluation procedures	AFWKF_PA
Define the initial layout	AIS_LAY_DEF
Formula editor for formula-based key figures	AIS_FORMULA_DEF
Determine single records	PAEP1
Determine final results	PAEP2

Short Description	Transaction Code
Reporting for key figures	AIS_STDREP

See also:

[Using Book Values](#)

Formula Editor

Use

In this function, you use existing key figures as the basis for defining formula-based key figures, which you can then display in the Analyzer Information System (AIS).

This is useful in particular when you transfer book values from operational components, and combine them with key figures from Risk Management to create formula-based key figures. Examples of formula-based key figures are excess fair value and excess book value.

Integration

The system calculates formula-based key figures at runtime only. This takes place when the Analyzer Information System is called. In the Analyzer Information System, the system displays the formula-based key figures, and the key figures that you stored in the initial layout for the Analyzer Information System.

Unlike the other key figures, the formula-based key figures are not stored in the database. When the Analyzer Information System is called, the system checks all the formulas of the initial layout.

If errors occur, the system does not display the formulas in question. However, it does display an error log.

This occurs if, for example, you used key figures to define formulas, and these key figures were deleted from the initial layout.

Prerequisites

You have defined all the key figures you need for the formula-based key figures.

If you want to use book values for formula-based key figures, you have entered the settings required to import them into the system.

For more information, see [Using Book Values](#).

Before you can call the Analyzer Information System, you need to have carried out the single records procedure or the final results procedure for all the key figures you require.

Activities

In the Customizing for **SAP Banking**, choose **SEM Banking** → **Market Risk Analysis** → **Results Database** → **Define Formulas for Analyzer Information System**, or in the Customizing for **Financial Supply Chain Management** choose **Treasury and Risk Management** → **Market Risk Analyzer or Portfolio Analyzer** → **Results Database** → **Define Formulas for Analyzer Information System**

The system displays the initial layouts that have already been defined.

Select the initial layout, and choose the area for which you want to define formula-based key figures.

In this area, the system displays the formula-based key figures that exist.

If required, create a new formula-based key figure.

To store a formula for the formula-based key figure, select a key figure and choose with the quick info Formula editor.

The system opens the formula editor.

Define the formula as required, and save your entries.

The formula editor contains the basic mathematical functions and an **if** function for defining formula-based key figures.

1

To display the documentation about the formula editor, choose with the quick info **Information**.

Examples

Excess Fair Value

For single transactions, the excess fair value is the difference between the NPV and the book value. If this difference is negative, the excess fair value is zero.

$$\text{excess fair value} = \max[NPV - \text{book value}; 0]$$

Excess fair value for portfolios is the total excess fair value of the single transactions they contain.

Excess Book Value

For single transactions, the excess book value is the difference between the book value and the NPV:

$$\text{excess book value} = \max[\text{book value} - NPV; 0]$$

Excess book value for portfolios is the total excess book value of the single transactions they contain.

Risk-Adjusted Excess Fair Value

For single transactions, the excess fair value is the difference between the NPV and the book value. In this case, the value at risk is deducted from the book value in order to reflect potential losses:

$$\text{risk adjusted excess fair value} = \max[NPV - VaR - \text{book value}; 0]$$

Since the value-at-risk key figures cannot be totaled, the risk-adjusted excess fair value has to be calculated separately for each node in the portfolio hierarchy.

1

Note that the functions shown in the examples are not available in the formula editor. You therefore have to use an if-function to define the key figures; for example “= IF(NPV > book value, NPV-book value,0)”.

Analyzer Information System

Use

You use this function to display the results data that you have stored in the [Results Database](#). You can use the Analyzer Information System to calculate the following key figures in a consistent way:

- Risk key figures that you calculated in the single records and final results procedures (such as the value at risk)
- [Book values](#) that you have imported from your operational systems
- [Formula-based key figures](#)

The system displays the results data and the portfolio hierarchy. You can use the portfolio hierarchy to navigate to the key figures for each portfolio hierarchy node, and in this way to display the results data for various aggregation levels, right down to single records. In addition to the results data, you can display the risk hierarchy, the calculation bases, detailed information about the key figures, and the evaluation procedures used. For value-at-risk key figures you can navigate to the results data either using the portfolio hierarchy or the risk hierarchy.

In Customizing you can define how the Analyzer Information System is to display data, and you can create an initial layout with various key figures and portfolio hierarchies or risk hierarchies, for instance (for example, for key-date value-at-risk analyses, back testing, and benchmarking).

Prerequisites

In Customizing for [SAP Banking](#) under [SEM Banking](#) [Market Risk Analysis](#) [Results Database](#) [Edit Key Figures and Evaluation Procedures](#) or in Customizing for [Financial Supply Chain Management](#) under [Treasury and Risk Management](#) [Market Risk Analyzer](#) [Results Database](#) [Edit Key Figures and Evaluation Procedures](#) you have defined key figures and assigned them analysis procedures.

In Customizing for [SAP Banking](#) under [SEM Banking](#) [Market Risk Analysis](#) [Results Database](#) [Define Initial Layout](#) or in Customizing for [Financial Supply Chain Management](#) under [Treasury and Risk Management](#) [Market Risk Analyzer](#) [Results Database](#) [Define Initial Layout](#) you have created an initial layout.

If required, you have imported book values and defined formula-based key figures.

You have run analyses using the Results Database.

i Note

To display results in the Analyzer Information System you need the authorization for authorization object T_RDB_CVKF. The system checks users' authorization to display data on the basis of combinations of characteristic values and key figures.

Activities

1. On the [SAP Easy Access](#) screen, choose [Accounting](#) [Bank Applications](#) [SEM Banking](#) [Market Risk Analysis](#) [Information System](#) [Analyzer Information System](#) or [Accounting](#) [Financial Supply Chain Management](#) [Treasury and Risk Management](#) [Market Risk Analyzer](#) [Information System](#) [Analyzer Information System](#) .

The system displays a selection screen.

2. Enter the characteristics for the selection of results data and choose **Execute**.

The system displays the key figures and their single records and final results procedures in the initial layout you defined.

- o **Portfolio hierarchy**

The top part of the screen contains a navigation structure based on the portfolio hierarchy. To the right of this are the key figures of the hierarchy level.

- o **Detailed information**

To display detailed information, double click a node in the portfolio hierarchy. At the bottom of the screen the system displays additional information about the portfolio hierarchy node. Depending on the evaluation procedure, the system displays the **Risk Hierarchy** and **Backtesting** tab pages.

The **Risk Hierarchy** tab page contains a navigation structure based on the risk hierarchy. To display key figures for each risk factor, double click a risk hierarchy node.

The **Backtesting** tab page contains the [back testing results](#).

i Note

Note that you can define how value-at-risk key figures are displayed not only using the portfolio hierarchy, but also using the risk hierarchy. To do so, choose **Risk Specific Display of VaR**.

You can use the following functions:

Action	Function
Portfolio Hierarchy in Full Screen Mode	The system hides the detailed information. Only the navigation structure for the portfolio hierarchy is displayed.
Detail View in Full Screen Mode	The system hides the navigation structure for the portfolio hierarchy. Only the detailed information is displayed.
Standard Display	At the top of the screen, the system displays the navigation structure for the portfolio hierarchy. At the bottom of the screen the system displays the detailed information for the key figure categories.
Risk Specific Display of VaR	<p>The system displays a dialog box containing a navigation structure based on the risk hierarchy, plus the results.</p> <p>You can navigate in the risk hierarchy to display the key figures that were selected.</p>
Single Records	The system displays the single records for the portfolio hierarchy node you selected.
Selections	The system displays the selection parameters you specified when you called the Analyzer Information System.
Historical Trend	<p>The system compares the current data records with the older data records from the Results Database.</p> <p>In a dialog box you can enter the start date and time periods for the historical comparison.</p>
Calculation Bases	The system displays the calculation bases of the evaluations, including market data such as yield curves and volatilities.

Action	Function
 Calculation Log	The system displays the application log for the evaluations.
 Key Figure	The system displays the attributes of the key figure selected, including the key figure name and the key figure category.
 Procedure	The system displays the final results procedure that is assigned to the key figure selected.
 Single Records	The system displays financial objects and their results.
 Key Date	The system displays the key figures for a different analysis date.
 P/L	The system displays the profit and loss calculation for the key figures selected.
 Sim. Scenarios	The system displays the simulation scenarios.