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# PeopleSoft EPM 9.1: Risk Weighted Capital

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June 2013

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PeopleSoft EPM 9.1: Risk Weighted Capital  
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# Preface

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## Understanding the PeopleSoft Online Help and PeopleBooks

The PeopleSoft Online Help is a website that enables you to view all help content for PeopleSoft Applications and PeopleTools. The help provides standard navigation and full-text searching, as well as context-sensitive online help for PeopleSoft users.

## PeopleSoft Hosted Documentation

You access the PeopleSoft Online Help on Oracle's PeopleSoft Hosted Documentation website, which enables you to access the full help website and context-sensitive help directly from an Oracle hosted server. The hosted documentation is updated on a regular schedule, ensuring that you have access to the most current documentation. This reduces the need to view separate documentation posts for application maintenance on My Oracle Support, because that documentation is now incorporated into the hosted website content. The Hosted Documentation website is available in English only.

## Locally Installed Help

If your organization has firewall restrictions that prevent you from using the Hosted Documentation website, you can install the PeopleSoft Online Help locally. If you install the help locally, you have more control over which documents users can access and you can include links to your organization's custom documentation on help pages.

In addition, if you locally install the PeopleSoft Online Help, you can use any search engine for full-text searching. Your installation documentation includes instructions about how to set up Oracle Secure Enterprise Search for full-text searching.

See *PeopleTools 8.53 Installation* for your database platform, "Installing PeopleSoft Online Help." If you do not use Secure Enterprise Search, see the documentation for your chosen search engine.

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**Note:** Before users can access the search engine on a locally installed help website, you must enable the Search portlet and link. Click the Help link on any page in the PeopleSoft Online Help for instructions.

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## Downloadable PeopleBook PDF Files

You can access downloadable PDF versions of the help content in the traditional PeopleBook format. The content in the PeopleBook PDFs is the same as the content in the PeopleSoft Online Help, but it has a different structure and it does not include the interactive navigation features that are available in the online help.

## Common Help Documentation

Common help documentation contains information that applies to multiple applications. The two main types of common help are:

- Application Fundamentals

- Using PeopleSoft Applications

Most product lines provide a set of application fundamentals help topics that discuss essential information about the setup and design of your system. This information applies to many or all applications in the PeopleSoft product line. Whether you are implementing a single application, some combination of applications within the product line, or the entire product line, you should be familiar with the contents of the appropriate application fundamentals help. They provide the starting points for fundamental implementation tasks.

In addition, the *PeopleTools: PeopleSoft Applications User's Guide* introduces you to the various elements of the PeopleSoft Pure Internet Architecture. It also explains how to use the navigational hierarchy, components, and pages to perform basic functions as you navigate through the system. While your application or implementation may differ, the topics in this user's guide provide general information about using PeopleSoft Applications.

## Field and Control Definitions

PeopleSoft documentation includes definitions for most fields and controls that appear on application pages. These definitions describe how to use a field or control, where populated values come from, the effects of selecting certain values, and so on. If a field or control is not defined, then it either requires no additional explanation or is documented in a common elements section earlier in the documentation. For example, the Date field rarely requires additional explanation and may not be defined in the documentation for some pages.

## Typographical Conventions

The following table describes the typographical conventions that are used in the online help.

<i>Typographical Convention</i>	<i>Description</i>
<b>Bold</b>	Highlights PeopleCode function names, business function names, event names, system function names, method names, language constructs, and PeopleCode reserved words that must be included literally in the function call.
<i>Italics</i>	Highlights field values, emphasis, and PeopleSoft or other book-length publication titles. In PeopleCode syntax, italic items are placeholders for arguments that your program must supply.  Italics also highlight references to words or letters, as in the following example: Enter the letter <i>O</i> .
Key+Key	Indicates a key combination action. For example, a plus sign (+) between keys means that you must hold down the first key while you press the second key. For Alt+W, hold down the Alt key while you press the W key.
Monospace font	Highlights a PeopleCode program or other code example.
... (ellipses)	Indicate that the preceding item or series can be repeated any number of times in PeopleCode syntax.



<b>Typographical Convention</b>	<b>Description</b>
{ } (curly braces)	Indicate a choice between two options in PeopleCode syntax. Options are separated by a pipe (   ).
[ ] (square brackets)	Indicate optional items in PeopleCode syntax.
& (ampersand)	When placed before a parameter in PeopleCode syntax, an ampersand indicates that the parameter is an already instantiated object.  Ampersands also precede all PeopleCode variables.
=>	This continuation character has been inserted at the end of a line of code that has been wrapped at the page margin. The code should be viewed or entered as a single, continuous line of code without the continuation character.

## ISO Country and Currency Codes

PeopleSoft Online Help topics use International Organization for Standardization (ISO) country and currency codes to identify country-specific information and monetary amounts.

ISO country codes may appear as country identifiers, and ISO currency codes may appear as currency identifiers in your PeopleSoft documentation. Reference to an ISO country code in your documentation does not imply that your application includes every ISO country code. The following example is a country-specific heading: "(FRA) Hiring an Employee."

The PeopleSoft Currency Code table (CURRENCY\_CD\_TBL) contains sample currency code data. The Currency Code table is based on ISO Standard 4217, "Codes for the representation of currencies," and also relies on ISO country codes in the Country table (COUNTRY\_TBL). The navigation to the pages where you maintain currency code and country information depends on which PeopleSoft applications you are using. To access the pages for maintaining the Currency Code and Country tables, consult the online help for your applications for more information.

## Region and Industry Identifiers

Information that applies only to a specific region or industry is preceded by a standard identifier in parentheses. This identifier typically appears at the beginning of a section heading, but it may also appear at the beginning of a note or other text.

Example of a region-specific heading: "(Latin America) Setting Up Depreciation"

### Region Identifiers

Regions are identified by the region name. The following region identifiers may appear in the PeopleSoft Online Help:

- Asia Pacific
- Europe
- Latin America

- North America

## Industry Identifiers

Industries are identified by the industry name or by an abbreviation for that industry. The following industry identifiers may appear in the PeopleSoft Online Help:

- USF (U.S. Federal)
- E&G (Education and Government)

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Oracle customers have access to electronic support through My Oracle Support. For information, visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

## Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

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## Using and Managing the PeopleSoft Online Help

Click the Help link in the universal navigation header of any page in the PeopleSoft Online Help to see information on the following topics:

- What's new in the PeopleSoft Online Help.
- PeopleSoft Online Help accessibility.
- Accessing, navigating, and searching the PeopleSoft Online Help.
- Managing a locally installed PeopleSoft Online Help website.

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## PeopleSoft EPM Related Links

[My Oracle Support](#)

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[PeopleSoft Training from Oracle University](#)

[PeopleSoft Video Feature Overviews on YouTube](#)

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## Contact Us

Send us your suggestions Please include release numbers for the PeopleTools and applications that you are using.

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## Chapter 1

# Getting Started with Risk-Weighted Capital

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## Common Elements Used in Risk Weighted Capital

This section lists common elements used in Risk-Weighted Capital.

<b>SetID</b>	Provides the ID code for a tableset. A tableset is a group of tables (records) necessary to define your company's structure and processing options.
<b>Effective Date</b>	Establishes the date on which the row in the table becomes effective. It determines when you can view and change the information. Pages and background processes that use the information use the current row.
<b>Status</b>	Indicates whether a row in a table is active or inactive. You cannot select inactive rows on pages or use them for running background processes.
<b>Description</b>	Allows free-form text of up to 30 characters that describes what you are defining.
<b>Run Control ID</b>	Identifies specific run control settings for a process or report.
<b>Report ID</b>	Identifies the report.
<b>Program Name</b>	Provides the PeopleSoft EPM program name for which you are running the report or process.
<b>When</b>	Specifies the frequency with which you want to run a process. You can select <i>Once</i> , <i>Always</i> , or <i>Don't</i> .
<b>Last Run On</b>	Indicates the date on which the report or process was last run.
<b>As Of Date</b>	Indicates the last date for which the report or process includes data.
<b>Scenario ID</b>	Provides an identifier for a specific scenario.
<b>Model ID</b>	Provides an identifier for a model. A model uniquely identifies the types of data that you want to include in a scenario. For example, you might want to review revenue by region—a broad scope. Or, if you use PeopleSoft Activity-Based Management, you might want to review only those activities that relate to a certain application line for certain types of resources—a narrow scope.

<b>Fiscal Year</b>	Specifies the fiscal year for your scenario or process run.
<b>Period</b>	Specifies the accounting period for the object being defined or process being run.
<b>Job ID</b>	Specifies an instance of an engine.

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## Risk-Weighted Capital Overview

With the advent of deregulation and increased competition, financial managers are recognizing the limitations of the traditional focus on asset growth, market share, or interest earnings per share, all of which ignore inherent business risks and can be misleading performance indicators. The emphasis is shifting to risk-adjusted return on capital (RAROC), which recognizes the importance of capital adequacy. Too little capital can lead to a liquidity crisis (in the event of unexpected losses), and too much capital lowers the return on shareholders' equity.

The role of capital is to act as a buffer against unexpected losses and to minimize the likelihood of an institution's failure. Institutions typically create provisions against identified losses (loss reserves); and they allocate capital to absorb any *unidentified* losses. Risk-Weighted Capital (RWC) enables you to systematically assess your risk exposure and to calculate your capital allocation needs and normalized loss (loss reserve) needs. Normalized loss distributes your expected losses across periods, and it levels the income/loss streams.

You can perform your risk analysis for ledger accounts, products, instrument pools, or treasury positions. You can assign risk weights corresponding to different risk types that you define for your organization; or you can define functions that the system uses to calculate the risk weights.

In some cases, the institution may choose to allocate excess capital (for example, to support superior credit ratings or to satisfy depositors' requirements). Risk-Weighted Capital allows you to define a set of formulas for your risk weights corresponding to your targeted capital requirements. You can use Risk-Weighted Capital to measure book capital against your risk-weighted capital, so that you can determine whether your organization is over or under capitalized.

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## Risk-Weighted Capital Business Processes

This application is part of the PeopleSoft Cash Management business process.

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## Risk-Weighted Capital Implementation

PeopleSoft Setup Manager enables you to generate a list of setup tasks for your organization based on the features that you are implementing. The setup tasks include the components that you must set up, listed in the order in which you must enter data into the component tables, and links to the corresponding Product documentation.

## Other Sources of Information

In the planning phase of your implementation, take advantage of all PeopleSoft sources of information, including the installation guides and troubleshooting information. A complete list of these resources appears in the preface in *Product Documentation and the Online Library* with information about where to find the most current version of each.

See the product documentation for *PeopleTools: PeopleSoft Setup Manager* and *PeopleTools: PeopleSoft Component Interfaces*





## Chapter 2

# Navigating in Risk-Weighted Capital

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## Navigating in Risk-Weighted Capital

Risk-Weighted Capital provides custom navigation center pages that contain groupings of folders that support a specific business process, task, or user role.

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**Note:** In addition to the Risk-Weighted Capital custom navigation center pages, PeopleSoft provides menu navigation, and standard navigation pages.

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See the product documentation for *PeopleTools: PeopleSoft Applications User's Guide*

## Pages Used to Navigate in Risk-Weighted Capital

### Risk-Weighted Capital Center

The Risk-Weighted Capital Center custom navigation pages are geared to the person in the organization who is focused on all aspects of risk-weighted capital, including business processes and data setup. This table lists the custom navigation pages that are used to navigate in Risk-Weighted Capital.

<b>Page Name</b>	<b>Navigation</b>	<b>Usage</b>
Risk-Weighted Capital Center	Main Menu, Financial Services Industries, Risk-Weighted Capital Center	Access primary Risk-Weighted Capital Center menu options and activities.
Enterprise Warehouse Setup	Click Enterprise Warehouse Setup on the Risk-Weighted Capital Center page.	Access the Metadata, Business Framework, Engines Setup, Dimensions page.
Models and Parameters Setup	Click Models and Parameters Setup on the Risk-Weighted Capital Center page.	Access the Financial Services Models, Miscellaneous Parameters, Behavioral Models, Balance Segmentation page.
Interest Rate Environment	Click Interest Rate Environment on the Risk-Weighted Capital Center page.	Access Yield Curve Generator page.
Product Portfolio	Click Run Product Portfolio on the Risk-Weighted Capital Center page.	Access the Product Portfolio Setup, Instrument Detail Information, Stratification, Product Forecast page.
Rules	Click Rules on the Risk-Weighted Capital Center page.	Access the Financial Rules, Analysis and Processing, RWC Parameters and Utilities, Risk-Weighted Capital Rules, Credit Risk, Operating Risk page.

<b>Page Name</b>	<b>Navigation</b>	<b>Usage</b>
Processing	Click Processing on the Risk-Weighted Capital Center page.	Access the Run Engines, Journal Post Engines page.
Reports	Click Reports on the Risk-Weighted Capital Center page.	Access the Custom, General Support Setup, Product Configuration, Financial Calculation Rules, Risk-Weighted Capital page.

# Understanding Risk-Weighted Capital

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## Risk Management

One of the roles of capital is to act as a buffer against unexpected losses, and to minimize the likelihood of an institution's failure. Institutions typically create provisions against identified losses (loss reserves); and they allocate capital to absorb any unidentified losses. Risk-Weighted Capital (RWC) enables you to systematically assess your risk exposure, calculate your capital allocation needs, and your normalized loss (loss reserve) requirements. Normalized loss distributes your expected losses across periods and levels the income/loss streams to reduce earnings volatility. You can perform your risk analysis for your ledger accounts, products or instrument pools, and treasury positions. You can assign risk weights corresponding to different risk types that you define for your organization; or you can define functions that the system uses to calculate the risk weights. In some cases, the institution may choose to allocate excess capital, for example to support superior credit ratings, or to satisfy depositors' requirements. Risk-Weighted Capital allows you to define a set of formulas for your risk weights corresponding to your targeted capital requirements. You can use RWC to compare book capital against your risk-weighted capital in order to determine whether your organization is over or under capitalized.

With RWC, you can manage earnings volatility in the following ways:

- Link risk and return by allocating capital to the business unit or activity responsible for the creation—and ongoing ownership—of the risk.
- Apply the same risk-based discipline to business units within the organization that the capital markets force upon the whole organization.
- Provide a standard for calculating and reporting risk-adjusted performance.
- Focus on risk control and improvement opportunities.
- Level out the earnings stream by reporting a normalized loss amount instead of the actual loss events.
- Provide equity protection in the event of catastrophic losses.
- Provide a specialized form of risk and capital management for banking institutions interested in credit risk assessment in compliance with the Basel II capital accord.

Data structures for credit facilities, risk mitigation instruments, portfolio detail and risk ratings are available for customers to store key attributes required by the accord. The delivered credit risk application engine supports processing these inputs all the way to a final value for Risk-Weighted Assets (RWA) and required Regulatory Capital (RC).

## Basel II Credit Risk Regulatory Compliance

The new Basel Capital Accord (Basel II) aims to improve the soundness of today's complex financial system by instituting regulatory guidelines that place more emphasis on banks' own internal controls for risk management. In recognition of international banks' varying levels of complexity and sophistication, Basel II provides a flexible structure in which banks can use their own systems to measure their market risks and, ultimately, to manage their businesses more effectively. Basel II offers a range of methodologies for the measurement of credit risk and operational risk in determining capital levels, so that banks can adopt approaches that best fit their risk profile. At the same time, it requires comprehensive disclosure by banks whose internal processes are subject to supervisory review and evaluation.

Risk-Weighted Capital has been adapted to help institutions to comply with Basel II requirements for credit risk management and regulatory reporting. You can use Risk-Weighted Capital to help perform risk-weighted asset and regulatory capital credit risk calculations as prescribed in the capital accords. It also enables institutions to benefit from compliance with Basel II by minimizing the amount of regulatory capital withheld, offering a significant competitive advantage. The PeopleSoft Enterprise Performance Management warehouse data structures have been expanded to store and process data in the areas of collateral, facilities, and customers. A new application engine has been created to support processing of portfolio data from end-to-end for each of four methods: standardized simple, standardized comprehensive, foundation, and advanced. You can also use delivered query reports to view online the results of the credit risk application engine, enabling you to categorize, analyze, and control your financial exposures.

### Terminology

The following are commonly used terms and measurements calculated by the credit risk application engine for Basel II :

<b>Term</b>	<b>Definition</b>
PD	Probability of Default: the likelihood that a borrower will technically default on an obligation to repay a loan or other obligation.
LGD	Loss Given Default: expected loss in the event of default.
EAD	Exposure at Default: an on-balance sheet or off-balance sheet item is defined as the expected exposure of the facility upon default of the obligor at no less than the current drawn amount, subject to recognizing the effects of on-balance sheet netting.
EL	Expected Loss: the product of PD and LGD.
IRB	Internal Ratings Based: refers to the approach which allows banks to use their internal estimates of borrower creditworthiness to assess credit risk in their portfolios. The results are translated into estimates of EL, which forms the basis of minimum capital requirements.  There are two variants to the IRB approach: foundation and advanced.  See <a href="#">Credit Risk Processing Options</a> .

<b>Term</b>	<b>Definition</b>
CCF	Credit Conversion Factor: Used to calculate the credit exposure or EAD of off-balance sheet transactions in both the Standardized approach and Foundation IRB approach. Banks can use their own estimates for CCF in the advanced IRB approach.
Collateral	Risk mitigation instrument, especially financial instruments. The underlying security, mortgage, or asset for the purposes of securitization or borrowing and lending activities. In the case of securitized transactions, it means the underlying cashflows.
CRM	Credit Risk Mitigation: Reduction of credit risks by taking collateral, obtaining credit derivatives or guarantees, or taking an offsetting position subject to a netting agreement.
Customer Group	An institution-defined grouping of customers or counterparties associated with a credit facility. A customer group defines a list of customers or counterparties that can draw on a specific credit facility.
Haircut	Determined by the Basel Committee. Haircuts reflect the volatility of a loan, the financial collateral, and possibly existing volatility of currency. It is the margin (expressed in percent) applied to asset or liability exposures to reflect the volatility of that exposure.
Retail banking	Banking with private individuals, but can also include some type of small businesses.
Risk Rating	Represents the assessment of an individual person's or company's creditworthiness. All borrowers are assigned to rating categories in a standardized and consistent manner. The rating provides international investors with accepted standards as a basis for their investment decisions.
Maturity mismatch	Different maturities of exposure and risk mitigation instrument. The maturity of the risk mitigation instrument is shorter than exposure's maturity.
Headroom	Difference between the commitment amount on a credit facility and the summed draws against the facility.
Limit	Commitment amount of a facility (overall fund commitment made by the bank to the customer).
Product Group	An institution-defined grouping of financial products associated with a credit facility. A product group defines a list of products that a bank customer can contractually enter into under a specific facility agreement.
Sub-limit	Commitment amount limit of a sub-facility (that falls under the overall facility).
Sub-sub-limit	Commitment amount limit of a sub-sub-facility (a further restrictive limit which falls under a sub-limit)

## Credit Risk Processing Options

There are four processing options for the credit risk engine using either the standardized approach or the Internal Ratings Based (IRB) approach:

- Standard simple

The bank allocates a risk weight to each of its assets and off-balance sheet positions and produces a sum of risk-weighted asset values. A risk weight of 100% means that an exposure is included in the calculation of risk-weighted assets at its full value, which translates into a capital charge equal to 8% of that value. Similarly, a risk weight of 20% results in a capital charge of 1.6% (that is, one-fifth of 8%).

In support of the standardized simple approach, the credit risk application engine relies on configurable credit risk function rules to apply different weights to various exposure classes.

- Standard comprehensive

Under the standard comprehensive approach, a bank can allocate eligible financial collateral to reduce the amount of the exposure to the counterparty. You can use regulatory or bank-defined haircuts to decrease the amount of collateral or increase the level of exposure. Haircuts account for potential changes in the market prices of securities and foreign exchange rates. Like the standardized simple option, risk weight factors are ultimately applied to the resulting net exposure.

In support of the standardized comprehensive approach, the credit risk application engine relies on a combination of collateral allocation and haircut algorithms, as well as configurable credit risk function rules.

- Foundation (IRB)

The bank estimates each borrower's creditworthiness through an assigned risk rating and related PD (probability of default). These results, along with other inputs supplied by bank supervisors (such as LGD or Loss Given Default), are translated into estimates of a potential future loss amount, and minimum capital requirements.

Risk mitigants such as collateral and guarantees are treated very similarly to the standardized comprehensive approach. In support of the Foundation approach, the credit risk application engine relies on a combination of engine-assigned parameter values, collateral allocation, haircut algorithms and configurable functions.

- Advanced (IRB)

The bank estimates the credit worthiness of borrowers as well as other inputs for the determination of potential future loss amounts and minimum capital requirements.

RWA and capital charge formulas are generally similar to the foundation approach, but allow banks more latitude in defining exposure estimates, probability of default and loss given default. The credit risk application engine incorporates this flexibility through its ability to read tables which contain factors such as LGD and PD.

## Process Flow

The following table illustrates the process flow for credit risk processing.

<b>Step</b>	<b>Activity</b>	<b>Description</b>
1.	Load portfolio data.	Load facility, collateral and instrument data into the warehouse.
2.	Create processing scenario.	Define a standardized, foundation or advanced processing scenario.
3.	Load assumptions.	Load risk rating, PD, LGD (advanced) and risk-weight assumptions.
4.	Pool retail exposures (optional).	Group instrument level detail records into pools with like attributes.
5.	Define or alter risk function rules.	Rules can supplement or override delivered algorithms, risk weights.
6.	Run Credit Risk application engine.	<p>Evaluates on and off-balance sheet exposures.</p> <p>Applies risk mitigation such as collateral or guarantees.</p> <p>Applies haircuts, maturity mismatch algorithms.</p> <p>Calculates facility headroom, optionally at sub-limit levels.</p> <p>Assigns PD, LGD, EAD and RW as appropriate.</p> <p>Applies risk functions.</p>
7.	Review output.	Query output table to evaluate risk-weighted assets, regulatory capital results. Adjust and rerun as necessary.

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## Risk-Weighted Capital Features

Risk-Weighted Capital has features that enable you to:

- Define risk weighting rules for ledger accounts, products, or treasury position balances.
- Define as many risk types as necessary, according to your business needs, for example credit risk, market risk, interest rate risk, deposit runoff risk.
- Calculate risk weighted capital and normalized loss using one of two options: apply a set of additive risk weights that can be applied based on user-defined criteria, or define one or more risk functions that can be used to calculate a capital or normalized loss amount.
- Specify risk weighted capital rules for income statement accounts, for example to cover legal risks.

- Calculate risk weights and regulatory capital output for asset classes defined in the Basel II accord for standard (simple and comprehensive), foundation IRB (internal ratings-based approach), and advanced IRB approaches.
- Process credit risk calculations at the overall facility, sub-facility levels and sub-sub-facility level.
- Create and apply portfolio risk functions to calculate a specialized form of risk weights for credit risk processing. The credit risk engine executes the functions as a final step in its processing, and can use these calculations to override the default risk weights.
- Calculate operational risk resulting from inadequate or failed internal processes, people and systems, or external events.
- Query online the results of the credit risk engine to assess Basel II regulatory compliance, and to analyze portfolio credit exposures.
- View online a matrix charting changes over time in instrument, facility or collateral attributes, so as to evaluate trends in selected data.
- Generate reports to review, audit, and validate your risk weighting rules.
- Calculate risk weighted capital and normalized losses for forecasted balances.
- Use effective dating for assumptions, which provides you with a history of assumptions to help you track rules, and make inquiries concerning results.
- Assign risk-weighted capital rules based on account tree nodes.

For example, if the 'other assets' node included multiple ledger accounts, you could choose to apply an RWC rule to the tree node that represents all 'other assets', rather than to each ledger account individually.

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**Note:** RWC calculates economic capital based solely on the estimates of risk inherent in the products or activities. It does not reallocate existing book capital.

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## Integration with Enterprise Performance Management Warehouses

Risk-Weighted Capital draws data from the EPM data warehouse tables for its processing, and posts results back to the warehouse for reporting. After you load the data from your source systems into the Operational Warehouse Store (OWS), the ETL process moves it into the Operational Warehouse-Enriched (OWE). You can run another set of ETL maps to populate the Multidimensional Warehouse (MDW) tables, which are used by reporting tools to create reports.

For a discussion of the EPM warehouse tables common to all the Financial Services Industry applications, including Risk-Weighted Capital, see *PeopleSoft Application Fundamentals for the Financial Services Industry Documentetion, "Understanding Common FSI Processes"*.

### Risk-Weighted Capital Output Tables

The following are output tables specific to Risk-Weighted Capital processing:



- `RWC_CALC_IN_F00`  
Stores RWC and normalized loss amounts for instruments.
- `RWC_CALC_AC_F00`  
Stores RWC and normalized loss amounts for PF ledger accounts.
- `RWC_CALC_PS_F00`  
Stores RWC and normalized loss amounts for treasury positions.
- `RWC_CALC_IP_F00`  
Stores RWC and normalized loss amounts for forecasted pools.
- `RWC_BS_PROD_F00`  
Stores instrument balances processed, their weighted average risk and normalized loss weights.
- `RWC_BS_TRPS_F00`  
Stores treasury position balances processed, their weighted average risk and normalized loss weights.
- `RWC_RCN_F00`: stores RWC and normalized loss amounts from the RWC reconciliation process.
- `FI_IRWCALC_R00`  
Stores RWC rates for instruments.
- `FI_POOLRWC_R00`  
Stores RWC rates for forecasted pools.
- `FI_RWC_CR_F00`  
Stores credit risk engine final output. Includes final fields for risk-weighted asset and regulatory capital results.
- `FI_IBAL_R00`  
Stores balance amounts related to the instrument.
- `FI_POOL_CF_R00`  
Stores balance amounts related to financial instrument pool cash flows.
- `FI_POOLINST_F00`  
Primary table for the Financial Instrument Pool family of tables. Contains a row for each Pool created as the result of the Stratification Engine process. An instrument pool is a single entity that acts as a proxy for a group of financial instruments. The Stratification Engine provides a way to programmatically group and summarize Financial Instruments into a Pool that can be used as a data source for the Financial Calculator and Cash Flow generators.
- `FI_POOLHDR_R00`

Stores balance amounts related to pooled instrument records.

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## Processing Risk-Weighted Capital

With increased competition, financial managers are recognizing the limitations of the traditional focus on asset growth, market share, or interest earnings per share—all of which ignore the inherent business risks and can be misleading performance indicators. The emphasis is shifting to risk adjusted return on capital (RAROC), which recognizes the importance of capital adequacy—too little capital could lead to a liquidity crisis (in the event of unexpected losses), and too much capital lowers the return on shareholders' equity.

To illustrate, let us assume that a mortgage has been on the books all month, the accrual factor is 30/360, and the loan amount is 100,000 USD. Use Risk-Weighted Capital to calculate normalized loss and allocate capital for the credit risk inherent in the loan:

<i>Item</i>	<i>Calculation</i>
Risk weight for capital	500 basis points
Risk weight for normalized loss	15 basis points
Allocated capital	5,000 USD (100,000 USD * .05)
Normalized loss	12.50 USD (100,000 USD * .0015 * 30/360)

Assume that the net interest margin on the loan is 158 USD and the funds transfer charge for allocated capital is 6 percent:

<i>Item</i>	<i>Calculation</i>
FTP charge for allocated capital	25 USD (5,000 USD * .06 * 30/360)
Net income	133 USD (158 USD – 25 USD)
RAROC	31.92% (133 / 5,000 * 360/30)

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## Processing Credit Risk (Basel II)

Basel II prescribes specific algorithms for the calculation of risk-weighted assets and subsequently the capital that needs to be reserved against those assets. Generally these calculations take as inputs the probability of default for the asset class, the expected exposure to the bank at the time of default, and the loss given a default (after recovery) as a percentage of the outstanding credit.

To illustrate, this is an example of the calculation for risk-weighted assets defined by Basel II. (PD and LGD are measured as decimals, and EAD is measured as currency, except where explicitly noted otherwise):

$$\text{Correlation (R)} = 0.12 * (1 - \text{EXP}(-50 * \text{PD})) / (1 - \text{EXP}(-50)) + 0.24 * [1 - (1 - \text{EXP}(-50 * \text{PD})) / (1 - \text{EXP}(-50))]$$

$$\text{Maturity adjustment (b)} = (0.08451 - 0.05898 * \log(\text{PD}))_{\lambda} 2$$

$$\text{Capital requirement (K)} = \text{LGD} * N [(1 - R)_{\lambda} - 0.5 * G(\text{PD}) + (R / (1 - R))_{\lambda} 0.5 * G(0.999)] * (1 - 1.5 * b(\text{PD}))_{\lambda} - 1 * (1 + (M - 2.5) * b(\text{PD}))$$

$$\text{Risk-weighted assets (RWA)} = K * 12.50 * \text{EAD}$$

Risk-Weighted Capital delivers these packaged algorithms for the calculation of risk-weighted assets:

<b>Item</b>	<b>Description</b>
RWC_BCR1 (PD, LGD, M)	Calculates the capital requirement K with maturity adjustment.
RWC_BCR2 (PD, LGD, M, S)	Calculates the capital requirement K with firm-size adjustment.
RWC_BCR3 (PD, LGD)	Calculates the capital requirement K for residential mortgage exposures.
RWC_BCR4 (PD, LGD)	Calculates the capital requirement K for qualifying revolving exposures.
RWC_BCR5 (PD, LGD)	Calculates the capital requirement K for other retail exposures.

For example, if you have a corporate loan with an exposure at default of 1,000,000 USD with these characteristics, the risk-weighted assets and regulatory capital under Basel II are computed as illustrated:

<b>Item</b>	<b>Calculation</b>
PD (probability of default)	5%
LGD (loss given default)	50%
M (maturity in years)	2
K (capital requirement)	0.153055762
RWA (risk-weighted assets)	1,913,197 USD = 0.153055762 * 12.5 * 1,000,000 USD
Regulatory capital (RWA * 8%)	153,056 USD = 1,913,197 USD * .08



## Chapter 4

# Understanding Risk-Weighted Capital Processes

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## Jobstreams

Risk-Weighted Capital uses jobstreams for its background processing. The basic categories of jobstreams:

- Daily/As Needed.
- End of Period.
- Forecasting.
- Credit Risk.

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**Note:** The jobstreams listed are for the sample data you deliver. You may choose to create your own jobstreams. The following table lists the jobstreams delivered with Risk-Weighted Capital and the application engines that are used within those jobstreams:

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<i>Process</i>	<i>Description</i>	<i>Jobstream</i>	<i>Application Engines Used</i>
Process Risk-Weighted Capital for Rates Only	Run to process Risk-Weighted Rates for pools/instruments.	RWC_RATE	RWC_RATE PF_MERGE
Process Risk-Weighted Capital for Instruments	Run to process Risk-Weighted Charges for pools/instruments.	RWC_INST	RWC_INST PF_MERGE
Process Risk-Weighted Capital for Accounts	Run to process Risk-Weighted Rates and Charges for accounts.	RWC_ACCT	RWC_ACCT PF_MERGE
Process Risk-Weighted Capital Treasury Positions	Run to process Risk-Weighted Rates and Charges for treasury positions.	RWC_TRPOS	RWC_TRPOS PF_MERGE
Risk-Weighted Capital - Forecasted Rates	Run to process Risk-Weighted Rates for forecasted pools/instruments.	RWC_FRATE	RWC_FRATE PF_MERGE
Risk-Weighted Capital - Forecasted Pools	Run to process Risk-Weighted Charges for forecasted pools/instruments.	RWC_FINST	RWC_FINST PF_MERGE

<b>Process</b>	<b>Description</b>	<b>Jobstream</b>	<b>Application Engines Used</b>
RWC - Forecasted Rates & Pools	Run this jobstream for multiple historic or future reporting periods.	RWC_POOL	RWC_FRATE PF_MERGE RWC_FINST
Credit Risk	Run to calculate a credit risk.	FI_RWC_CR	PF_MULT_CURR FI_RWC_CR PF_MERGE
Process Forecast Pool/ Instrument Balances	Run to process forecasted product originations.	FI_FCSTRWC	FI_FCSTRWC
RWC Daily Rate Setting	Run this jobstream as needed to calculate Risk-Weighted Capital rates for new instruments, and for instruments whose Risk-Weighted Capital weights should be reset.	RWCDAILY	RWC_RATE PF_MERGE
RWC Monthly Process	Run this jobstream for a fiscal year or accounting period.	RWCMONTHLY	RWC_RATE PF_MERGE RWC_TRPOS RWC_INST RWC_ACCT PF_DM PF_MERGE

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**Note:** If you also have PeopleSoft Funds Transfer Pricing, ensure that you run the jobstreams for PeopleSoft Risk-Weighted Capital prior to running the Funds Transfer Pricing applications.

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## Application Engines

This is the list of application engines used by Risk-Weighted Capital processes:

<b>Application Engine ID</b>	<b>Input Tables</b>	<b>Output Tables</b>	<b>Calculates</b>
RWC_RATE	FI_INSTR_F00, FI_FCALC_DEFN, FI_FCALC_RW_SEQ	FI_IRWCALC_R00	Calculates and stores the risk weights (in basis points) for capital allocation and normalized loss for instruments, based on rule sets. You can run the RWC_Rate process periodically throughout the month to assign risk weights to any new instruments, or any existing instruments that have exceeded the date scheduled for the next risk weight evaluation.
RWC_INST	FI_INSTR_F00, FI_IBAL_R00, RI_IRWCALC_R00	RWC_CALC_IN_F00, RWC_BS_PROD_F00	Calculates the capital allocation and normalized loss amounts for each instrument that is assigned risk weights by the RWC_Rate process. The products (and underlying instruments) are selected for processing based on the product trees entered on the balance sheet basis rules.
RWC_ACCT	PF_LEDGER_F00, PF_LEDG_ADB_F00, RWC_BS_PROD_F00, RWC_BS_TRPS_F00	RWC_CALC_AC_F00, RWC_RCN_F00	Calculates the capital allocation and normalized loss amounts for ledger accounts. The accounts are selected for processing based on the account tree nodes entered on the balance sheet or income statement basis rules. This engine also performs the reconciliation process between ledger accounts and the underlying detailed instrument data.
RWC_TRPOS	FI_TRPOS_F00	RWC_CALC_PS_F00, RWC_BS_TRPS_F00	Calculates the capital allocation and normalized loss amounts for each treasury position. The positions are selected for processing based on the position tree nodes entered on the balance sheet basis rules.

<b>Application Engine ID</b>	<b>Input Tables</b>	<b>Output Tables</b>	<b>Calculates</b>
RWC_FRATE	FI_POOLBAL_R00 FI_POOLINST_R00 FI_FCALC_DEFN FI_FCALC_RW_SEQ	FI_POOLRWC__R00	Calculates and stores the risk weights (in basis points) for capital allocation and normalized loss for forecasted pools, based on the forecasted rule set that is applicable to the application to which the instrument belongs. The products (and underlying forecasted pools) are selected for processing based on the product trees entered on the balance sheet basis rules.
RWC_FINST	FI_POOLBAL_R00 FI_POOL_INST_R00 FI_POOLRWC_R00	RWC_CALC_IP_F00	Calculates the capital allocation and normalized loss amounts for each pool that is assigned risk weights by the RWC_FRATE process. The products (and underlying instruments) are selected for processing based on the product trees entered on the balance sheet basis rules.



<b>Application Engine ID</b>	<b>Input Tables</b>	<b>Output Tables</b>	<b>Calculates</b>
FI_RWC_CR	FI_INSTR_F00 FI_IBALANCE_R00 FI_ICREDIT_R00 PRODUCT_TBL PS_FI_PRODUCT_SEQ FI_COLLATRL_TBL FI_COLLATRL_F00 FI_HCTCURR_TBL FI_LGD_AD_TBL FI_FACILITY_F00 FI_PROD_GRP_BL FI_PROD_GRP_SEQ FI_CUST_GRP_TBL FI_CUST_GRP_SEQ CUSTOMER_D00 PRODUCT_D00 FI_SUB_FAC_SEQ FI_SUB_PC_SEQ FI_SSUB_FAC_SEQ FI_SSUB_PC_SEQ FI_CNTRPRTY_TBL FI_RISK_SCOPE FI_RISK_RATING FI_RISKRATE_TBL	FI_RWC_CR_F00	<p>Used for supporting Basel II credit risk requirements, this engine calculates Exposure at Default, Effective Probability of Default, Loss Given Default, and Risk Weights according to internal and customer-defined rules.</p> <p>Output is presented at a credit facility, sub-facility and sub-sub-facility level, according to setup. Results can then be grouped or summarized from this table as needed.</p>
FI_FCSTRWC	FI_FCST_F00 FI_ELEMENT_F00	FI_POOLHDR_R00 FI_POOLINST_F00 FI_POOL_CF_R00 FI_IBAL_R00	Ensures forecasted product originations are processed properly by the cash flow application engine.

## Scenario Types and Economic Assumptions

<i>Functional Objective</i>	<i>Scenario Type</i>	<i>Economic Assumption</i>	<i>Jobstream</i>
Rate	Historical	Market rates	Rate
Charge	Historical	Market rates	Instrument, Treasury Positions, Account
Post (to ledger)	Historical	Market rates	Post
Forecast rate	Forecast	Market rates, deterministic drift	Forecast Attribution, Forecast Rate
Forecast charges	Forecast	Market rates, deterministic drift rates	Forecast Attribution, Forecast Pool Charges
Basel II credit risk	Any	Any	Credit Risk

**Note:** Forecast rates and charges can also be calculated through a market rate scenario, using forward rates.

## Chapter 5

# Setting up Risk-Weighted Capital Parameters and Utilities

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## Setting Up the Basic Structure

This section discusses how to:

- Define risk type.
- Copy a Risk-Weighted Capital rule.
- Use risk functions.
- View risk events.

## Pages Used to Set Up the Basic Structure

<i>Page Name</i>	<i>Definition Name</i>	<i>Navigation</i>	<i>Usage</i>
Risk Type Definition	RWC_RISK_TYPE	Financial Services Industries, Risk-Weighted Capital Rules, RWC Parameters and Utilities, Risk Types, Risk Type Definitions	Define the types of risk for your business.
Notes	RWC_RISKTYPE_NOTES	Financial Services Industries, Risk-Weighted Capital Rules, RWC Parameters and Utilities, Risk Types, Notes	Enter short descriptive text for the risk type.
Copy an RWC Rule	PF_RULE_COPY	Financial Services Industries, Risk-Weighted Capital Rules, RWC Parameters and Utilities, RWC Rule Copy, Copy an RWC Rule	Copy an existing Risk-Weighted Capital rule.
Risk Function Lookup Table	FI_RWC_ILKUP	Financial Services Industries, Risk-Weighted Capital Rules, RWC Parameters and Utilities, Risk Function Lookup Table	View and modify instrument-level risk-related statistics.
Risk Events	FI_RISK_EVENTS	Financial Services Industries, Risk-Weighted Capital Rules, RWC Parameters and Utilities, Risk Events	View and modify risk events related to historic credit, operational, or market risk.

## Risk Type Definition Page

Use the Risk Type Definition page (RWC\_RISK\_TYPE) to define the types of risk for your business.

### Navigation

Financial Services Industries, Risk-Weighted Capital Rules, RWC Parameters and Utilities, Risk Types, Risk Type Definitions

### Image: Risk Type Definition page

This example illustrates the fields and controls on the Risk Type Definition page. You can find definitions for the fields and controls later on this page.

The screenshot shows a web interface for defining a risk type. At the top, there are two tabs: "Risk Type Definition" (selected) and "Notes". Below the tabs, there are two main sections: "SetID SHARE" and "Risk Type CREDIT". A "Details" section contains a search bar with "Find | View All | First | 1 of 1 | Last". The form fields are: "Effective Date" with a date picker set to "03/19/2010", "\*Status" with a dropdown menu set to "Active", and "\*Description" with a text input field containing "Credit Risk".

Some of the common risk types are:

- *Catastrophic Loss*: The risk to earnings or capital arising from a catastrophe.
- *Credit*: The risk to earnings or capital arising from an obligor's failure to meet the terms of any contract with the bank or failure to perform otherwise as agreed, including during settlement.

In practice, credit risk receives more capital than all other types of risk.

- *Deposit Runoff*: The risk to earnings or capital arising from having to replace relatively low-cost deposits with purchased higher-cost funds, due to secular changes in interest rates.
- *Diversification Adj*: A way to classify risk factors for areas or lines of business where the risk factors are offset, if you want to reduce your risk calculations accordingly.
- *Foreign Exchange*: The risk to earnings and capital arising from working with foreign exchange rates.
- *Interest Rate*: The risk to earnings or capital arising from movements in interest rates.

This type exists primarily for firms that are not active in asset and liability management.

- *Legal*: The risk to earnings or capital arising from violations of, or nonconformance with, laws, rules, regulations, prescribed practices, or ethical standards.
- *Market*: The risk to earnings or capital as a result of an adverse movement in the financial market price.
- *Operational*: The risk to earnings or capital arising from problems with service or product delivery.

This risk is a function of internal controls, information systems, employee integrity, and operating processes.

- *Regulatory*: The risk to earnings or capital arising from changes in regulatory statutes or other governing bodies.

- *Reputation*: The risk to earnings or capital arising from negative public opinion.

## Copy an RWC Rule Page

Use the Copy an RWC Rule page (PF\_RULE\_COPY) to copy an existing Risk-Weighted Capital rule.

### Navigation

Financial Services Industries, Risk-Weighted Capital Rules, RWC Parameters and Utilities, RWC Rule Copy, Copy an RWC Rule

### Image: Copy an RWC Rule page

This example illustrates the fields and controls on the Copy an RWC Rule page. You can find definitions for the fields and controls later on this page.

Rule Types	*Copy From	*New Rule	Return Message
<input checked="" type="radio"/> Risk Weight Rules <input type="radio"/> Risk Function Rules <input type="radio"/> Rule Sets	1 LDGR_MKT_NL_100	LDGR_MKT_RV_OM7	+ -

To make implementation easier, use the Copy an RWC Rule page to copy existing rules and make modifications to them.

In the Rule Types group box, select Risk Weight Rules, Risk Function Rules, or Rule Sets. Select the rule that you want to copy in the Copy From column, and then enter the new name in the New Rule column. Click the Copy button. The system displays the results of the copy in the Return Message column. If necessary, modify the new rule on the appropriate rule page.

## Risk Function Lookup Table Page

Use the Risk Function Lookup Table page (FI\_RWC\_ILKUP) to view and modify instrument-level risk-related statistics.

### Navigation

Financial Services Industries, Risk-Weighted Capital Rules, RWC Parameters and Utilities, Risk Function Lookup Table

#### Image: Risk Function Lookup Table page

This example illustrates the fields and controls on the Risk Function Lookup Table page. You can find definitions for the fields and controls later on this page.

Risk Functions							Customize	Find	View All	First	1-10 of 57	Last
	*Risk Rating	*Loan To Value Ratio	*Credit Score	Probability of Default	Standard Deviation Default	Loss Given Default	Exposure at Default					
1	A	0.5000	400	0.050		0.085						+ -
2	A	0.5000	500	0.040		0.080						+ -
3	A	0.5000	600	0.030		0.075						+ -
4	A	0.5000	700	0.020		0.070						+ -
5	A	0.5000	800	0.010		0.050						+ -
6	A	0.5000	900	0.010		0.070						+ -
7	A	0.5500	950	0.010		0.080						+ -
8	A	0.7000	900	0.010		0.040						+ -
9	A	0.7500	850	0.010		0.060						+ -
10	A	0.9000	600	0.010		0.080						+ -

The Risk Function Lookup Table page provides a delivered model for how you can create and populate the multi-factor input table, FI\_RWC\_ILKUP, to generate instrument level lookup capital amounts. It provides an example of using a combination of Risk Rating, Loan to Value ratio, and Credit Score values to assign values to groups of instruments for Probability of Default (PD), Loss Given Default (LGD), and Exposure at Default (EAD).

### Risk Events Page

Use the Risk Events page (FI\_RISK\_EVENTS) to view and modify risk events related to historic credit, operational, or market risk.

## Navigation

Financial Services Industries, Risk-Weighted Capital Rules, RWC Parameters and Utilities, Risk Events

### Image: Risk Events page

This example illustrates the fields and controls on the Risk Events page. You can find definitions for the fields and controls later on this page.

**Risk Events**

Risk Type CREDIT

Risk Event Details

Customize | Find | View All | First 1-3 of 13 Last

General Balances Dimensions Attributes\_1 Attributes\_2 Attributes\_3

*Risk Event ID	Description	Loss From Date	Loss Thru Date	Location of Loss		
1 CR0000750	Gencorp default	02/01/20	02/01/2000	DENVER	+	-
2 CR0000751	J Stevens	02/01/20	02/01/2000	SACRAMENTO, CA	+	-
3 CR0000752	Crandall estate	02/15/20	02/15/2000	BILLINGS, MT	+	-

The Risk Events page displays the historic credit, operational, or market risk events that are populated in a single denormalized table (FI\_RISK\_EVENTS), that is better optimized for ad/hoc analytics.





# Setting Up Risk-Weighted Capital Rules

## Setting Up Risk Weights

Risk weight rules define the risk weights that you assign to ledger balances, forecasted balances, product balances, and position balances, to calculate risk-weighted capital and normalized loss.

This section provides an overview of risk weights and discusses how to:

- Define risk weights.
- Define risk weight rules.
- Define operating risk weight overrides for Basel II.

## Pages Used to Set Up Risk Weights

<i>Page Name</i>	<i>Definition Name</i>	<i>Navigation</i>	<i>Usage</i>
Risk Weight Rules - Definition	RWC_CALC_DEFN	Financial Services Industries, Risk-Weighted Capital Rules, Risk Weight Rules, Definition	Define specific risk weights for ledger accounts, forecasted balances, positions, and products, according to risk type.
Risk Weights	RWC_CALC_SEQ	Financial Services Industries, Risk-Weighted Capital Rules, Risk Weight Rules, Risk Weights	Define risk weight rules by assigning specific default risk weights and incremental risk weights.
Notes	RWC_CALC_NOTES	Financial Services Industries, Risk-Weighted Capital Rules, Risk Weight Rules, Notes	Enter text related to the defined Risk-Weighted Capital rule code.
RWC Operating Risk	FI_RWC_OR_DEFN	Financial Services Industries, Risk-Weighted Capital Rules, Risk Weight Rules, Operating Risk, Operating Risk Factors	Define operating risk factors for Basel II (PE, LGE).

## Understanding Risk Weights

To establish a risk weight, you begin with a default risk weight based on instrument or ledger attributes, and then define additional risk weights such as interest rate risk based on instrument or ledger attributes. Risk weight rules are processed by the general PeopleSoft Risk-Weighted Capital processing engines (RWC\_RATE, RWC\_ACCT), rather than by the credit risk engine (FI\_RWC\_CR).

For example, suppose that you have a default credit risk weight of six percent for auto loans. The exception to this rule is that auto loans in California that are less than one year old and held by borrowers

with a poor credit rating have a credit risk weight of 10 percent. You have two options for setting up risk weight rules:

- Create a constraint that covers the exception (loans in California, less than one year old, with a poor credit rating), and assign it a risk weight of four percent.
- Create narrowly defined constraints (one for loans in California, one for loans less than one year old, and one for poor credit ratings) and assign incremental risk weights to each constraint, so that they total four percent.

Four percent plus the default six percent equals the desired 10 percent for the exception auto loans described previously.

You may set up risk-weighted capital rules using a set of additive weights that can be applied based on user-defined criteria—that is, use constraints to identify the set of instruments, accounts, or positions for which the specific weight should be applied.

You may also choose to override the default risk weights by applying the predefined Risk-Weighted Capital operating risk factors for Basel II processing and other requirements.

## Risk Weight Rules - Definition Page

Use the Risk Weight Rules - Definition page (RWC\_CALC\_DEFN) to define specific risk weights for ledger accounts, forecasted balances, positions, and products, according to risk type.

### Navigation

Financial Services Industries, Risk-Weighted Capital Rules, Risk Weight Rules, Definition

### Image: Risk Weight Rules - Definition page

This example illustrates the fields and controls on the Risk Weight Rules - Definition page. You can find definitions for the fields and controls later on this page.

**Risk Type**

Select a risk type.

If the risk type does not already exist, you can create it on the Risk Type Definition page.

### **RWC Data Source**

Select a risk-weighted capital data source for the rule. Values are: *Forecasted Pools*, *Ledger Balances*, *Treasury Position Balances*, and *Product Balances*.

### **Calculate Normalized Loss**

Select to calculate normalized loss.

## **Ledger Event Codes**

### **RWC Ledger Event Code**

Select the Risk-Weighted Capital ledger event code (ledger account) to which the capital allocation is posted.

### **Normalized Loss**

Select the ledger account or ledger event code to which the normalized loss is posted. This field is inactive if you cleared the Calculate Normalized Loss check box.

## **Start Date / Commitment Date**

If you select *Product Balances* or *Forecasted Pools* in the RWC Data Source field, then you must select one of the check boxes that appear in this group box.

### **Calc. Risk as of Commit. Date (calculate risk as of commitment date)**

Select this option to calculate the risk-weighted capital as of the commitment date.

### **Accrue Loss as of Commit. Date**

Select this option to accrue the normalized loss amount as of the commitment date.

If you do not select one of these check boxes, the system performs the calculations as of the start date of the instrument or forecasted pool.

## **Risk Weights Page**

Use the Risk Weights page (RWC\_CALC\_SEQ) to define risk weight rules by assigning specific default risk weights and incremental risk weights.

## Navigation

Financial Services Industries, Risk-Weighted Capital Rules, Risk Weight Rules, Risk Weights

### Image: Risk Weights page

This example illustrates the fields and controls on the Risk Weights page. You can find definitions for the fields and controls later on this page.

The screenshot displays the 'Risk Weights' page for a specific RWC Rule Code. The page is organized into several sections:

- Header:** Shows 'SetID MB1' and 'RWC Rule Code LDGR\_INT\_NL\_CC2'.
- Details:** Includes 'Effective Date 01/01/1900' and 'Status Active'. There are navigation controls like 'Find | View All | First | 1 of 1 | Last'.
- Weight Calculation Override:** A dropdown menu is set to 'None'.
- Default Weight in Basis Points:** Two input fields are shown: 'Risk Weight' with the value '200.0000' and 'Normalized Loss Weight' with the value '200.0000'.
- Additive Risk Weight Rules (bps):** A table with columns 'Constraint Code', 'Risk Weight', and 'Normalized Loss Weight'. It contains two rows:
 

Constraint Code	Risk Weight	Normalized Loss Weight
ACCT_CHAN <=> NET	200.0000	200.0000
ACCT_CUST_ID = 102	200.0000	200.0000

Terms on this page vary depending on your selections on the Risk Weight Rules - Definition page.

### Weight Calculation Override

Enter if you want the engine to use the factors in the Operational Risk Factor lookup table (FI\_RWC\_OR\_DEFN) when calculating risk weights. To use the override, you must first define the override factors on the RWC Operating Risk page.

The RWC\_ACCT application engine then ignores the rule normally used, and overrides it with the operational risk factors for its risk weight calculations. The output is stored in the RWC\_CALC\_AC\_F00 table.

---

**Note:** The override feature cannot be used with constraints nor to calculate normalized loss.

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### Default Weight in Basis Points

If you are not using the Weight Calculation Override option, enter the default risk weight and the normalized loss weight in basis points.

### Additive Risk Weight Rules (bps)

You can adjust the risk and normalized loss weights by specifying the basis points that you want to add to the default weights. This adjusted weight applies only to the balance amounts that satisfy the conditions

in the corresponding constraint codes. To decrease the default basis weight, precede the entry with a negative sign.

## RWC Operating Risk Page

Use the RWC Operating Risk page (FI\_RWC\_OR\_DEFN) to define operating risk factors for Basel II (PE, LGE).

### Navigation

Financial Services Industries, Risk-Weighted Capital Rules, Risk Weight Rules, Operating Risk, Operating Risk Factors

### Image: RWC Operating Risk page

This example illustrates the fields and controls on the RWC Operating Risk page. You can find definitions for the fields and controls later on this page.

The screenshot displays the 'Operating Risk Factors' page for SetID MB1 and RWC Rule Code LDGR\_OR. The 'Details' section includes the following fields and values:

- Effective Date: 01/01/1900
- Probability of Event: 14.0000
- Loss Given Event: 75.0000
- Exposure Indicator Multiplier: 1.000
- Status: Active
- Approved By: DVP1
- Last Review Date: 03/13/03 3:51PM
- Description: Operational Risk Rule for RWC Rule Code LDGR\_OR

To override a risk weight, you must first define the override factors on this page. Enter operating risk definitions that match risk rules that you have already established on the Risk Weight Rules pages, and ensure that the calculations are defined as calculation override rules on the Risk Weights page.

Enter values between 0 and 1 for the three factors:

#### Probability of Event

Enter the probability that an operational risk event will occur over the planning horizon—usually one year.

#### Loss Given Event

Enter the proportion of the exposure that will be lost should the event occur. This value defines the likely magnitude of the event.

#### Exposure Indicator Multiplier

Enter the exposure indicator multiplier, which is a factor that can be used for any multiplicative purpose. For example, it can be used to define the effect of risk type correlations.

The system stores these factors in the operating risk factor table, FI\_RWC\_OR\_DEFN, which is keyed by RWC\_RULE\_ID. The application matches the rule ID that it is processing with the same rule ID in FI\_RWC\_OR\_DEFN, and uses these factors to compute the weight in basis points. The formula is: PE ×

$LGE \times M$ , where PE is the probability of the event, LGE is the loss given event, and M is the user-defined multiplier, which can be used for any purpose.

## Defining Credit Facilities for Basel II Compliance

Use the following pages to define credit exposures and their associated products and customers. Credit facilities are a primary source of input for the Basel II credit risk engine.

### Pages Used to Define Credit Facilities

<i>Page Name</i>	<i>Definition Name</i>	<i>Navigation</i>	<i>Usage</i>
Credit Facility	FI_CREDIT_FACILITY	Financial Services Industries, Risk-Weighted Capital Rules, Credit Risk, Credit Facility, Credit Facility	Define a credit facility or exposure.
Limits and Sub Limits	FI_FAC_SUB_LIMITS	Financial Services Industries, Risk-Weighted Capital Rules, Credit Risk, Credit Facility, Limits and Sub Limits	Define credit limits, sub-limits and sub-sub-limit amounts associated with a facility. Sub-limits follow a hierarchical setup pattern and are an optional setup component.
Sub Products and Customers	FI_FAC_SUB_PC	Financial Services Industries, Risk-Weighted Capital Rules, Credit Risk, Credit Facility, Sub Products and Customers	Define all products and customers associated with a sub-facility.
Sub-Sub Limits	FI_FAC_SSUB_LIMITS	Financial Services Industries, Risk-Weighted Capital Rules, Credit Risk, Credit Facility, SubSub Limits	Define the sub-sub-limit amounts for the facility. A sub-sub-limit is the lowest level in the credit limit hierarchy and is optional.
SubSub Products and Customers	FI_FAC_SSUB_PC	Financial Services Industries, Risk-Weighted Capital Rules, Credit Risk, Credit Facility, SubSub Products and Customers	Define the combination of products and customers associated with the sub-sub-limit amount.
Notes	FI_CR_FAC_NOTES	Financial Services Industries, Risk-Weighted Capital Rules, Credit Risk, Credit Facility  Select the Notes tab.	Enter miscellaneous text concerning the facility.

<b>Page Name</b>	<b>Definition Name</b>	<b>Navigation</b>	<b>Usage</b>
Counterparty	FI_CNTRPRTY_TBL	Financial Services Industries, Risk-Weighted Capital Rules, Credit Risk, Counterparty	Define the participants in a contractual financial relationship with the institution. The primary setup key is based on the general warehouse customer ID, but definition as a counterparty for Basel II purposes enables you to track additional attributes, such as risk rating.
Collateral Code	FI_COLLATERAL_TBL	Financial Services Industries, Risk-Weighted Capital Rules, Credit Risk, Collateral Code	Define attributes of credit risk mitigants, such as financial or physical collateral or guarantees.
Collateral	FI_COLLATERAL	Financial Services Industries, Risk-Weighted Capital Rules, Credit Risk, Collateral	Define attributes of a piece of collateral.
Collateral Amts	FI_COLLATERAL_AMTS	Financial Services Industries, Risk-Weighted Capital Rules, Credit Risk, Collateral, Collateral Amts	Define amounts associated with collateral, such as recovery value.
Notes	FI_COLLATRL_NOTES	Financial Services Industries, Risk-Weighted Capital Rules, Credit Risk, Collateral, Notes	Enter miscellaneous text concerning the collateral.
Customer Group	FI_CUSTOMER_GROUP	Financial Services Industries, Risk-Weighted Capital Rules, Credit Risk, Customer Group	Define the counterparties or customers who are part of a customer group.
Product Group	FI_PRODUCT_GROUP	Financial Services Industries, Risk-Weighted Capital Rules, Credit Risk, Product Group	Define a list of products associated with a credit facility product group.
Risk Rating	FI_RISK_RATING	Financial Services Industries, Risk-Weighted Capital Rules, Credit Risk, Risk Rating	Define the risk rating, rating scope, and probability of default that can be associated with a counterparty or customer.

## Related Links

[Basel II Credit Risk Regulatory Compliance](#)

## Credit Facility Page

Use the Credit Facility page (FI\_CREDIT\_FACILITY) to define a credit facility or exposure.

## Navigation

Financial Services Industries, Risk-Weighted Capital Rules, Credit Risk, Credit Facility, Credit Facility

### Image: Credit Facility page

This example illustrates the fields and controls on the Credit Facility page. You can find definitions for the fields and controls later on this page.

The screenshot shows a web form for a Credit Facility. At the top, there are tabs: 'Credit Facility' (selected), 'Limits and Sub Limits', 'Sub Products and Customers', 'SubSub Limits', 'SubSub Products and Customers', and 'Notes'. Below the tabs, the form is organized into sections:

- Business Unit:** TREAS
- Facility ID:** CR\_FAC\_01
- \*As Of Date:** 01/01/2003
- \*Status:** Active
- \*Description:** Facility 1
- Co-Borrower Count:** 3
- Facility Start Date:** 01/01/2003
- Facility Maturity Date:** 01/01/2005
- Remaining Term (Years):** 2.00
- Draw End Date:** 06/01/2003
- Facility Class:** Corporate
- Facility Type:** Non-Revolving
- Facility Purpose:** General
- Senior Level:** Senior
- Facility Attributes:**
  - Committed Facility
  - Secured
  - Facility In Default

- Business Unit** The business unit with which the exposure is associated.
- Facility ID** User-defined unique identifier for the credit facility.
- As of Date** Enter the date that the facility information was last updated.
- Status** Select *Active* or *Inactive*.
- Description** Enter a short description of the facility.
- Co-Borrower Count** Enter the total number of customers who have transactions ( draws) against the credit facility. This field is informational and optional.
- Facility Start Date and Facility Maturity Date** Specify the initial date that the credit facility becomes available, and the date that it matures or resets (in the case of a revolving facility).
- Remaining Term (Years)** Enter the remaining term (number of years) left to maturity for the credit facility.
- Draw End Date** Enter the draw down date.  
  
This is the last date that a credit draw down can be carried out.
- Facility Class** Select from the available options to describe the counterparty: *Bank, Central Bank, Corporate, Individual, Multiple Development Bank, Public Sector Entity, Security Firm, or Sovereign*.
- Facility Type** Select the facility type from the available options: *Non-Revolving, Revolving, or Tranche*.
- Facility Purpose** Select the intended use or specialized category of the credit exposure from the available options, as defined by Basel II:



*Corp Commodities Finance, Corp High Volatility Comm RE, Corp Income Producing RE, Corp Object Finance, Corp Project Finance, Corp Purchased Receivables, Equities — Zero RWA, Equity — Grandfathered, Equity — Legislative, Equity — Publicly Traded, General, Other Special Lending, Retail Others, Retail Purchased Receivables, Retail Residential Secured, Retail Revolving, Securities — Investors, Securities — Originated, Short Term Self Liquid LC, Trading Book OTC, or Trading Book Repo.*

**Senior Level**

Select the exposure's seniority level: *Senior, Subordinated, or Unsecured.*

**Facility Attributes**

**Committed Facility**

Select if this facility is committed.

**Facility in Default**

Select if this facility is in default.

**Facility Secured**

Select if this facility is secured by physical or financial collateral.

**Limits and Sub Limits Page**

Use the Limits and Sub Limits page (FI\_FAC\_SUB\_LIMITS) to define credit limits, sub-limits and sub-sub-limit amounts associated with a facility.

Sub-limits follow a hierarchical setup pattern and are an optional setup component.

## Navigation

Financial Services Industries, Risk-Weighted Capital Rules, Credit Risk, Credit Facility, Limits and Sub Limits

### Image: Limits and Sub Limits page

This example illustrates the fields and controls on the Limits and Sub Limits page. You can find definitions for the fields and controls later on this page.

The screenshot shows the 'Limits and Sub Limits' page with the following fields and values:

- Business Unit: TREAS
- Facility ID: CR\_FAC\_01
- As Of Date: 01/01/2003
- Status: Active
- Commit Amount: 7,000,000.000
- Currency Code: CAD
- Commit Amount BCE: 7,000,000.000
- Base Currency: USD
- \*Product Group: PG\_002 (COMMERCIAL)
- \*Customer Group: CG\_001 (Financial Services 01)
- Exposure Haircut: 0.1000

The 'Sub Facility Limits' table is as follows:

*Sub Facility ID	Limit Amount	Limit Amount BCE	Sub Products and Customers	SubSub Limits		
1 CR_FAC_01-001	1,000,000.000	1,000,000.000	Sub Products and Customers	SubSub Limits	+	-
2 CR_FAC_01-002	1,000,000.000	1,000,000.000	Sub Products and Customers	SubSub Limits	+	-
3 CR_FAC_01-003	1,000,000.000	1,000,000.000	Sub Products and Customers	SubSub Limits	+	-
4 CR_FAC_01-004	3,000,000.000	3,000,000.000	Sub Products and Customers	SubSub Limits	+	-

**Commit Amount, Currency Code, and Commit Amount BCE (base currency equivalent)**

Enter the total facility commitment amount in the currency in which it is denominated, and the base currency equivalent amount.

### Product Group

Select one of the product groups that you previously defined on the Product Group page. This field defines the list of product IDs that can be drawn against this credit facility. The list may be further qualified by a list of products associated with a lower level limit.

### Customer Group

Select one of the customer groups that you previously defined on the Customer Group page. This field defines the list of customers who can draw against this credit facility. The list may be further qualified by a list of customers specifically associated with a lower level limit.

### Exposure Haircut

Enter the percent margin applied to the commitment amount to reflect the net exposure risk after adjusting for volatility factors. For example, if haircut processing is enabled, a 1,000,000 USD facility with a defined haircut of 10 results in a 1,100,000 USD exposure.

## Sub Facility Limits

### Sub Facility ID

Use the rows to enter each sub-facility that falls under the total facility. A sub-facility is a lower level credit limit that applies to a subset of products and customers.

### Limit Amount and Limit Amount BCE (base currency equivalent)

For each sub-facility, enter the currency in which it is denominated and the base currency equivalent amounts. The limit amounts defined for a credit facility are not necessarily additive—that is, the total of the sub-limits does not have to equal the overall facility commitment amount. The limit amount is a high-water mark for the customers and products defined for that limit. Each sub-limit is independent of the other.

### Sub Products and Customers

Click the link to access the Sub Products and Customers page, where you can define the products and customers associated with each sub-facility. The list of sub-products and customers associated with a sub-facility define all possible combinations. For example, if product 1, product 2, and product 3 are defined in the same sub-limit level with customer 1 and customer 2, the processing logic assumes that customer 2 can draw against the facility using any of the three products, up to the total of the sub-limit amount.

### SubSub Limits

Click the link to access the SubSub Limits page, where you can define the sub-sub-facilities under each sub-facility, and the associated limits, products and customers. A sub-sub-limit further qualifies a sub-limit and acts in a hierarchical manner—that is, products and customers associated with a sub-sub limit amount must exist somewhere in a limit level above it (sub-limit or facility commitment amount).

## Sub Products and Customers Page

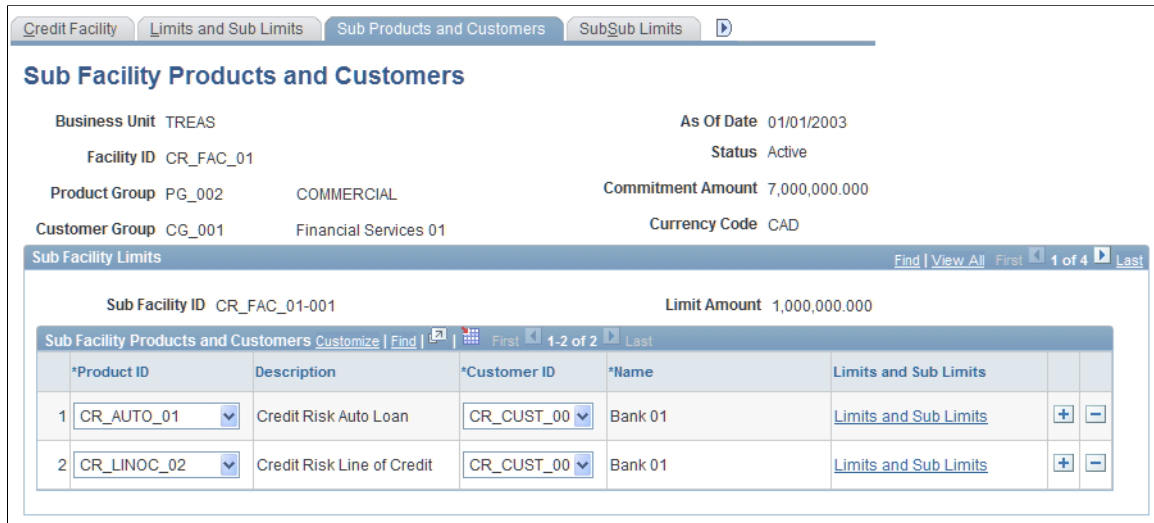
Use the Sub Products and Customers page (FI\_FAC\_SUB\_PC) to define all products and customers associated with a sub-facility.

## Navigation

Financial Services Industries, Risk-Weighted Capital Rules, Credit Risk, Credit Facility, Sub Products and Customers

### Image: Sub Products and Customers page

This example illustrates the fields and controls on the Sub Products and Customers page. You can find definitions for the fields and controls later on this page.



The list of sub-products and customers associated with a sub-facility define all possible combinations of product and customers associated with a sub-facility limit amount. For example, if product 1, product 2, and product 3 are defined in the same sub-limit level with customer 1 and customer 2, the processing logic assumes that customer 2 can draw against the facility using any of the three products, up to the total of the sub-limit amount.

#### Product ID

Enter each product associated with the sub-facility by selecting one of the products that you defined on the Product Group page.

#### Customer ID

Enter each customer associated with the sub-facility by selecting one of the customers that you defined on the Customer Group page.

#### Limits and Sub Limits

Click the link to access the Limits and Sub Limits page, where you can define the limit for the sub-facility.

## Sub Sub Limits Page

Use the Sub Sub Limits page (FI\_FAC\_SSUB\_LIMITS) to define the sub-sub-limit amounts for the facility.

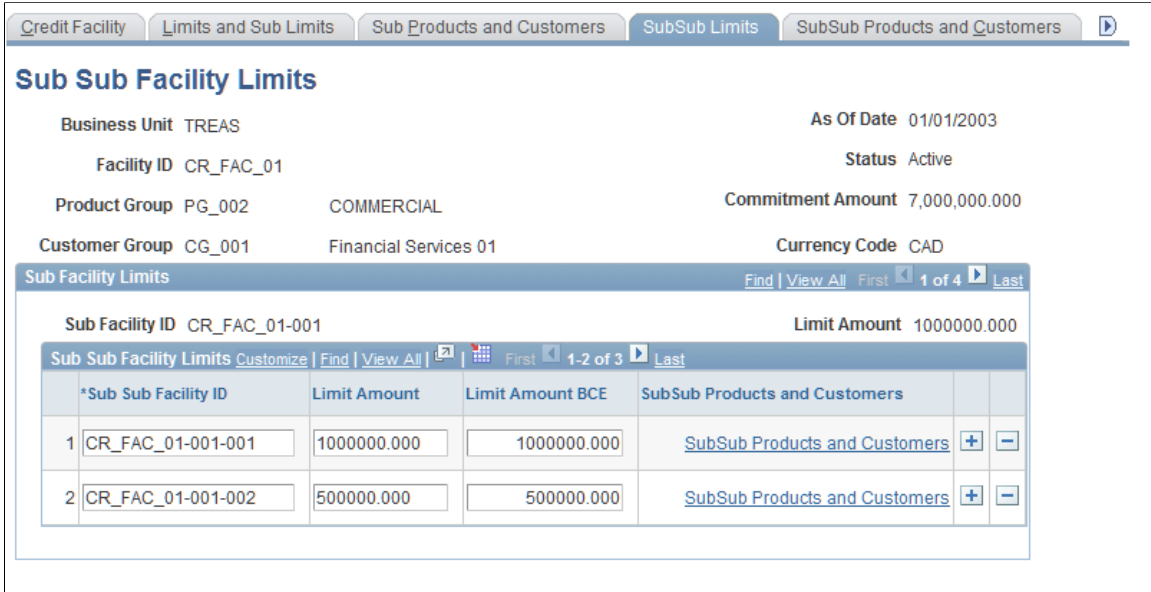
A sub-sub-limit is the lowest level in the credit limit hierarchy and is optional.

## Navigation

Financial Services Industries, Risk-Weighted Capital Rules, Credit Risk, Credit Facility, Sub Sub Limits

### Image: Sub Sub Limits page

This example illustrates the fields and controls on the Sub Sub Limits page. You can find definitions for the fields and controls later on this page.



Define the facility credit limits for product and customer combinations. Sub-facilities are not valid for retail credit facilities.

**Warning!** When a facility purpose is changed to *Retail*, the system automatically deletes all sub-facility setup data.

For each customer ID and product ID that is associated with the non-retail facility, complete the following fields.

#### Sub Sub Facility ID

Enter each Sub Sub Facility ID that falls under the sub-facility. A sub-sub-facility further qualifies a sub-limit in a hierarchical manner. This field is optional.

#### Limit Amount and Limit Amount BCE (base currency equivalent)

Enter the limit for each sub-sub-facility in the currency in which it is denominated and in base currency equivalent amounts. Draws against product and customer combinations associated with a sub-sub-limit are assumed not to exceed the limit amount at that level.

#### SubSub Products and Customers

Click the link to access the SubSub Products and Customers page, where you can define the products and customers that are associated with the sub-sub-facility.

## Sub Sub Products and Customers Page

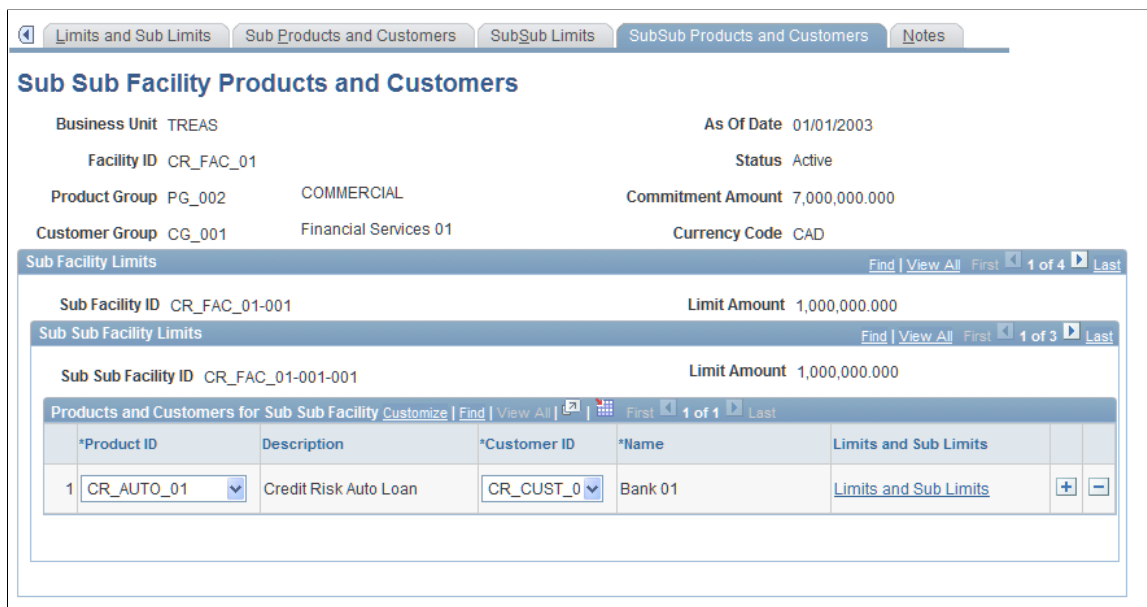
Use the Sub Sub Products and Customers page (FI\_FAC\_SSUB\_PC) to define the combination of products and customers associated with the sub-sub-limit amount.

### Navigation

Financial Services Industries, Risk-Weighted Capital Rules, Credit Risk, Credit Facility, Sub Sub Products and Customers

### Image: Sub Sub Products and Customers page

This example illustrates the fields and controls on the Sub Sub Products and Customers page. You can find definitions for the fields and controls later on this page.



For each sub-sub-facility, identify the products and customers that are associated with it. Click the Limits and Sub Limits link to access the Limits and Sub Limits page, where you can view and define the limits for the total facility and each sub-facility.

## Counterparty Page

Use the Counterparty page (FI\_CNTRPTY\_TBL) to define the participants in a contractual financial relationship with the institution.

The primary setup key is based on the general warehouse customer ID, but definition as a counterparty for Basel II purposes enables you to track additional attributes, such as risk rating.

## Navigation

Financial Services Industries, Risk-Weighted Capital Rules, Credit Risk, Counterparty

### Image: Counterparty page

This example illustrates the fields and controls on the Counterparty page. You can find definitions for the fields and controls later on this page.

The screenshot shows the 'Counterparty' page with the following fields and values:

- SetID: MB1
- Customer ID: CR\_CUST\_001
- Effective Date: 01/01/1900
- Description: CR Counterparty 1
- Currency Code: GBP
- Credit Limit: 15,000,000.00
- Risk Rating: A
- Rating Basis ID: S&P
- Status: Active
- Counterparty Type: Public Sector Entity
- Base Currency: USD
- Credit Limit BCE: 15,000,000.00
- Rating Scope: HIGH
- Credit Score: 850
- Core Market Participant:

Define the participants (or counterparties) in a financial contract with the institution. The counterparties are the financial institution's customers. The counterparty attributes that you define here provide some of the key parameters for Basel II processing.

### Counterparty Type

Select the counterparty's business entity type from the available options: *Bank, Central Bank, Corporate, Individual, Multiple Development Bank, Public Sector Entity, Security Firm, or Sovereign.*

### Currency Code and Base Currency

Enter the currency code of the credit limit and the base currency in which the customer transacts business.

### Credit Limit and Credit Limit in BCE (base currency equivalent)

Enter the credit limit, if any. In addition to facility limits, you can use the credit limit as an additional limit setting for reporting purposes; however, it is not currently used for Basel II processing. The credit risk engine uses the facility level limits and sub-limits.

### Risk Rating

Select one of the predefined risk ratings for the counterparty.

### Rating Scope

Define the scope that is associated with the risk rating. Scope further defines logical differentiation of the rating's intended use, such as applying different default probability or risk weights for different exposure categories. For example, a risk rating of *AAA* can be applied to counterparties with different characteristics. A counterparty with a rating of *AAA* and a customer scope of *Sovereign* might be assigned a different probability of default than a customer with a rating of *AAA* and a scope of *Corporate*.

### Rating Basis ID

Enter an identifier to cross-reference documents or database records that store the justification or evaluation that lead to the

rating assignment. This is an optional field that the credit risk engine does not currently use.

**Credit Score**

Enter the internal credit score of the counterparty. This is an optional field that the credit risk engine does not currently use.

**Core Market Participant**

Select if Basel II criteria define this counterparty as a core market participant.

**Collateral Code Page**

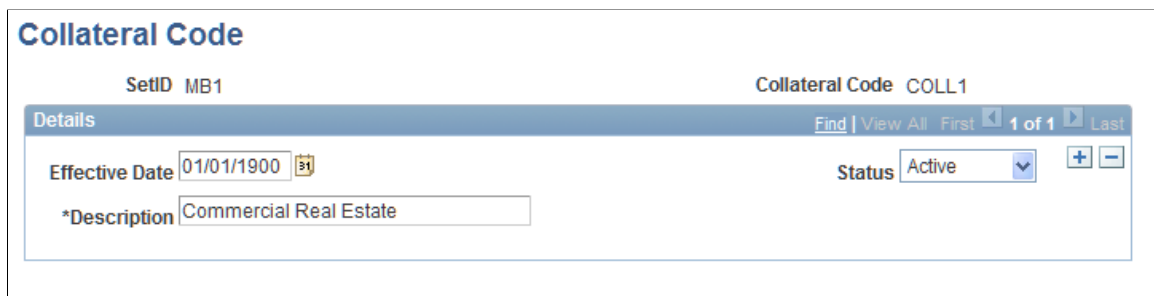
Use the Collateral Code page (FI\_COLLATERAL\_TBL) to define attributes of credit risk mitigants, such as financial or physical collateral or guarantees.

**Navigation**

Financial Services Industries, Risk-Weighted Capital Rules, Credit Risk, Collateral Code

**Image: Collateral Code page**

This example illustrates the fields and controls on the Collateral Code page. You can find definitions for the fields and controls later on this page.



Define collateral codes for Basel II processing requirements.

**Collateral Page**

Use the Collateral page (FI\_COLLATERAL) to define attributes of a piece of collateral.



## Navigation

Financial Services Industries, Risk-Weighted Capital Rules, Credit Risk, Collateral

### Image: Collateral page

This example illustrates the fields and controls on the Collateral page. You can find definitions for the fields and controls later on this page.

The screenshot shows a web form for defining collateral. At the top, there are tabs for 'Collateral', 'Collateral Amts', and 'Notes'. Below the tabs, the 'Business Unit' is 'TREAS' and the 'Collateral Id' is 'CR\_COLL\_006'. The form is divided into two columns of fields. The left column includes: '\*As Of Date' (01/01/2003), '\*Description' (Facility 03 Guarantee), 'Collateral Type' (Guarantee), 'Facility ID' (CR\_FAC\_03), 'Customer Group' (CG\_003), 'Guarantor ID' (CR\_CUST\_004), 'Eligible Collateral' (Foundation/Advanced), and 'Collateral Link' (Facility Collateral). The right column includes: '\*Status' (Active), 'Currency Code' (USD), 'Collateral Code' (COLL6), 'Collateral Location' (USA), 'Collateral Maturity' (01/01/2008), 'Rating Scope' (HIGHEST), 'Valuation Date' (01/01/2003), 'Collateral Haircut' (1.0000), and 'Last Review Date' (08/11/03 10:51AM). At the bottom left, 'Approved By' is 'VP1'.

Define the parameters that are associated with a piece of collateral.

#### Currency Code

Specify the currency in which the collateral is denominated.

#### Collateral Type

Select the collateral type from the available options: *Cash, Commercial Real Estate, Credit Derivative, Debt Security, Equity, Gold, Guarantee, Mutual Fund, Residential Real Estate, Receivables, or Other.*

#### Facility ID

Enter the predefined facility with which the collateral is associated. This field works in conjunction with Collateral Link to define the collateral amount that offsets exposure on a particular credit facility.

#### Collateral Code

Enter the predefined collateral code to categorize a piece of collateral for bank-specific Basel II processing requirements. It is an informational attribute that does not trigger the credit risk engine's processing logic.

#### Collateral Location

Enter the country in which the collateral resides. This is an optional field.

#### Customer Group

Select the customer group that is associated with this collateral. You defined the customer groups on the Customer Group page. This field works in conjunction with the Collateral Link field to define the collateral amount as offsetting facility exposures that are associated with an entire customer group. The credit risk engine uses this information to allocate the collateral across multiple facilities until it has been fully assigned.

<b>Collateral Maturity</b>	Enter the financial collateral's maturity date, if any.
<b>Guarantor ID</b>	Select the predefined counterparty or customer that is associated with a guarantee or credit derivative. In certain processing scenarios, the risk weight of the guarantor is swapped with the risk weight of the obligor.
<b>Rating Scope</b>	Select the guarantor's risk rating, which you predefined on the Risk Rating page.
<b>Eligible Collateral</b>	This field defines the Basel II methodology for which the collateral is considered eligible. Select from the available options: <i>Advanced, Comp/Foundation/Advanced, Comprehensive, Comprehensive/Advanced, Comprehensive/Foundation, Foundation, Foundation/Advanced, None, Simple, Simple/Advanced, Simple/Comp/Advanced, Simple/Comp/Foundation, Simple/Comp/Foundation/Adv, Simple/Comprehensive, Simple/Foundation, or Simple/Foundation/Advanced.</i>
<b>Valuation Date</b>	Enter the valuation date of the collateral. This field is informational and not used in processing.
<b>Collateral Link</b>	Define whether the collateral is linked to: <i>Customer Collateral, Facility Collateral, or Group Collateral.</i>  Customer level collateral processing is not enabled.
<b>Collateral Haircut</b>	Enter the percent margin that is applied to the collateral for the volatility risk. For example, if haircut processing is enabled, a 1,000,000 USD piece of collateral with a defined collateral haircut of 10 results in a 900,000 USD risk mitigation.

## Collateral Amt's Page

Use the Collateral Amt's page (FI\_COLLATERAL\_AMTS) to define amounts associated with collateral, such as recovery value.

## Navigation

Financial Services Industries, Risk-Weighted Capital Rules, Credit Risk, Collateral, Collateral Amts

### Image: Collateral Amts

This example illustrates the fields and controls on the Collateral Amts. You can find definitions for the fields and controls later on this page.

#### Collateral Amount

Enter the nominal value of the collateral in the denominated currency.

#### Collateral BCE (base currency equivalent) and Base Currency

Enter the collateral amount in the base currency equivalent.

#### Market Price and Market Price BCE (base currency equivalent)

Enter the open market value for the collateral and the market price restated in the base currency equivalent.

#### Recovery Value

Enter the value of the collateral net of haircuts that could be realized to satisfy the requirements of the collateralized exposure.

#### Valuation Frequency

Enter the collateral valuation frequency.

#### Replacement Cost and Replacement BCE (base currency equivalent)

Enter the replacement cost of the collateral in the denominated currency and its base currency equivalent.

#### Remargining Freq

Enter the frequency of margin adjustments for the security.

This value generally pertains to capital markets instruments.

## Customer Group Page

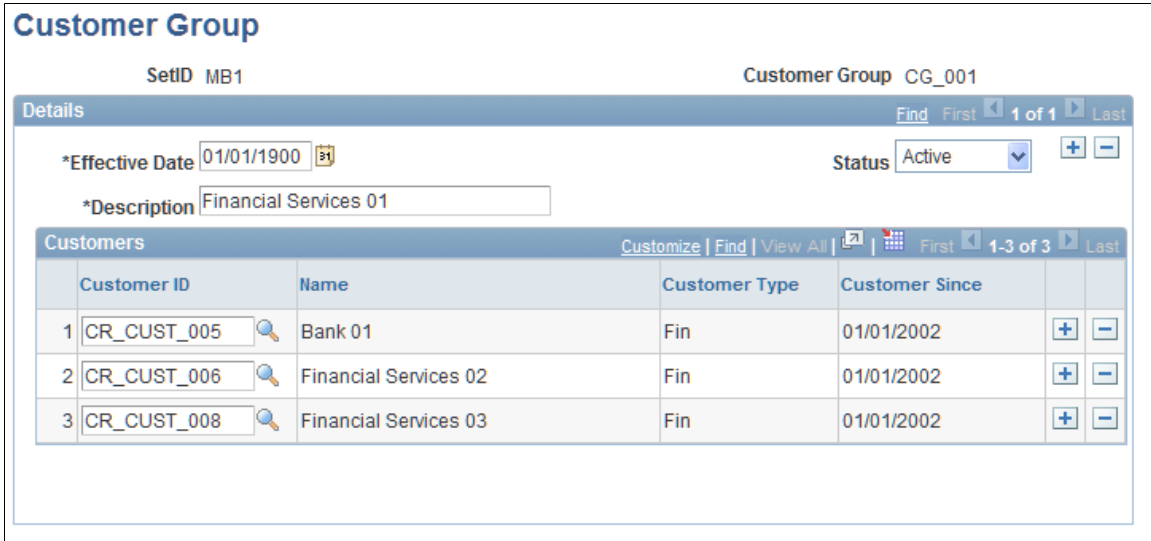
Use the Customer Group page (FI\_CUSTOMER\_GROUP) to define the counterparties or customers who are part of a customer group.

### Navigation

Financial Services Industries, Risk-Weighted Capital Rules, Credit Risk, Customer Group

### Image: Customer Group page

This example illustrates the fields and controls on the Customer Group page. You can find definitions for the fields and controls later on this page.



Define the customers or counterparties that constitute a customer group. Customer groups are an integral part of defining credit facilities and customer group level collateral.

### Product Group Page

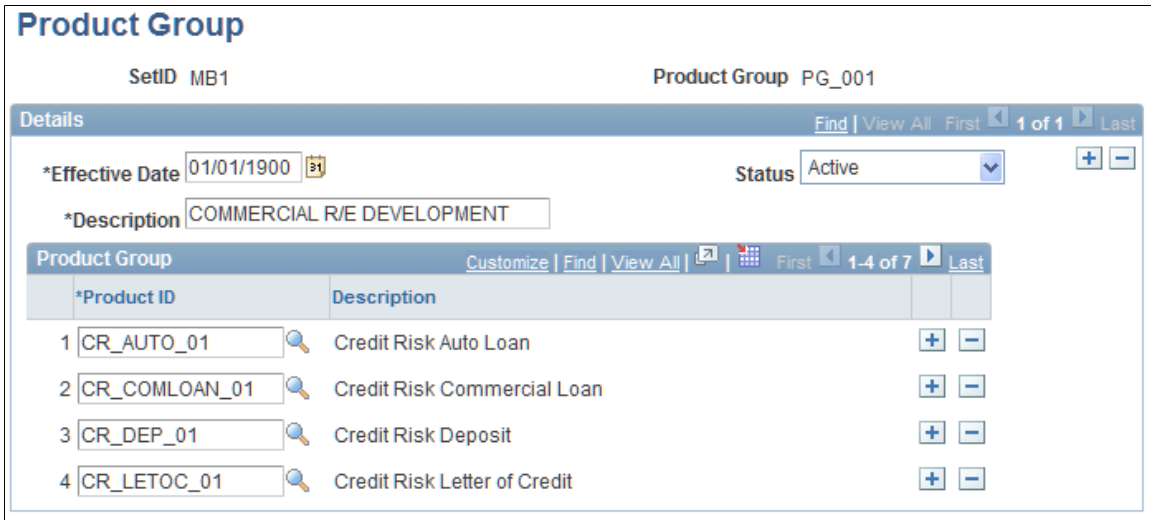
Use the Product Group page (FI\_PRODUCT\_GROUP) to define a list of products associated with a credit facility product group.

### Navigation

Financial Services Industries, Risk-Weighted Capital Rules, Credit Risk, Product Group

### Image: Product Group page

This example illustrates the fields and controls on the Product Group page. You can find definitions for the fields and controls later on this page.



Define the products that constitute a product group. Product groups are an integral part of facility level credit risk processing.

### Risk Rating Page

Use the Risk Rating page (FI\_RISK\_RATING) to define the risk rating, rating scope, and probability of default that can be associated with a counterparty or customer.

### Navigation

Financial Services Industries, Risk-Weighted Capital Rules, Credit Risk, Risk Rating

### Image: Risk Rating page

This example illustrates the fields and controls on the Risk Rating page. You can find definitions for the fields and controls later on this page.



Define risk ratings associated with a particular rating scope. Risk rating and scope are then associated with a customer or counterparty as part of counterparty setup. The associated probability of default and risk weights are then available to the credit risk engine for processing.

#### Risk Rating

Select from the available options. This is the primary summary indicator of risk for an institution's individual credit exposures.

#### Probability of Default

Enter the quantitative likelihood that a customer fails to meet its obligations.

#### Risk Weight

Enter an alternate numerical interpretation of the risk rating. It is commonly used in place of Probability of Default for standardized Basel II processing.

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## Defining Processing Parameters for Credit Risk

This section presents an overview of credit risk processing and discusses how to:

- Define the credit conversion factor.
- Define the credit risk parameters.
- Define credit risk functions.

## Pages Used to Define Credit Risk Processing Parameters

<b>Page Name</b>	<b>Definition Name</b>	<b>Navigation</b>	<b>Usage</b>
Credit Conversion Factor	FI_KFACTOR_F00	Financial Services Industries, Risk-Weighted Capital Rules, Credit Risk, Credit Conversion Factor	Define the ratio at which the available credit will be used for a particular product type, should the counterparty default.
Credit Risk Parameters	FI_RWCPRP_TBL	Financial Services Industries, Risk-Weighted Capital Rules, Credit Risk, Credit Risk Parameters	Define runtime parameters for a credit risk processing scenario.
Credit Risk Functions	FI_RWCCN_TBL	Financial Services Industries, Risk-Weighted Capital Rules, Credit Risk, Credit Risk Functions	Define functions for processing credit risk.
Notes	FI_RWCCN_NOTES	On the Functions page, select the Notes tab.	Enter miscellaneous notes relating to the function.
RWC Function Params Sec Panel	FI_RWCCN_PRM	On the Functions page, click the Parameters link.	View and modify the function parameter values.

### Related Links

[Basel II Credit Risk Regulatory Compliance](#)

## Understanding Credit Risk Processing

This section discusses:

- Assumptions underlying credit risk calculations.
- Retail exposure handling.
- Credit risk functions.
- Reviewing credit risk output.

### Assumptions Underlying Credit Risk Calculations

The credit risk engine processes based on the following assumptions.

*Standard methodology:*

- Credit Conversion Factor (CCF):
  - 20% for short term self-liquidating letters of credit.
  - 0% for cancellable exposures.
  - 20% for maturities < 1 year.

50% for maturities > 1 year.

100% for securitizations and repos.

- Risk Weight:

100% for not rated or not calculated.

- Credit Risk Mitigation (CRM):

Simple: Pledge collateral for the life of the exposure. Substitute the risk weighting of the collateral for the risk weighting of the counterparty, subject to 20% floor, 10% for repos, and 0% floor for core market.

Comprehensive: Reduce the exposure amount by the collateral amount. Must apply maturity mismatch.

Maturity Mismatch: If the CRM maturity is < 1 year, the CRM amount = 0. Mismatch formula is  $P * t/T$ .

Netting: Currency mismatch applies.

Guarantees: If a facility exposure is protected, the program applies the risk weight of the guarantor; if a facility exposure is unprotected, the program applies the risk weight of the counterparty.

Pools of types of collateral: The bank is required to subdivide the exposure into portions covered by each type of CRM. The risk-weighted assets of each portion must be calculated separately.

Credit risk functions are required by the engine to complete the final risk-weighted asset or regulatory capital calculation.

*Interest rate based (IRB) methodologies:*

- Probability of Default (PD):

.03 % minimum; default = 100%.

- Loss Given Default (LGD):

Senior: unsecured 45%.

Subordinated: unsecured 75%.

Secured: financial collateral LGD = 0%; receivables = 0-35%, 125% threshold; Real Estate (RE) = 30-35%, 140% threshold; other = 30-40%, 140% threshold.

The part of the exposure that is collateralized receives the LGD that is associated with the type of collateral, else the 45% or 75%.

Guarantees: If the facility is protected, apply the risk weight of CRM; if the facility is unprotected, apply the risk weight of the counterparty.

Advanced: Bank has the option to adopt the treatment under the foundation approach or to make an adjustment to its LGD estimate of the exposure to reflect the presence of the guarantee or credit derivative.



- Credit Conversion Factor (CCF):

75% for non-short-term liquid letters of credit.

0% for cancellable exposures.

20% for short-term liquid letters of credit.

- Foundation versus advanced method:

With the foundation method, you can set the credit risk engine parameters to override the risk rating driven PD factor. Do so by using the credit risk function, which is discussed later. With the advanced method, you can set the credit risk engine parameters to override both the PD and LGD factors. You are *required* by the processing engine, when using the advanced method, to provide initial facility level LGD values. These values must be loaded into the FI\_LGD\_AD\_TBL using the provided ETL maps.

#### *Multi-currency processing:*

When processing multiple currencies, the credit risk engine assumes that all currencies have been converted to the appropriate base currency equivalent prior to processing. The results are in the standardized base currency equivalent fields. The Enterprise Performance Management currency conversion process performs this task just prior to running the Credit Risk Application Engine (FI\_RWC\_CR). Alternatively, you can perform the currency conversion as part of the Extract, Transform, and Load (ETL) process.

## **Retail Exposure Handling**

Retail exposures have special processing requirements and options for customers using any of the defined methods (standardized simple, comprehensive, foundation, or advanced). The Credit Risk Application Engine supports these requirements in the following manner.

Instrument detail is mapped into the instrument table (FI\_INSTR\_F00), the balance table (FI\_IBALANCE\_R00), and the credit table (FI\_ICREDIT\_R00). Drawn amounts are stored in FI\_IBALANCE\_R00. Undrawn or commitment amounts are mapped into the facility table (FI\_FACILITY\_F00) in the same way that other exposures are treated.

See "Understanding Financial Calculation Rules (*PeopleSoft EPM 9.1: Applications Fundamentals for Financial Services Industry*)".

One important difference in the treatment of retail exposures is that customers are often given flexibility in defining risk weights, Probability of Default (PD), Loss Given Default (LGD), and Exposure at Default (EAD), based on the evaluation of these parameters within their own portfolio. To support this activity, use the Stratification Application Engine (FI\_STRATIFY) to aggregate or pool the previously loaded instrument detail in like pools, according to defined criteria (for example, credit score, loan-to-value ratio). Stratification rules for the stratification process are associated with product and model level rules for financial calculation, rather than with a particular risk rule.

The system stores stratified results in a set of result tables, such as FI\_POOLHDR\_R00, FI\_POOLINST\_F00, and FI\_POOLBAL\_R00, which are associated with the scenario that the stratification rules process.

If you select the Pool for Retail option on the parameter page, the system displays the Pool Scenario field, which enables you to use the results of a special stratification run in a different scenario for credit risk processing.

You need to manually establish credit facility records for each unique combination of retail facility attributes in your portfolio. In the simplest case, a single credit facility defined as a retail exposure could be associated with thousands of pools.

Pools that are created by the stratification process are mapped to these facilities by assignment of each instrument to a facility ID using one of the following techniques:

- Using ETL, establish a valid retail facility ID.  
Ensure that the facility ID is identified as a discrete stratification attribute.
- By the stratification rules for retail products, add a retail facility ID to the rule.

The results of either of these methods are retail products with valid retail facility IDs for the Credit Risk Application Engine to use for proper processing.

When processing with the Pool for Retail option selected, the engine:

- Examines all facilities that are categorized as retail (the facility purpose is *Retail Residential Secured, Retail Revolving, Retail Others, or Retail Purchased Receivables*).
- Selects stratified data that matches the Scenario ID from the pool output tables and loads the data into temporary tables for specialized retail processing.
- In processing retail exposures, it parallels the process for non-retail facilities by matching pool draws from the Instrument Pool Cash Balance table (FI\_POOLBAL\_R00) record and commitment amounts (from the commitment balance (FI\_COMMITMENT\_AMT) field in the FI\_POOLFCST\_TBL table) to facilities.
- Represents pooled data as sub-limit level data in the credit risk result table (FI\_RWC\_CR\_F00).

The system places the pool ID in the Sub Facility ID field (FI\_SUB\_FAC\_ID) for retail records when the Pool for Retail option is selected.

- Uses defaults for certain output fields (such as RW = 100%), and uses commitment amounts to calculate headroom at this level.
- Calculates headroom, but does not process collateral at this level similar to other retail processing.

Credit risk functions are commonly employed to continue the processing of these pools, but are not required. Certain functions that use detailed pool attributes require the use of specific datamaps that join sub-facility IDs to pool IDs. Other functions can derive attribute data from a datamap that is joined to the facility. For example, you can assign unsecured retail facilities (as defined by the facility level flag) a risk weight of 30, and secured facilities a risk weight of 10.

If the Pool for Retail option is not selected, the system processes retail facilities, but draws exposure directly from the Financial Instrument table (FI\_INSTR\_F00), Instrument Balance table (FI\_IBALANCE\_R00), and the Instrument Status table (FI\_ICREDIT\_R00) attributes. The system nets drawn amounts against the collateral amount (FI\_COLLATERAL\_AMT) that is stored in the Instrument Status table (FI\_ICREDIT\_R00), unlike pooled input. The system passes results to the output table at a facility ID level only (unlike pooled data, which creates sub-facility IDs that correspond to the pool IDs).

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**Warning!** Sub-facilities are not valid for retail credit facilities. When you change a facility purpose to *Retail*, the system automatically deletes all sub-facility setup data.

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## Credit Risk Functions

Credit risk functions are a specialized form of risk weight functions for exclusive use with the credit risk engine. A credit risk function can be used to address the following business requirements:

- Perform a factor lookup from an external table to update the Probability of Default (PD), Loss Given Default (LGD), or Exposure at Default (EAD) fields in the FI\_RWC\_CR\_F00 record.

This approach relies on having common fields in the lookup table.

- Perform a credit risk-specific function formula as the final step in the job to calculate risk weighted assets (RWA) or regulatory capital requirements (RC).

Some convenient predefined Interest Rate Based (IRB) functions exist for this purpose, including:

- RWC\_BCR1 (Capital requirement K with maturity adjustment).
  - RWC\_BCR2 (Capital requirement K with firm-size adjustment).
  - RWC\_BCR3 (Capital requirement K for residential mortgage).
  - RWC\_BCR4 (Capital requirement K for qualifying revolving exposures).
  - RWC\_BCR5 (Capital requirement K for other retail exposures).
- Assign a simple user defined risk weight times a balance for use in approaches such as standardized.  
You can define weights as parameters.
  - Create an end user defined function that is subject to engine limitations.

The overall framework relies on customers using PeopleSoft Enterprise Performance Management metadata to define facility, pool, or instrument level constraints. These constraints (selection criteria) identify which rows of data the risk function processes. Credit risk functions can only be used to update the FI\_RWC\_CR\_F00 output table.

Credit risk functions are executed as the final step of the Credit Risk application engine. Values that are updated through functions override any previously calculated (or default) values in the target fields. Rules are run in the sequence that they are input into the credit risk rule page.

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**Note:** There are dependencies and limitations to the use of credit risk functions:

Customers are required to use datamaps that include the FI\_RWC\_CR\_F00 table.

Customers are required to use delivered datamaps or create datamaps that maintain a one-to-one relationship between FI\_RWC\_CR\_F00 rows and the joined tables (such as FI\_FACILITY\_F00 and FI\_COLLATERAL\_F00).

If these rules are maintained, customers can create their own datamaps to meet specialized requirements.

---

## Reviewing Credit Risk Output

PeopleSoft delivers three query templates to provide you with various views of the Credit Risk application engine output:

- Output Detail (FI\_RWC\_CR1).

Provides the full detail of the calculated output from the credit risk engine (no summarization). It prompts for business unit and processing scenario, and returns output at the facility, sub-facility and sub-sub-facility (if applicable) levels.

- Facility Summary (FI\_RWC\_CR2).

Provides the same data as the output detail, but summarizes all measure fields to a facility level.

- Unit / Scenario Summary (FI\_RWC\_CR3).

Summarizes output detail at the highest level of business unit, as of date, and scenario ID combination.

## Credit Conversion Factor Page

Use the Credit Conversion Factor page (FI\_KFACTOR\_F00) to define the ratio at which the available credit will be used for a particular product type, should the counterparty default.

### Navigation

Financial Services Industries, Risk-Weighted Capital Rules, Credit Risk, Credit Conversion Factor

### Image: Credit Conversion Factor page

This example illustrates the fields and controls on the Credit Conversion Factor page. You can find definitions for the fields and controls later on this page.

The screenshot shows the 'Credit Conversion Factor' page. At the top, it displays 'SetID MB1' and 'Product ID CR\_30YR\_MRTG\_01 Credit Risk 30 Yr Mortgage'. Below this is a 'Details' section with a search bar containing 'Find | View All | First | 1 of 1 | Last'. The main content area contains three fields: '\*Effective Date' with a value of '01/01/1900' and a calendar icon; 'Status' with a dropdown menu set to 'Active' and '+' '-' icons; and 'Credit Conversion Factor' with a text input field containing '0.2500'.

Define the credit conversion factor for a specific product. This is the rate for available credit should the counterparty default. This rate is commonly referred to as the *burn rate*. Enter a percentage in the Credit Conversion Factor field.

## Credit Risk Parameters Page

Use the Credit Risk Parameters page (FI\_RWCPRP\_TBL) to define runtime parameters for a credit risk processing scenario.

## Navigation

Financial Services Industries, Risk-Weighted Capital Rules, Credit Risk, Credit Risk Parameters

### Image: Credit Risk Parameters page

This example illustrates the fields and controls on the Credit Risk Parameters page. You can find definitions for the fields and controls later on this page.

On this page, you define the processing parameters for credit risk exposures.

#### Credit Risk Calc Type

Select from the options: *Advanced*, *Foundation*, *Standard Comprehensive*, or *Standard Simple*.

#### PD Floor %

Specify the minimum or floor probability of default percentage assigned to a credit facility exposure. This regulatory floor defaults to .03%, but can be overridden at runtime.

#### Apply Haircuts

Select this option if you want the credit risk engine to add a margin for the exposure's volatility, the collateral's volatility, or for currency mismatch between exposure and collateral. User defined haircut factors for currency mismatch adjust the collateral amount up or down for specific currency combinations.

#### Adjust Maturity Mismatch

Select this option if you want the credit risk engine to follow rules for adjusting PD and collateral values where the exposure's maturity does not match the maturity of the risk mitigation instrument. Adjustments only occur for facility specific collateral.

The adjustment for PD is as follows:

$$((1 - (\text{Collateral Maturity in Years} / \text{Facility Maturity in Years})) \times \text{PD of Guarantor}) + ((\text{Collateral Maturity in Years} / \text{Facility in Years}) \times \text{PD of Obligor})$$

The adjustment for collateral value is as follows:

$$\text{Collateral amount} \times (\text{Collateral Maturity in Years} / \text{Facility Maturity in Years})$$

**Perform Credit Risk Mitigation**

Select this option if you want the credit risk engine to perform collateral allocation and processing steps. This runtime option is available to isolate the effects of credit mitigation during implementation planning. This option must be selected for either haircuts or maturity mismatch features to work.

**Pool for Retail**

Select if you want the engine to process credit risk by using the pools of instrument detail, aggregated according to user defined criteria.

**Credit Risk Functions Page**

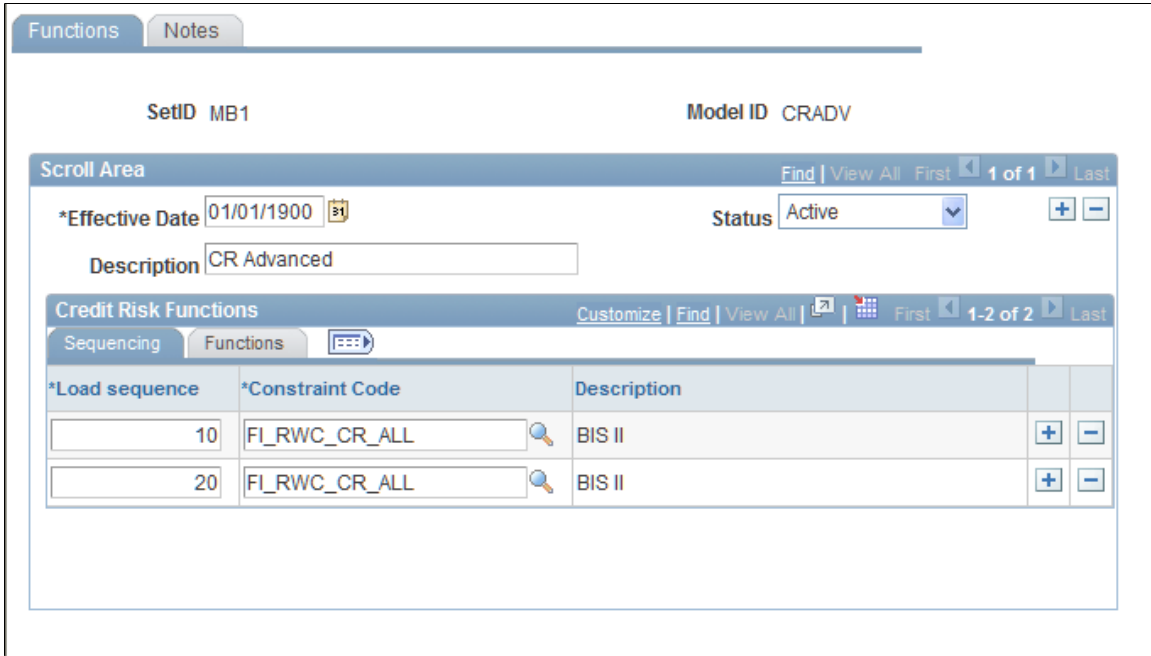
Use the Credit Risk Functions page (FI\_RWCCN\_TBL) to define functions for processing credit risk.

### Navigation

Financial Services Industries, Risk-Weighted Capital Rules, Credit Risk, Credit Risk Functions

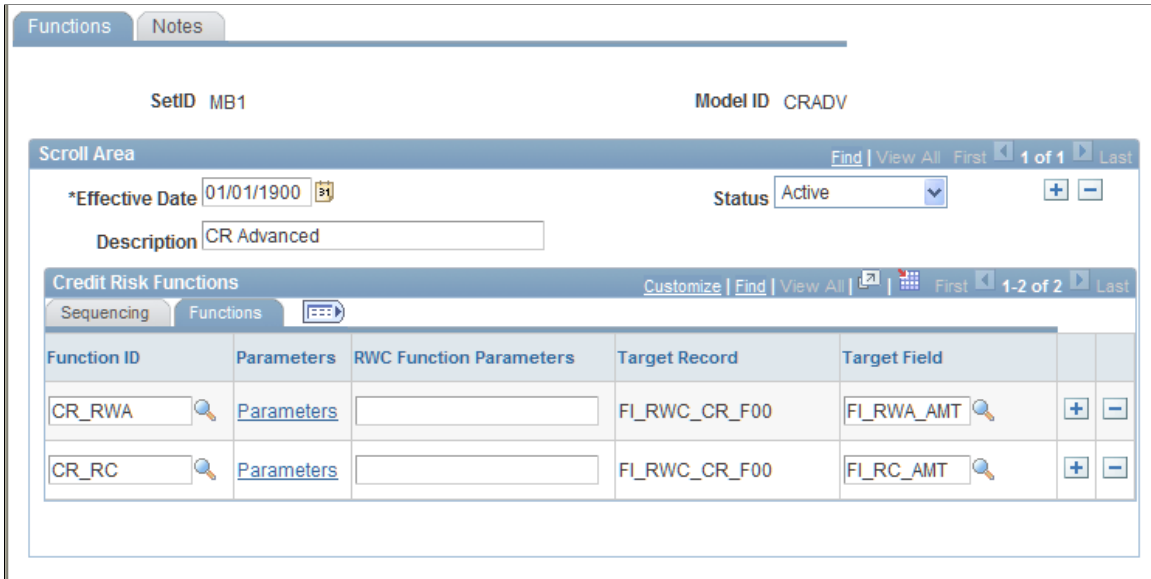
#### Image: Credit Risk Functions page (1 of 2)

This example illustrates the fields and controls on the Credit Risk Functions page (1 of 2). You can find definitions for the fields and controls later on this page.



#### Image: Credit Risk Functions page (2 of 2)

This example illustrates the fields and controls on the Credit Risk Functions page (2 of 2). You can find definitions for the fields and controls later on this page.



### Sequence

Enter the order in which you want the engine to apply the functions in its calculations.

<b>Constraint Code</b>	Select one of the predefined constraint codes to specify the credit facility output rows to which you want to apply the function. For example, under advanced requirements you might only want to apply the delivered RWC_BCR3 function (capital requirement K for residential mortgage) to residential mortgage facilities. You can build a simple constraint that limits the function to be applied against facilities where the facility purpose is <i>Retail Residential Secured</i> .
<b>Function ID</b>	Select one of the predefined functions.
<b>Parameters</b>	Click to access the RWC Function Params Sec page, where you can view and modify the parameter values.
<b>RWC Function Parameters</b>	The system fills in the formula for the function that you have selected.
<b>Target Record</b>	The system default is the Risk-Weighted Capital credit risk table, FI_RWC_CR_F00. All credit risk functions must include this table in their datamap metadata.
<b>Target Field</b>	Select the output field for the results of the function calculation. The risk function sequence replaces existing data in the target field.

### Related Links

"Understanding User-Defined Functions (*PeopleSoft EPM 9.1: Applications Fundamentals for Financial Services Industry*)"

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## Setting Up Function Definitions

You may want to use functions when assigning risk weights to certain products. This section provides an overview of function definitions and discusses how to:

- Set up function definitions.
- Define function rules.
- Define functions.

### Pages Used to Set Up Function Definitions

<b>Page Name</b>	<b>Definition Name</b>	<b>Navigation</b>	<b>Usage</b>
Function Definitions	PF_FN_DEFN_PNL	Financial Services Industries, Risk-Weighted Capital Rules, Risk-Weighted Capital Rules, Function Definitions, User Functions	Set up function definitions to model risk weights.



<b>Page Name</b>	<b>Definition Name</b>	<b>Navigation</b>	<b>Usage</b>
Risk Function Rules - Definition	RWC_FUNC_DEFN	Financial Services Industries, Risk-Weighted Capital Rules, Risk-Weighted Capital Rules, Risk Function Rules, Definitions	Define risk weights for products or forecasted balances according to risk type to calculate the risk or normalized loss weight.
Risk Function Rules - Functions	RWC_FUNC_SEQ	Financial Services Industries, Risk-Weighted Capital Rules, Risk-Weighted Capital Rules, Risk Function Rules, Functions	Assign risk functions for risk weighted capital rules.
Risk Function Rules - Notes	RWC_FUNC_NOTES	Financial Services Industries, Risk-Weighted Capital Rules, Risk-Weighted Capital Rules, Risk Function Rules, Notes	Enter notes about a risk function rule.
RWC Function Params Sec Panel	RWC_FUNC_RW_PARAMS	Click the Parameters button for a risk-weighted capital function in the Default Rules box on the Functions page.	View and enter parameters for the default rule risk-weighted capital function.
RWC Function Params Sec Panel	RWC_FUNC_NL_PARAMS	Click the Parameters button for a loss function in the Default Rules box on the Functions page.	View and enter parameters for the default rule loss function.
RWC Function Params Sec Panel	RWC_FSEQ_RW_PARAMS	Click the Parameters button for a risk-weighted capital function in the Constraint Defined Rules box on the Functions page.	View and enter parameters for the constraint defined rule for a risk-weighted capital function.
RWC Seq Norm Loss Params	RWC_FSEQ_NL_PARAMS	Click the Parameters button for a loss function in the Constraint Defined Rules box on the Functions page.	View and enter parameters for the constraint defined loss function.

## Understanding Function Definitions

For some risk types, you may want to allocate capital or normalized loss amounts by using defined functions or algorithms. For example, you may base your credit risk allocations on a proprietary function that takes into account the potential severity of loss, expected workout costs, and probability of loss.

Function definitions enable you to apply a function that you've created, and to vary a constant or coefficient value in that function, based on user defined criteria.

When defining functions, you may want to use dataset elements that contain values at the product level. The Product Ratings page enables you to assign values that pertain to credit risk evaluation at the product level.

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**Note:** You can create risk function rules for products or forecasted pool data sources only. Ledger accounts and treasury positions must use risk weight rules to evaluate capital needs.

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**Related Links**

"Understanding User-Defined Functions (*PeopleSoft EPM 9.1: Applications Fundamentals for Financial Services Industry*)"

**Function Definitions Page**

Use the Function Definitions page ( PF\_FN\_DEFN\_PNL) to set up function definitions to model risk weights.

**Navigation**

Financial Services Industries, Risk-Weighted Capital Rules, Risk-Weighted Capital Rules, Function Definitions, User Functions

**Related Links**

"Understanding User-Defined Functions (*PeopleSoft EPM 9.1: Applications Fundamentals for Financial Services Industry*)"

**Risk Function Rules - Definition Page**

Use the Risk Function Rules - Definition page (RWC\_FUNC\_DEFN) to define risk weights for products or forecasted balances according to risk type to calculate the risk or normalized loss weight.

**Navigation**

Financial Services Industries, Risk-Weighted Capital Rules, Risk-Weighted Capital Rules, Risk Function Rules, Definitions

**Image: Risk Function Rules - Definition page**

This example illustrates the fields and controls on the Risk Function Rules - Definition page. You can find definitions for the fields and controls later on this page.

The screenshot displays the 'Definition' tab of the Risk Function Rules - Definition page. At the top, there are tabs for 'Definition', 'Functions', and 'Notes'. Below the tabs, the 'SetID' is 'MB1' and the 'RWC Rule' is 'FUNC\_INST\_01'. The 'Details' section includes the following fields and controls:

- \*Effective Date: 01/01/1900
- \*Status: Active
- \*Description: Instrument Level w / Lookup
- \*Risk Type: CREDIT
- RWC Data Source: Product Balances (selected), Forecasted Pools, Calculate Normalized Loss (checkbox)
- Stratification Rule: [Searchable field]
- Ledger Event Codes: \*RWC Ledger Event Code: RWC-C001 (Cap Allocation for Credit Risk), Normalized Loss: [Searchable field]
- Start Date / Commitment Date: Calc. Risk as of Commit. Date (checkbox), Accrue Loss as of Commit. Date (checkbox)

**Risk Type** Select a predefined risk type.

You can use the Risk Type Definition page to add or modify a risk type.

**RWC Data Source**

Indicate a data source for this rule: *Forecasted Pools* or *Product Balances*.

**Calculate Normalized Loss**

Select this option to calculate the normalized loss.

**Stratification Rule**

If you select Product Balances, you may optionally select the stratification rule that is used to aggregate the individual instruments into a pool; this rule is used as the primary data source for the user defined function. If you choose not to stratify, the system uses the instrument table as the primary data source for the user defined function.

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**Note:** If you leave the Stratification Rule field blank, the system assumes no stratification.

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**RWC Ledger Event Code**

Select the ledger account to which to post the capital allocation.

**Normalized Loss**

Select the ledger account to which to post the normalized loss. This field is inactive if you clear the Calculate Normalized Loss check box.

**Start Date / Commitment Date**

In the Start Date / Commitment Date group box, you can elect to calculate the risk-weighted capital as of the commitment date—Calc. Risk as of Commit. Date (calculate risk as of commitment date)—and the normalized loss amount as of the commitment date—Accrue Loss as of Commit. Date (accrue loss as of commitment date). If you do not select one of these check boxes, the system bases the calculations on the As of Date of the instrument or forecasted pool.

## Risk Function Rules - Functions Page

Use the Risk Function Rules - Functions page (RWC\_FUNC\_SEQ) to assign risk functions for risk weighted capital rules.

## Navigation

Financial Services Industries, Risk-Weighted Capital Rules, Risk-Weighted Capital Rules, Risk Function Rules, Functions

### Image: Risk Function Rules - Functions page

This example illustrates the fields and controls on the Risk Function Rules - Functions page. You can find definitions for the fields and controls later on this page.

Fields vary depending on the options that you selected on the Risk Function Rules - Definition page.

#### RWC Function andParameters

Specify the default rules to calculate the allocated capital. Click the Parameters button to view the parameters for the function and assign values to those parameters.

#### Loss Function andParameters

Specify the default rules to calculate expected loss results. Click the Parameters button to view the parameters for the function (if any) and assign values to those parameters.

### Constraint Defined Rules

Specify the functions and parameter values to use for the subset of instruments or forecasted pools that satisfy the constraint code criteria. If you are stratifying, then select the constraint code to apply to the pool of instruments. The constraint code that you enter here must be built on the pooled instrument table (FI\_POOLINST\_F00). If you are not stratifying, then ensure that the constraint code is built on an instrument table. Specify the RWC Function to calculate the allocated capital, then clickParameters to view and assign values. Specify theLoss Function to calculate the normalized loss if applicable, then clickParameters to view and assign values.

## Setting Up Rule Sets

This section provides an overview of rule sets and discusses how to define Risk-Weighted Capital rule sets.

### Pages Used to Set Up Rule Sets

<i>Page Name</i>	<i>Definition Name</i>	<i>Navigation</i>	<i>Usage</i>
RWC RuleSet	RWC_RULESET_DEFN	Financial Services Industries, Risk-Weighted Capital Rules, Risk-Weighted Capital Rules, Risk RuleSet	Define rule sets for a forecasted pool, ledger account, product, or position.
RWC RuleSet - Notes	RWC_RULES_NOTES	On the RWC RuleSet page, select the Notes tab.	Enter text related to the defined rule set.

### Understanding Rule Sets

Set up rule sets to group the risk weight rules and risk functions for specific products or forecasted pools, to group risk functions for treasury positions, or to group ledger account balances.

For example, on your loan products, you might have rules for credit risk, rate risk, operational risk, and market risk. Rather than assigning four different rules to your loans, you can group these four rules under one rule set and attach that rule set to your loan products.

### RWC RuleSet Page

Use the RWC RuleSet page (RWC\_RULESET\_DEFN) to define rule sets for a forecasted pool, ledger account, product, or position.

## Navigation

Financial Services Industries, Risk-Weighted Capital Rules, Risk-Weighted Capital Rules, Risk RuleSet

### Image: RWC RuleSet page

This example illustrates the fields and controls on the RWC RuleSet page. You can find definitions for the fields and controls later on this page.

The screenshot shows the RWC RuleSet page for SetID MB1 and RWC RuleSet ID RISKWT\_FUNC\_01. The page is divided into two main sections: Details and Risk Weighted Capital Rules.

**Details Section:**

- \*Effective Date:** 01/01/1900
- \*Status:** Active
- \*Description:** RWC Risk Wt & Function Combo
- \*RWC Data Source:** Product Balances

**Risk Weighted Capital Rules Section:**

*Risk Type	*Calculation Type	*RWC Rule Code	Description
1 CREDIT	Function	FUNC_POOL_01	Lookup Function w/ Pools
2 MARKET	Weights	PROD_MKT_EL_CI	Mkt Risk / Exp Loss / Comm DT

### RWC Data Source

Specify the type of balance to assign to this rule. Options are: *Forecasted Pools*, *Product Balances*, *Ledger Balances*, and *Treasury Position Balances*.

## Risk-Weighted Capital Rules

Specify the rules to include in this rule set.

### Risk Type

Select a predefined risk type.

You can use the Risk Type Definition page to add or modify a risk type.

### Calculation Type

Select one of the calculation type options: *Weights* or *Function*.

### RWC Rule Code

Select from the predefined RWC Rule Codes.