Release Notes 19.04

SimCorp Solutions
Based on version 19.04
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SimCorp

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If you have any comments to the contents of this document or suggestions for topics to be included in a future updating of this document, please do not hesitate to send them by mail to: SCDimension.doc@SimCorp.com.

Contents

1 Introduction

SimCorp is pleased to present the ***SimCorp Dimension Release Notes*** which describe features and functions that have been added, enhanced, or modified in SimCorp Dimension version 19.04.

1.1 Document conventions

Some sections in the Release Notes repeat under several headings to ensure that they are presented and accessible in all appropriate contexts.

The Release Notes document uses the following document conventions:

- **User interface elements**, including **windows**, **fields**, **domain values**, and **options**, appear in bold.
- `User input` is shown in a different font and with highlighting.
- Dates and numbers follow the English (United Kingdom) standard, for example, "31 December 2017" or "31/12/2017" and "1,000,002.50".

1.2 Functionality available in earlier versions

The Release Notes describe new features and enhanced functionality which are available in SimCorp Dimension 19.04.

Some features and functions are part of a module that you must acquire separately. For more information, see New modules below the "New modules" section in this chapter.

Some features and functions have been patched to earlier versions. Refer to the section headings which indicate the earlier versions and branches:

- "[19.07]" means functionality that was only developed for 19.07, but included in the 19.04 release.
- "[19.01]" means functionality is available in version 19.01.
- "[6.4]" means functionality is available in version 6.4.

To see which version you are using, see the **About SimCorp Dimension** window in your installation.

1.3 New modules

Some of the features and functions described are available in modules which you must acquire separately. Furthermore, these modules may require the presence of other modules before you can use them. Please contact your SimCorp consultant for details.

Functionality that is available as a new module is marked "[New module]" in the section header.

The new modules are:

Collateral Manager

- Collateral - Cleared Derivatives

Financial Instruments > Data and Conventions

- Market Data Scenarios with re-calibration

Fund Administration Manager > Investmentsteuerreformgesetz (InvStRefG)

- Investor-specific figures

Investment Accounting Manager > End-of-Period

- US-GAAP credit losses (CECL)

Investment Accounting Manager > Private Debt

- Private Debt Tax Lots

1.4 Other SimCorp Dimension release documents

The ***System Administrator's Manual*** describes supported software, system prerequisites, system architecture, protection and accessibility functions, system environment, and more.

How to copy the SimCorp Dimension Database describes how to manually copy an Oracle database that contains the SimCorp Dimension database by using file copy, Recovery Manager (RMAN), or Data Pump.

CBU and Conversion Issues describes issues, checks, and routines related to conversions and facilitates the upgrade from one version to another.

Changes to Tables, Views, RbAs, Transaction Codes, and SRMs describes changes and enhancements in Tables, Report views, Domain values, Record-Based Authorisations (RbAs), Transaction Codes, and System Runtime Measurements (SRM) between SimCorp Dimension version 19.01 and version 19.04.

Standard Reports describes new, modified, renamed, and deleted standard reports, and includes an overview, documentation, and examples of standard reports.

1.5 Support schedule

By its standard contract, SimCorp commits to supporting three releases of SimCorp Dimension, and SimCorp's clients are obliged to upgrade to the current release or the previous release within six months of the release date. With every new release of SimCorp Dimension, SimCorp discontinues

the support of the oldest active release.

With this release of 6.31, the oldest active release of SimCorp Dimension is 6.1. Support for release 6.0 expired on 31 January 2018.

Release dates for future releases of SimCorp Dimension are 1 January, 1 April, 1 July, and 1 October.

To help you schedule future upgrades, here are the upcoming dates from which active releases are no longer supported:

- 6.2 support discontinues on 31 January 2019.
- 6.3 support discontinues on 31 July 2019.
- 6.31 support discontinues on 31 October 2019.
- 6.4 support discontinues on 31 January 2020.

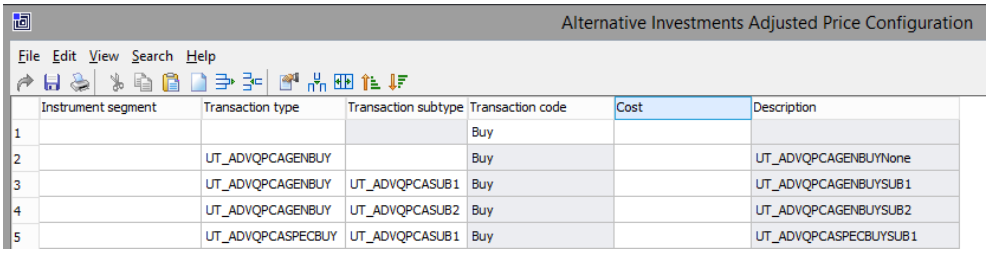
2 Alternative Investments Manager

2.1 Adjusted valuation for equity and bonds

As of 19.04, the following price methods can take corporate actions and life cycle transactions and events into account when pricing assets:

- **Quoted Value, Cash Adjusted**
- **Quoted Price, Cash Adjusted**
- **Explicit Quoted Value, Cash Adjusted**
- **Explicit Quoted Price, Cash Adjusted**

To configure which adjustments to include, open the **Alternative Investments Adjusted Price Configuration** window and link an **Instrument segment** and a **Transaction type** or a **Transaction code** to a **Cost**. The cost is configured in the **Cost/Tax Definitions** window.



	Instrument segment	Transaction type	Transaction subtype	Transaction code	Cost	Description
1				Buy		
2		UT_ADVQPCAGENBUY		Buy		UT_ADVQPCAGENBUYNone
3		UT_ADVQPCAGENBUY	UT_ADVQPCASUB1	Buy		UT_ADVQPCAGENBUYSUB1
4		UT_ADVQPCAGENBUY	UT_ADVQPCASUB2	Buy		UT_ADVQPCAGENBUYSUB2
5		UT_ADVQPCASPECBUY	UT_ADVQPCASUB1	Buy		UT_ADVQPCASPECBUYSUB1

2.2 Additional transactions included in standard balance calculations

As of version 19.04, the transaction type for the **Alternative investment** instrument type defines how the **Total paid-in capital...** and **Distributed to paid-in ...** standard balances are affected. This ensures accuracy even after secondary purchases.

The standard balances are available in the **Alternative Investments Manager** and the **Middle Office Calculation Manager** are used for calculating the PIC key ratio.

The **Total paid-in capital...** standard balance is affected by transactions with the following transaction codes.

These balances increase:

- **AltInvNetcallDist** (for the capital call leg)
- **AlterInvestCash**
- **CapitalCall**
- **ReturnCall**

This balance decreases:

- **CapitalReturnRecallableC**

The **Distributed to paid-in ...** standard balance is affected by transaction values that affect the proceeds and return of capital. These are the relevant transaction codes:

- **AltInvClose**
- **AltInvNetcallDist** (for the capital return leg)
- **AlterInvestCash**
- **CapitalReturn**

  CapitalReturnRecallableR

2.3 Added asset functions to Conditional Default Value Formulas

As of version 19.04, you can use asset formula functions to fill fields, including free code fields, with conditional default values.

Specifically, you can use these formula functions in the **Formula text** section of **Conditional Default Value Formulas** setups:

- getaiassetdate(secik;'field') which returns dates from the specified 'field' per security IK.
- getaiassetnum(secik;'field') which returns numeric and Boolean data from the specified 'field' per security IK.
- getaiassettext(secik;'field') which returns text and IDs from the specified 'field' per security IK.

2.4 Importing decomposition data

As of version 19.04, you can import decomposition data using the **Data Import** window. This makes data entry easier. However, you cannot delete existing decomposition data by using the data import, only the underlying deals.

Configure the data import by using the **Data Import Rules** window, setting the **Import target** field to **Alternative Investment Decomposition**.

Before you import the data, you must ensure that all underlying assets, related deals, components, and constituent types are available in SimCorp Dimension. Underlying assets and related deals can be imported using the **Data Import** window. You configure the import in the **Data Import Rules** window, setting the **Import target** field to **Alternative Investment Assets** and **Alternative Investment Link** respectively.

Components and constituent types can be imported using the **Filter Definitions - Import** window. For more information, and instructions, see the ***Filter Tool Box*** user manual. For instructions on how to set up data import, see the ***Data Import*** user manual.

These are the recommended settings:

Section	Field	Key field	Clear	Input sequence group	Priority 1	Priority 2	Priority 3	Skip field if closed	Caption
AssetEvent/Asset		X		0					
AssetEvent/Decompositions			X	0	Input data	Database			
AssetEvent/Decompositions/DecompositionData/Component		X		0					
AssetEvent/Decompositions/InvestmentLink		X		0					
AssetEvent/Decompositions/DecompositionData	Commitment			0	Input data	Database			Commitment
AssetEvent	Date	X		0					Date
AssetEvent	Description			0	Input data	Database			Description
AssetEvent	EventType	X		0					EventType
AssetEvent	ID	X		0					ID
AssetEvent/Asset	ID	X		0					ID
AssetEvent/Decompositions/DecompositionData/Component	ID	X		0					ID
AssetEvent/Decompositions/InvestmentLink	ID	X		0					ID
AssetEvent/Decompositions/DecompositionData	Investment			0	Input data	Database			Investment
AssetEvent/Decompositions/DecompositionData	InvestmentCost			0	Input data	Database			InvestmentCost
AssetEvent/Decompositions/DecompositionData	IRR			0	Input data	Database			IRR
AssetEvent/Decompositions/DecompositionData	Multiple			0	Input data	Database			Multiple

Section	Field	Key field	Clear	Input sequence group	Priority 1	Priority 2	Priority 3	Skip field if closed	Caption
AssetEvent/Decompositions/DecompositionData	Quantity			0	Input data	Data base			Quantity
AssetEvent/Decompositions/DecompositionData	RealisedProceed			0	Input data	Data base			RealisedProceed
AssetEvent	Sort	X		0					Sort
AssetEvent/Decompositions/DecompositionData	Valuation			0	Input data	Data base			Valuation

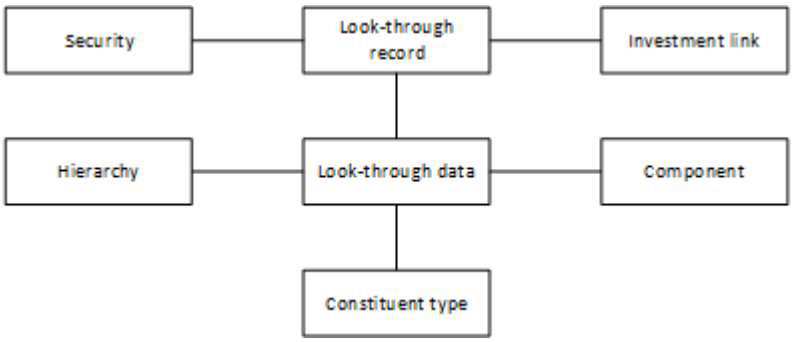
Note

Free code data can be imported to the **AssetEvent/Decompositions/DecompositionData** section.

2.5 Importing look-through data

As of version 19.04, you can import look-through XML data using the **Data Import** window. This makes data entry easier. You can import new data and update existing data. However, you cannot delete existing look-through data by using the data import, only the underlying deals. You configure the import in the **Data Import Rules** window.

The diagrams shows the data structure you can import:



Before you import the data, you must ensure that all underlying assets, related deals, components, and constituent types are available in SimCorp Dimension. Underlying assets and related deals can be imported using the **Data Import** window. You configure the import in the **Data Import Rules** window, setting the **Import target** field to **Alternative Investment Assets** and **Alternative Investment Link** respectively.

Components and constituent types can be imported using the **Filter Definitions - Import** window. For more information, and instructions, see the ***Filter Tool Box*** user manual. For instructions on how to set up data import, see the ***Data Import*** user manual.

These are the recommended settings in the **Data Import Rules** window:

Section	Field	Key field	Clear	Input sequence group	Priority 1	Priority 2	Priority 3
LookThroughRecord	AsOf			0	Input data	Data base	
LookThroughRecord	CashflowAdjustedNAV			0	Input data	Data base	
LookThroughRecord	DefaultOwnershipPercentage			0	Input data	Data base	
LookThroughRecord	LastAdjustedNAVAndCashflow			0	Input data	Data base	
LookThroughRecord	LastAdjustedReportedNAV			0	Input data	Data base	
LookThroughRecord	LastExportExecuted			0	Input data	Data base	
LookThroughRecord	LastFinalCashflowAdjustedNAV			0	Input data	Data base	
LookThroughRecord	LastReportedNAV			0	Input data	Data base	
LookThroughRecord	LastStatementDate			0	Input data	Data base	
LookThroughRecord	LastUnallocated			0	Input data	Data base	
LookThroughRecord	LookThroughType	X		0			
LookThroughRecord	ReportedNAV			0	Input data	Data base	
LookThroughRecord	StatementDate	X		0			
LookThroughRecord/InvestmentLink		X		0			
LookThroughRecord/InvestmentLink	ID	X		0			

Section	Field	Key field	Clear	Input sequence group	Priority 1	Priority 2	Priority 3
LookThroughRecord/LookThroughData			X	0			
LookThroughRecord/LookThroughData	AdjustedOwnershipPercentage			0	Input data	Data base	
LookThroughRecord/LookThroughData	CashflowAdjustedMarketValue			0	Input data	Data base	
LookThroughRecord/LookThroughData	Comment			0	Input data	Data base	
LookThroughRecord/LookThroughData	DefaultOwnershipPercentage			0	Input data	Data base	
LookThroughRecord/LookThroughData	Guideline			0	Input data	Data base	
LookThroughRecord/LookThroughData	InterimTransactions			0	Input data	Data base	
LookThroughRecord/LookThroughData	IsManagerHedging			0	Input data	Data base	
LookThroughRecord/LookThroughData	IsPortfolioHedging			0	Input data	Data base	
LookThroughRecord/LookThroughData	LastPortfolioAdjustedMarketValue			0	Input data	Data base	
LookThroughRecord/LookThroughData	LastPortfolioCashflowAdjustedMarketValue			0	Input data	Data base	
LookThroughRecord/LookThroughData	LastPortfolioReportedMarketValue			0	Input data	Data base	
LookThroughRecord/LookThroughData	LastReportedAdjustedMarketValue			0	Input data	Data base	
LookThroughRecord/LookThroughData	LastReportedMarketValue			0	Input data	Data base	
LookThroughRecord/LookThroughData	PortfolioAdjustedMarketValue			0	Input data	Data base	
LookThroughRecord/LookThroughData	PortfolioReportedMarketValue			0	Input data	Data base	

Section	Field	Key field	Clear	Input sequence group	Priority 1	Priority 2	Priority 3
LookThroughRecord/LookThroughData	ReportedMarketValue			0	Input data	Data base	
LookThroughRecord/LookThroughData/Component		X		0			
LookThroughRecord/LookThroughData/Component	ID	X		0			
LookThroughRecord/LookThroughData/ConstituentType		X		0			
LookThroughRecord/LookThroughData/ConstituentType	ID	X		0			
LookThroughRecord/LookThroughData/Hierarchy	ID			0	Input data	Data base	
LookThroughRecord/Security		X		0			
LookThroughRecord/Security	ID	X		0			

For instructions on how to set up data import, see the ***Data Import*** user manual.

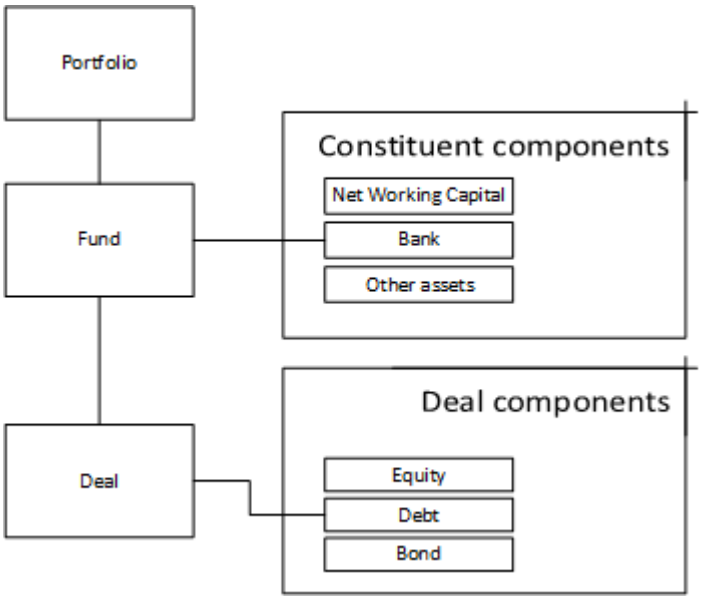
2.6 Enhancements to constituent data

As of version 19.04, you can select whether a component is a constituent component or a deal component, and you can indicate that a component is obsolete:

Constituent components and deal components

You can set up components to be either deal components or constituent components, by using the **Is constituent** check box in the **Alternative Investments Component Types** or **Alternative Investments Components** window.

The diagram highlights the difference between deal components and constituent components:



This simplified approach lets you use constituent components in the **Decompose Cash Flow** window, for example, when you receive a capital call but do not know which underlying asset (deal component) the capital amount is for. You can then allocate the amount to **Net Working Capital** (a constituent component). Later, when the information is provided by the general partner. - you update the Look-through.

Another example is when the general partner uses a loan to make an investment, without calling money from the investors.

You register both the deal and loan as deal components and the fund reported market values would net and not impact the reported NAV (investment as positive and loan as negative) which ensures accurate exposure reporting. When the money is called, it is allocated in the transaction decomposition window to a constituent component such as **Net Working Capital** (to pay back the loan) and adjustments to the component market values are made in the subsequent look-through.

Obsolete components

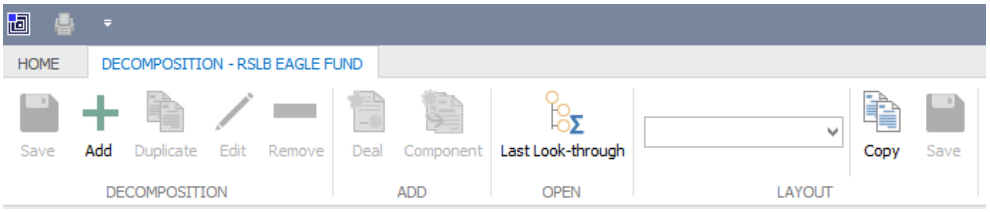
You indicate that a component is obsolete by selecting the **Obsolete** check box in the **Alternative Investments Components** window. This excludes the component from any future look-throughs.

This makes it easier to handle short-term components such as when a general partner uses a loan to make an investment without calling money from the limited partners. This deal component is temporary and can be made obsolete to keep subsequent look-throughs clean. Selecting the **Obsolete** check box does not impact historical look-throughs, only newly created ones.

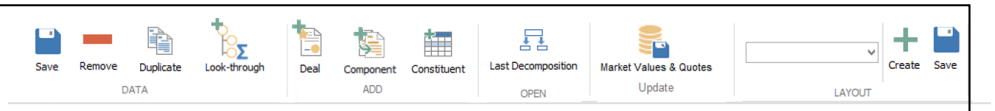
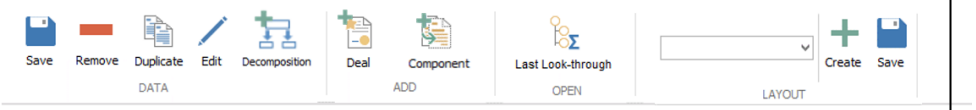
2.7 Enhanced Decomposition and Look-through applets

As of version 19.04, you can open the latest look-through from the

Decomposition applet by clicking **OPEN > Last Look-through** in the ribbon:



In addition, the icons in the **Decomposition** and **Look-through** applets were aligned to make it easier for you to navigate:

Look-through applet	
Decomposition applet	

2.8 Saving redemption transactions with a non-booked transaction status

As of version 19.04, you can save redemption transactions with a non-booked transaction status, whereas previously you could not.

To enable the feature, select the **Allow position based alternative investments transactions on low status** check box in the **Transaction Options** window, on the **Options 5** tab in the **Alternative Investments** section.

Selecting the check box lets you save non-booked transactions in the following windows:

- **Alternative Investments - Capital Payments**
- **Alternative Investments - Net Call Distribution**
- **Income and Expenses**
- **Tax Lot Cost Adjustments**
- **General Cost**
- **Redemptions**

2.9 IRR and TWR of less than 1 year do not annualise

As of version 19.04, the performance analytics Annualized IRR and Annualized TWR will not be annualised when the calculation period is shorter than one year. They will instead equal the IRR and TWR analytics respectively.

2.10 Manage commitments for bonds and index bonds

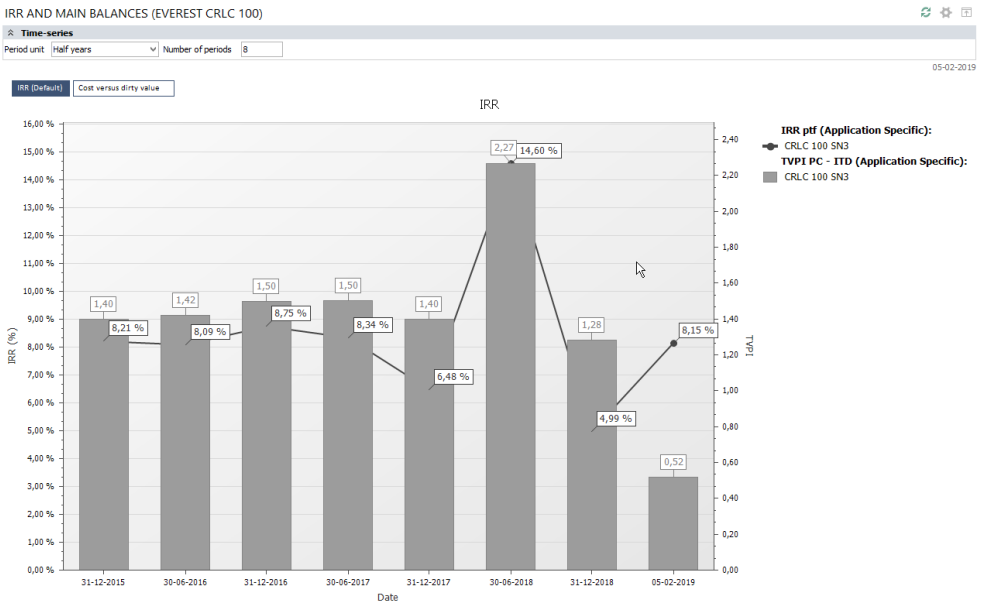
As of version 19.04, when investing into a specific bond or index bond in the **Dealer Bonds** window, you can draw from a global commitment by using the **BuyInGlobalCommit** transaction code. This increases the **Balance commitment** and the **Balance called capital** of the specific bond and decreases the global commitment and the unpaid commitment in the dedicated security.

To ensure proper impact on the global commitment, link the transaction code to the **CommitmentDecrease** transaction code via transaction types in the **Generation Rules for Commitment Transactions** window. This ensures that a **CommitmentDecrease** transaction is created for the security when you create a transaction which uses any of the two new transactions codes.

When you create a new transaction, and SimCorp Dimension cannot automatically find a match for the transaction, you are prompted to select the relevant position in the dedicated security that holds the global commitment for the asset.

2.11 Time series analysis widget for alternative investments

As of version 19.04, you can add a time series analysis widget to the landing page of the **Alternative Investments Manager**. The widget gives you an overview of the development of analytics over time, for example, the internal rate of return (IRR). You can configure the time series to display as a chart or a pivot table based on the **Analysis date**, the **Period unit**, and the **Number of periods**.



To add the **Calculation Engine Time Series Analysis** widget to your landing

page, click the **Add** button in the **WIDGET** section and select it from the **Alternative Investments** menu item.

For instructions on how to configure the widget, see the ***Alternative Investments Manager*** user manual.

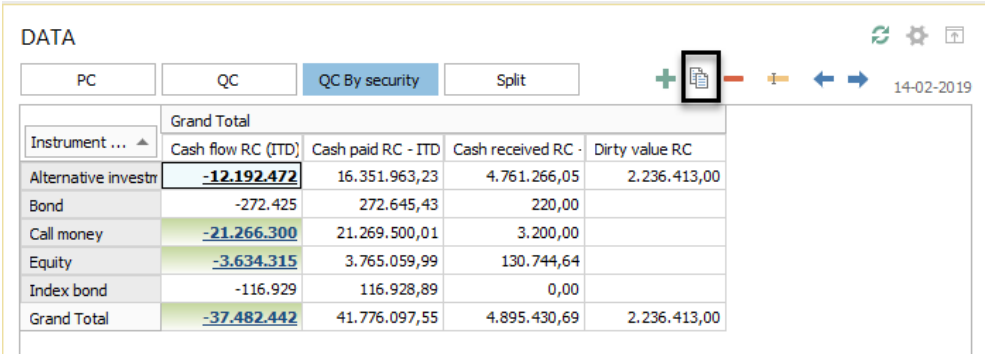
The **Period unit** field determines the end-point of the interval of each period in the time series. The period interval is defined by the value set in the **Argument (X axis)** field in the chart editor, which could, for example, be a standard period. You define standard periods in the **Standard Periods** window.

You can set the **Period unit** to:

- **Years**, which means that each time series interval ends on the 31st of December for each year.
- **Half years**, which means that the time series intervals end on the 30th of June and the 31st of December for each year.
- **Quarter**, which means that the time series intervals end on last day of March, June, September, and December for each year.

2.12 Creating a new widget page from an existing page

As of version 19.04, you can configure new widget pages faster in the **Alternative Investments Manager**: You can now copy an existing widget page by clicking the copy button:



Instrument ...	Grand Total			
	Cash flow RC (ITD)	Cash paid RC - ITD	Cash received RC -	Dirty value RC
Alternative investm	-12.192.472	16.351.963,23	4.761.266,05	2.236.413,00
Bond	-272.425	272.645,43	220,00	
Call money	-21.266.300	21.269.500,01	3.200,00	
Equity	-3.634.315	3.765.059,99	130.744,64	
Index bond	-116.929	116.928,89	0,00	
Grand Total	-37.482.442	41.776.097,55	4.895.430,69	2.236.413,00

This works for the following widget types:

- **Calculation Engine Analysis**
- **Calculation Engine Time Series Analysis**
- **Look Through**

Note

You can set up a maximum of 5 pages for each widget.

2.13 Automatic update of position values

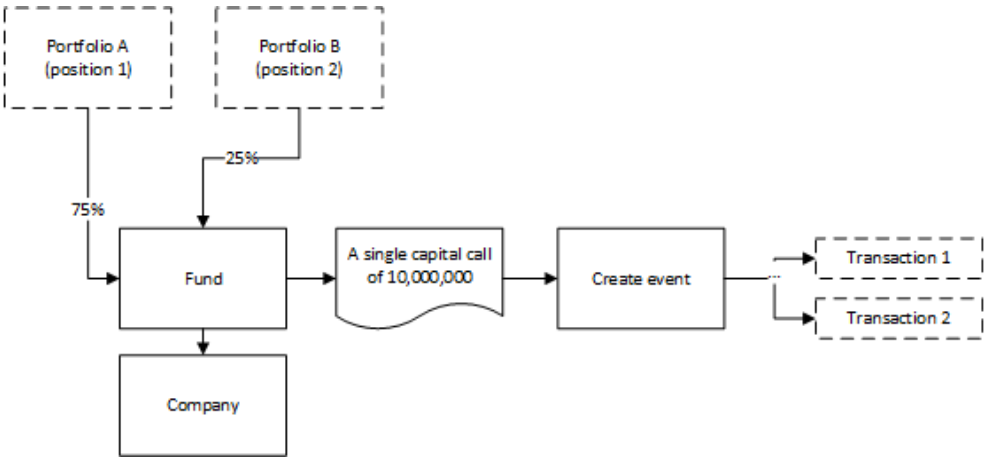
As of version 19.04, adding price data for bonds, index bonds, and equities in the **Valuation** applet in the **Alternative Investments Manager** automatically updates the valuation of all positions for the security from the **Price date**, if the **Price type** in the **Valuation** applet matches the price type set on the relevant pricing profile.

Previously, you had to re-start the calculation engine for the added price data to take effect.

2.14 Split a capital call between positions

As of version 19.04, you can enter decomposition data on the subscription level when you receive a new call or distribution notice with details about the underlying investments. This means that you can distribute an incoming capital call between positions in different portfolios.

If your internal investment is split across positions and portfolios, you must split transactions, such as capital calls, across your positions. The following diagram illustrates the conceptual process of receiving a single capital call and creating two internal transactions for it.



To split an incoming capital call between portfolios and positions:

1. Open the relevant fund in the **Alternative Investments Manager**.
2. Click the **Transaction** button in the ribbon to create a new transaction. The **Create Transaction** window appears.
3. Click the **Create event** button. The **Events, Income, and Expenses** sub-window appears, along with the **Alternative Investments** static data window, for the security in question.
4. Enter the relevant details, such as **Requested Status**, **Currency**, and dates.
5. In the **Flexible event details** section, enter the **Payment amount**.

6. Right-click the icon in the **Decomp status.** column of the relevant line in the **Flexible event details** grid and select **Decompose cash flow**. The **Decompose Cash Flow - Events, Income, and Expenses** window appears.
7. Select the appropriate **Component ID**, or add the relevant deal or constituent, and enter the **Amount QC**. Close the window.
8. In the **Events, Income, and Expenses** sub-window, select the relevant line and click **Create Transactions** to create transactions across the different positions and portfolios.

2.15 Configure standard periods for alternatives analytics

Client segment	All clients
Target audience	Front and middle office
Role-based licensing	Alternative Investments Manager
Module-based licensing	Alternative Investments Manager

As of version 19.04, you can configure standard time periods for analytics and use them in **Alternative Investments Manager** widgets. This gives you more flexibility than pre-set time periods and enables you to augment analytics that are available today. Previously, the **Alternative Investment Manager** only supported inception-to-date (ITD) and year-to-date (YTD) periods. The enhancement enables you to configure and compare, for example, analytics for the last three years, the last six months, and period to date such as quarterly or half a year.

You can configure a central set of time periods for Alternative Investments analytics that are available to all users of the **ALTERNATIVE INVESTMENTS** module. They can also import period setups by using configuration transport.

Standard period for alternative investments use these parameters:

- **Period type**, such as **Period to date** or **Rolling**
- **Term unit**, such as **Months** or **Years**; the **Quarters** unit is supported only for the **Period to date** type
- **Term length** in positive integers, such as **1**, **3**, or **5**

Inception-to-date (**ITD**) and Year-to-date (**YTD**) periods are converted as part of your version upgrade and thus remain available in the **Alternative Investments Manager**. To import additional configurations, use the **Standard Periods - Configuration Transport** window.

The period configurations are available for these Alternative Investments analytics:

- Standard period analytics, such as **Period results**, **Cash flows**, **TWR**, **IRR**, and **Annualized IRR**
- **Custom IRR** and **Custom Annualized IRR**
- Custom analytics
- AI multiple style analytics for which only the **ITD** standard period is available

To configure a standard period for analytics, open the **Standard Periods** window and create a row entry:

1. Enter an internal **ID** for the period.
2. Enter a **Name** for the period. This is included as a suffix in the field name that you see when you select and show the field.
3. Select a **Period type** setting.
4. If you're configuring a **Rolling** period, enter a **Term length** value as a positive integer.
5. Select a **Term unit** setting, unless you are setting up an **Inception to date** period which does not need a term unit.

To select analytics with custom periods in the **Alternative Investments Manager**, use the **Select Rows/Columns** dialog as usual and use the drop-down menus to filter the available columns by:

- **Balance**, such as **Cash flow**, **Period result**, and so on
- **Currency**, such as **PC**, **QC**, or **RC**
- **Period**, which shows the **Name** values from the **Standard Periods** settings

You can also use pivot tables and charts to display these analytics periods.

2.16 Added alternative valuations in Alternative Investments analytics

Client segment	All clients
Target audience	Front and middle office
Role-based licensing	Alternative Investments Manager
Module-based licensing	Alternative Investments Manager

As of version 19.04, you can configure and compare alternative valuations for a limited set of Position Calculation analytics which are clean value, dirty value, and dirty value total in quotation currency, portfolio currency, and reporting currency. These valuations are based on pricing profile setups. By configuring alternative pricing profiles in addition to the one

used in the Position Calculation, you can compare an estimated cash-adjusted valuation with the official valuation.

Note

SimCorp Dimension does not calculate additional, dependent analytics that are based on the limited set of analytics that use additional valuations.

You do this by adding alternative **Pricing profile** setups in the **Position Calculation** to calculate alternative analytics for the **Alternative Investments Manager** and compare them in the same widget.

This function is also supported in the **Configuration Transport** sub-window of the **Position Calculation**. For more instructions, see the window help.

To configure an additional valuation type, open the **Analytics Editor** and load or create a setup:

1. Ensure that the **Name** field of your setup has a unique value.
2. Set the **Type** field to **Alternative valuation**.
3. In the **Pricing profile** field, select the applicable setup for the additional valuation. If necessary, create such a pricing profile.

Note

You can only assign a **Pricing profile** setup to a single **Analytics Editor** setup.

To calculate additional valuations as part of your Position Calculation, open your setup in the **Position Calculation Definition** window on the **Analytics** tab and select the **Alternative valuations** check box. When cleared, the Position Calculation only calculates valuations based on the **Pricing profile** setup assigned on the **Position Calculation Definition > Settings** tab.

You can find the additional analytics based on multiple valuations in the **Position Results** applet, the **Position Results** window, and in corresponding time series and single day widgets in the **Alternative Investments Manager**.

			Grand Total			
Portfolio - ID	Instrument type	Security - ID	Balance nominal/number	Dirty value QC	Dirty value QC Official reported NAV	Dirty value QC Accounting NAV
CRLC 320	Call money	CC BACHTAL USD	47.500,00	47.500,00	47.500,00	0,00
CRLC 400	Alternative investment	BACHTALCHF	172.000,00	448.000,00	436.000,00	429.500,00
		BACHTALUSD	319.600,00	526.878,03	526.878,03	537.415,59

The additional analytics are dynamic, with dynamic field labels:

- **Clean value [currency] [setup]**
- **Dirty value [currency] [setup]**
- **Dirty value total [currency] [setup]**

where **[currency]** is **QC**, **PC** or **RC** and **[setup]** is the **Name** value of the corresponding **Analytics Editor** setup.

In the **Position Results** applet, the **Pricing definition** and **Pricing profile** fields identify the main setups, not the alternative valuation setups.

3 Asset Manager

3.1 Convert equity positions on-the-fly in Asset Manager

Client segment	Asset Management, Fund Insurance, Life & Pension, Service Provider, Banks
Target audience	Portfolio managers
Subscription-based licensing	Asset Manager
Sales Modules and sales module dependencies	Asset Manager - Base

As of version 19.04 of Asset Manager, you can convert positions of equity-like securities into look-through holdings of other securities of any of the supported instruments types or into cash positions. You can do this to better understand the market exposures implied by your investments. You can capture the conversion details in a conversion profile which you can add to your Settings Template. You can then apply the conversion profile to positions, orders, benchmark positions, and simulations displayed in the **Portfolio Sheet** applet to produce temporary conversion data.

You can set up conversion profiles to support the following business scenarios:

- Look through holdings—You can set up a conversion profile to show the underlying investments of a holding company so you can see the net value of its constituents, which may different to the value of the holding company.
- Cross listings—You can set up a conversion profile to show multiple lines of the same security that are each traded on different exchanges, so you can view them as one holding with drill-down to the individual lines.
- Simple corporate actions—You can set up a conversion profile to show the projected effects of a corporate action that results in the holding of a different security.

Note

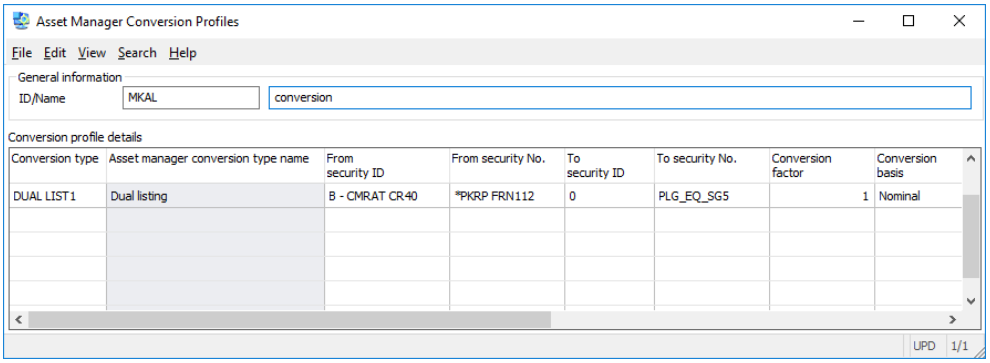
The securities you can convert are restricted to a limited number of instrument types in this release, such as equities, rights, and ADR/GDRs. Note also that benchmarks of the 'fixed' type are not supported.

The temporary conversion data will be lost when you change the data selection or close Asset Manager. However, you can reapply the conversion profile whenever needed by running a decomposition on positions that have associated conversion profiles. In addition, the conversion data will

not have any effect in the **Cash Viewer** applet or on Compliance Manager rules.

Conversion profiles

You can use a new **Asset Manager Conversion Profiles** window to set up a conversion profile for one or all of the above conversion scenarios.



You use this window to specify a 'from security', the 'to securities', and a conversion basis and factor. If you specify an effective period for a conversion, you can use different conversions by using Asset Manager in current and historical modes. You can also use a conversion profile to build in recursive conversions, so that the result of one conversion can be used as the source for another conversion, down to one level of recursion.

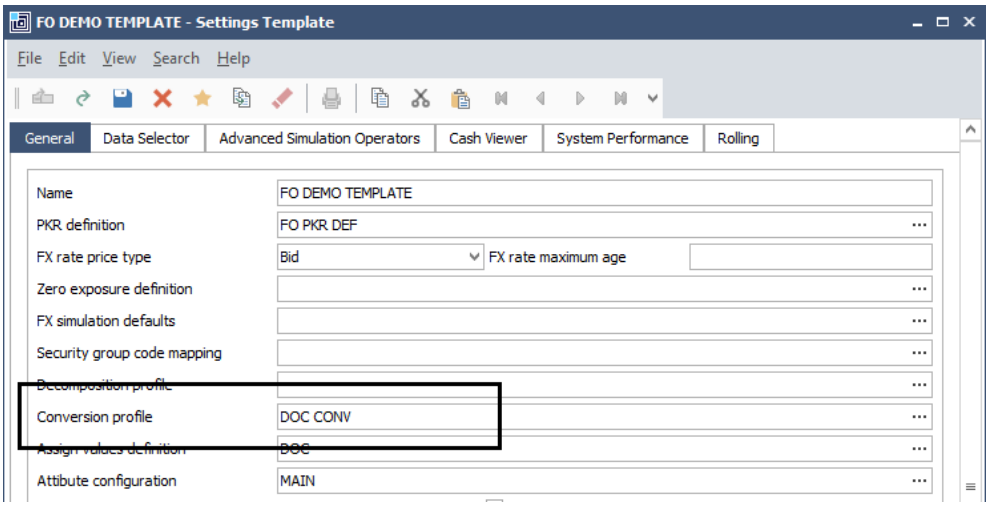
You can convert a security position into a generic cash position for a specific currency using the **To cash** field. If the source security is also held in an associated benchmark, then similarly a generic cash position is also created in the benchmark.

Importing conversion profiles

If required, you can set up conversion profiles by importing data using a **Filter Definitions - Import** definition and specifying the window **Portfolio Management\Portfolio Manager\Asset Manager Conversion Profiles**. You can also import updates to previously imported data for a given conversion profile.

Linking a conversion profile with the Settings Template

A new field called **Conversion profile** has been added to the **General** tab of the **Settings Template** window to enable you to associate a conversion profile with Asset Manager. This means that a conversion profile can be reused by a team of portfolio managers to generate the same conversions.



New fields to add to your portfolio views

Once you have linked a conversion profile to Asset Manager, you can add fields to your **Portfolio Sheet**, **Multiple Portfolio View** and **Single Security Targeting** applets to show conversion details:

- **In conversion profile**—This field indicates whether a security position is listed in an associated conversion profile. You can preview the effects of a conversion for a position using the **Composition Details** window when this field has a check mark.
- **Decomposition source ID**—This field displays the ID of the 'From security' from the conversion profile used as the source for a conversion. This ID is displayed only in the decomposition rows after a conversion.

In addition, a new service has been introduced called **Asset manager conversion service** to support the on-the-fly conversion process. The new service handles any recursive elements that you have set up in your conversion profiles. Asset Manager handles the substitution of the 'from securities' with the 'to securities' when you select the **Decomposition** command from the **Options** menu on the **Home** tab.

For information on setting up and using conversion profiles in Asset Manager, see the Equity Conversions topic in the help.

Benefits

- Understand the underlying economic risks and biases of investments and active bets.
- Look through to understand the effect of simulations and orders.
- Maintain data to forecast securities events that may happen in the future.
- See position and conversion data at the same time.

3.1.1 Show converted and unconverted equity data side-by-side in Asset Manager

As of version 19.04 of Asset Manager, you can see your conversion data in columns alongside your original holdings data for ease of comparison when you use conversion profiles. Further information on conversion profiles, see Convert equity positions on-the-fly in Asset Manager on page 28.

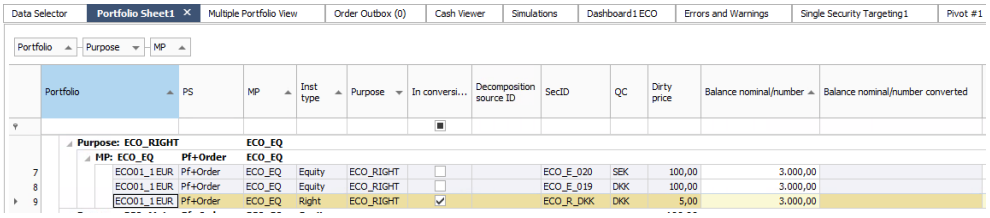
You can add a set of fields to the **Portfolio Sheet** applet to show values relating only to the converted equity holdings. These fields are:

- **Active bet converted (BM)**
- **Active bet amount converted RC (BM)**
- **Balance nominal/number converted**
- **Balance nominal/number converted, pre-simulation**
- **Balance nominal/number converted (BM)**
- **Dirty value distribution converted**
- **Dirty value distribution converted (BM)**
- **Dirty value RC converted**
- **Dirty value RC converted (BM)**
- **Dirty value RC converted, pre-simulation**

You can enable or disable the calculated values for these fields by using a check box called **Enable side-by-side conversion** on the **General** tab of the **Settings Template** window. If you do not select this check box, the converted fields will be empty.

You can add these new fields next to their original versions so you can compare converted and unconverted equity holdings values side-by-side.

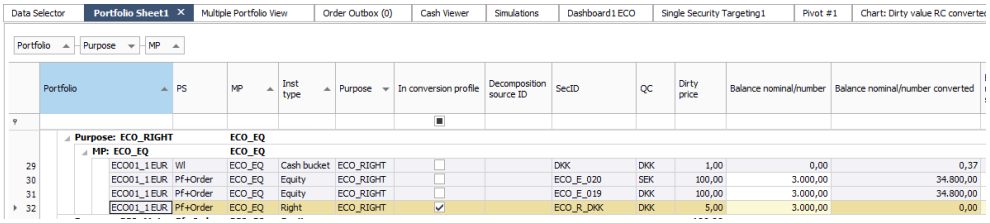
In the following example, you have a portfolio called ECO01_1 EUR with three orders associated with a model portfolio called ECO_EQ. There are two equity positions ECO_E_019 and ECO_E_020 and a rights position ECO_R_DKK which is in a conversion profile.



The conversion profile for ECO_R_DKK requires that its nominal should be converted into securities ECO_E_019 and ECO_E_020 at a nominal factor of 10.6.

After adding the Conversion Profile to the Settings Template, selecting the **Enable side-by-side conversion** check box, and running the **Asset Manager Conversion Service**, the **Balance nominal/number converted**

field automatically shows the new nominals by taking the conversion factor into account.



The **Balance nominal/nominal converted** field for ECO_E_019 and ECO_E_020 displays 34,800 which includes 3,000 nominal from the original positions plus 31,800 for the converted nominal from ECO_R_DKK, which now displays with 0.00 (zero) nominal as it has been fully converted.

Note

When you select the **Enable side-by-side conversion** check box, the position scope of the positions you are converting remain unchanged after the conversion. This is so you can compare the original value and the converted value for the same positions side-by side. Newly created positions will receive the **WI** position scope for 'watch list'. When you clear this check box and run a decomposition, the converted positions can be identified with a **Dec** position scope and the converted fields will be empty.

You can also add these new fields to pivots, charts, and formulas used in your portfolio views, so you can see the results of the conversions in these formats.

To use these conversion display fields:

1. Open the **Settings Template** window and load your Settings Template.
2. On the **General** tab, add the required conversion profile definition to the **Conversion profile** field.
3. On the **General** tab, select the **Enable side-by-side conversion** check box, and save your Settings Template.
4. Launch Asset Manager and add any of the above conversion fields to your **Portfolio Sheet** applet, and save your layout.
5. Ensure that the **Asset Manager Conversion Service** is running by opening the service window at the bottom right corner of the Asset Manager task bar.
6. Load the required data selection into Asset Manager, whose equity holdings match those in the conversion profile definition.

Note

There is no need to perform a decomposition to show converted values; this is only needed when you clear the **Enable side-by-side conversion** check box in the Settings Template.

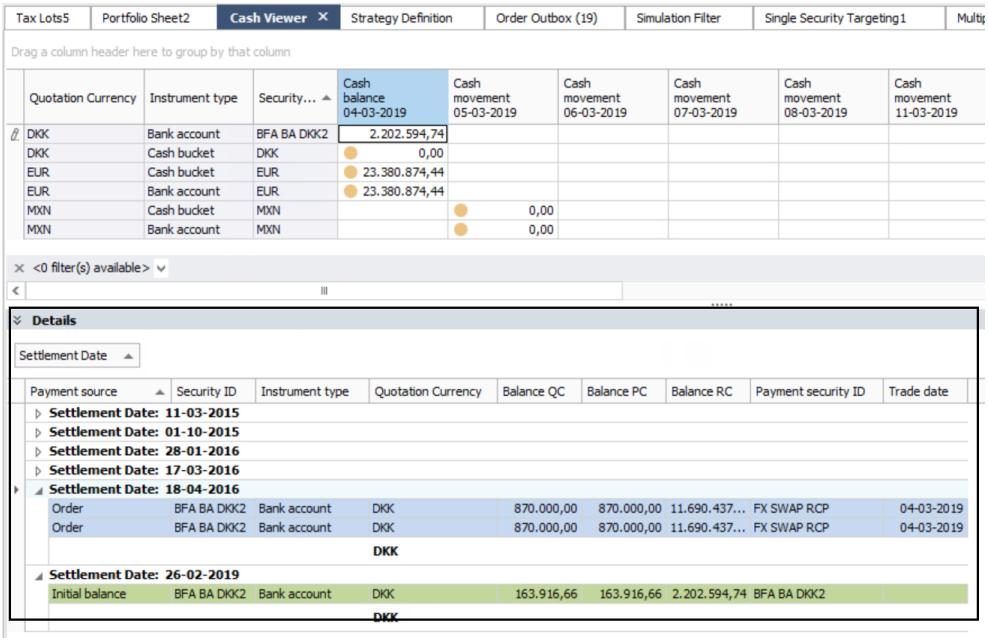
As a result, the holdings affected by the conversion profile definition are converted on-the-fly with their original position scopes but with their new holding values displayed in the **converted** display fields. Equity positions that have been fully converted into different holdings will display as zero nominal.

3.2 View balances and cash details together in the Cash Viewer applet

Client segment	Asset Management, Fund Insurance, Life & Pension, Service Provider, Banks
Target audience	Portfolio managers, assistants, cash and liquidity managers, financing desks
Subscription-based licensing	Asset Manager
Sales Modules and sales module dependencies	This new enhancement is integrated into the Cash Viewer applet

As of version 19.04, you can now view the cash details for a selected balance in the main **Cash Viewer** applet without having to display the **Cash Balance Details** sub-window. You can now use a docked panel called **Details** which displays the cash details now driven by a single click on the cell in the cash ladder. You can expand and collapse this panel as required by clicking the button adjacent to the **Details** section heading.

This enhancement significantly improves the transparency of cash exposures in the **Cash Viewer** applet and provides a better user experience.



The purpose of this panel is exactly the same as the **Cash Balance Details** window in that it shows the individual transactions which contribute to a displayed cash balance. These have been grouped by **Settlement Date** in the example here. However, when the **Details** panel is expanded, you can click on individual cash balances in the main grid to see the associated transactions automatically refreshed in the **Details** panel. You can also display a different set of fields, for example a fewer set of fields for summary purposes, than the fields displayed in the **Cash Balance Details** window. These field sets are not linked in any way but you can save them to your layout.

The main grid and the **Details** panel are automatically updated whenever an online change occurs that affects an existing payment.

You can use a new check box called **Display payments for subsequent dates** on the **Cash Viewer** tab of the **Settings Template** window to determine which payments are displayed in the **Details** panel.

- When you select the check box—Payments are displayed not only for the balance date you select in the main grid but also for all subsequent dates.
- When you clear the check box (default)—Payments are displayed only for the balance date you select in the main grid.

Benefits

- Fewer clicks in daily workflow provides a better user experience.
- Improved transparency reduces operational risk.

3.3 View order fill details in the Cash Viewer applet for GDR/ADRs and Rights

As of version 19.04, you can now view cash balances in the **Cash Viewer** applet from the perspective of the fill status for GDR/ADR and Rights orders. This is an extension to the instrument types covered by the fill filter feature which was introduced in version 6.41, which previously only included fills for equities, FX spots and FX forwards. For further information, see the 6.41 release note ***View fills for traded positions in the Cash Viewer***.

3.4 View and validate Close preliminary transactions on deposits in the Order Outbox applet

As of version 19.04 of Asset Manager, you can create close transactions on existing deposit positions as preliminary transactions so you can run compliance pre-trade checks before releasing and booking them at **Position** status level.

You can create close transactions with a status level of **Entry** from both Asset Manager and Trade Manager. Previously, the lowest status level permitted was **Position**.

As these are preliminary (non-booked) transactions, you can now see the deposit close transactions in the **Order Outbox** applet, which you can submit for compliance pre-trade validation and then release to market by raising the status level of the transactions to **Position**.

Prerequisites

To enable the preliminary transaction flow for deposit close transactions, you must consider setting up the following:

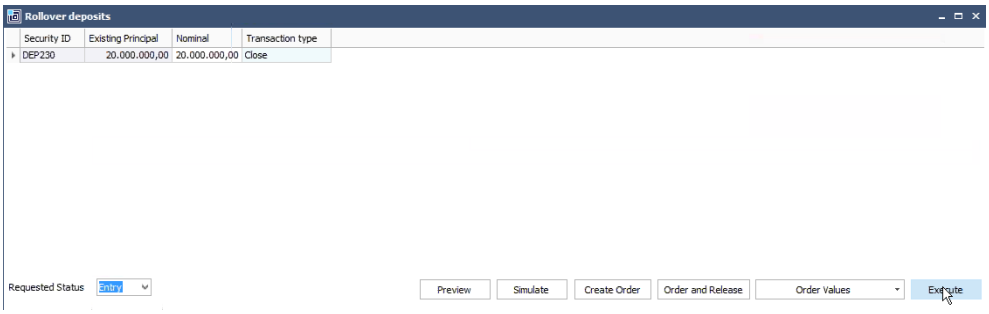
- Add the **Deposit** instrument type to the **Pre-trade compliance validate transactions at status** field of the **Front Office Options** window.
- Add the **RcvDep** or **ReturnBorrowing** transaction codes to the **Trans. codes for mandatory compliance validation** field of the **Front Office Options** window to enforce a mandatory compliance validation for these deposit close transactions.

Close a deposit position

To close a deposit position in the **Portfolio Sheet** applet:

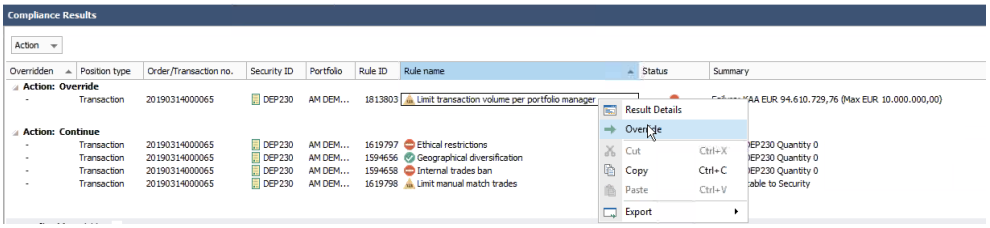
1. Select the deposit positions you want to close.
2. Right-click on a position and select **Rollover**.
3. In the **Rollover deposits** window, select **Close** for the **Transaction type** field.
4. Enter the required nominal and any other relevant details.

5. Select **Entry** or **Pre-deal** transaction status for the **Requested status** field.
6. Click **Execute** to create the preliminary transactions.



Results

The close preliminary (non-booked) transactions are visible in the **Order Outbox** applet. You can submit them here for compliance pre-trade validation and override them as necessary in the **Compliance Results** window.



When you release the preliminary transactions, they will be released at **Position** status level.

3.5 Match maturity dates for FX hedging and targeting using enhanced logic

In version 6.4, a check box called **Use maturity date of the largest FX forward position in opposite direction** was added to the **FX Simulations Defaults** window to allow you to match against the nearest maturity date of existing FX forward positions. This allowed you to find and utilise netting opportunities when generating new FX forward simulations in hedging and targeting scenarios. For further information, see the 6.4 release note ***Match maturity dates for FX hedge adjustments***.

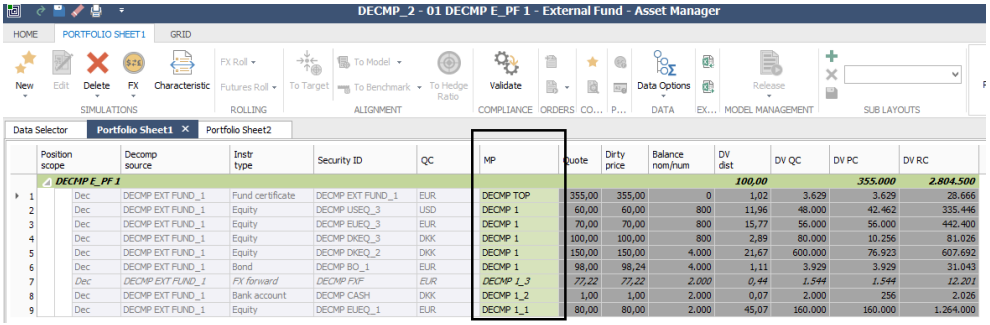
As of version 19.04, this matching logic has been enhanced such that if there are no trades in the opposite direction then Asset Manager will match against the maturity date for the smallest (aggregated) position in the same direction.

3.6 Use model portfolio components for decomposed funds

As of version 19.04 of SimCorp Dimension, Asset Manager and Compliance

Manager can now display the model portfolio that is stamped on a fund decomposition component for 'internal' and 'external' funds. That is, the model portfolio stamped on a holding in a portfolio that represents a fund component, or the model stamped on a component defined in the **Fund Components** window.

Previously, the model portfolio assigned to the parent fund was displayed against each fund component. Now, portfolio managers using Asset Manager can see the actual model portfolio stamped on a fund component when you perform a fund decomposition within the **Portfolio Sheet** applet.



In addition, a new field called **Model portfolio from level** has been added to the **Decomposition Profiles** window to support the stamping of model portfolios on fund components in fund of fund structures. Users can now select a specific level in a fund of fund structure, including the lowest level, from which to derive the model portfolio. For information on the use of the **Model portfolio from level** field, see the 19.04 release note Assign model portfolios from a given level to all underlying holdings during fund decomposition.

Asset Manager will now display the model portfolio for the required fund level where you decompose a fund of fund structure in the **Portfolio Sheet** applet.

Note

When you use a nominal holding framework, then the **Model portfolio** field will always be treated as a split field. However, in a profit and loss framework, the **Model portfolio** field can be configured as a split field but this is not essential as the decomposition functionality will not respect this configuration. No matter whether the **Model portfolio** field is a split field in a given profit and loss framework, the model portfolio stamp on the component will be shown for external fund components (provided that the Decomposition profile has been set up to show component model portfolio) but not for internal fund components.

3.7 Recalculation messages display less frequently

As of version 19.04 of Asset Manager, a change has been made to the

frequency and rows in which the `Calculating` messages are displayed when, for example, a key ratio changes value. Totals will now be updated with the new values when they have been recalculated. Previously, the `Calculating` message was displayed on every subtotal row in the **Portfolio Sheet**, **Multiple Portfolio View**, and **Tax Lots** applets which made these portfolio views difficult to read.

3.8 Notes on upgrading from version 6.4 to 19.04 of Asset Manager

Below are some points which you may need to consider if you are upgrading from version 6.4 to 19.04 for specifically delivered features.

Open Transactions Window menu

In version 6.4 of Asset Manager, an **Open Transactions Window** right-click menu item was introduced to allow you to quickly access transaction windows from positions displayed in the **Portfolio Sheet** applet. You can use this right-click menu option to create new transactions based on your existing positions. For further details, see the 6.4 release note Open transaction windows from positions in Portfolio Sheet'.

In version 6.4, this feature was developed as non-configurable and non-authorisable which made it available to all Asset Manager users. In this release, however, this feature is configured to the **Asset Manager – Basic** configuration module and is authorised per user in the **User Authorisation - Tasks and Commands** window.

If you are upgrading from 6.4, users who are using the **Open Transaction Window** menu items will now need to be given specific authorisation.

4 Collateral Manager

4.1 [New module] Collateral - Cleared Derivatives

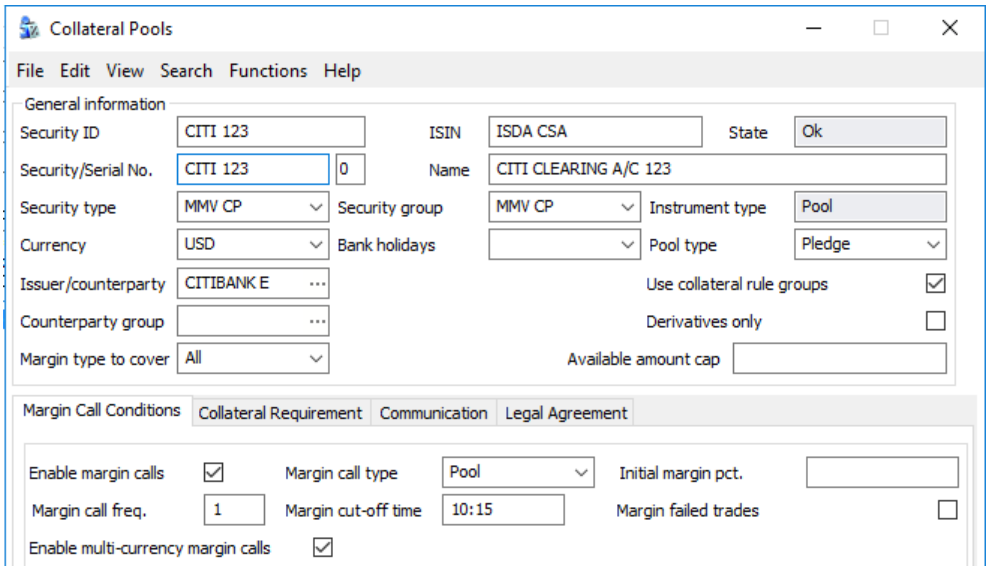
Client Segment	All client types
Target audience	Operations teams supporting margin call processing for cleared derivatives
Subscription based licensing	Collateral Manager
Sales Modules and sales module dependencies	Margin Manager

This module enables enhanced support for cleared derivatives processing which historically has been managed outside the Collateral Management module.

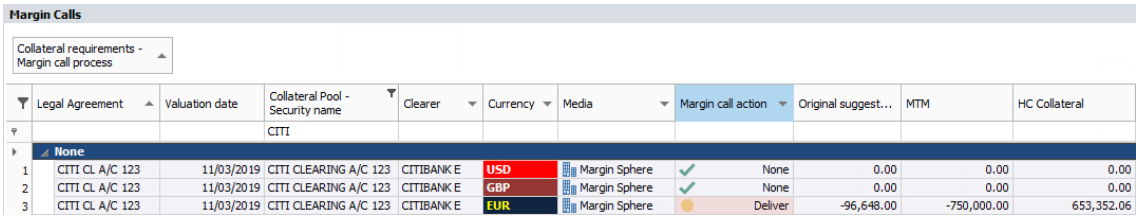
The solution

- Enables users to associate bank accounts with collateral pools, thereby enabling the system to represent cash held at the clearing broker.
- Enhances margin call calculations to include the cash held at the clearing broker
- Enhances margin call pledge process via MarginSphere to also support cash transfers (in addition to existing call money payments)
- Enables support for multi-currency margin calls without the need to configure separate collateral pools

You enable multi-currency margin calls in the **Collateral Pools** window as shown in the following image.



When the multi-currency margin call functionality is enabled, you can see you can generate multiple margin calls by currency from a single collateral pool as shown in the following image.



Benefits

- Consolidation of margin call processing across multiple agreement types (cleared, CSA, GMRA etc.) into a consistent system configuration and workflow.
- Alignment with existing implementations, limiting additional configuration steps, whilst providing the opportunity to simplify multi-currency calls.
- Integration with industry margin call communication hub - MarginSphere™ - for communication of margin calls with clearing brokers.

Note

Cleared initial margin calculations are supported by Cassini Systems under separate license. Standard platform configuration is available for the export and import of data to and from Cassini Systems.

MarginSphere™ workflow requires a separate module.

4.1.1 Link bank accounts to collateral pools

As of version 19.04, you can add bank accounts to collateral pools so that you can easily monitor the margin call-processing workflow. The bank account represents the cash available at the clearing broker. Linking bank accounts to collateral pools supports the margin call-processing workflow so that you can ensure that there is adequate funding and, for example, avoid margin calls from the clearinghouse to the account holder.

To support this enhancement, a new **Bank Accounts** sub-window was added to the **Collateral Pools** window.

Note

You can only assign a bank account to one collateral pool. When you have assigned a bank account to a particular collateral

pool, you cannot assign that bank account to any other collateral pool.

You can, however, have more than one bank account on a collateral pool. Each of those bank accounts can be in different currencies.

For more information about including bank accounts in margin calculations, see Include bank accounts in margin calculations for the Collateral Manager and the Margin Manager below.

For more information bank account for collateral pools, see the ***Collateral Manager*** user manual or the help on the new **Bank Accounts** sub-window.

4.1.2 Include bank accounts in margin calculations for the Collateral Manager and the Margin Manager

As of version 19.04, when you are carrying out clearing in both the **Margin Manager** and the **Collateral Manager**, you can monitor the bank account information associated with collateral pools on the **Collateral Positions** tab. The bank account will have the **Instrument type** field set to **Bank Account**.

These bank accounts represent cash on the clearing broker's side. The bank account information is now included in the calculation of the collateral value with further margin call calculations. You can apply haircuts and other calculations that are relevant for collateral positions to the bank accounts.

When you assign a bank account to the collateral pool, the bank account is no longer available in the **Available Positions** tab.

For more information about adding bank accounts to collateral pools, see Link bank accounts to collateral pools on the previous page.

4.1.3 Split margin calls by currency

As of version 19.04, you can manage margin calls in different currencies individually under one collateral pool with a new multi-currency call functionality. Previously, if you wanted to manage margin calls per currency, you had to set up collateral pools for each QC currency.

To enable the splitting of amounts by currency, a new **Enable multi-currency margin calls** check box has been added to **Margin Call Conditions** tab on the **Collateral Pools** window. You can only select this check box when the **Enable margin calls** check box is also selected.

If you select the **Enable multi-currency margin calls** check box, SimCorp Dimension splits all amounts that are registered under that collateral pool by the currency and treats them as independent margin calls.

Example

Assume you have the following:

- Collateral Pool QC in GBP
- Market Position in EUR converted in GBP
- Collateral Position in USD, converted in GBP

When you enable multi-currency margin calls, SimCorp Dimension will split this one margin call into several calls:

- In the **Total margin requirements** section in the **Collateral Manager**, you can see the GBP information (QC of the collateral pool)
- In the **Collateral requirements** section, you will see two margin calls:
  - A margin call with market position in EUR
  - A margin call with collateral position in USD

When you click the **Save Result** button, SimCorp Dimension generates additional results for totals in GBP. The results are for information only to indicate whether all margin calls per currency were met in total. Margin calls per currency are actual calls which will be exchanged with the counterparty.

To meet margin calls in EUR and USD, you must generate collateral transactions manually. Auto-allocation is not supported for multi-currency margin calls.

4.1.4 Generate cash transfer transactions on incoming messages from MarginSphere

This enhancement supports the addition of a new type of cash movement transaction to the MarginSphere API.

As of version 19.04, you can automatically generate cash transfer transactions from inbound pledge messages from MarginSphere to the **Margin Manager**. You can also send an outbound cash pledge when you generate cash transfer transactions manually in the **Cash Transfer** window and attach them to the collateral result ID by using the new **Collateral result (ID)** field. The cash transfer transactions are generated for bank accounts in the **Margin Manager**.

When SimCorp Dimension receives a cash pledge from MarginSphere for a collateral pool with an associated bank account, SimCorp Dimension will generate a cash transfer transaction to indicate incoming cash from the clearing broker.

SimCorp Dimension will match the incoming pledge message with the bank account listed on the **Collateral Positions** and **Available Positions** sections of the **Margin Manager**. The pledge message and the bank account must have the same currency. If the currency is missing from either the pledge message or the bank account, the transaction will fail and will not be generated.

If you want to learn why the transaction was not generated, see the service log of communication service.

Note

SimCorp Dimension supports only one bank account per pool. This means that when matching the incoming message with the bank account, SimCorp Dimension will select the first bank account found and generate the cash transfer transaction.

5 Compliance Manager

5.1 Edit properties of multiple compliance rule definitions in one action

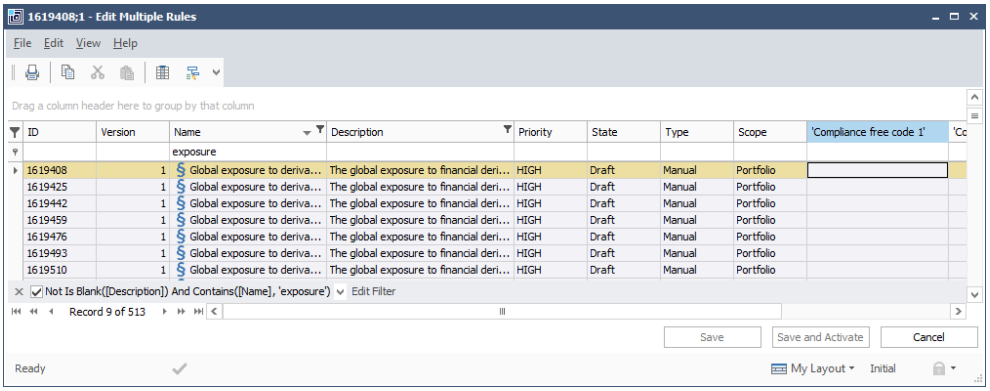
Client segment	All segments
Target audience	Compliance Manager users
Subscription-based licensing	Compliance Manager
Sales Modules and sales module dependencies	Compliance Manager - Base

As of version 19.04 of Compliance Manager, you can directly edit the attributes of multiple individual rules simultaneously in the **Rules** applet, which include global rules, legal sets, and templates. For example, you can add a specific free code to a set of pre-selected rule definitions, or override many different values for a property with one specific value, and apply these changes to all the selected rules in just one action. This quick or multi rule edit facility is available to all Compliance Manager users, with the appropriate functional permissions, and helps to reduce your maintenance burden when you need to apply changes to multiple rules.

Note

SimCorp do not recommend you using this multi-edit feature when you have four eyes approval for compliance rules enabled. This is because four eyes approval will not prevent or warn you about saving and activating multiple rule edits. Approving rule changes through four eyes approval must still only be performed in the **Rules** applet.

You can load a selection of rules, or indeed all global rules, into a new window called **Edit Multiple Rules**, which is accessible directly within the **Rules** applet.



Their rule properties are made available for editing in the window, which you can change across the rule selection by using copy and paste or by

using the **Insert Standard Value** command. You can save the changes and activate the rules at the same time, if required.

As a result, the most recent version of the draft or active rule definitions are updated with your entered property values.

Note

You will need suitable access authorisation set up in the **Tasks and Commands** window for you to use this window and make edits to your rule definitions.

The **Edit Multiple Rules** window has been designed so you can easily work with large sets of rule definitions of different types. However, you cannot edit rule assignments but only the properties of the rules themselves and for rules in the following states:

- **Draft**
- **Active** (but not **Pending active**)
- **Inactive** (but not **Pending inactive**)
- **Expired** (but not **Pending deleted**)

Features for working with large set of rules include:

- An auto filter row so you can quickly find the values for specific properties that you want to change.
- A navigator row so you can quickly see and step through all records.
- Grouping of all rule definitions by property field.
- Sorting and filtering on specific property fields.

To set or override a single property value across a set of rules:

1. Within the **Rules** applet of Compliance Manager, right-click on a folder or set of rules in either the **Hierarchy** section or **Rule Library** section and select **Edit Multiple Rules**.
2. Within the **Edit Multiple Rules** window, add the required property you want to set or override using the **Select Fields** window.
3. Ensure the **Block Selection Grid** option is enabled from the **Edit** menu.
4. Select the field column that you want to set or override.
5. Right-click on that column and select **Insert Standard Value**.
6. In the **Insert Standard Value** window, enter the required value and click **OK**.
7. On the **Edit Multiple Rules** window click **Save** or **Save and Activate** as required.
8. Click **OK** on the confirmation dialog box.

As a result, the most recent version of the draft, active, inactive or expired rule definitions are updated with your entered property values.

Benefits

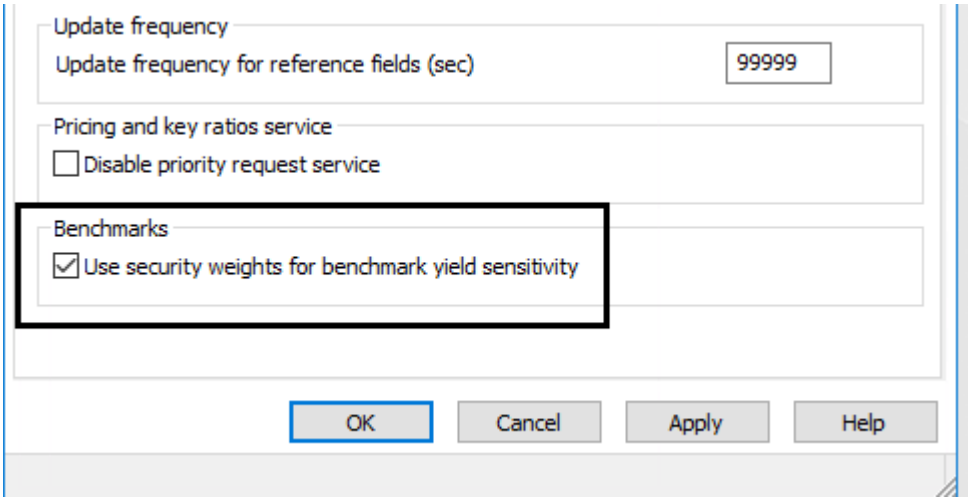
- Streamlines daily workflow to provide a better user experience
- Improved transparency reduces operational risk

5.2 Calculation of rules with Barclays' benchmarks respects weight component

As of version 19.04, Compliance Manager can now calculate position values, exposures and duration analytics for Barclays' benchmark rules to include only the weight component of the benchmark constituents. Previously, both the weight and cash components were taken in account which produced incorrect duration analytics. Now you can choose to include only the weight from the benchmark constituents for calculating positions values and exposures, and display the cash components in separate compliance result fields in the **Result Details** window such as **BM Exposure incl. cash EUR** and **BM Cash value EUR**.

This feature brings Compliance Manager into line with Asset Manager for the same calculations. For further information, see the 6.3 release note ***Utilise Barclays benchmarks in Asset Manager***.

The existing check box called **Use security weights for benchmark yield sensitivity** in the **Front Office Options** window now also applies to Compliance Manager, and has therefore been moved in this release from the **Asset Manager** tab to the general **Options** tab.



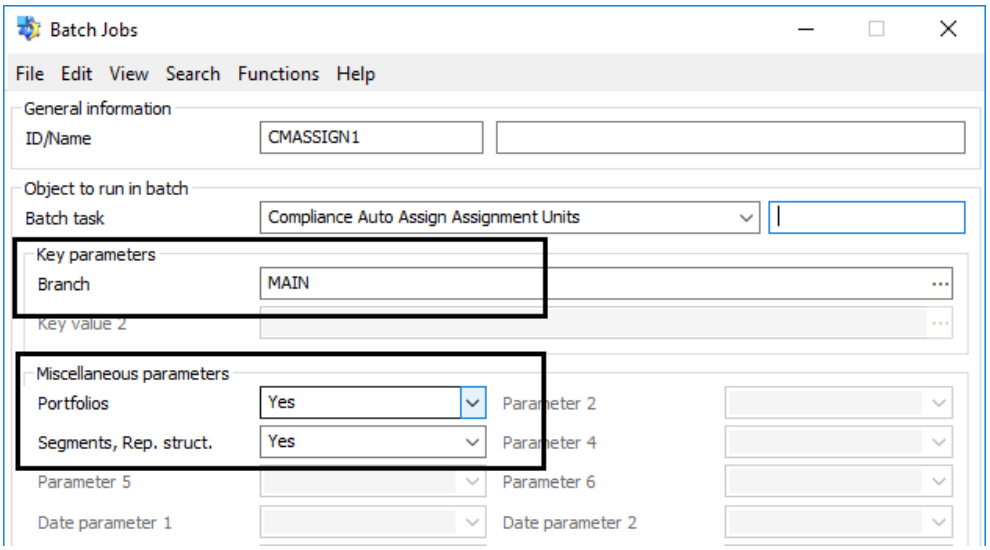
When you select this check box and there is a price increase for a Barclays benchmark constituent during the day, the cash amount for the constituent remains unaffected.

5.3 Assign assignment units to specific compliance branches with batch jobs

As of version 19.04 of Compliance Manager, you can create a batch job definition using the existing **Compliance Auto Assign Assignment Units** task to automatically assign assignment units to groups in the hierarchy in a specific compliance branch. Previously, the batch job ran for all branches in your installation.

Two new settings, and one changed setting, have been added to the **Batch Jobs** window for the **Compliance Auto Assign Assignment Units** task to give you greater flexibility and control over where any new portfolios are assigned in your rules hierarchy. These settings are:

- **Key parameters - Branch**—You can select a specific compliance branch, for example **MAIN**, in which to assign any new portfolios. If you leave this field blank, then any new portfolios are assigned across all compliance branches (as in releases prior to 19.04).
- **Miscellaneous parameters - Portfolios**—You can select **Yes** to automatically move any new portfolios into the existing hierarchy, if their portfolio groups are already there. If you select **No**, portfolios are not moved.
- **Miscellaneous parameters - Segments, Rep. struct.**—You can select **Yes** to automatically move new portfolios into folders in the hierarchy based on portfolio segments and reporting structures set of hierarchy folders. You can set up the portfolio segment and reporting structure for a hierarchy folder by using the folder's **Settings** window, which you can display by selecting the **Settings** right-click option.



These settings do not change the behaviour the existing **Compliance Auto Assign Assignment Units** task but provides greater control over the existing default settings.

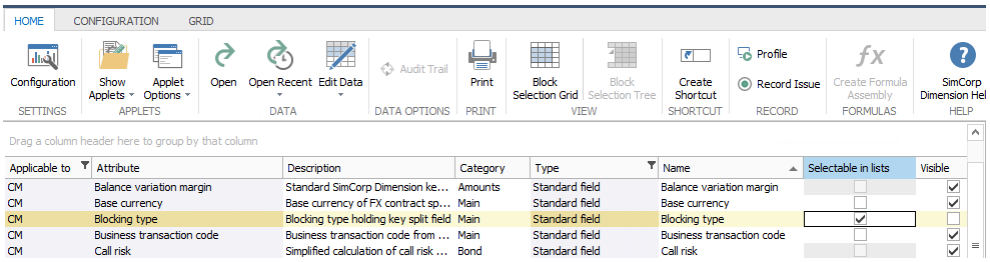
Clients upgrading to 19.04 from previous releases that have batch jobs defined with the **Compliance Auto Assign Assignment Units** task, will be converted after the upgrade with the following default settings. This means that the behaviour of the batch job is the same before and after the upgrade.

Settings prior to 19.04	Settings after 19.04 upgrade
Auto assign portfolios = Yes	Portfolios = Yes Segments, Rep. strut. = Yes
Auto assign portfolios = No	Portfolios = No Segments, Rep. strut. = No

5.4 Use holding key split fields in Lists

As of version 19.04 of Compliance Manager, you can use an additional number of holding split fields as references in Lists, which enhances the out-of-the-box rule coverage for Lists.

These fields are built-in attributes which you can now specify as **Selectable in lists** in the **Attribute Configuration** window; for example:



These holding key split fields include:

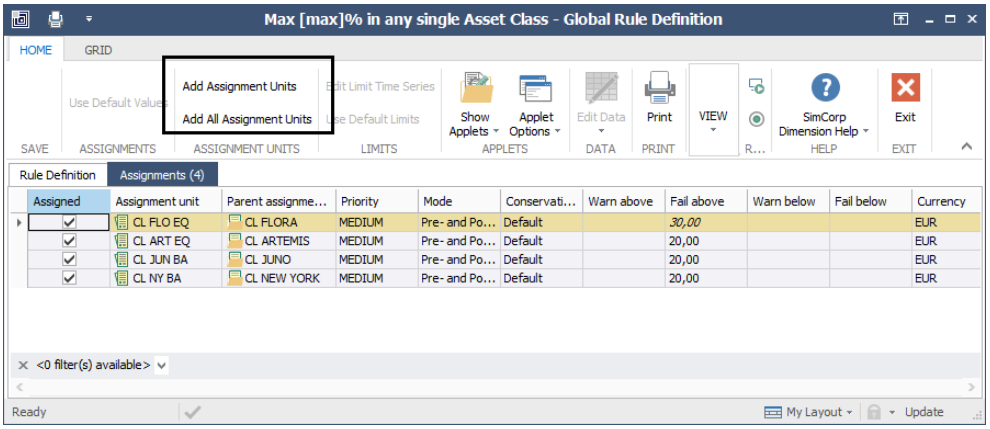
- **Blocking type**
- **Collateral pool**
- **Compound**
- **Special holding mark**
- **Transaction free codes 1 to 4**
- **Transaction free codes 42 to 51**
- **Decomposed from instrument type**
- **Decomposed from security**
- **Lending type**
- **Currency cross**

5.5 Add global rule assignments in the Rule Entry window

As of version 19.04 of Compliance Manager, some improvements have been made to the **Global Rule Definition** window that allow you to load

the window faster when you edit a global rule, and to filter portfolios when setting up specific portfolio assignments.

When you right-click on a global rule displayed in the **Rule Library** section of the **Rules** applet and select **Open Rule**, the **Global Rule Definition** window now loads much faster by default as only the assigned assignment units are loaded onto the **Assignments** tab. In the following example, the global rule has only four assigned assignment units, and only these are loaded on the **Assignments** tab.



Previously all assignment units were loaded whether or not they were assigned.

To assign more assignment units, you can click either button in the **ASSIGNMENT UNITS** ribbon group.

- **Add Assignment Units**—the **Add Assignment Units** window is automatically filtered to show all the possible assignment units that you can assign to the global rule, and this list excludes your current assignments. You can then individually select the required assignment units and click **Add** or **Add and Assign**.
- **Add All Assignment Units**—all the available assignment units not previously assigned are added to the **Assignments** tab of the **Global Rule Definition** window. You can then click the **Assigned** check box of those assignment units you want to assign to the global rule. (This functionality is the same as in release versions prior to 19.04.)

When you next edit the global rule using the **Open Rule** right-click option, only those assigned assignment units will be loaded in the **Global Rule Definition** window.

5.6 Use default values for fields in rule definitions

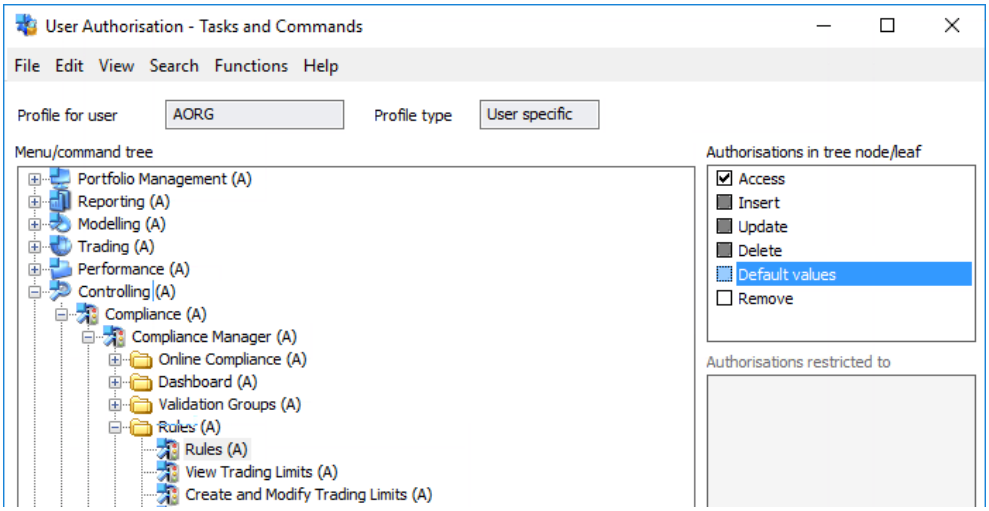
As of version 19.04 of Compliance Manager, you can now define default values for fields in the **Rule Entry** window of the **Rules** applet. This feature is particularly useful if you use the same values for some properties when setting up all your rules, as you can save time creating rules by

automatically populating these fields with default values. You can set up defaults for fields such as **Name**, **From/To date**, **Decompose**, and so on, but not for reference fields.

Default values for fields is standard functionality across SimCorp Dimension and has now been extended to the **Rule Entry** window, for which you will need authorisation through the **Tasks and Commands** window to use. When you have permission, a **Default Values** option is displayed in the menu when you right-click on a field in the **Rule Entry** window. This new option allows you to set up a default value for all users and other values for specific user groups if required.

To set up access authorisation for the default values functionality for a specific user:

1. Open the **User Authorisation - Tasks and Commands** window.
2. Select a specific user for the **Profile for user** field.
3. Navigate to the **Controlling > Compliance > Compliance Manager > Rules > Rules** node and select the **Default values** authorisation check box; for example.

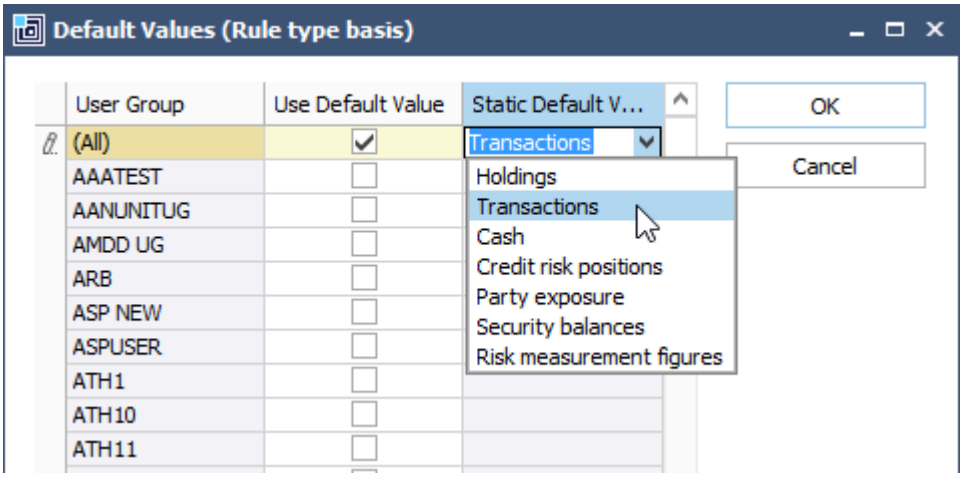


4. Select **Save** from the **File** menu.

To set up a default value for a field in the **Rule Entry** window:

1. Within the **Rules** applet of Compliance Manager, right-click on an assignment unit in the **Hierarchy** section and select **New Rule** to display the **Rule Entry** window.
2. Right-click on a field, such as **Rule type basis**, and select **Default Values** to display the **Default Values <field name>** window.

3. If you want to apply a default value for all users, select the **Use Default Value** check box for the **All** user group and select or enter a value for the adjacent **Select Default Value** field; for example:



4. If you want to apply a default value for a specific user group, select the **Use Default Value** check box for the specific user group row and select or enter the required default value in the adjacent **Static Default Value** field.
5. Click **OK** to close the **Default Values <field name>** window.

As a result, these default values will be applied to new rule definitions when they are being created by the users in the defined user groups. However, these default values can be changed in the **Rule Entry** window if required.

5.7 Compliance pre- and post-trade services respond to changes at different times

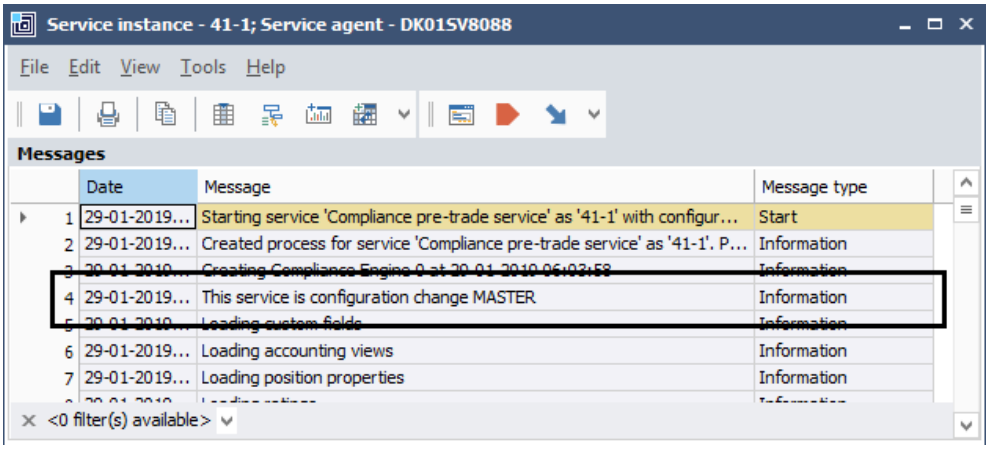
As of version 19.04 of Compliance Manager, pre-trade and post-trade services can respond to updates of static data at different times when you have multiple services running. This enhancement provides better resilience in system performance and reliability of results whilst performing pre-trade and post-trade compliance checks with static data updates.

Previously, adding new security group codes by processing batch jobs put the pre-trade services on hold and queued pending pre-trade calculations until the group code updates were completed.

MASTER pre/post trade services

Enhancements have been made to allow administrators to group multiple pre-trade and post-trade services together with a load balancing service. This means that services can be dependent upon one another with a balancer service determining the status of each grouped service. This is

managed with a MASTER service, typically the first service to load, which orchestrates the updates performed by the grouped services when needed, typically after an amount of elapsed time.



When these grouped services are brought into use, their status in the **Service Manager** window changes from **Online** to **Online (passive)**, which the load balancer service uses to ascertain which service is free. When the MASTER service is down, then a new MASTER service is automatically assigned.

Example security group code update

1. Three pre-trade services are running and one load balancing service is running. One of the pre-trade services acts as the **configuration change MASTER**.
2. A security group code that has previously not been used in any rules or fragments is now added to a rule definition.
3. The MASTER pre-trade service registers the change, and schedules a rule synchronisation in 30 minutes' time.
4. When the 30 minutes have elapsed, the MASTER pre-trade service ensures that the first of the other two services run the rule synchronisation, and signals to the load balancer service that it is not available (passive).
5. When the first service is finished synchronising the rules, it signals to the load balancer that it is available again (online).
6. The master service and the other remaining pre-trade service run their rule synchronisation and go offline while synchronising and then going online again when they have completed synchronisation.

5.8 Enhanced pre-trade operations support for Compliance Manager

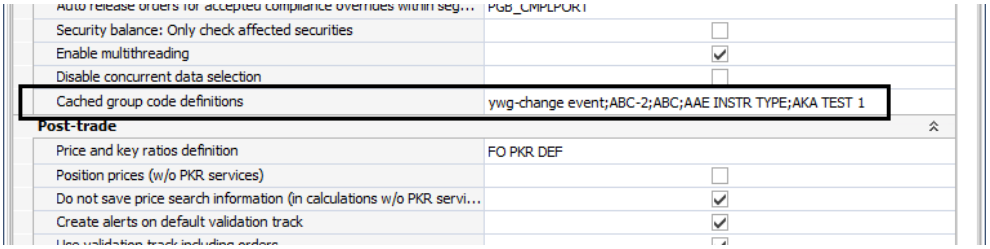
As of version 19.04 of Compliance Manager, the following enhancements have been made to the Compliance pre-trade operations to improve performance.

Security group codes loaded for rules and fragment

The Compliance pre-trade service now only loads security group codes referenced by rules and rule fragments into its memory cache, as opposed to loading all group code definitions. This small enhancement improves on memory usage.

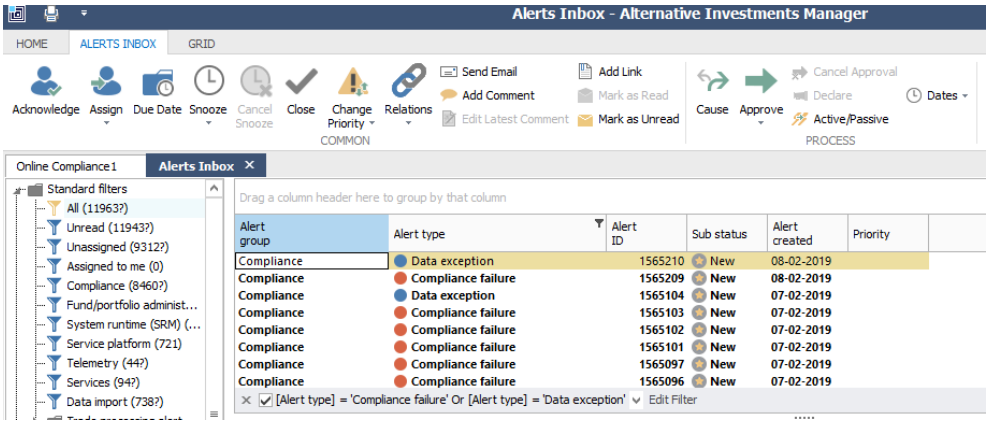
Caching of security group definitions

Where you have used security group codes as part of .NET formulas, a limitation existed in previous releases in that Compliance Manager could not detect whether these rules were using group codes and so did not load them into the pre-trade service cache. Now you can use a new field called **Cached group code definitions** in the pre-trade section of the **Compliance Configuration** window to ensure that these security group codes are added to the compliance pre-trade service cache.



5.9 Support for Online Compliance in the Alternative Investments Manager

As of version 19.04, the **Online Compliance** and **Alerts Inbox** applets of Compliance Manager have now been made available for use in the Alternative Investments Manager. You can now create compliance rules with an **Online** mode property of **Alternative Investments Manager**, so that the results of rules with this context can be viewed in the **Online Compliance** applet added to the Alternative Investments Manager. In addition, all of your compliance alerts for a specific branch can be displayed in the **Alerts Inbox** applet added to the Alternative Investments Manager. These alerts will be combined with the alerts generated by the Alternative Investments Manager. You can filter the `Alert group` field to show alerts only relevant to compliance checks.



The functionality presented within the **Online Compliance** and **Alerts Inbox** applets through the Alternative Investments Manager is identical to that presented in both Asset Manager and Compliance Manager. This integration now supports a pre-trade and post-trade workflow between Compliance Manager and the Alternative Investments Manager.

In addition, an improvement has been made to the **Online Compliance** applet in that you can view unpaid commitment values with the appropriate currency conversion applied. A 0 (zero) value is now displayed where an FX rate is missing.

To set up a rule for online compliance use in the Alternative Investments Manager:

1. Within the **Rules** applet, create a new rule or open an existing rule to display the **Compliance Rule Entry** window.
2. Within the **Properties** section, set the **Mode** property to **Online**.
3. On the **Workflow and reporting** tab of the **Additional properties** section, set the **Online destinations** property to **Alternative Investments Manager**.
4. Save the rule.

To find rules in Compliance Manager that have an online mode of **Alternative Investments Manager**:

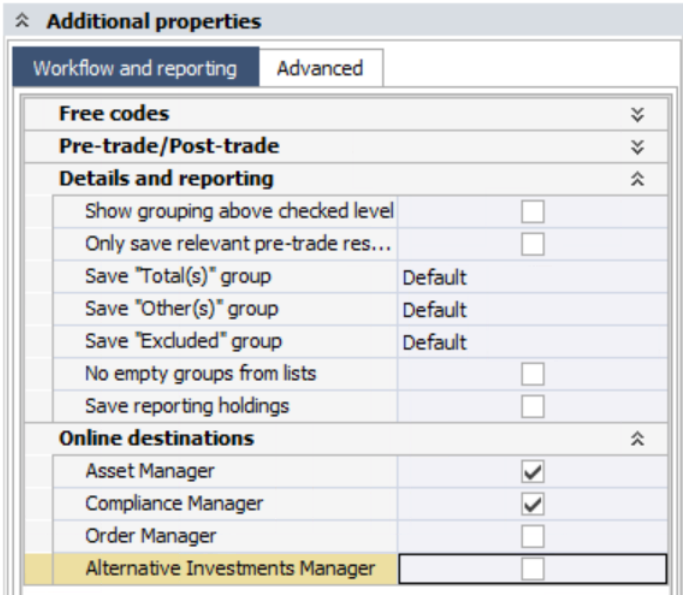
1. Within the **Rule set** section of the **Rules** applet, add the **Mode** and **Online destination** fields.
2. Click on an assignment unit in the **Rules Hierarchy** section to list all assigned rules.
3. Set the filter on the **Mode** field to list only **Online** rules.
4. Set the filter on the **Online destination** field to list only **AI** rules.

To add the **Online Compliance** and **Alerts Inbox** applets to the Alternative Investments Manager:

1. Open the Alternative Investments Manager from the SimCorp Dimension portal.
2. On the **Home** tab, select **Online Compliance** from the **Show Applets** menu.
3. From the **Compliance branch** field, select the required branch such as **MAIN**.
4. From the **Value displayed** field, select either **Per Rule** or **Amount**.
5. From the **Reporting currency** field, select the required currency code such as EUR.
6. On the **Home** tab, select **Alerts Inbox** from the **Show Applets** menu.

5.10 Support for additional online compliance modes

As of version 19.04 of Compliance Manager, a new online compliance mode called **Alternative Investments Manager** is now available for selection when you create or edit rules in the **Rule Entry** window. For further details, see Support for Online Compliance in the Alternative Investments Manager on page 53. To improve the selection of online compliance modes, the mode settings in the **Rule Entry** window of **Online AM**, **Online CM**, and **Online OM**, have been replaced with one **Online** check box. When you select the **Online** property for a rule, you can now set the required online modes in the **Additional Properties** section on the **Workflow and reporting** tab using the **Online destinations** check boxes.



A new field called **Online destinations** has been added to the **Rule set** section of the **Rules** applet which you can use with the **Mode** field to search for **Online**, **AI** rules.

5.11 Support for maturity date simulation in the calculation of security balance rules for CFDs

As of version 19.04 of Compliance Manager, you can expect consistent pre- and post-trade compliance validations for security balance rules for CFDs. The results of pre- and post-trade checks on balances for holdings of CFDs will now be the same.

5.12 Use model portfolio components for decomposed funds

As of version 19.04 of SimCorp Dimension, Compliance Manager and Asset Manager can now display the model portfolio that is stamped on a fund decomposition component for 'internal' and 'external' funds. That is, the model portfolio stamped on a holding in a portfolio that represents a fund component, or the model stamped on a component defined in the **Fund Components** window.

Previously, the model portfolio assigned to the parent fund was displayed against each fund component. Now, investment controllers using Compliance Manager can see the actual model portfolio stamped on a fund component when you examine the compliance results relating to a decomposition.

For further information, see the 19.04 release note Assign model portfolios from a given level to all underlying holdings during fund decomposition.

6 Data Management - Reporting

6.1 SFTR

6.1.1 SFTR updates to dealer windows and Trade Manager

As of version 19.04, several changes have been made in SimCorp Dimension to ensure that instruments that are subject to the EU's Securities Financing Transaction Regulations (SFTR) are compliant with the SFTR standards and regulations.

The SFTR-related updates to the user interface and system functionality that are listed in this topic relate to the trading of repos and sell/buybacks.

The first part lists the updates on a window-by-window basis for the dealer windows, and the second part covers updates that has been added in the **Trade Manager**.

6.1.1.1 SFTR updates to dealer windows

Updates to Repo and Sell/Buyback windows

In the various dealer windows related to repos and sell/buybacks in SimCorp Dimension, such as the **Straight Repo** window, you can now see several updates.

- A new field named **SFT Type** has been added to the **Instrument** section in the repo and sell/buyback windows. The value of this field comes automatically from SimCorp Dimension and indicates whether a contract (seen from the portfolio side) is either:
  - A repo or a reverse repo
  - A sell/buyback or buy/sellback

- The functionality of the existing setting **Use initial margin**, which has already been available in previous versions of SimCorp Dimension, has been updated to align the use of haircuts and initial margin (including margin pct.) with the common market practices of SFTRs and to make haircut available as a dedicated field for SFTRs. As a result of the update of the functionality, the check box for this setting has been renamed and now has two different names, depending on whether you select or clear the check box.
  - If you clear the check box, the setting is called **100-Haircut pct**. When you open the repo windows, the check box is cleared by default.
  - If you select the check box, the setting is called **Initial margin pct** and the functionality of this setting also changes.

  The change in naming of this setting reflects the difference in how SimCorp Dimension should calculate the value of the **Haircut pct.** field.
  - If you use **100-Haircut pct.**, the value of the **Haircut pct.** field is the number in percent that is left when you subtract the value that you have specified in the **100-Haircut pct.** field. For example, if you specify 97.0 in this field, then the value of the **Haircut pct.** field is 3.0 because the 97% is subtracted from the 100%.
  - If you use **Initial margin pct.**, SimCorp Dimension bases the calculation on the following equation:

- Under **Functions** > **Additional Data**, you can now find the **Contract information** tab. On this tab, you can specify several new fields related to the trade contract:

Field	Description
Trade ID	Lists the unique ID for the trade. You cannot change this value.
Legal Master Agreement	You can use this field to specify the master agreement to use with this Trade. The available master agreement options come from the **Legal Master Agreement** window in which you can specify a number of details between the parties covering the contract, including the **Agreement type** and **Version**, which is a requirement for reporting to trade repositories. Note that SimCorp Dimension does not make any validations to check whether the parties that you have specified in the **Legal Master Agreement** window match the parties on the contract/transactions.
Execution time	This field contains the execution time of the contract which should match the execution time of the transaction/event that opened the contract. Note that there is a difference between the execution time stored at the transaction level which relates to all the individual transactions/events throughout the lifetime of the contract as opposed to the contract execution time which is onlyrelated to the contract that opens transaction/event. If you leave this field blank, the value of the **Execution time** field will be synchronised between the contract and the opening transaction. The timestamp must be in the ISO 8601 format. This format comprises the complete date plus hours, minutes, seconds, and a decimal fraction of a second. YYYY-MM-DDThh:mm:ssZ For example: 2019-03-11T14:20:56+01

Field	Description
Confirmation time	This field contains the confirmation time of the contract which should match the confirmation time of the transaction/event that opened the contract. Note that there is a difference between the affirmation time stored on transactions which relates to all individual transactions/levels throughout the lifetime of the contract as opposed to the contract confirmation time which is related to the contract that opens the transaction/event only. If you leave this field blank, the value of the **Confirmation time** field will be synchronised between the contract and the opening transaction. The timestamp must be in the ISO 8601 format. This format comprises the complete date plus hours, minutes, seconds, and a decimal fraction of a second. YYYY-MM-DDThh:mm:ssZ For example: 2019-03-11T14:20:56+01

- The **Execution time** field listed in the table has also been added to the **Workflow** tab in the same sub-window.
- The **Split trade** field has been added in the **Position** section. All trades that are part of the split trade have the same **Trade ID**.

Updates to Conditional Default Value Formulas window

If you create formulas in the **Conditional Default Value Formulas** window, you can include all the five fields listed in the table in the previous section.

Updates to Rollover windows

- For reporting purposes, the **New trade** check box has been added in the **Instrument** section in the rollover windows so you can specify whether a new rollover trade is brand new or if it is extending the existing trade. If you select the check box, a new **Trade ID** is generated for the rollover. Similar to the repos dealer windows, you can find the **Trade ID** field on the **Contract information** tab under **Functions** > **Additional Data**.
- The **Split trade** field has been added in the **Position** section. If you have selected the **New trade** check box, rollovers on split trades get a new **Trade ID**.

Updates to Parties window

- In the **Parties** window, the **Party group** drop-down list has been moved from the **General information** section at the top of the window to the **Codes** tab in the same window.
- Two new fields have been added in the **General information** section:
  - **Parent**
  - **Ultimate parent**

    Both fields are read-only in the **Parties** window, but you can add both values via the **Party Reference Definitions** window where the two fields have been added to the list of available values in the **Party reference** drop-down list.

    Note that the five first values listed are free codes that you can edit if you need to, but you cannot edit the last two values, **Party parent** and **Party ultimate parent**, because these two values are controlled by other settings in SimCorp Dimension. You must specify the party-child relationship between parties in the **Party Relationships** window.

- In the grid on the **Party Reference Definitions** window, you can specify the priority of the **Method** to list **Parent** or **Ultimate Parent** as the first **Priority** to check in the **Party Relationships** window.
- The values **Party parent** and **Party ultimate parent** have been added to the list of values that you can use in the **Formulas** window to specify the party reference.

    In the **Formulas** window, you can use the formula text getparreferences, then add the counterparty and the proper value. **Party parent** is value 6 and **Party ultimate parent** is value 7.

    For example, getparreference(123145;7) specifies a counterparty with the identity key (IK) 12345 as value 7, **Party ultimate parent**.

    Note that you can also check IKs for each argument by using the **Show Values** button. Place your cursor on an argument, then click **Show Values**.

6.1.1.2 SFTR updates to the Trade Manager

The updates to the user interface and the system functionality for the **Trade Manager** are similar to the changes made to the dealer windows with slight differences. For this reason, you may see several references to the information that was listed in the previous section.

Repo and Sell/Buyback in the Trade Manager

- The **SFT type** field is a new read-only field that has been added to the **General** section of repo and sell/buyback contracts. Based on the instrument type and the opening transaction code, SimCorp Dimension specifies one of the following values when you create new trades:
  - **Open Repo**
  - **Open Reverse**
  - **BuySellBack**
  - **SellBuyBack**

  Note

  The **SFT type** field is empty for existing trades.

- A new tab named the **Contract information** tab has been added to the **Trade Manager**. On this tab, several SFTR-related fields have been added:
  - **USI namespace**
  - **Originating USI**
  - **Originating USI namespace**
  - **Trade ID**
  - **Party client trade ID**
  - **Client trade ID**
  - **Execution time**
  - **Confirmation time**

Note

For a description of the fields **Trade ID**, **Execution time**, and **Confirmation time**, see the table in the traditional trading screens section that are listed previously in this topic. For a description of the remaining fields, see the field help in SimCorp Dimension by pressing Shift+F1 on the relevant field.

Split trades

Split transactions with the same **Transaction split number** are assigned the same **Opening sequence number**, **Trade ID**, and **Client trade ID**.

In addition, the values of the fields **USI**, **USI namespace**, **Originating USI**, **Originating USI namespace**, **Party client trade ID**, and **Client trade ID** will be the same for all parts of a split trade.

Rollover with new Trade ID

In **Position search**, a new right-click menu item named **Rollover with new Trade ID** has been added for repo and sell/buyback positions.

If you select this option, the trade will include a new check box called **New Trade ID** which will be selected by default if you have chosen **Rollover with new Trade ID**. This new check box indicates whether the new contract should be assigned a new **Trade ID** and **Opening sequence number** and is for information purposes only. If you instead select **Rollover**, the **New Trade ID** check box will be cleared.

If necessary, you can import a value for the **New Trade ID** check box.

Update to the use of haircuts in Trade Manager

On the **Conventions** tab in the **Trade Manager**, several changes have been made to change the functionality of the use of haircuts.

- The check box previously named **Margin or haircut** has been renamed to **Use initial margin pct**. The check box is selected by default when you create a new repo or sell/buyback, regardless of whether it is a trade or template.
- The previously named **Haircut** field has been updated so that it has a different name depending on whether you have selected or cleared the check box. It is now named **100 - Haircut pct** when you clear the **Use initial margin pct** check box and **Initial margin pct** when you select the **Use initial margin pct** check box.
- A new read-only field named **Haircut pct.** has been added to the right of **Initial margin pct** / **100 - haircut pct** field.

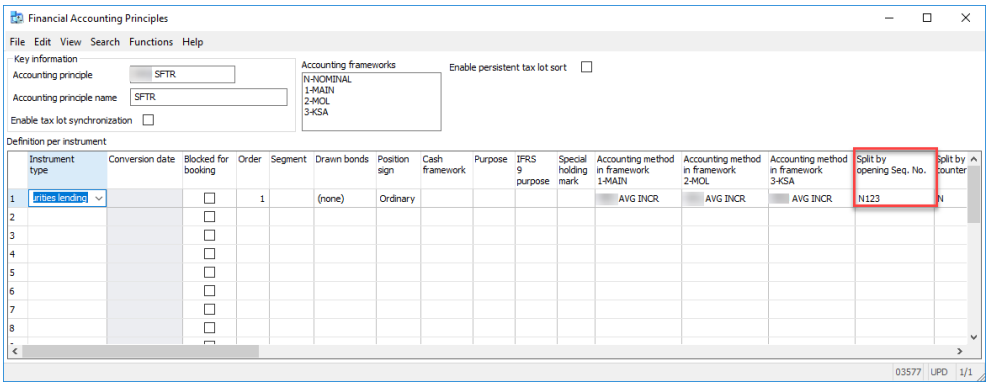
For more information about the updated user interface and system functionality for haircuts, see the updates to haircuts in the dealer windows that are listed earlier in this topic.

6.1.2 Enabled split on opening sequence number for supporting UTIs for SFTR transactions

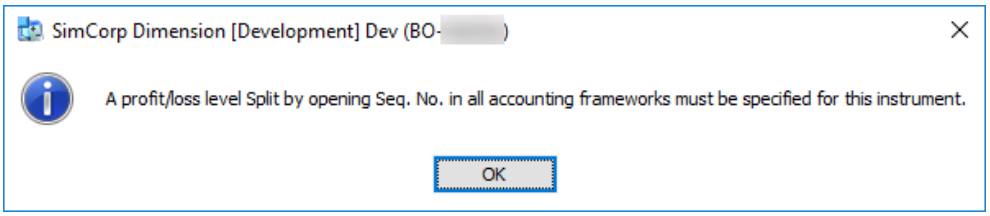
As of version 19.04, when you save a new financial accounting principle setup (in the **Financial Accounting Principles** window) for the **Securities Lending** instrument type, a mandatory split is automatically set on **Split by Opening Sequence No**.

This feature is relevant for the Securities Financing Transactions Regulation (SFTR) to ensure that the SFTR transactions can be identified with a Unique Transaction Identifier (UTI).

The following image shows a setup with the mandatory split.



You will get an error message if you try to change this mandatory split, as shown in the following image:



Check Before Upgrade and Conversion programs

SimCorp Dimension is enhanced with a Check Before Upgrade (CBU) program and a Conversion program.

The CBU program validates the following:

- If there are securities lending transactions with a non-zero transaction opening sequence number (OSN).
- If all securities lending transactions have a zero transaction opening sequence number, then the CBU program passes the validation.

The Conversion program ensures that a financial accounting principle setup that has securities lending after the upgrade will have a mandatory split in all nominal and P/L frameworks for **Split by Opening Sequence no**.

6.1.3 Enhanced classification types for SFTR reporting

As of version 19.04, a second type of classification supports SFTR reporting, so the previous Business Classification paradigm is replaced by a new classification type with two settings:

- The business classification framework for the Classification of Financial Instruments (CFI) now uses a **Classification type** setting called **Instrument classification** and the **Standard reference** setting **CFI (ISO 10692:2015)**.

- ISDA derivative classification frameworks use the **Classification type** setting called **Instrument classification** and the **Standard reference** settings **ISDA Derivative Taxonomy v1.0** and **ISDA Derivative Taxonomy v2.0**.
- The classification framework for SFTR reporting introduces a **Classification type** setting called **Business classification**.
- The SFTR framework introduces a new **Standard reference** setting which supports a single classification setup set to **EMIR/SFTR Corporate sector**.

This enhancement causes additional changes throughout SimCorp Dimension:

- The **Business Classification** window is now called **Classification** where existing setups are converted to the **Classification type** setting called **Business classification**.
- Windows and fields called **Business class...** are now called **Classification...**, including
  - Windows and fields of the corresponding instrument static data windows, free code windows, level name fields, level description fields, and so on
- Other windows which include a **Classification** setup often require a certain **Classification type**:
  - The **Portfolios** reference data window on the **Extra Information > Info 2** tab requires a setup of the **Business classification** type in the **Classification 1** and **Classification 2** fields.
  - The **Parties** window on the **Classification, Time Series** tab requires a setup of the **Business classification** type in the **Classification** field.
  - The **Alternative Investments Manager** requires setups of the **Business classification** type in the **Classification** field.

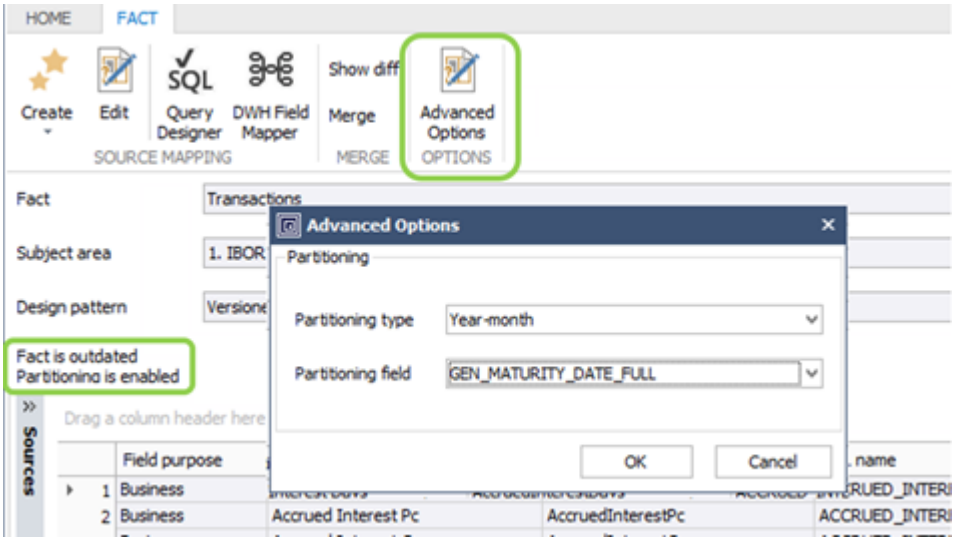
7 Data Warehouse Manager

7.1 Support for partitioning fact tables

Client segment	All
Target audience	Data architects, business analysts and report developers
Role-based licensing	Data Warehouse Manager
Module-based licensing	Data Warehouse Manager

As of version 19.04, you can improve load duration and data archiving efficiency by creating Oracle partitions on fact tables. You can specify a date based partitioning key for custom or extended facts.

Partitioning is a powerful functionality that allows tables and indexes to be subdivided into smaller pieces, enabling these database objects to be managed and accessed at a finer level of granularity.



For the benefit of data life cycle management, the partitioning functionality also gives the opportunity to clean up older data very fast, if data is no longer needed in the system (for example after 5 years). Because the fact tables are not referenced or linked by other tables in the data warehouse models, the system will continue loading the new data when old data has been archived through dropped partitions. The drop of partitions is a separate task that needs to be undertaken by an Oracle Database Administrator.

Benefits

- Configured partitioning is included on the fact and will persist during model copy, merge, deploy, and schema synchronization
- Partitioning of large tables will dramatically improve performance of some database operations

7.1.1 Partitioning fact tables for faster cleanup of historical data

As of 19.04 you can partition Date Warehouse fact tables to speed up the clean-up operations in the database and improve the system performance.

Restrictions

- Partitioning can only be enabled for custom and extended facts.
- Only fields with data type DATE or TIMESTAMP can be used as a partitioning field.
- You cannot edit a field that is used for partitioning. This means that you cannot change the field name, datatype or other attributes. To edit a field you must disable the partitioning.
- You can use only one field for partitioning, and composite keys are not supported.

Partitioning setting are stored as a part of the model, and therefore can be exported, imported, merged, compared, and so on.

To configure partitioning

The feature is to be configured before you start using it.

1. Open the fact that you want to configure in the **Facts** window.
2. Click **Advanced Options**.
3. Select **Partitioning type**:
   - Year (the fact table is split into partitions for each calendar year).
   - Year-Month (the fact table is split into partitions for each calendar month within each year).
   - Year-Month-Day (the fact table is split into partitions for each calendar day within each month and year).
4. Select **Partitioning field**.

Added or changed partitioning configuration takes effect at the following schema synchronization.

7.2 Expiring fact and dimension records in DWH

As of 19.04, you can expire fact and dimension records in your data warehouse, when the originating data is deleted from the source system.

The data warehouse is loaded and updated based on data that exist in the source system at load time. When data is removed from the source system, the already loaded data remains active in the data warehouse as current version.

With this new feature you can expire such records in the data warehouse, by ensuring that the records no longer appear as "current version". This way the records can be handled accordingly in downstream marts/reports.

Note

The source system must be able to identify removed records.

This feature works only when ORIGINATING_SYSTEM_NO = 1, because current solution based on Utility tables which as a source has only SCDAT.

This feature works only for custom or extended facts with versioned design pattern.

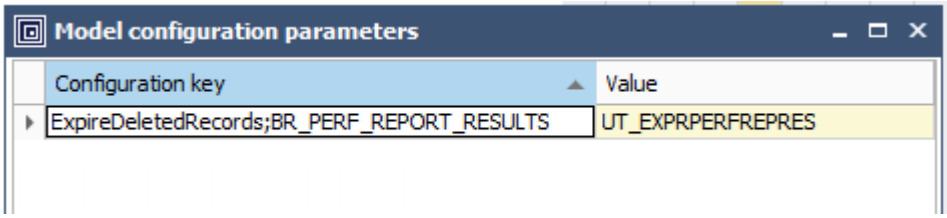
The specified fact or dimension target table must include the versioning fields VALID_FROM_DATE, VALID_TO_DATE, and CURRENT_VERSION.

To set up the expiration of records

1. Create a utility table (UT) that is based on the same source(s) as the target table.
2. In the **Destination Fields** tab of the UT extraction definition, ensure to include the same unique source keys that are specified on the related target table.

   For example, if the SECURITY_IK field is selected as a unique source key in the target table, you must include the SECURITY_IK field in the destination fields in the utility table.
3. In your data model, click **Variables** > **Configuration parameters**, and link the utility table to a target table:
   A. In the **Configuration key** field, type `ExpireDeletedRecords;[SQL name of target_table]`. For example `ExpireDeletedRecords;BR_PERF_REPORT_RESULTS`.
   B. In the **Value** field, type `UT_[Name of utility_table]`, for example `UT_MyUtilityTable`.

   A many-to-many relation between target and utility tables is supported. This means that you can link one utility table to several ExpireDeletedRecords configuration keys, and you can use several utility tables (delimited by semicolon) for one ExpireDeletedRecords configuration key.



4. Synchronize the data model and execute a load of the utility table. The latest matching fact/dimension records will be expired by setting the **Current version** flag = **Inactive** and updating the **Valid to date** with the loaded timestamp.

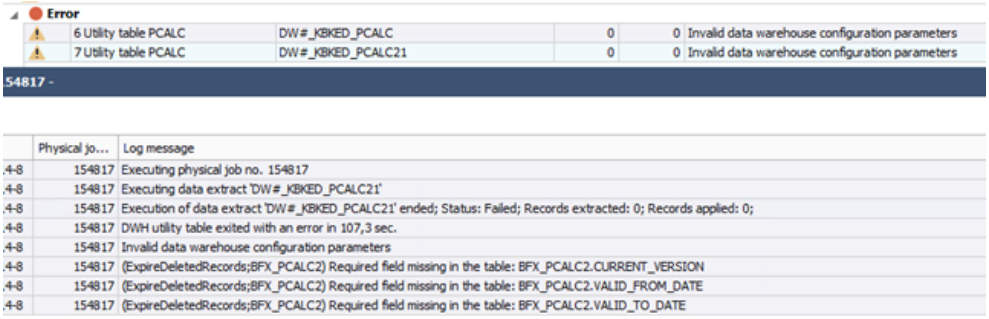
Note

You can include the utility table in the same load plan as the target fact or dimension, or in a separate one.

When the load execution is finished, you can check the log information in the **Load Monitor** tab:

- Load success: the utility table load log contains information about the number of expired records, consumed time and target table(s).

- Load failed: the utility table load log contains information about the reason for failed execution



To view the result, select a fact or dimension and then click **View data.**

7.3 Limit number of services to use for data extraction in the Data Warehouse

As of 19.04, you can specify the maximum parallel degree for DWH Extraction Definitions that have been selected for parallel execution.

Previously, if you had ten reporting data job services running, SimCorp Dimension would execute each parallel DWH Extraction Definition as ten parallel extract jobs.

To specify the maximum parallel degree for services execution

1. Open the **Miscellaneous options** window and select the **Data Warehouse** tab

2. In the **Maximum parallel degree** list, select **User specific**.
3. Enter the maximum number of services to use in parallel.

The following logic applies:

- If you select **No maximum**, all started services are used
  - 5 services started => degree=5
- If you select **User specific** and enter three, three services are used if available
  - 2 services started => degree=2
  - 5 services started => degree=3

8 Fund Administration Manager

8.1 Fund figures

8.1.1 Disable the validation of master/sub-fund issue and redemption transactions

Client segment	Asset Management, Service Provider
Target audience	Fund Administrator
Role-based licensing	Fund Administration Manager
Module-based licensing	Master/Sub-Funds

As of version 19.04, you can disable the validation of issue and redemption transactions for master/sub-funds which verifies that there are transactions on sub-fund certificate level that match those of master fund certificates. You can choose to disable this validation during the fund figure calculation to automate the processing of such transactions, for example, with a Data Format Setup import.

Without this enhancement, you must respond manually to mismatches detected by the validation before you can calculate fund figures.

When using the enhancement, you must find another way to ensure that transactions on master and sub-fund levels match.

To disable the validation of master/sub-fund issue and redemption transactions:

1. Open the **Fund and Calculation Definition Administration Options** window on the **Options 3** tab and select a transaction free code field in the **Exclusion free code** field.
2. To exclude any given issue or redemption transaction of a master/sub-fund certificate from the validation, fill the selected free code field on the issue or redemption transaction in the **Additional Data** sub-window on the **Holding** tab. You can set any value as long as the free code field does not remain empty.

8.2 Investmentsteuerreformgesetz (InvStRefG)

8.2.1 [New module] Investor-specific figures

Client segment	Asset Management/Fund Administration (Germany)
Target audience	Back Office user, Fund accountant
Role-based licensing	Fund Administration Manager
Module-based licensing	Investment Steuer Reform Gesetz

This module covers the calculation of Fund Figures at investor level. As part of the Investmentsteuerreform it is required to calculate tax figures (e.g. equity profit) on investor level. Apart from the necessary calculation in fund schemes the module also covers saving these tax figures per investor.

Further the calculations can be performed for active and inactive investors separately and G/L postings will be performed at investor level.

Benefits

- Ability to calculate, book, and store investor-specific tax figures.
- Optimize workflows by replacing existing workarounds using export/import configurations.
- Consolidate internal and external investor specific tax figure data in one consistent view.
- Enable removal of remaining general ledger balance after investors left the fund.

8.2.1.1 Added investor-specific tax figures

As of version 19.04, you can calculate, store and retrieve daily investor-specific tax figures for funds to comply with reporting requirements and German tax regulations of the Investmentsteuerreformgesetz (InvStRefG).

Investor-specific tax figures break down a fund's total tax figures per active investor. This includes nominals and tax ratios. Inactive investors are excluded from the calculation of investor-specific tax figures; a dedicated fund figure attribute ensures that their corresponding G/L balances can be set to 0.

You can show a fund's tax figures, either for all investors on one day or for one investor across several days.

Prerequisities and restrictions

The usual prerequisites for InvStRefG funds apply to this functionality:

- The fund must a restricted fund.
- The fund structure must be either normal or master-sub fund.
- The fund must be connected to an investor allocation G/L setup. For instructions, see "Allocate G/L balances to fund investors" in the ***Investmentsteuerreformgesetz*** user manual.

The following restrictions apply to this functionality:

- You cannot simulate fund events which calculate investor-specific tax figures.
- You cannot calculate fund service costs per investor.

- You cannot calculate sub-fund figures per investor for master-sub funds.
- Pre-defined manual values always apply to all investors equally; they cannot be distinguished per investor.
- Fund alerts do not show investor specifics.
- The **View Fund Figures** window does not show investor specifics.

Fund scheme line types

The following fund scheme line types are relevant and available for investor-specific tax figures:

- **Fund distribution data**
- **G/L account**
- **G/L account after booking figure**
- **Get price**
- **Historical data**
- **Portfolio calculation**
- **Transaction data**
- **Yesterday's data**

The following new fund scheme line types support investor-specific tax figures:

- **Investor nominal**: This line type assigns the nominal used as the basis for the investor ratio calculation to a fund scheme line. Setup fields are **Attribute** and **Reference date** which can also be a real date.
- **Transfer to investor figures**: This line type assigns the amount from a regular fund figure to a fund scheme line and applies the investor ratio to it.

Fund scheme line types **Formula**, **Fund static data**, **Sub-scheme**, and **Fund ratio** assign the same values as for non-investor-specific figures. All other line types assign 0 because investor-specific figures are not meaningful for them.

Formula function

The getfundtax(fund;date;taxtype;investor) formula function has been enhanced by the optional investor parameter to allow retrieval of investor-specific tax figures.

Setup instructions

To set up investor-specific tax figures, create two setups, one for the actual calculation and one for inactive investors to set their G/L balances to 0:

1. Create a setup for investor-specific tax figures:
   A. Open the **Fund Figures Attributes** window and create an attribute setup:
      I. Select the **Official figures** and **Additional figures** check boxes.
      II. Set the **Investor split** field to **Active**.
   B. Add the attribute setup to your fund definition:
      I. Open the **Fund Definitions** window and load your fund setup.
      II. On the **NAV Calculations > Additional Schemes** tab, create a row entry with these settings:
         a. Set the **Scheme** field to the fund's scheme setup.
         b. Set the **Figure attribute** to the attribute setup you have just created.
   C. Create a fund event which calculates daily figures with the configured **Figure attribute** setup and include it in your **Fund Event Groups** setup.
2. Create a second setup to calculate tax figures for inactive investors (that is, investors who have not held fund certificates for at least two days):
   A. Open the **Fund Figures Attributes** window and create an attribute setup:
      I. Select the **Official figures** and **Additional figures** check boxes.
      II. Set the **Investor split** field to **Inactive**.
   B. Add the attribute setup to your fund definition:
      I. Open the **Fund Definitions** window and load your fund setup.
      II. On the **NAV Calculations > Additional Schemes** tab, create a row entry with these settings:
         a. Set the **Scheme** field to the fund's scheme setup.
         b. Set the **Figure attribute** to the attribute setup you have just created.
   C. Create a second fund event which regularly calculates figures for inactive investors.

Calculation instructions

To calculate investor-specific tax figures, execute the fund event for investor-specific tax figures, for example, as part of your daily fund STP workflow or as part of your **Batch Jobs Groups** setup.

To create investor-specific G/L bookings at 0 for inactive investors, execute the second fund event, when applicable.

Results

As a result, the finished calculation appears in the **Fund Event Status** window. To display the calculated results, select the fund event and click **Open Figures**. The **Fund Figures** window opens, showing the results of one of the investors, and you can scroll through the results of the other investors.

You can also show the results in the **Fund Figure Viewer** where you can distinguish the data by investor in the **Pool/Investor** field. Use the viewer's pivot functionality to show the investor-specific figures for all investors on one day.

SimCorp Dimension keeps the fund figure status synchronised across all investors, so changing or deleting the status of a fund figure for one investor automatically changes or deletes it on the same figure for all other investors, too.

9 General Changes

9.1 General functionality enhancements

9.1.1 Enable cloud-based Help

As of version 19.04, you can use the cloud-based Help for SimCorp Dimension, instead of locally installed Help. The cloud-based Help gives you multiple advantages:

- You no longer need to download and install the SimCorp Dimension Help locally.
- You always see the latest version of the Help, published by SimCorp.
- You get more frequent Help updates.

Note

To use the cloud-based Help, your SimCorp Dimension installation must be configured to connect to the cloud. For more information, see Four steps for getting connected to the cloud.

To enable the cloud-based Help, once the cloud connection has been configured:

1. Open the **System Environment Configuration** window.
2. Select the **Directories** tab.
3. Select the **Enable cloud-based Help** check box.

Your SimCorp Dimension users must restart SimCorp Dimension for changes to take effect.

10 IBOR

10.1 Financial Instruments

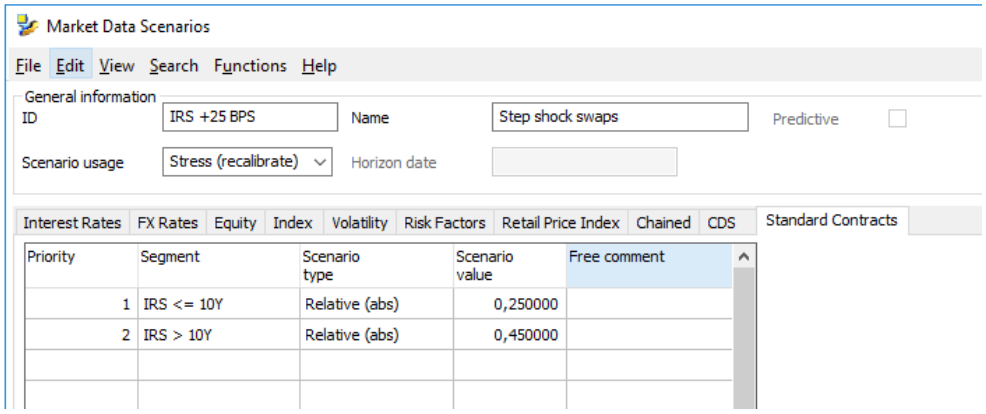
10.1.1 Data and Conventions

10.1.1.1 [New module] Market Data Scenarios with re-calibration

Client Segment	All client types
Target audience	Risk managers, quants, portfolio managers
Subscription based licensing	Advanced Pricing and Key Ratios
Sales Modules and sales module dependencies	No dependencies

This module enables re-calibration of yield curves in scenarios where underlying market data are shocked. Shocks are applied directly to the market data and not to the zero-coupon curve. All affected yield curves are re-calibrated, so cascaded effects are detected. For example, shocking a single OIS swap impacts tenor curves in the same currency but also foreign discounting curves via cross currency effects.

The following image shows a single scenario where short (long) maturity swaps are shocked 25 bps (45 bps) before bootstrapping zero coupon yield curves.



Benefits

- Enables risk scenarios based on direct shocks to market data such as swaps and deposits.
- Enables advanced analytics of cascaded effects across currencies and tenors.
- Calculates yield curve risk sensitivities that are required in the ISDA SIMM.

10.1.1.1.1 Shock underlying instruments on calibrated or bootstrapped yield curves in stress tests

As of version 19.04, you can shock a curve's underlying instruments, that is, the original market data, when shocking calibrated or bootstrapped curves in stress tests.

To support the creation of a standard contracts shock setup, a new type of market data scenario has been added where you set the **Scenario usage** field to **Stress (recalibrate)**. You can use this scenario in the **Market Data Scenarios** window, where it currently only works for standard contracts on the new **Standard Contracts** tab.

You must specify the following mandatory settings for a stress (recalibrate) scenario on the **Standard Contracts** tab:

- **Priority**
- **Segment**—You can only use standard contract segments
- **Scenario type**—You can only use the **Relative (%)** and **Relative (abs)** types
- **Scenario value**

When you have specified a stress (recalibrate) scenario for standard contracts, you can use this scenario to regenerate market data in various areas of SimCorp Dimension.

Shocking standard contract quotes

With the new **Apply Recalibration Scenario** batch task, you can set up a batch job that can apply the standard contract shocks for a given date range for the specified stress (recalibrate) market data scenario. The batch job will write new records with the shocked values for each date and price type and tag it with the name of the applied market data scenario. If the **Market data scenario** field is left empty in the batch job, all the recalibration scenarios will be applied.

All standard contract types are covered by the new batch task.

You can see your results in the **Standard Contract Quotes** window where the **Market data scenario** field has been added to identify the different results. The field is restricted to market data scenarios that have the **Scenario usage** field is set to **Stress (recalibrate)**.

Note

With the **Apply Recalibration Scenario** batch task, only one shock can be applied to a standard contract and that is the shock with the highest priority.

Because the **Market data scenario** field is a key field, you cannot have duplicate values in the **Standard Contract Quotes** window.

Estimate scenario yield curves

You can specify a market data scenario in the **Yield Curves** window, or you can import data for a market data scenario into this window. You can only use the field for quoted yield curves types.

You can perform manual estimations in the **Yield Curve Manager** window, but manual estimations are done mainly for troubleshooting purposes. You can use the new **Market data scenario** field on the **Yield Curve Generation** tab on the **Yield Curve Manager** window. When you specify a **Stress (recalibrate)** market data scenario and load quotes (click the **Load Quotes** button) in this window, only standard contract quotes with the given scenario are retrieved. If you do not specify any scenario, then the non-shocked values are retrieved.

The values in the **Price date** and **Price type** field are used with the value in the **Market data scenario** field as part of the estimation calculation.

If you click the **Estimate YC** button, you use the latest quotes only. When you save the curve, the name of the scenario will be saved with the curve. If you also select the **Explain calculation** check box, the **Explain calibration** window provides all the calibration details for the shocked quotes. When there is no stress (recalibrate) scenario specified, an unshocked curve is used for estimation.

You can also run batch jobs for recalibration so that yield curves are estimated for stress (recalibrate) scenarios. The **Market data scenario** field has been added to the these existing batch tasks in the **Batch Jobs** window:

- **Estimate Yield Curves - Estimate**
- **Estimate Yield Curves - Period**
- **Yield Curves And Volatility Curves Estimation - Estimate**

Portfolio calculation

You can specify a stress (recalibrate) market data scenario in a portfolio calculation, and new market data will be retrieved via pricing profiles for each scenario. You must specify the relevant market data scenario on all the yield curves. Where there is no scenario curve, then the newest applicable non-scenario curve is used.

You must specify the name of the market data scenario on the **Market Data Scenarios** sub-window of the **Portfolio Calculation** window. The name of the market data scenario is included in the **Portfolio Calculation List** sub-window and in the **Explain Price Search** report.

Cleaning up market data

You can include these new market data scenarios in your clean-up jobs. The **Market data scenario** field was added to the **Cleanup Market Data - Execute** batch task and the **Cleanup Market Data** window.

In the **Cleanup Market Data** window, you can also add a restriction to the manual cleanup. When you select the new **Restrict cleanup** check box, the **Clean Up Market Data Section** window opens where you can select a specific market data scenario to use.

Market data scenarios for UFR curves

You can take the stress (recalibrate) scenario values into account when you estimate UFR2015 curves in both the **Yield Curve Manager** window and in the previously mentioned estimation batch jobs. This applies whether you are retrieving UFR underlying curve values or UFR/LLFR values.

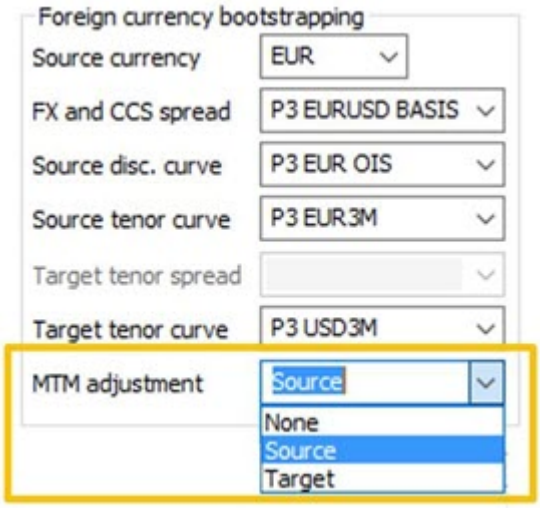
The **Market data scenario** field has also been added to the **UFR 2015 Values** window.

10.1.1.2 Import of mark-to-market cross-currency swap spreads

Client Segment	All clients that trade swaps or other OTC
Target audience	Quants and Risk managers
Subscription based licensing	Advanced Yield Curve Estimation
Sales Modules and sales module dependencies	Bootstrapping with FX Forwards and Cross Currency Swaps

Cross currency swap spreads are key market data for creating collateral-consistent yield curves. As of version 19.04, you can directly upload spreads associated with mark-to-market (MTM) types of cross currency swaps (CCS), while previously spreads were required to be associated with vanilla cross currency swaps. With this enhancement a wider set of market data providers can be used, and the import of mark-to-market cross currency swap spreads is greatly simplified.

The following image shows a selection of cross currency swap type for the market data in the Yield Curve Manager application.



New functionality has been added for an MTM adjustment, which is a reset of the CCS leg based on the forward FX rate.

The forward FX rate is determined by the formula

$$F = S \times \frac{1+r_d}{1+r_f}$$

where r is the interest rate. Interest rates are taken from discounting curves.

To manage this new functionality, a new **MTM adjustment** field has been added to the **Yield Curve Manager** window. The new **MTM adjustment** field is available only when the (estimation) **Principle** field is set to **Bootstrap (foreign)** and a source discounting curve is provided in the **Source disc. curve** field.

You can set the MTM adjustment to

- **None**, if you do not want any MTM adjustment. **None** is the default value. Existing curves in your installation after an upgrade to version 19.04 are also set to **None**.
- **Source** to apply the MTM adjustment to the source currency leg while bootstrapping.
- **Target** to apply the MTM adjustment is applied to the target currency leg while bootstrapping.

You can view the results of the yield curve estimation in the **Explain Calculation** report.

10.1.1.3 Assign model portfolios from a given level to all underlying holdings during fund decomposition

As of version 19.04, you can configure a decomposition profile to assign fund components to a model portfolio from a specified level in a fund-of-

fund that is being decomposed. Assigning components of the decomposed fund certificate with the model portfolio of the underlying holdings within the fund, rather than the model portfolio of the holding itself, improves support for investment strategies.

Now, you can specify whether underlying holdings should be assigned their own model portfolio or the holding of their parent holding (or the parent's parent's holding, and so on).

To use this functionality, you must configure the following fields in the **Decomposition Profiles** window:

- Select the **Split on decomposition path** check box to use the functionality in this enhancement.

  The setting of this check box affects what you can select in the new **Model portfolio from level** field.
- Use the new **Model portfolio from level** field to specify from which level in your fund structure you want to select the model portfolio to assign to each underlying holding.
  - When you select the **Split on decomposition path** check box, you can set the **Model portfolio from level** field to **(none)**, **Lowest**, or a level from **1** to **10**.
  - When you clear the **Split on decomposition path** check box, you can only select **Lowest** or leave the field empty, which is the equivalent of saying that you want to use the top level model portfolio. A cleared check box gives you the same functionality that was available with the former **Use component model portfolio** check box before this enhancement was made.
  - The "model portfolio from level" that is assigned to the top parent in the profile determines the level from which the model portfolio is taken in the fund structure, even if fund certificates on lower levels are assigned different values by segmentation on the decomposition profile.
- Ensure the **Decomposition type** field is set to **Funds**.

Note

The **Split on decomposition path** field is critical for this new functionality.

If you do not select the **Split on decomposition path** check box and you do select a value other than **(none)** in the **Model portfolio from level** field, you can see the same security appear more than once if that security is found in more than one model portfolio. You can see the difference when you see different model portfolios in the **Model portfolio** field. Selecting the **Split on decomposition path** check box gives you clarity about the multiple instances of a security in the holdings or results list after a decomposition.

The split field works with the model portfolio from level field so that the correct model portfolio is assigned according to the **Model portfolio from level** field and you can see exactly where each security comes from the **Decomposition path** field.

With this enhancement, the **Use component model portfolio** check box has been removed from the **Decomposition Profiles** window because it could select the model portfolio from only the top level or the lowest level of the fund.

Selecting a level setting that differs from the levels in your fund structure

- If you select a level that is less than the number of levels that you have in the fund being decomposed, then the fund components at the lower levels will be assigned to the model portfolio at the level that you selected. For example, if you have four levels and you set the **Model portfolio from level** to **2**, the decomposed fund components from levels three and four will be assigned the model portfolio from level two, regardless of their actual model portfolio.
- If you select a level that is greater than the actual number of levels in your fund structure, the decomposition will work the same way as if you had selected **Lowest** as the level. The term lowest means that every component that is decomposed will be assigned its own, actual model portfolio.

If you set the **Model portfolio from level** field to **(none)** at the time of decomposition, you tell SimCorp Dimension to ignore the model portfolio. When you then view the parent in the **View Decomposition Results** window, the **Model portfolio** fields in the **Relations and decomposition** grid will be empty. However, if you are viewing the holdings in the **Risk Measurement Holdings** window, the calculations are based on the holdings, and the results will display the model portfolio on the position on which you are running the calculation. This implies that the model portfolio is also determined by what is displaying the results, a function such as the **View Decomposition Results** window or an application such as the **Risk Measurement** window.

- For internal funds, the model portfolio is found from the position key for the component in the internal fund.
- For external funds, the model portfolio is explicitly set in the **Fund Decomposition Components** window.

Viewing the model portfolios after decomposition

When you view the results of your configuration, you can see the decomposition path and the name of the model portfolio that was determined by your **Model portfolio from level** setting.

After running a risk measurement calculation, you can view the paths and model portfolios in the **Risk Measurement Holdings** window. You can see these same results in the **View Decomposition Results** window, when you select **Use the decomposition fetch functions** in the **Relations** section and set the **Decomposition recursion level** field to a given level.

When you view the results in the **View Decomposition Results** window, you can add the new **Model portfolio is valid** check box to the **Relations and decomposition** grid together with the **Model portfolio** field. The check box is a technical field used by SimCorp Dimension to interpret the result of the **Model Portfolio** field. If the check box is shown as selected, the **Model Portfolio** field was not requested in the results. As a result, the **Model Portfolio** field will be empty even if the components have model portfolio information.

For more information on how to use the model portfolio details in Asset Manager and Compliance Manager, see Show model portfolio components for decomposed funds.

10.1.1.4 Added YTM convention for Thai bonds [19.01]

As of version 19.04, you can use a new yield-to-maturity convention for Thai bonds called **Thai compound ISDA/ISMA**. Thai bonds always require the ISDA convention in the first period, regardless of the length of the first period.

When you set up your conventions in the **YTM conventions** window, you must select **Thai compound ISDA/ISMA** in the **YTM class** field. With the new convention, the **Interest convention** field defaults to **Thai** and the **Coupon base** field defaults to **Even**.

The **Thai compound ISDA/ISMA** YTM convention looks similar to the **Compound ISDA/ISMA** YTM convention. However, if the analysis date is equal to the coupon term date, the **Compound ISDA/ISMA** YTM convention applies an even coupon base to the entire life cycle. In contrast, the **Thai compound ISDA/ISMA** YTM convention always applies an odd coupon base (ISDA) to the first period, and then an even coupon base to the remaining periods.

10.1.1.5 Support for accounting information in the Transaction Explorer

As of version 19.04, you can view accounting information for a given

transaction in the **Transaction Explorer**.

To view the accounting details, go to the **Additional Information** tab on the **Transaction Details** applet. In the section called **Additional Information**, go to the **Accounting Information** tab. On this tab, you can see collapsible sections that cover accounting principles, amortisation, split fields, and much more. The match history is included on a separate **Match History** tab next to the **Accounting Information** tab.

10.1.1.6 Exclude the variation margin from dirty value total (market value)

As of version 19.04, you can specify whether the market values should be adjusted by the variation margin in the performance measurements.

To enable this functionality, you must select the **Exclude variation margin from dirty value total and market value** check box. This check box is on the **Analyses/Key ratios 2** tab on the **Miscellaneous Options** window. This check box is cleared by default. ("Market value" is the term used in the performance applications for what is called "Dirty value total" elsewhere in SimCorp Dimension.)

When you select the check box, SimCorp Dimension updates the dirty value total as illustrated by the following formula:

$$\text{Dirty Value Total QC (new)} = \text{Dirty Value Total QC (old)} - \text{Balance Variation Margin QC}$$

The adjustment is done for only those instruments where variation margin is relevant:

- CDS
- IR swaps
- FRA (OTC FRA)
- Zero Coupon Inflation Swap
- Other margin-relevant instruments where the price is not adjusted by the variation margin

When it is enabled, the new functionality is reflected in the following areas of SimCorp Dimension:

- Portfolio Calculation
- Asset Manager
- Performance Calculation
- Performance Measurement
- Position Simulation/Analyses

Example

If you select the **Exclude variation margin from dirty value total and market value** check box, you could have an IR swap with the following values that indicate how the dirty value total QC is calculated.

	Dirty value QC	Balance variation margin QC	Dirty value total QC
Security	137,017.00	50,000.00	87,017.00
Leg 1	1,308,434.10	50,000.00	-1,358,434.10
Leg 2	1,445,451.10		1,445,451.10

10.1.1.7 Added manual recalculation option in Pricing and Key Ratios window

As of version 19.04, you can now manually recalculate prices and key ratios for securities.

In most cases, the update of pricing and key ratios takes place automatically through the pricing and key ratios services (PKR services) which normally runs in the background of your SimCorp Dimension installation. However, in some cases, you may need to trigger pricing and key ratio updates manually.

For example, you may have a formula that is dependent on other windows that are not directly related to pricing, such as the **Formula Value Matrix Values** window. Although changes that you make in the **Formulas** window are triggered and picked up by the PKR services, the changes you have made in the **Formula Value Matrix Values** window are not. In such cases, you need to do a manual recalculation for the changes to take effect.

To use manual recalculations in such cases, you can now trigger a manual recalculation in the **View Pricing and Key Ratios** sub-window of the **Pricing and Key Ratios Definitions** window, by using the new **Recalculate** function.

- To use this feature, you must select at least one field in the grid, then right-click and select **Recalculate**.

You can either recalculate a single security or select several rows and trigger a recalculation for all the rows at the same time.

Note

For multi-legged securities for swaps, FX swaps, and total return swaps, it does not matter whether you select one or both legs for recalculation. Regardless of your choice, both legs will be recalculated. For other securities types, the general rule is that only the selected leg/legs will be recalculated. If you select only one leg, only this particular leg is recalculated. This is, for example, the case for deposits.

10.1.1.8 [[[Missing Linked File System.LinkedTitle]]]

10.1.2 Instruments

10.1.2.1 Continuously compounded interest for loan facilities

As of version 19.04, you can have continuously compounded interest on loan facilities in the **Private Debt** module. This enhancement supports loans that use continuous interest calculation, rather than linear calculation.

You can configure continuous interest calculation by using the **Fixed rate decompounding** field where you can select the following settings:

- **No decompounding**
- **Decompounded rate days**
- **Equivalent day-to-day rate**

This field is already in use on the **Interest/Redemption Conventions** sub-window of the **Bonds** static data window. Now it has been added to the following windows related to Private Debt:

- Transaction windows
  - **Drawdown Loan Facility**
  - **Roll Loan Facility**
  - **Paydown Loan Facility**
  - **Settle Loan Facilities**
- Sub-windows on the **Loan Facilities** window
  - **Generate Contract Schedule**
  - **Reprice Contract**
  - **Generate Split and Combine**
  - **Facility Currencies and Contract Default Values** (where you can set defaults for this field)

If you are converting an existing installation from an earlier version of SimCorp Dimension, the default value for the **Fixed rate decompounding** field for the converted contracts is **No decompounding**.

The calculations are available in the **Loan Facilities** static data window and related transactions, in addition to the **Portfolio Calculation** and Asset Manager.

Example

Assume you have the following scenario:

- Interest period start: 31.12.2017
- Interest period end: 31.03.2018
- Interest rate: 10%
- Interest rate convention: Act/360
- Nominal/Notional: 10,000,000

The "normal" or discrete interest rate calculation is as follows:

$$\frac{90\ \text{days}}{360} \times 10\% \times 10,000,000 = 250,000$$

If you use a continuously compounded interest rate calculation, the result would be as follows:

$$\left((1 + 10\%)^{\frac{90\ \text{days}}{360}} - 1 \right) \times 10,000,000 = 241,136.89$$

10.1.2.2 SFTR updates to dealer windows and Trade Manager

As of version 19.04, several changes have been made in SimCorp Dimension to ensure that instruments that are subject to the EU's Securities Financing Transaction Regulations (SFTR) are compliant with the SFTR standards and regulations.

The SFTR-related updates to the user interface and system functionality that are listed in this topic relate to the trading of repos and sell/buybacks.

The first part lists the updates on a window-by-window basis for the dealer windows, and the second part covers updates that has been added in the **Trade Manager**.

10.1.2.2.1 SFTR updates to dealer windows

Updates to Repo and Sell/Buyback windows

In the various dealer windows related to repos and sell/buybacks in SimCorp Dimension, such as the **Straight Repo** window, you can now see several updates.

- A new field named **SFT Type** has been added to the **Instrument** section in the repo and sell/buyback windows. The value of this field comes automatically from SimCorp Dimension and indicates whether a contract (seen from the portfolio side) is either:
  - A repo or a reverse repo
  - A sell/buyback or buy/sellback

- The functionality of the existing setting **Use initial margin**, which has already been available in previous versions of SimCorp Dimension, has been updated to align the use of haircuts and initial margin (including margin pct.) with the common market practices of SFTRs and to make haircut available as a dedicated field for SFTRs. As a result of the update of the functionality, the check box for this setting has been renamed and now has two different names, depending on whether you select or clear the check box.
  - If you clear the check box, the setting is called **100-Haircut pct**. When you open the repo windows, the check box is cleared by default.
  - If you select the check box, the setting is called **Initial margin pct** and the functionality of this setting also changes.

  The change in naming of this setting reflects the difference in how SimCorp Dimension should calculate the value of the **Haircut pct.** field.
  - If you use **100-Haircut pct.**, the value of the **Haircut pct.** field is the number in percent that is left when you subtract the value that you have specified in the **100-Haircut pct.** field. For example, if you specify 97.0 in this field, then the value of the **Haircut pct.** field is 3.0 because the 97% is subtracted from the 100%.
  - If you use **Initial margin pct.**, SimCorp Dimension bases the calculation on the following equation:

- Under **Functions** > **Additional Data**, you can now find the **Contract information** tab. On this tab, you can specify several new fields related to the trade contract:

Field	Description
Trade ID	Lists the unique ID for the trade. You cannot change this value.
Legal Master Agreement	You can use this field to specify the master agreement to use with this Trade. The available master agreement options come from the **Legal Master Agreement** window in which you can specify a number of details between the parties covering the contract, including the **Agreement type** and **Version**, which is a requirement for reporting to trade repositories. Note that SimCorp Dimension does not make any validations to check whether the parties that you have specified in the **Legal Master Agreement** window match the parties on the contract/transactions.
Execution time	This field contains the execution time of the contract which should match the execution time of the transaction/event that opened the contract. Note that there is a difference between the execution time stored at the transaction level which relates to all the individual transactions/events throughout the lifetime of the contract as opposed to the contract execution time which is onlyrelated to the contract that opens transaction/event. If you leave this field blank, the value of the **Execution time** field will be synchronised between the contract and the opening transaction. The timestamp must be in the ISO 8601 format. This format comprises the complete date plus hours, minutes, seconds, and a decimal fraction of a second. YYYY-MM-DDThh:mm:ssZ For example: 2019-03-11T14:20:56+01

Field	Description
Confirmation time	This field contains the confirmation time of the contract which should match the confirmation time of the transaction/event that opened the contract. Note that there is a difference between the affirmation time stored on transactions which relates to all individual transactions/levels throughout the lifetime of the contract as opposed to the contract confirmation time which is related to the contract that opens the transaction/event only. If you leave this field blank, the value of the **Confirmation time** field will be synchronised between the contract and the opening transaction. The timestamp must be in the ISO 8601 format. This format comprises the complete date plus hours, minutes, seconds, and a decimal fraction of a second. YYYY-MM-DDThh:mm:ssZ For example: 2019-03-11T14:20:56+01

- The **Execution time** field listed in the table has also been added to the **Workflow** tab in the same sub-window.
- The **Split trade** field has been added in the **Position** section. All trades that are part of the split trade have the same **Trade ID**.

Updates to Conditional Default Value Formulas window

If you create formulas in the **Conditional Default Value Formulas** window, you can include all the five fields listed in the table in the previous section.

Updates to Rollover windows

- For reporting purposes, the **New trade** check box has been added in the **Instrument** section in the rollover windows so you can specify whether a new rollover trade is brand new or if it is extending the existing trade. If you select the check box, a new **Trade ID** is generated for the rollover. Similar to the repos dealer windows, you can find the **Trade ID** field on the **Contract information** tab under **Functions** > **Additional Data**.
- The **Split trade** field has been added in the **Position** section. If you have selected the **New trade** check box, rollovers on split trades get a new **Trade ID**.

Updates to Parties window

- In the **Parties** window, the **Party group** drop-down list has been moved from the **General information** section at the top of the window to the **Codes** tab in the same window.
- Two new fields have been added in the **General information** section:
  - **Parent**
  - **Ultimate parent**

    Both fields are read-only in the **Parties** window, but you can add both values via the **Party Reference Definitions** window where the two fields have been added to the list of available values in the **Party reference** drop-down list.

    Note that the five first values listed are free codes that you can edit if you need to, but you cannot edit the last two values, **Party parent** and **Party ultimate parent**, because these two values are controlled by other settings in SimCorp Dimension. You must specify the party-child relationship between parties in the **Party Relationships** window.

- In the grid on the **Party Reference Definitions** window, you can specify the priority of the **Method** to list **Parent** or **Ultimate Parent** as the first **Priority** to check in the **Party Relationships** window.
- The values **Party parent** and **Party ultimate parent** have been added to the list of values that you can use in the **Formulas** window to specify the party reference.

  In the **Formulas** window, you can use the formula text getparreferences, then add the counterparty and the proper value. **Party parent** is value 6 and **Party ultimate parent** is value 7.

  For example, getparreference(123145;7) specifies a counterparty with the identity key (IK) 12345 as value 7, **Party ultimate parent**.

  Note that you can also check IKs for each argument by using the **Show Values** button. Place your cursor on an argument, then click **Show Values**.

10.1.2.2.2 SFTR updates to the Trade Manager

The updates to the user interface and the system functionality for the **Trade Manager** are similar to the changes made to the dealer windows with slight differences. For this reason, you may see several references to the information that was listed in the previous section.

Repo and Sell/Buyback in the Trade Manager

- The **SFT type** field is a new read-only field that has been added to the **General** section of repo and sell/buyback contracts. Based on the instrument type and the opening transaction code, SimCorp Dimension specifies one of the following values when you create new trades:
  - **Open Repo**
  - **Open Reverse**
  - **BuySellBack**
  - **SellBuyBack**

  Note

  The **SFT type** field is empty for existing trades.

- A new tab named the **Contract information** tab has been added to the **Trade Manager**. On this tab, several SFTR-related fields have been added:
  - **USI namespace**
  - **Originating USI**
  - **Originating USI namespace**
  - **Trade ID**
  - **Party client trade ID**
  - **Client trade ID**
  - **Execution time**
  - **Confirmation time**

Note

For a description of the fields **Trade ID**, **Execution time**, and **Confirmation time**, see the table in the traditional trading screens section that are listed previously in this topic. For a description of the remaining fields, see the field help in SimCorp Dimension by pressing Shift+F1 on the relevant field.

Split trades

Split transactions with the same **Transaction split number** are assigned the same **Opening sequence number**, **Trade ID**, and **Client trade ID**.

In addition, the values of the fields **USI**, **USI namespace**, **Originating USI**, **Originating USI namespace**, **Party client trade ID**, and **Client trade ID** will be the same for all parts of a split trade.

Rollover with new Trade ID

In **Position search**, a new right-click menu item named **Rollover with new Trade ID** has been added for repo and sell/buyback positions.

If you select this option, the trade will include a new check box called **New Trade ID** which will be selected by default if you have chosen **Rollover with new Trade ID**. This new check box indicates whether the new contract should be assigned a new **Trade ID** and **Opening sequence number** and is for information purposes only. If you instead select **Rollover**, the **New Trade ID** check box will be cleared.

If necessary, you can import a value for the **New Trade ID** check box.

Update to the use of haircuts in Trade Manager

On the **Conventions** tab in the **Trade Manager**, several changes have been made to change the functionality of the use of haircuts.

- The check box previously named **Margin or haircut** has been renamed to **Use initial margin pct**. The check box is selected by default when you create a new repo or sell/buyback, regardless of whether it is a trade or template.
- The previously named **Haircut** field has been updated so that it has a different name depending on whether you have selected or cleared the check box. It is now named **100 - Haircut pct** when you clear the **Use initial margin pct** check box and **Initial margin pct** when you select the **Use initial margin pct** check box.
- A new read-only field named **Haircut pct.** has been added to the right of **Initial margin pct** / **100 - haircut pct** field.

For more information about the updated user interface and system functionality for haircuts, see the updates to haircuts in the dealer windows that are listed earlier in this topic.

10.1.2.3 Support for flexible switch dates on multiple interest types (MIT) bonds

As of version 19.04, you can set up multiple-interest-type (MIT) bonds to use a switch date that is any date, that is, it is not bound to an adjusted or non-adjusted coupon date for the first part of the MIT bond.

For example, you can have a fix-to-float security set up with the following coupon terms:

- The first coupon term is a fixed term that pays semi-annually on the 5th of the month.
- The second coupon term is a floating term that pays quarterly on the 15th of the month.

Previously, the switch date had to correspond to the first part of the MIT bond—the 5th in the example—or you would receive an error. Now, you can set the switch date to any appropriate date for your configuration.

You can handle the last coupon period of the first coupon term either as a long coupon period or a short coupon period, which covers the gap between the last regular coupon date and the switch date. This gap is calculated by using the **Odd. Conv. last coupon** and **Second-last coupon** fields while the **Second-last coupon** field determines the length of the last coupon period.

To support this enhancement, these fields have been added to the **Multiple Interest Types** sub-window on the **Bonds** static data window where you can use them with MIT bonds. The fields are still available on the **Interest/Redemption Conventions** sub-window on the **Bonds** static data window where they are still used for regular bonds as well as MIT bonds.

This enhancement requires a conversion for existing installations. After a conversion, default values for the new fields are applied on the **Multiple Interest Types** sub-window. These default values are shown in the following table:

Coupon term	Odd. conv. last coupon field	Second-last coupon field
First	**Regular**	Empty
Second	Copied from the value on the **Interest/Redemption conventions** sub-window	Copied from the value on the **Interest/Redemption conventions** sub-window

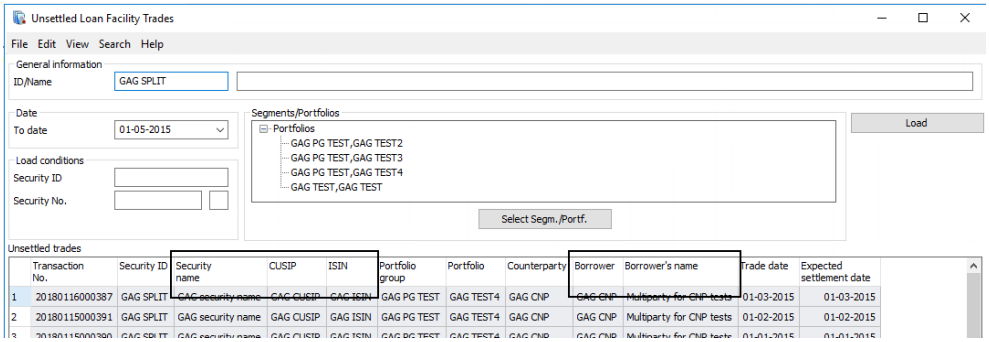
If you select **Zero** in the **Interest type** field on the **Multiple Interest Types** sub-window, the **Odd conv. last coupon** field is automatically set to **Regular** and you cannot change the value of this field.

10.1.2.4 More identification fields for reviewing unsettled loan facilities

As of version 19.04, you can ensure easier selection of the correct unsettled trades by using additional identification fields in the **Unsettled Loan Facility Trades** window. Previously, only the **Security ID** field was available for identifying the unsettled trades, and the correct identification process could be slow and tedious. With the addition of the following fields to the **Unsettled Loan Facility Trades** window, you can get a clearer overview of your unsettled trades:

- **Security Name**
- **CUSIP**
- **ISIN**

- **Borrower**
- **Borrower Name**



10.1.2.5 Enhanced generic decomposition clean-up jobs

As of version 19.04, you can specify an instrument segment in the batch task **Generic Decomposition - Delete old components**. When you set up a batch job with this batch task in the **Batch Jobs** window, you can improve the efficiency of batch jobs running this batch task by specifying a segment.

10.1.2.6 Ad hoc accrued interest repayment for loan facilities

As of version 19.04, you can register ad hoc accrued interest payments for loan facilities to make such payments at an earlier date than scheduled on the loan facility contract, and to reduce the total amount of the accrued interest. For example, the borrower has the money to pay the accrued interest in advance and wants to handle the payment as a separate transaction. The ad hoc payment becomes unpaid accrued interest on the contract holding, and you can view it in portfolio calculations. The payment will affect actual accrued interest and takes place at the nominal level.

You can make ad hoc accrued interest payments on the **Paydown** window by using the new **Ad hoc interest** check box. When you select this check box, you can make an accrued **Interest Pay In** or **Interest Pay Out** transaction that does not include the nominal of the contract. With the check box selected, you load a contract and only the balance unpaid interest will be retrieved, not the contract balance. For this reason, you should select the check box before you retrieve the contract in the grid.

If you change the setting of the **Ad hoc interest** check box while you are creating the transaction, SimCorp Dimension clears the selected contract in the **Contracts** grid.

When you select the **Ad hoc interest** check box:

- SimCorp Dimension ignores the setting for the **Postpone interest** check box on the **Paydown** tab on the **Loan Facilities** window.
- The **Settle accr. int.** field will be set to **Paid On** by SimCorp Dimension and you cannot edit the field.

If you do not select the **Ad hoc interest** check box and then select a contract, SimCorp Dimension selects the **Paydown Pay In** or **Paydown Pay Out** transaction code, which is a paydown transaction.

Note that the (commitment) **Amount** field in the **Contracts** grid is empty for these ad hoc payments because the nominal amount is not included in the ad hoc interest calculations and does not take into account any nominal contract levels. The ad hoc payments pay only interest and affect only accrued interest on holdings.

You can view your ad hoc payment transactions in the **View Transactions** window where the **Interest Pay Out** transaction is shown as **0** in the **Nominal** field. You must right-click the payment transaction to select and open the **View Holding Keys** window. In the **View Holding Keys** window, you should then right-click the transaction and open the **View Facility Contract Holdings** window where you can see how much accrued interest is paid off in the **Unpaid accrued interest QC** field.

The ad hoc accrued interest payment transactions are included in the calculations when the final paydown transaction is made.

10.1.3 Trade Manager

10.1.3.1 Trade Manager: Interest rate swaps with ACT/ACT ICMA day count convention

Client Segment	All clients that trade interest rate swaps
Target audience	Portfolio managers and derivatives operations
Subscription based licensing	Interest Rate - Swaps and Swaptions
Sales Modules and sales module dependencies	TM Fixed/Float Interest Rate Swaps TM Cross Currency Swaps TM Basis Swaps

As of version 19.04, support for the ACT/ACT ICMA standard for payments or maturity dates that fall on non-banking days has been added in the **Trade Manager**.

In the **Trade Manager**, additional fields that are relevant for the calculation of dates and interest have been added to the **Conventions** tab for all IRS and cross-currency swaps:

- **Coupon base**
- **Coupon base odd**
- **End-of-month Convention**
- **Sequence convention**

On any leg for **IR swap** or **Cross currency swap**, you can set the **Coupon base** to **Odd**, **Even**, or **Even/odd**, while you cannot change the field for the fixed legs for **BRL Pre DI** and **CNY 7D/3M** swaps. This update is a change of system functionality compared to previous versions of SimCorp Dimension where the **Coupon base** field was always set to **Odd** by default.

The **Coupon base odd** field is a read-only field and its value comes from the value in the **Coupon base** field. Similarly, the fields **End-of-month convention** and **Sequence convention** are read-only fields and depend on the values in the stub and roll convention fields.

If you set the **Coupon Base** field to **Odd** when the **Day count convention** field is set to **Act/Act**, the interest is calculated in accordance with the Act/Act (ISDA) convention for day count fractions and interest accrual.

In contrast, if you set the **Coupon base** field to **Even** when you have set the **Day Count Convention** field to **Act/Act**, the interest calculations are done according to the Act/Act (ICMA) convention.

To accommodate the change, two columns have been added to the **Floating Rate Index Definitions** window where you can now specify the following legs for a floating rate index definition:

- **This leg coupon base**
- **Opposite leg coupon base**

When you initiate a new CCS or IRS Open IRS trade from an instrument node in the **Navigation** applet, the **Coupon base** and **Coupon base odd** fields on the **Conventions** tab are set to **Odd** by default.

If you set or update an index for a CCS or IRS floating swap leg on Open IRS trades and templates, the values in the fields **Coupon base** and **Coupon base odd** are updated with the values from the corresponding fields on the index definition.

For example, if the opposite leg is a **Fixed leg**, the value of the index in the **Opposite leg coupon base** will be applied to the **Coupon base** and **Coupon base odd** fields on that leg.

10.1.3.2 SFTR updates to dealer windows and Trade Manager

As of version 19.04, several changes have been made in SimCorp Dimension to ensure that instruments that are subject to the EU's Securities Financing Transaction Regulations (SFTR) are compliant with the SFTR standards and regulations.

The SFTR-related updates to the user interface and system functionality that are listed in this topic relate to the trading of repos and sell/buybacks.

The first part lists the updates on a window-by-window basis for the dealer windows, and the second part covers updates that has been added in the **Trade Manager**.

10.1.3.2.1 SFTR updates to dealer windows

Updates to Repo and Sell/Buyback windows

In the various dealer windows related to repos and sell/buybacks in SimCorp Dimension, such as the **Straight Repo** window, you can now see several updates.

- A new field named **SFT Type** has been added to the **Instrument** section in the repo and sell/buyback windows. The value of this field comes automatically from SimCorp Dimension and indicates whether a contract (seen from the portfolio side) is either:
  - A repo or a reverse repo
  - A sell/buyback or buy/sellback
- The functionality of the existing setting **Use initial margin**, which has already been available in previous versions of SimCorp Dimension, has been updated to align the use of haircuts and initial margin (including margin pct.) with the common market practices of SFTRs and to make haircut available as a dedicated field for SFTRs. As a result of the update of the functionality, the check box for this setting has been renamed and now has two different names, depending on whether you select or clear the check box.
  - If you clear the check box, the setting is called **100-Haircut pct**. When you open the repo windows, the check box is cleared by default.
  - If you select the check box, the setting is called **Initial margin pct** and the functionality of this setting also changes.

  The change in naming of this setting reflects the difference in how SimCorp Dimension should calculate the value of the **Haircut pct.** field.
  - If you use **100-Haircut pct.**, the value of the **Haircut pct.** field is the number in percent that is left when you subtract the value that you have specified in the **100-Haircut pct.** field. For example, if you specify 97.0 in this field, then the value of the **Haircut pct.** field is 3.0 because the 97% is subtracted from the 100%.
  - If you use **Initial margin pct.**, SimCorp Dimension bases the calculation on the following equation:

- Under **Functions** > **Additional Data**, you can now find the **Contract information** tab. On this tab, you can specify several new fields related to the trade contract:

Field	Description
Trade ID	Lists the unique ID for the trade. You cannot change this value.
Legal Master Agreement	You can use this field to specify the master agreement to use with this Trade. The available master agreement options come from the **Legal Master Agreement** window in which you can specify a number of details between the parties covering the contract, including the **Agreement type** and **Version**, which is a requirement for reporting to trade repositories. Note that SimCorp Dimension does not make any validations to check whether the parties that you have specified in the **Legal Master Agreement** window match the parties on the contract/transactions.
Execution time	This field contains the execution time of the contract which should match the execution time of the transaction/event that opened the contract. Note that there is a difference between the execution time stored at the transaction level which relates to all the individual transactions/events throughout the lifetime of the contract as opposed to the contract execution time which is onlyrelated to the contract that opens transaction/event. If you leave this field blank, the value of the **Execution time** field will be synchronised between the contract and the opening transaction. The timestamp must be in the ISO 8601 format. This format comprises the complete date plus hours, minutes, seconds, and a decimal fraction of a second. YYYY-MM-DDThh:mm:ssZ For example: 2019-03-11T14:20:56+01

Field	Description
Confirmation time	This field contains the confirmation time of the contract which should match the confirmation time of the transaction/event that opened the contract. Note that there is a difference between the affirmation time stored on transactions which relates to all individual transactions/levels throughout the lifetime of the contract as opposed to the contract confirmation time which is related to the contract that opens the transaction/event only. If you leave this field blank, the value of the **Confirmation time** field will be synchronised between the contract and the opening transaction. The timestamp must be in the ISO 8601 format. This format comprises the complete date plus hours, minutes, seconds, and a decimal fraction of a second. YYYY-MM-DDThh:mm:ssZ For example: 2019-03-11T14:20:56+01

- The **Execution time** field listed in the table has also been added to the **Workflow** tab in the same sub-window.
- The **Split trade** field has been added in the **Position** section. All trades that are part of the split trade have the same **Trade ID**.

Updates to Conditional Default Value Formulas window

If you create formulas in the **Conditional Default Value Formulas** window, you can include all the five fields listed in the table in the previous section.

Updates to Rollover windows

- For reporting purposes, the **New trade** check box has been added in the **Instrument** section in the rollover windows so you can specify whether a new rollover trade is brand new or if it is extending the existing trade. If you select the check box, a new **Trade ID** is generated for the rollover. Similar to the repos dealer windows, you can find the **Trade ID** field on the **Contract information** tab under **Functions** > **Additional Data**.
- The **Split trade** field has been added in the **Position** section. If you have selected the **New trade** check box, rollovers on split trades get a new **Trade ID**.

Updates to Parties window

- In the **Parties** window, the **Party group** drop-down list has been moved from the **General information** section at the top of the window to the **Codes** tab in the same window.
- Two new fields have been added in the **General information** section:
  - **Parent**
  - **Ultimate parent**

    Both fields are read-only in the **Parties** window, but you can add both values via the **Party Reference Definitions** window where the two fields have been added to the list of available values in the **Party reference** drop-down list.

    Note that the five first values listed are free codes that you can edit if you need to, but you cannot edit the last two values, **Party parent** and **Party ultimate parent**, because these two values are controlled by other settings in SimCorp Dimension. You must specify the party-child relationship between parties in the **Party Relationships** window.

- In the grid on the **Party Reference Definitions** window, you can specify the priority of the **Method** to list **Parent** or **Ultimate Parent** as the first **Priority** to check in the **Party Relationships** window.
- The values **Party parent** and **Party ultimate parent** have been added to the list of values that you can use in the **Formulas** window to specify the party reference.

  In the **Formulas** window, you can use the formula text getparreferences, then add the counterparty and the proper value. **Party parent** is value 6 and **Party ultimate parent** is value 7.

  For example, getparreference(123145;7) specifies a counterparty with the identity key (IK) 12345 as value 7, **Party ultimate parent**.

  Note that you can also check IKs for each argument by using the **Show Values** button. Place your cursor on an argument, then click **Show Values**.

10.1.3.2.2 SFTR updates to the Trade Manager

The updates to the user interface and the system functionality for the **Trade Manager** are similar to the changes made to the dealer windows with slight differences. For this reason, you may see several references to the information that was listed in the previous section.

Repo and Sell/Buyback in the Trade Manager

- The **SFT type** field is a new read-only field that has been added to the **General** section of repo and sell/buyback contracts. Based on the instrument type and the opening transaction code, SimCorp Dimension specifies one of the following values when you create new trades:
  - **Open Repo**
  - **Open Reverse**
  - **BuySellBack**
  - **SellBuyBack**

  Note

  The **SFT type** field is empty for existing trades.

- A new tab named the **Contract information** tab has been added to the **Trade Manager**. On this tab, several SFTR-related fields have been added:
  - **USI namespace**
  - **Originating USI**
  - **Originating USI namespace**
  - **Trade ID**
  - **Party client trade ID**
  - **Client trade ID**
  - **Execution time**
  - **Confirmation time**

Note

For a description of the fields **Trade ID**, **Execution time**, and **Confirmation time**, see the table in the traditional trading screens section that are listed previously in this topic. For a description of the remaining fields, see the field help in SimCorp Dimension by pressing Shift+F1 on the relevant field.

Split trades

Split transactions with the same **Transaction split number** are assigned the same **Opening sequence number**, **Trade ID**, and **Client trade ID**.

In addition, the values of the fields **USI**, **USI namespace**, **Originating USI**, **Originating USI namespace**, **Party client trade ID**, and **Client trade ID** will be the same for all parts of a split trade.

Rollover with new Trade ID

In **Position search**, a new right-click menu item named **Rollover with new Trade ID** has been added for repo and sell/buyback positions.

If you select this option, the trade will include a new check box called **New Trade ID** which will be selected by default if you have chosen **Rollover with new Trade ID**. This new check box indicates whether the new contract should be assigned a new **Trade ID** and **Opening sequence number** and is for information purposes only. If you instead select **Rollover**, the **New Trade ID** check box will be cleared.

If necessary, you can import a value for the **New Trade ID** check box.

Update to the use of haircuts in Trade Manager

On the **Conventions** tab in the **Trade Manager**, several changes have been made to change the functionality of the use of haircuts.

- The check box previously named **Margin or haircut** has been renamed to **Use initial margin pct**. The check box is selected by default when you create a new repo or sell/buyback, regardless of whether it is a trade or template.
- The previously named **Haircut** field has been updated so that it has a different name depending on whether you have selected or cleared the check box. It is now named **100 - Haircut pct** when you clear the **Use initial margin pct** check box and **Initial margin pct** when you select the **Use initial margin pct** check box.
- A new read-only field named **Haircut pct.** has been added to the right of **Initial margin pct** / **100 - haircut pct** field.

For more information about the updated user interface and system functionality for haircuts, see the updates to haircuts in the dealer windows that are listed earlier in this topic.

10.1.3.3 New copy function available for trades in Trade Manager

As of version 19.04, the new copy function **Copy with new security and clean up** has been introduced to the **Trade Manager** so you can make a copy of an existing trade which does not inherit a number of specific data, such as transaction free codes and settlement information, from the master record.

This new copy function lets you make a clean record for any future trade processing to avoid transferring outdated or wrong information to the new copy.

The **Copy with new security and clean up** option is available with the two existing copy functions when you click the **Copy** button in the ribbon. You can also use the keyboard shortcut SHIFT+K to carry out the same action.

The following information is not transferred from the master record to a copy made with the new copy function:

- All content stated on the **Codes** tab
- Free comments on the **Settlement** tab
- Settlement comments on the **Settlement** tab
- Reasons for change comments on the **Settlement** tab.

10.1.3.4 Mandatory comments from Order Manager now shown in Trade Manager

As of version 19.04, any comments that you have added on the **Comments** tab when you have captured a trade in **Order Manager** are now shown on the **Transaction events** tab in the **Trade Manager**.

On this tab, you can find out which records correspond to **Order Manager Mandatory Comments** by going to the **Service type** column and look for **Order Manager Message Service** or to the **Event** column and search for **Comment added**.

10.1.3.5 Enhancements to defining index and reset frequency in Trade Manager

As of version 19.04, the possibilities to define index and reset frequency for all settlement methods on the **Trade Information** tab have been extended. You can now report more details on the cash-settled swaption versions, for example, by filling out the **Index** field where you can define business centres and other parameters.

The enhancement means that for all settlement methods, you can now manually edit the values of the **Index** and **Reset frequency** fields in the **Swap Information** section on the **Trade Information** tab in the **Trade Manager**. The change allows you to use these two fields for reporting purposes.

As a result of the enhancement, the **Swaption fixed rate payment adjustment** section has been removed from the **Trade Manager**'s **Conventions** tab. The reason for this change is that the remaining information that was shown in this section, the **Calendar** and **Daycount adjustment convention** fields, is shown in the **Swap payment adjustments** section.

10.1.3.6 Updates to the swaption trade flow in Trade Manager

As of version 19.04, to comply with the ISDA standard for clearing settlements, a number of changes have been made to the user interface of the **Trade Manager**.

Added Cleared physical settlement method

You can now select **Cleared physical** in the **Settlement method** field in the **Trade Manager**. The change means that you now have the following

options in this drop-down list:

- **Cash**
- **Physical**
- **Cleared physical**

As a result of the change, the **Physical settlement method** field which was available in previous versions ofSimCorp Dimension has been removed.

Counterparties on swaptions

A selected **Counterparty** on a swaption was previously copied directly to the **Counterparty** field on an exercised swap. Now, to follow best practices for central clearing, the **Counterparty** field is no longer copied to the underlying swap for swaptions that use the **Cleared** physical settlement method. For swaptions that use the **Physical** settlement method, the counterparty is still copied to the exercised swap, but you can change the value of the **Counterparty** field.

Added Swap CCP field

A new, optional field named **Swap CCP** has been added for defining the Central Clearing Party (CCP) for an underlying swap in the **Swap Information** section on the **Trade Information** tab.

You can change the value of the **Swap CCP** field for **Cleared physical** swaptions and for **Cash settled with collateralised cash price** method and the field is only visible for these types of swaptions. For a **Cleared physical** swaption, the value that you specify in the **CCP** field is copied to the exercised swap.

10.1.3.7 Updates to the handling of swaptions in Trade Manager

As of version 19.04, several changes have been made on the **Trade Information** tab in the **Trade Manager** to streamline the representation of the information that is shown on this tab.

Added the swaption tenor field

A new field named **Swaption tenor** has been introduced on the **Trade Information** tab to make it easier for you to define the maturity of the swaption. The **Swaption tenor** field contains a drop-down list that allows you to select a standardised swaption maturity date, for example **1M**, **1Y**, or **10Y**.

The **Swaption tenor** field is linked to two existing fields, **Effective date** and **Expiry date**. If you specify **Effective date** and **Swaption tenor** fields, then the value of the **Expiry date** field is filled out automatically. Alternatively, you can specify the **Effective date** and **Expiry date** field. If the two dates that you have specified in these fields correspond, then the **Swaption tenor** field is automatically filled out.

If you modify the **Expiry date** field, the **Swaption tenor** field is also updated. If you have not registered any corresponding tenor, then the **Swaption tenor** field is cleared.

Additional minor updates on the Trade Information tab

- The **Fixed leg** and **Floating leg** sections have been moved in the user interface so that they are now part of the **Swap Information** area. In previous versions of SimCorp Dimension, they were separate sections below the **Swap Information** section.
- The **Swaption par yield payment adjustment** section and its associated fields have been removed because the settings associated with this section are no longer relevant for any settlement method in SimCorp Dimension.

10.1.3.8 New dividend adjustment method for variance swaps added in Trade Manager

As of version 19.04, a new dividend adjustment method has been introduced to SimCorp Dimension for the **Pairwise covariance swaps** and **Variance swap - Explicit Dates** instruments. The introduction of the dividend adjustment method also means that several changes to the user interface and functionality of the **Market Observables** window have been introduced.

For a stock, the stock price will typically drop on the ex-date by the size of the dividend payment. For variance swaps and volatility swaps based on equity, it is common practice to "neutralise" the price effect of a dividend payment.

In previous versions of SimCorp Dimension, you could make a correction of the dividends on the ex-date by adding the dividend to the observable price for all following observation days. You activated this dividend correction method on the static data for the XpressInstrument on the **General Settings** tab by selecting the **Dividend** check box in the **Transactions: automatic adjustments** section.

From version 19.04, the **Dividend** check box is not available in the **Trade Manager** for these two instruments and you must specify how to adjust the dividends in a different way. For all other instruments, the **Dividend** check box is still available.

In addition, you must create a dividend observable in the **Market observables** window before you can specify any dividend adjustments for the swaps.

Create a dividend observable

To create a dividend observable in the **Market Observables** window:

1. Set the **Basic type** field to **Event**.
2. Set the **Instrument type** field to **Equity** or **Index Security**.
3. Set the **Event observable type** field to **Dividend**.
4. Specify a currency in the **Currency** field.

   Specifying this field is mandatory because you must specify this field because only dividends that are specified to be in the same currency as the dividend observable are considered for return adjustments.

Define a dividend adjustment method for Pairwise covariance swap

For the **Pairwise covariance swap**, you can either use the previously available dividend correction method, **From grid**, or use the new dividend correction method, **From fixings** that are both available from the new **Dividend Adjust** field.

- If you select the **From fixings** method, then on the ex-date, the market price from the previous day is reduced by the dividend payment on the ex-date.
- If you select the **From grid** method, then you must manually specify the dividends in the **Payment adjustment** section.

To activate the new dividend correction methods:

1. Select the **Dividend Adjust** check box on the **Contract Definition** tab for the instrument to display the drop-down list for the **Dividend adjust** field.
2. In the drop-down list, select either **From fixings** or **From grid**, depending on your requirements.

Define a dividend adjustment method for Variance swap – Explicit Dates

For the **Variance swap – Explicit Dates**, you canyou can either use the previously available dividend correction method, **Adjust future fixings**, or use the new dividend correction method, **Adjust previous fixing** that are both available from the new **Dividend Adjust** field.

- If you select the **Adjust previous fixing** method, then on the ex-date, the previous day's stock price P(t-1) is reduced by the dividend (for lag=1).
- If you select the **Adjust future fixings** method, then on the ex-date, the dividend amount is added to P(t) for all following observation days.

To activate the new dividend correction method:

1. Select the **Dividend Adjust** check box on the **Contract Definition** tab for the instrument to display the drop-down list for this setting.
2. Then, in the drop-down list choose either **Adjust previous fixing** or **Adjust future fixings**, depending on your requirements.
3. If you select **Adjust previous fixings**, the **Dividend observable** drop-down list is displayed. In this drop-down list, you must specify the name of a predefined dividend observable.

Dividend information requirements

You must specify the following information for the dividend on the **Dividends** sub-window of the **Equities** window. If the dividends do not meet these requirements, they will not be adjusted for.

- The **Ex dividend date** must be set to fixing date.
- **Dividend Ccy** must be set to the **Currency** of the dividend observable.
- The dividend must be in the **Approved** status.

If there are several dividends on the same fixing date (with different sequence numbers (**Seq. No** field)), the dividends are summed up into one fixing transaction. If no dividends exist on the fixing date, the **Fixing value** column in the **XpressInstruments Fixings** window will show the value 0.

11 Investment Accounting Manager

11.1 End-of-Period

11.1.1 [New module] US-GAAP credit losses (CECL)

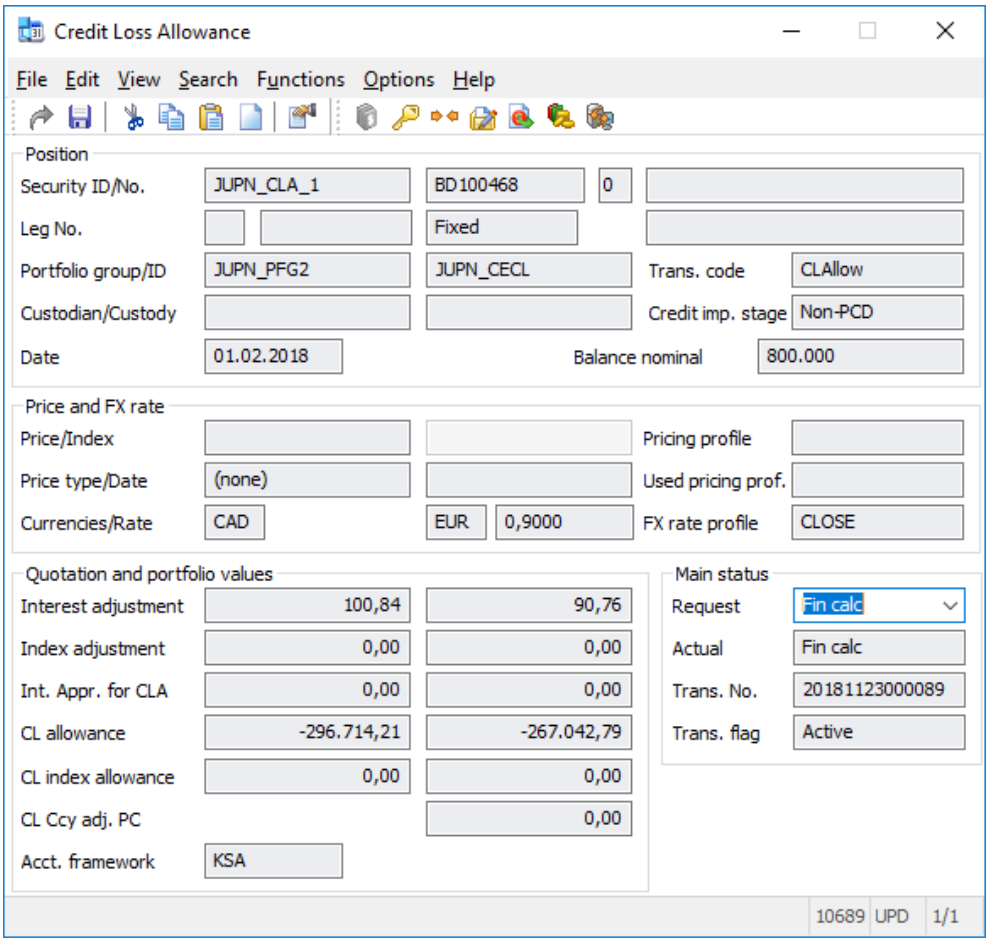
Client Segment	Asset Management reporting under US-GAAP
Target Audience	Back Office User. Accountant
Subscription based licensing	Included in the Investment Accounting Manager subscription package.
Module-based Licensing	Adjustment transactions

This module covers the US-GAAP rules for current expected credit losses (CECL) according to the Accounting Standards Update ASU 2016-13, which will come into effect from December 15, 2019.

The solution supports two types of workflows: a workflow based on discounting expected cash flows imported into SimCorp Dimension and a workflow based on imported externally calculated (gross) allowances for credit losses. Further CECL related concepts like fair value flooring and passage of time are available.

Relevant CECL balances are calculated and carried into the SimCorp Dimension IBOR separately into PCD (debt security that has experienced more-than-insignificant credit deterioration since origination) and non-PCD (debt security has not experienced more-than-insignificant credit deterioration since origination) holdings. The amounts can be transferred to the internal and external general ledger, if required. There is also the possibility to simulate the CECL amounts in the portfolio calculation.

The image below shows setup of the credit loss allowance calculation transaction in the **Credit Loss Allowance** window.



Benefits

- Enable US-GAAP compliance through supporting the latest accounting standard update.
- Save time and effort using built in calculation and simulation of CECL balances based on provided expected cash flows.
- Optimize life-cycle control by applying automatic fair value flooring and passage of time calculation.

11.1.2 CECL

11.1.2.1 Support of import of the current expected credit loss balances for index bonds

As of version 19.04, import of credit loss allowance balances (CL Allowance) is enabled for index bonds. Specifically, you can import into SimCorp Dimension and book an indexed gross credit loss allowance balance per tax lot for an index bond.

Import of the CL Allowance balances for index bonds is supported for:

- Securities accounted under available for sale (AFS) and held to maturity (HTM) holding categories;
- Tax lots with more-than-insignificant credit deterioration (PCD lots) and tax lots that have not experienced more-than-insignificant credit deterioration since issue date (non-PCD lots). In case a tax lot of an indexed bond is PCD, you can import and book indexed day 1 CL Allowance amount on a trade date or as a separate day 1 credit loss allowance transaction.

Index bonds with imported CL Allowance balances are processed in SimCorp Dimension in the same way as other instrument types for which CL Allowance is imported. Specifically, imported CL Allowance balances for index bonds can be:

- Introduced via opening balance or CL Allowance import transactions;

  Note

  It is only possible to import the indexed credit loss allowance values per tax lots of index bonds.

- Fair value floored;

  Note

  The fair value floor transaction calculates recognized CL Allowance QC and CL Allowance PC balances based on indexed price and indexed balances.

- Reallocated to another holding;
- Dissolved on decrementing transactions;
- Written off;
- Simulated in portfolio calculation

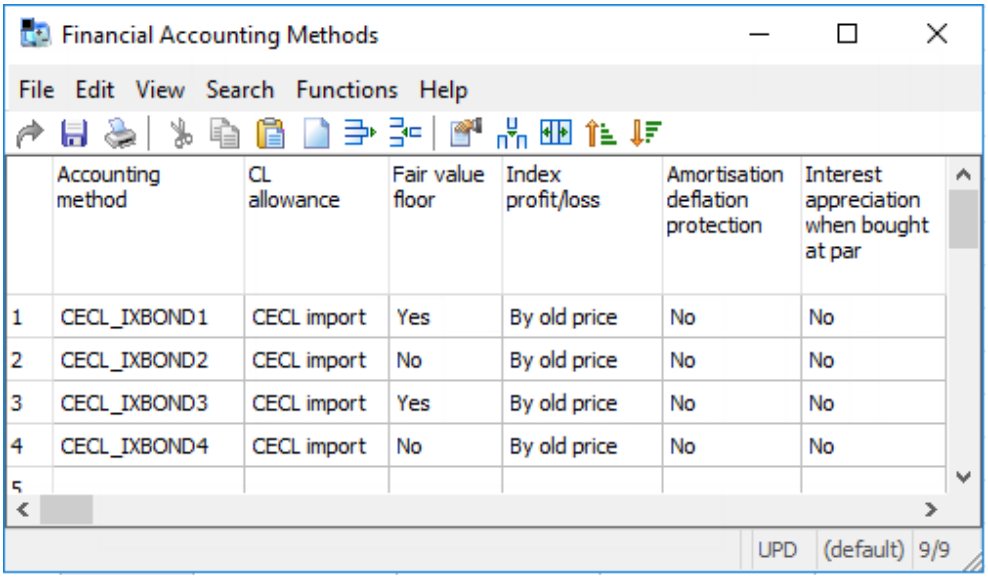
You can also transfer tax lots of index bonds from non-ITS/RTS to ITS/RTS intent at a market price or without price specified. If transfer happens at the market price, then this price is scaled for the index value effective at the date of transfer.

Configuration and setup of CL Allowance for index bonds

To enable import of the CL Allowance amounts for index bonds, configure **Financial Accounting Methods** as follows:

Field in the Financial Accounting Methods window	Setting in the Financial Accounting Methods field
CL allowance	**CECL import**
Fair value floor	**Yes or No**
Index profit/loss	**By old price**
Amortisation deflation protection	**No**
Interest appreciation when bought at par	**No**

See an example below:



Note

If in the **Financial Accounting Method** window, the **CL Allowance** field is set to **CECL import**, then in the **Amortised Cost Composition** window, the **CL allowance** setting can only be **No**.

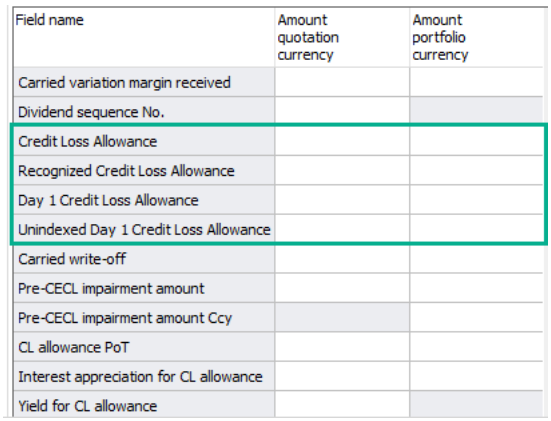
Introduce credit loss allowance amounts for index bonds via opening balance

The CL Allowance balances for index bonds can be introduced into SimCorp Dimension via opening balance transaction. You can specify CL Allowance amounts in the following fields in the grid section of the **Opening Balance** window:

- **Credit Loss Allowance**
- **Recognised Credit Loss Allowance**

- **Day 1 Credit Loss Allowance**
- **Unindexed Day 1 Credit Loss Allowance**

The image below shows these balances in the grid section of the **Opening Balance** window.



Field name	Amount quotation currency	Amount portfolio currency
Carried variation margin received		
Dividend sequence No.		
Credit Loss Allowance		
Recognized Credit Loss Allowance		
Day 1 Credit Loss Allowance		
Unindexed Day 1 Credit Loss Allowance		
Carried write-off		
Pre-CECL impairment amount		
Pre-CECL impairment amount Ccy		
CL allowance PoT		
Interest appreciation for CL allowance		
Yield for CL allowance		

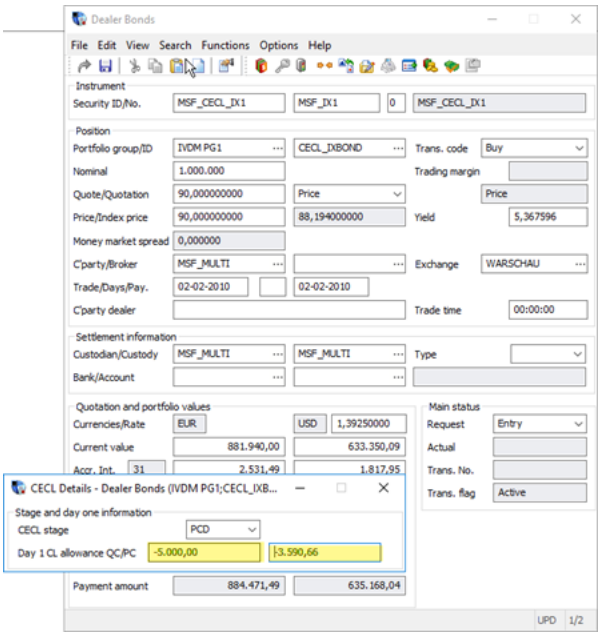
Note

If a day 1 credit loss allowance balance is specified, ensure that the unindexed day 1 credit loss allowance balance is also provided in the grid section of the **Opening Balance** window.

Import indexed day 1 CL Allowance on trades

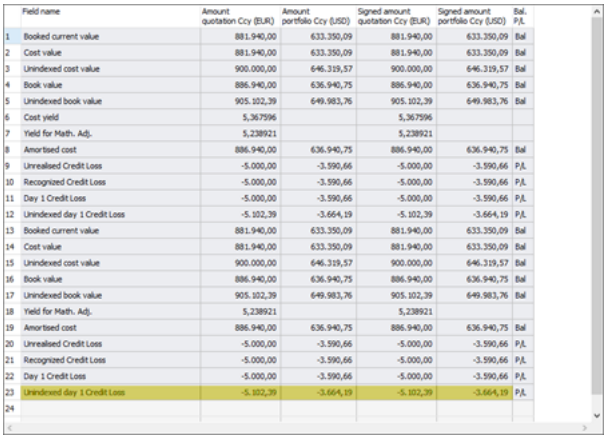
For PCD lots of index bonds, it is possible to import indexed day 1 CL Allowance balances on the dealer transaction. To accomplish this, specify in the **CECL Details** sub-window of the **Dealer Bonds** window the following:

- PCD identifier in the **CECL stage** field;
- Indexed day 1 CL Allowance amounts in quotation and portfolio currency in the **Day 1 CL Allowance QC/PC** fields, as illustrated on the following picture.



Once the transaction is saved, you can view these values in the **Profit/Loss** sub-window of the trade, as illustrated in the picture below.

These values are booked in the corresponding balance fields per tax lot and are maintained in SimCorp Dimension to ensure consistent calculations on subsequent adjustment transactions.



	Field name	Amount quotation Ccy (EUR)	Amount portfolio Ccy (USD)	Signed amount quotation Ccy (EUR)	Signed amount portfolio Ccy (USD)	Bal. P/L
1	Booked current value	881.940,00	633.350,09	881.940,00	633.350,09	Bal
2	Cost value	881.940,00	633.350,09	881.940,00	633.350,09	Bal
3	Unindexed cost value	900.000,00	646.319,57	900.000,00	646.319,57	Bal
4	Book value	886.940,00	636.940,75	886.940,00	636.940,75	Bal
5	Unindexed book value	905.102,39	649.983,76	905.102,39	649.983,76	Bal
6	Cost yield	5,367596		5,367596		
7	Yield for Math. Adj.	5,238921		5,238921		
8	Amortised cost	886.940,00	636.940,75	886.940,00	636.940,75	Bal
9	Unrealised Credit Loss	-5.000,00	-3.590,66	-5.000,00	-3.590,66	P/L
10	Recognized Credit Loss	-5.000,00	-3.590,66	-5.000,00	-3.590,66	P/L
11	Day 1 Credit Loss	-5.000,00	-3.590,66	-5.000,00	-3.590,66	P/L
12	Unindexed day 1 Credit Loss	-5.102,39	-3.664,19	-5.102,39	-3.664,19	P/L
13	Booked current value	881.940,00	633.350,09	881.940,00	633.350,09	Bal
14	Cost value	881.940,00	633.350,09	881.940,00	633.350,09	Bal
15	Unindexed cost value	900.000,00	646.319,57	900.000,00	646.319,57	Bal
16	Book value	886.940,00	636.940,75	886.940,00	636.940,75	Bal
17	Unindexed book value	905.102,39	649.983,76	905.102,39	649.983,76	Bal
18	Yield for Math. Adj.	5,238921		5,238921		
19	Amortised cost	886.940,00	636.940,75	886.940,00	636.940,75	Bal
20	Unrealised Credit Loss	-5.000,00	-3.590,66	-5.000,00	-3.590,66	P/L
21	Recognized Credit Loss	-5.000,00	-3.590,66	-5.000,00	-3.590,66	P/L
22	Day 1 Credit Loss	-5.000,00	-3.590,66	-5.000,00	-3.590,66	P/L
23	Unindexed day 1 Credit Loss	-5.102,39	-3.664,19	-5.102,39	-3.664,19	P/L
24						

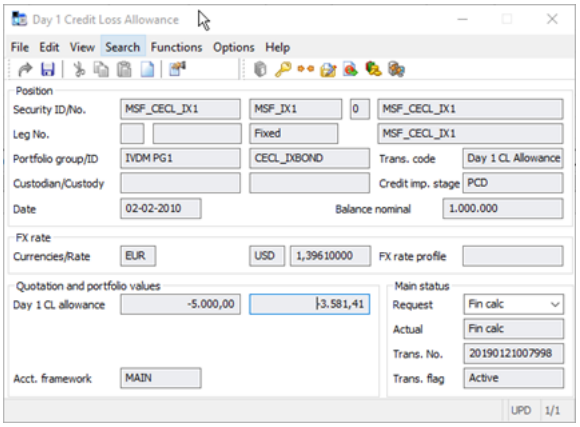
Note

The indexed day 1 CL Allowance values that are imported on trades or day 1 CL Allowance transaction are used to calculate unindexed day 1 CL allowance values.

Import indexed day 1 CL Allowance balance on the day 1 credit loss allowance transaction

If for a PCD lot of an index bond the day 1 CL Allowance amount was not introduced at acquisition, you can import this amount on the day 1 credit

loss allowance transaction. A setup of this transaction is shown in the following image.



Note

Indexed values entered on a day 1 credit loss allowance transaction are used for calculating unindexed day 1 credit loss allowance values. The **Profit/Loss** sub-window of the **Day 1 Credit Loss Allowance** window shows these values in the grid section.

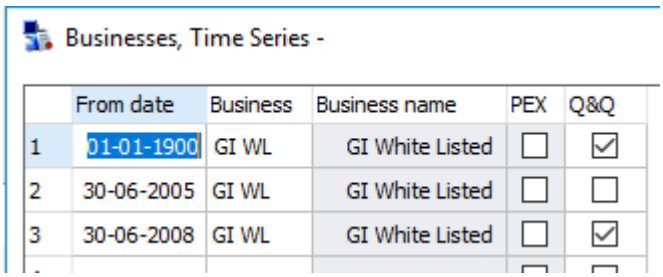
11.1.2.2 Qualitative and quantitative tagging for CECL

As of version 19.04, an additional **Q&Q** (qualitative and quantitative) indicator is taken into account when calculating credit loss allowance (CLA).

The **Q&Q** tag is a consolidated result of the qualitative and quantitative analysis performed outside SimCorp Dimension, that determines whether credit loss allowance should be calculated for non-ITS/RTS and non-9920 securities.

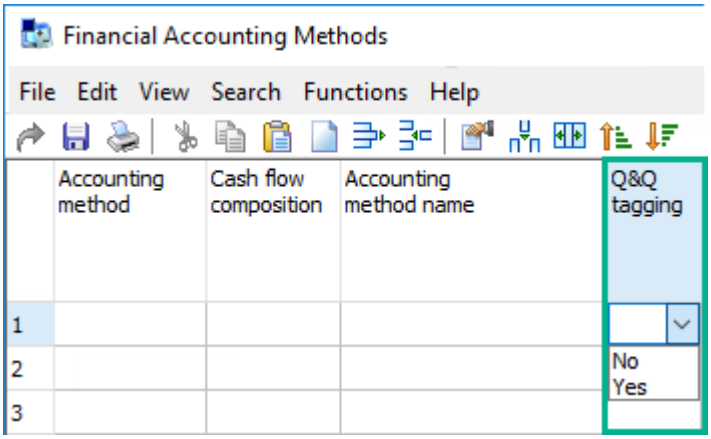
The **Q&Q** tag can be found in the static data of debt instrument types: Bonds, US MBS Pools, and ABS. It is available in the **Functions > Free Codes, Time Series > Business** menu of the **Bonds**, **US MBS Pools** and **ABS Credit Default Swaps** static data windows.

For example:



The **Q&Q tagging** setting in the **Financial Accounting Methods** window

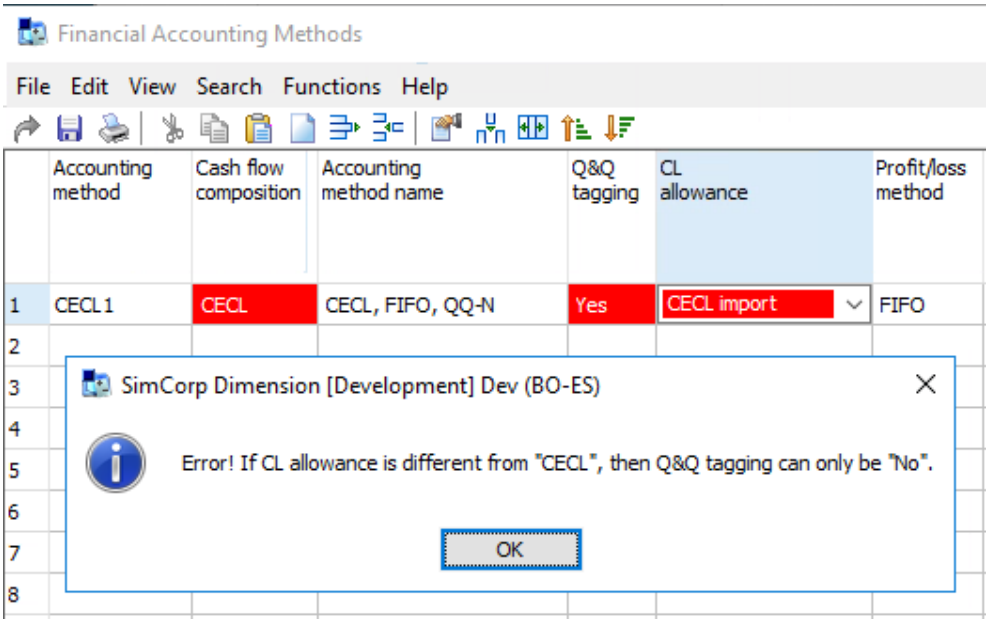
limits the population of securities where **Q&Q** tag from the static data is applied. The possible options are **Yes** and **No**.



The **Yes** option implies that the **Q&Q** tag from the static data is taken into account when calculating the credit loss allowance.

The **No** option disregards the **Q&Q** tag from the static data when credit loss allowance is calculated.

The **Yes** option for the **Q&Q tagging** setting in the **Financial Accounting Methods** can only be used with the **CECL** option in the **CL allowance** setting. Otherwise, the following error message appears on saving:

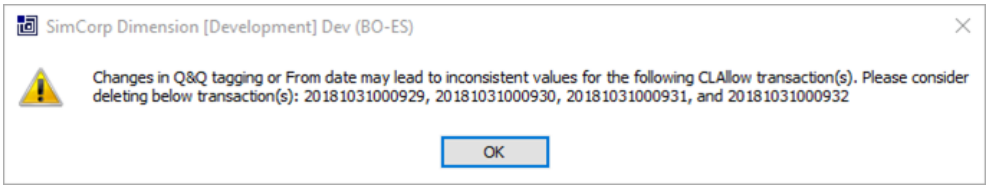


Credit loss allowance transactions for tax lots with Q&Q tag

The **Q&Q** tag on an instrument static data is taken into account when calculating credit loss allowance for positions or tax lots that have **Q&Q tagging** set to **Yes** in the **Financial Accounting Methods** window. The credit loss allowance is calculated only if the **Q&Q** tag on the static data for

such positions or tax lots is active at the reporting date. Otherwise, a credit loss allowance transaction is not generated.

A warning message appears if backdated changes are made to the **Q&Q** tag information on the static data if there are active credit loss allowance transactions in such period. References to active transactions are indicated in the warning message:



Portfolio Calculation for tax lots with Q&Q tag

Use the **getstaticsubnum** formula in portfolio calculation simulation to include qualitative and quantitative information from the static data to the **List FIFO and Match** and **List Calculation** results.

11.1.2.3 CECL accounting for PCD debt securities

As of version 19.04, it is possible to account for AFS (available for sale) and HTM (held till maturity) debt securities that have experienced more-than-insignificant credit deterioration since origination (PCD debt securities).

In accordance with CECL requirements, an entity, acquiring AFS or HTM security, should determine at the date of acquisition whether the debt security has experienced more-than-insignificant credit deterioration since origination (issue date).

The tax lots with more-than-insignificant credit deterioration since issue date are classified as PCD (purchased credit deterioration) lots.

Respectively, tax lots that have not experienced more-than-insignificant credit deterioration since issue date are classified as non-PCD lots.

In SimCorp Dimension you can create the following for PCD lots:

- Add the estimate of expected credit losses calculated at the date of acquisition (day 1 credit loss allowance) to the security's purchase price. The sum of these two values: purchase price and the day 1 credit loss allowance amount is a carrying price;
- Calculate amortised cost and book value balances based on carrying price;
- Calculate the discount amount that should be amortised to maturity as a difference between the redemption and carrying prices;
- Use contractual cash flow for the calculation of interest appreciation and life time expected cash flow to designate the credit loss allowance (CL Allowance).

It is possible to introduce the day 1 CL Allowance amount and the PCD

identifier for a lot on acquisition transaction. However, if the PCD identifier and the day 1 credit loss allowance balance is not available at the time of registering the asset in SimCorp Dimension, it is possible to add that information later by creating a transaction in a **Day 1 Credit Loss Allowance** window.

Note

You have to ensure that the date of the day 1 CL Allowance transaction and the date of the transaction on which the PCD lot was originally registered in SimCorp Dimension are the same.

Configuring Financial Accounting Methods for PCD assets

To account for PCD assets in accordance with the CECL requirements, enable the following settings in the **Financial Accounting Methods** window:

- Select the **CECL import** setting in the **CL Allowance** field. This setting ensures that it is possible to import and book credit loss allowance balances per tax lot in SimCorp Dimension.

Note

Currently, it is not possible to account in SimCorp Dimension for PCD lots in accordance with CECL requirements when CL Allowance is calculated based on expected cash flows.

Therefore, for PCD lots, you can only select **CECL import** setting in the **CL Allowance** field. The **CECL** setting is not supported for PCD lots.

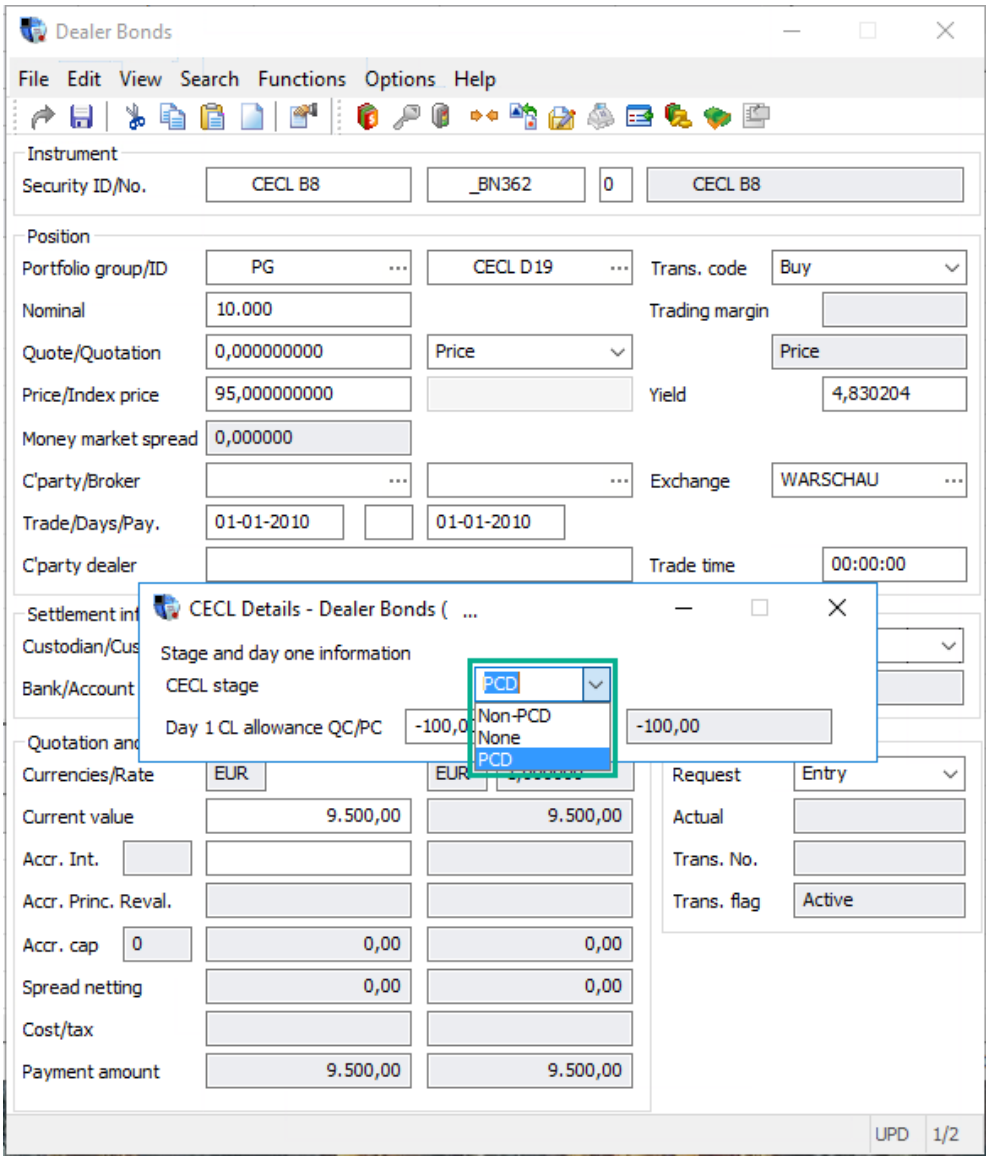
- Select the **Yes** or **No** option in the **Fair value floor** field. Both options are supported for PCD lots.

Apply PCD identifier and day 1 CL Allowance amount on acquisition trades

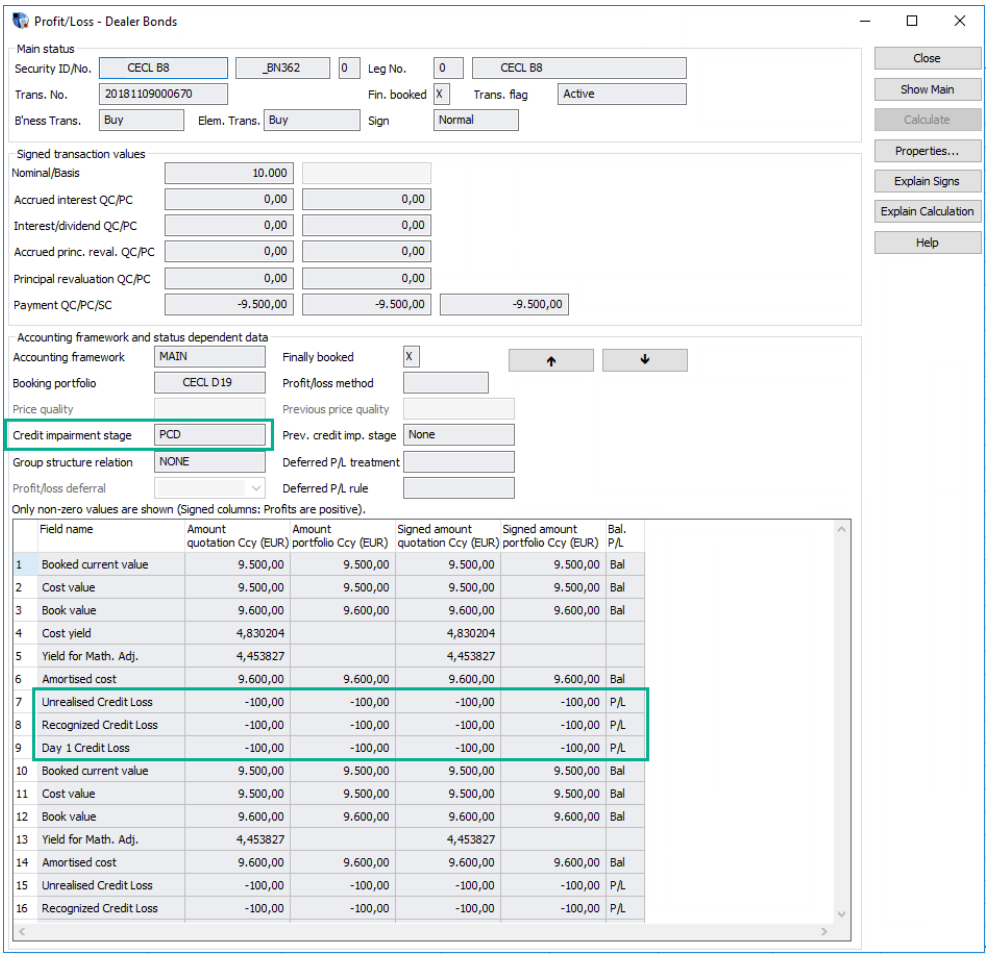
To account for PCD assets that are acquired in a portfolio after the CECL rules are effective, you can specify the PCD identifier and day 1 CL Allowance amount on the acquisition trade.

To accomplish this, perform the following steps:

1. Open **Dealer Bonds** and specify all the relevant information in the main window.
2. Select **Functions > CECL Details** and specify PCD identifier and day 1 CL Allowance amounts in quotation and portfolio currency in corresponding fields as shown in the following picture.



For the PCD assets, **Unrealised Credit Loss**, **Recognised Credit Loss** and **Day 1 Credit Loss** balances become available in the **Profit/Loss** sub-window from the **Functions** menu of the **Dealer Bonds** window, as shown in the example below:



Once the dealer transaction is saved, you can view the day 1 CL Allowance balance and how it effects amortised cost and book value balances in the **Match Holdings** and **Holdings** sub-windows.

To introduce the PCD identifier and the Day 1 CL Allowance amount for lots that you have acquired in the portfolio before CECL rules are effective, use the opening balance transaction.

Create the day 1 credit loss allowance transaction

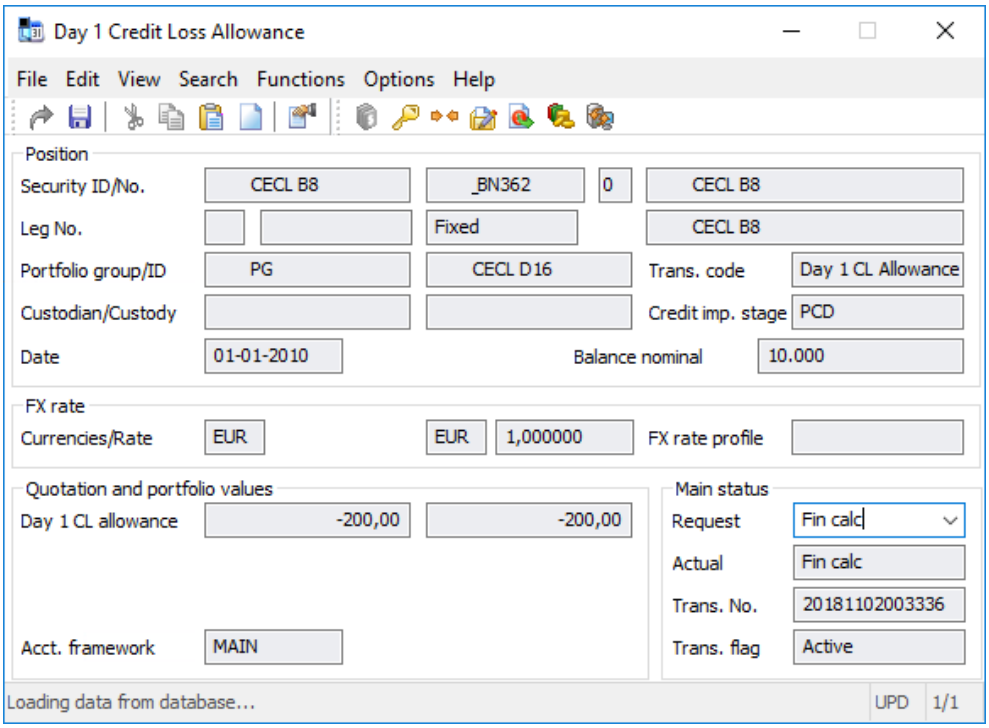
You can introduce the PCD identifier and the day 1 CL Allowance amount on a tax lot after acquisition, by creating a day 1 CL Allowance transaction.

The day 1 CL Allowance amount updates the amortised cost and book value balances. As a result of this, the discount amount that should be amortised from acquisition date to maturity date and the yield for interest appreciation are recalculated.

To generate the day 1 credit loss allowance transaction, follow these steps:

1. Open a **Day 1 Credit Loss Allowance** window.
2. Upload the information into the **Position** area:
   - **Security ID/No**
   - **Portfolio group/ID**
   - Set the credit impairment stage to **PCD**
   - Make sure you insert the same date as the date when the security was registered in SimCorp Dimension. Otherwise, the transaction will not process.
3. Fetch the relevant information into the **FX rate** area.
4. Provide the **Day 1 CL allowance** balance and specify the accounting framework.
5. Set the **Request** option to **Fin calc**.
6. Save the transaction.

   See the image below for an example:



Once the transaction is saved, you can view and verify how day 1 CL Allowance amount has updated the corresponding balances in the **Match Holdings** and **Holding** sub-windows.

11.1.2.4 Interest appreciation related settings for credit loss allowance calculations

As of version 19.04, new approach to the calculation of credit loss allowance with maturity simulations, that are applied to the interest

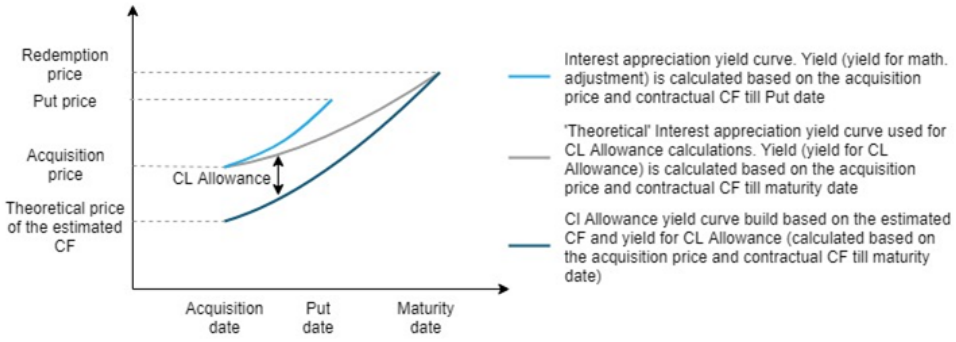
appreciation, is introduced. With the new approach, the credit loss allowance calculations are based on the expected and contractual cash flows till maturity (final redemption), disregarding the maturity simulations applied to the interest appreciation calculations. In addition, list of the **Maturity adjustment on** settings in the **Financial Accounting Methods** window that are compatible with the **CECL** and **IFRS9** settings in the **CL Allowance** field was extended. These changes are relevant for accounting under IFRS 9 and US GAAP (CECL model) standards.

Two settings, **Use maturity adjustment on for CL allowance** and **Maturity adjustment on for CL allowance**, in the **Financial Accounting Methods** window control which logic is used for CL Allowance (credit loss allowance) calculation.

Value **No** under **Use maturity adjustment on for CL allowance** corresponds to old approach and is a default one, value **Yes** – corresponds to the new approach.

The only available option for the **Maturity adjustment on for CL allowance** setting is **(none)**. That implies that credit loss allowance is calculated based on the expected and contractual cash flows laid out till maturity (final redemption).

With the **Use maturity adjustment on for CL allowance** field set to **Yes**, interest appreciation and credit loss allowance calculations are based on different yields: yield for mathematical adjustment and yield for CL Allowance.



With the new approach, interest appreciation that is calculated in accordance with the selected **Maturity Adjustment on** setting in the **Financial Accounting Methods** window.

Since interest appreciation that is calculated in accordance with the selected **Maturity adjustment on** settings in the **Financial Accounting Methods** window does not influence the credit loss allowance amount, it is not calculated on the credit loss allowance transaction. Instead, theoretical interest appreciation that is based on the contractual cash flow till maturity and is used in credit loss allowance calculations is shown on the credit loss allowance transaction. New theoretical interest appreciation values are shown in the fields **Int. Appr. for CLA** in quotation and portfolio currencies in the **Credit Loss Allowance** window.

The following table gathers possible options which are compatible together under IFRS 9 standards.

Financial Accounting Methods configuration for tax lots accounted under the IFRS 9 rules

Field name in the Financial Accounting Methods window	Field setting in the Financial Accounting Methods window
CL Allowance	**IFRS 9**
Maturity adjustment on	The following options are supported when the **Use maturity adjustment on for CL allowance** field is set to **Yes**. The **Maturity adjustment on** settings apply to the contractual cash flow used for the calculation of interest appreciation and have effect on the credit loss amounts. When **CL Allowance** is set to **IFRS9**, the following options are available: • **(none)** setting can be used only if **Use maturity adjustment on for CL allowance** is set to **No** • **Predicted maturity** • **Call** • **Put/Call** • **Put** • **Int. adj. no spread**
Maturity adjustment on for CL allowance	The only available option is **(none)** which specifies that credit loss allowance is calculated till maturity based on the net present value of contractual cash flow till maturity and net present value of the expected cash flow till maturity. Both cash flows are discounted with yield for credit loss allowance calculated based on the acquisition price and contractual cash flow till maturity.

Field name in the Financial Accounting Methods window	Field setting in the Financial Accounting Methods window
Use maturity adjustment on for CL allowance	Both, **Yes** and **No**, options are applicable with IFRS 9 setting The **Yes** option enables the calculation of credit loss allowance as the difference between discounted contractual cash flow to maturity and estimated cash flow. Interest appreciation for credit loss allowance QC/PC amounts are calculated on CL allowance transaction and effect the credit loss allowance balances. Interest appreciation amounts have no effect on the credit loss allowance balances and are generated on the separate dedicated transactions, mathematical adjustments or tax lot combined adjustments. The **No** option is the default one. When the **No** option is selected, the credit loss allowance is calculated as the difference between the discounted contractual cash flow used for interest appreciation calculations and estimated cash flow. Interest appreciation amounts are calculated on credit loss allowance transaction and effect the credit loss allowance balances. Interest appreciation for credit loss allowance QC/PC amounts are be generated.

The following table gathers possible options which are compatible together under the CECL standards.

Financial Accounting Methods configuration for tax lots accounted under the CECL rules

Field name in the Financial Accounting Methods window	Field setting in the Financial Accounting Methods window
CL Allowance	**CECL** and **CECL Import**

Field name in the Financial Accounting Methods window	Field setting in the Financial Accounting Methods window
Maturity adjustment on	When **Maturity adjustment on** setting is other than **(none)**, accretion and amortisation is calculated based on price and date different from maturity. The Maturity adjustment on settings apply to the contractual cash flow used for the calculation of interest appreciation. Two yields are calculated at acquisition: yield for mathematical adjustment (based on the contractual cash flow adjusted for the special maturity settings) and yield for credit loss allowance (based on the contractual cash flow till maturity date). The following options are supported when the **Use maturity adjustment on for CL allowance** field is set to **Yes**. When **CL Allowance** is set to **CECL**, the following options can be enabled: • **(none)** setting can be used only if **Use maturity adjustment on for CL allowance** is set to **No** • **Predicted maturity** • **Call** • **Put/Call** When **CL Allowance** is set to **CECL Import**, the following options can be enabled: • **(none)** • **Predicted maturity** • **Contractual CF Based** • **Call** • **Put/Call** • **Predicted maturity, constant yield** • **Premium to call, discount to maturity**
Interest appreciation basis	If a user defined the **Interest appreciation basis** field different from **As on security**, this setting also effects the contractual cash flow that is used for the calculation of credit loss allowance. • **As on security** • **WAC** • **WAC (orig)** • **WAC (orig)+Coupon (orig)** • **WAC +PSA** • **Coupon (orig)**

Field name in the Financial Accounting Methods window	Field setting in the Financial Accounting Methods window
Maturity adjustment on for CL allowance	The only available option is **(none)** which specifies that credit loss allowance is calculated till maturity based on the net present value of contractual cash flow till maturity and net present value of the expected cash flow till maturity. Both cash flows are discounted with yield for credit loss allowance calculated based on the acquisition price and contractual cash flow till maturity.
Use maturity adjustment on for CL allowance	The **Yes** option is available only if **CL Allowance** setting is set to **CECL**. The **Yes** option cannot be selected if the Maturity adjustment on setting used for interest appreciation is set to None. The Yes option enables the calculation of credit loss allowance as the difference between discounted contractual cash flow till maturity and estimated cash flow. Interest appreciation for CL Allowance QC/PC amounts will be calculated on CL Allowance transaction and will have effect on CL Allowance balances. Interest appreciation will not have effect on CL Allowance balances and will be generated on the separate dedicated transaction, mathematical adjustments or tax lot combined adjustments. When the **No** option is selected, the credit loss allowance is calculated as the difference between the discounted contractual cash flow used for interest appreciation calculations and estimated cash flow. The **No** option is the default one. It is used when **Maturity adjustment on** setting is set to **None**. If **CL Allowance** field is set to **CECL import** only the **No** option is available.

Variable yield adjustment for credit loss allowance work flow

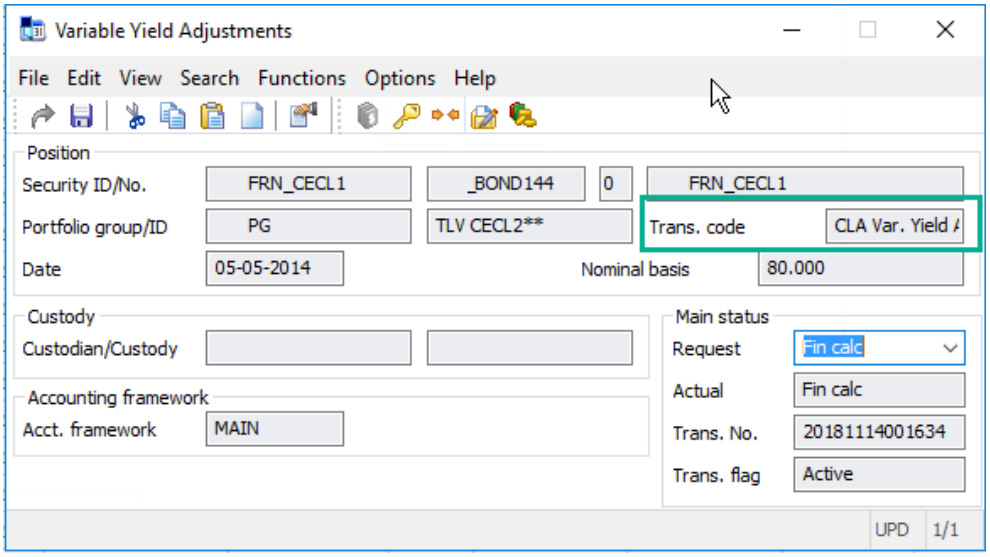
It is possible to recalculate the yield for credit loss allowance in case of a coupon rate change on a floating rate note. The transaction is created in the **Variable Yield Adjustments** window. Complete the following steps to generate the transaction:

1. Open the **Variable Yield Adjustments** window.
2. Specify the **Security ID/No.**
3. Upload the **Portfolio group/ID**.
4. Select the **CLA Var.Yield Adj.** transaction code.
5. Enter the contractual term date into the **Date** field.
6. Fetch the position via **Functions** > **Positions**.

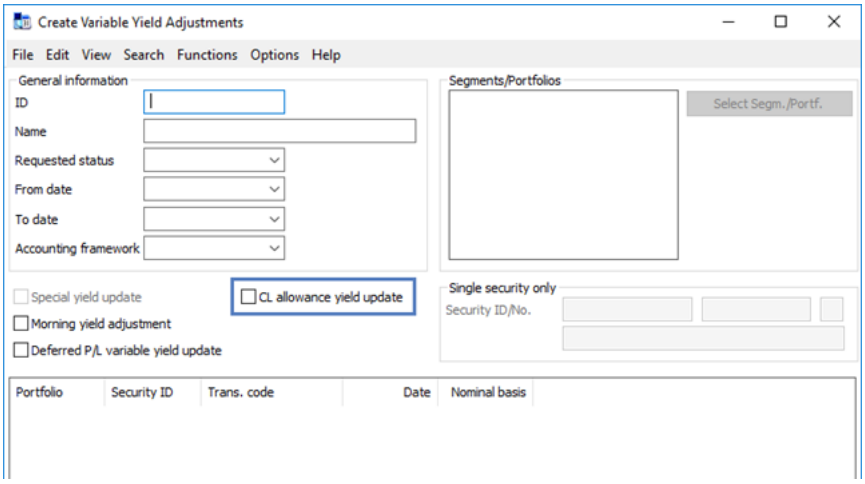
   Match the position by placing the check mark into the **Select** field of the **Functions** > **Match** sub-window.
7. Set the relevant transaction status.

8. Save the transaction.

   The transaction saves with a new transaction number.



   It is possible to create the same transactions in batch in the **Create Variable Yield Adjustments** window. Make sure to select the **CL allowance yield update** check box.



Verify interest appreciation for credit loss allowance balances

Values from the credit loss allowance transaction effect corresponding balances on position and tax lot level. Fields **Bal. IA for CLA QC** and **Bal. IA for CLA PC** reflect calculated interest appreciation for the credit loss allowance amounts in quotation and portfolio currencies. The fields are available in the **Holdings** and **Match Holdings** windows.

Balances of interest appreciation for credit loss allowance are stored in the dedicated fields. See an example in the picture below:

Match Holdings - View Positions - Holding Keys - P/L

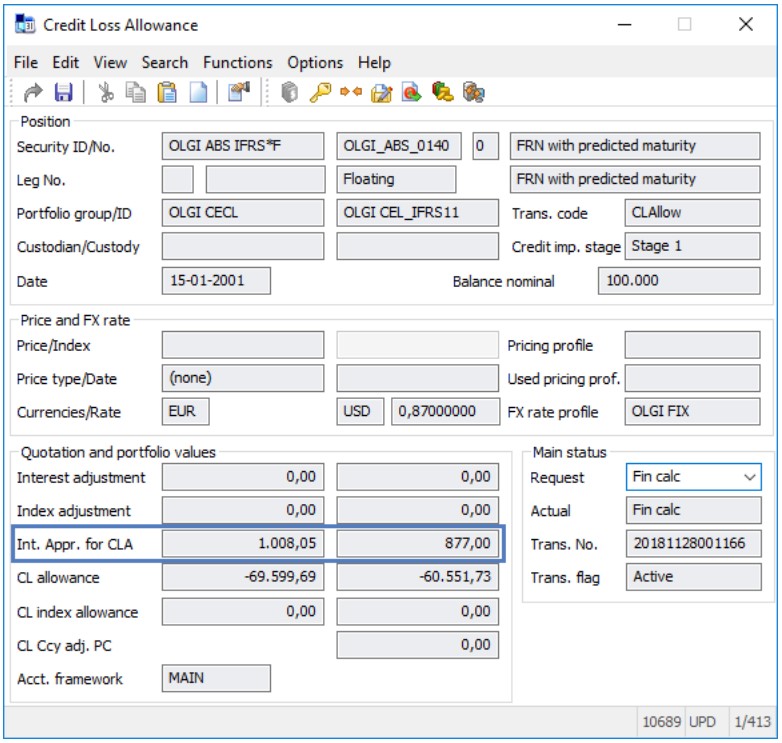
	Transaction No.	Transaction code	Transaction No. linked to	Transaction code linked to	Nominal to match	Nominal unmatched	Bal. IA for CLA PC	Bal. IA for CLA QC
1	20181128001...	Buy	20181128001...	Buy	0	100.000	0,00	0,00
2	20181128001...	Buy	20181128001...	Mat. Adj.	0	100.000	0,00	0,00
3	20181128001...	Buy	20181128001...	Var. Yield Adj.	0	100.000	0,00	0,00
4	20181128001...	Buy	20181128001...	CLA Var. Yield Adj.	0	100.000	0,00	0,00
5	20181128001...	Buy	20181128001...	CLAllow	0	100.000	877,00	1.008,05
6	20181128001...	Buy	20181128001...	Mat. Adj.	0	100.000	877,00	1.008,05

Interest appreciation for credit loss allowance values are also reflected in the respective field in the **Credit Loss Allowance** window. To verify the values, follow these steps:

1. Open the **View Transactions** transaction viewer window.
2. Load the portfolio with the generated **Credit Loss Allowance** transactions.
3. Open one of those transactions by selecting it in the row and activating **Functions > Show Transaction**.

   The **Credit Loss Allowance** window opens.

   The interest appreciation for credit loss allowance amounts calculated on the **Credit Loss Allowance** transaction are shown in the **Int. Appr. for CLA** fields in quotation and portfolio currencies. See the example in the image below:



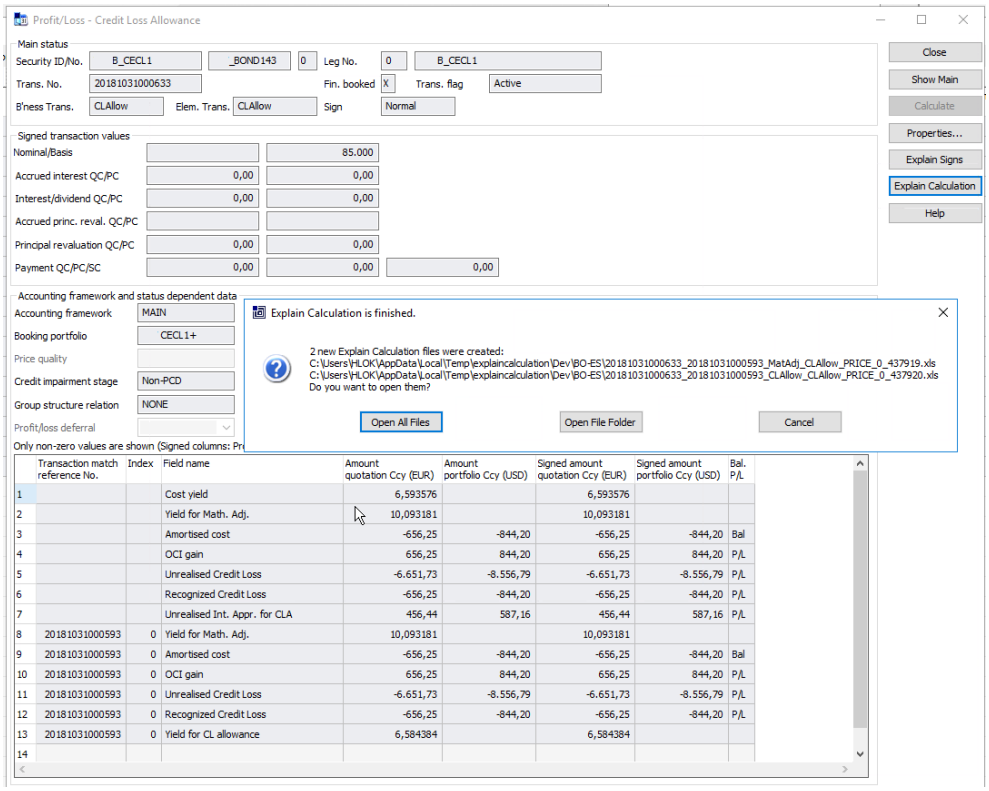
To display the calculation explanation, complete the following steps in the **Credit Loss Allowance** window:

1. Select the **Profit/Loss** option in the **Functions** menu.

   The **Profit/Loss** sub-window opens.

2. Click the **Explain Calculation** button in the upper left of the **Profit/Loss** window.

   The message appears providing the names of the .xls (Excel) files created for the mathematical adjustment and the credit loss allowance.



3. Click the **Open All Files** button.

   The files open. On the **StaticData** tab, the **YieldTM** field shows the yield based on which the respective cash flow is discounted to receive the net present value used for credit loss allowance calculation.

Interest appreciation for CL Allowance simulation in portfolio calculation

Once a portfolio calculation is completed, you can view and analyse the calculation results for interest appreciation for CLA simulation.

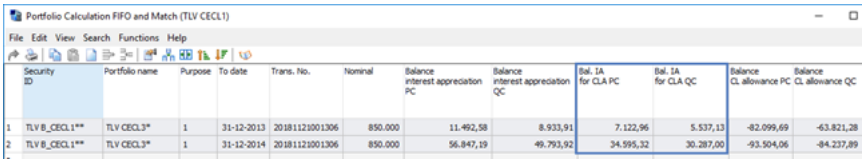
To verify the calculation results per individual tax lots, complete the following:

1. In the **Portfolio Calculation** window, click **Functions > List FIFO and Match**.

   The **Portfolio Calculation FIFO and Match** sub-window opens.

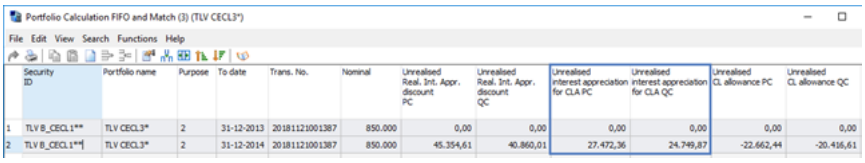
2. Load the portfolio calculation results.

   Balance Interest Appreciation for CLA QC/PC fields show simulation of interest appreciation used for credit loss allowance calculation.



	Security ID	Portfolio name	Purpose	To date	Trans. No.	Nominal	Balance interest appreciation PC	Balance interest appreciation QC	Bal. IA for CLA PC	Bal. IA for CLA QC	Balance CL allowance PC	Balance CL allowance QC
1	TLV B_CECL1**	TLV CECL3*	1	31-12-2013	20181121001306	850.000	11.492,58	8.933,91	7.122,96	5.537,13	-82.099,69	-63.821,28
2	TLV B_CECL1**	TLV CECL3*	1	31-12-2014	20181121001306	850.000	56.847,19	49.793,92	34.595,32	30.287,00	-93.504,06	-84.237,89

   Unrealised Adj. portfolio calculation setting simulates interest appreciation used for credit loss allowance calculations and shows it in the dedicated **Unrealised interest appreciation for CLA QC/PC** fields:



	Security ID	Portfolio name	Purpose	To date	Trans. No.	Nominal	Unrealised Real. Int. Appr. discount PC	Unrealised Real. Int. Appr. discount QC	Unrealised interest appreciation for CLA PC	Unrealised interest appreciation for CLA QC	Unrealised CL allowance PC	Unrealised CL allowance QC
1	TLV B_CECL1**	TLV CECL3*	2	31-12-2013	20181121001387	850.000	0,00	0,00	0,00	0,00	0,00	0,00
2	TLV B_CECL1**	TLV CECL3*	2	31-12-2014	20181121001387	850.000	45.354,61	40.860,01	27.472,36	24.749,87	-22.662,44	-20.416,61

For more information about how to configure and work with portfolio calculations in SimCorp Dimension, see the ***Portfolio Calculation*** user manual.

11.1.2.5 Extended tax lot combined adjustment composition

As of version 19.04, tax lot combined adjustment (TLCA) composition was extended to cover passage of time (PoT) and fair value floor (FV Floor) calculations.

Tax lot combined adjustment transactions combine generation and booking of common adjustment transactions for each tax lot into one transaction. This increases the system performance as the number of booked transactions is reduced.

TLCA is system-owned and the new adjustment components also support system-owned flow. This means that any backdated changes made to the basis of the components in the calculation trigger the tax lot combined adjustment automatic recalculation.

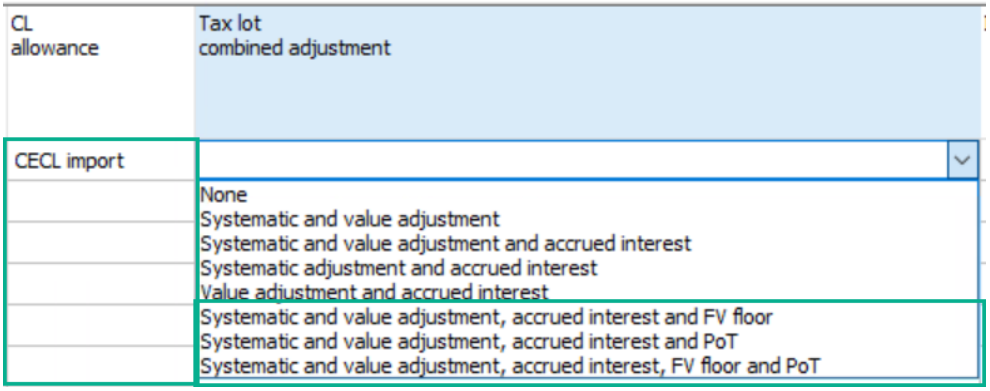
Setting up Financial Accounting Methods

In the **Financial Accounting Methods** window, the settings that support passage of time and fair value flooring in the **Tax lot combined adjustment** field are the following:

- **Systematic and value adjustment, accrued interest and FV floor**
- **Systematic and value adjustment, accrued interest and PoT**
- **Systematic and value adjustment, accrued interest, FV floor and PoT**

The **Tax lot combined adjustment** field settings listed above are valid only for the **CL allowance > CECL import** setting.

The following image shows the compatible combination of settings in the **Financial Accounting Methods** window.



In accordance with the selected tax lot combined adjustment composition, adjustments will be generated in the following order:

1. CL allowance PoT
2. Mathematical adjustment
3. Accrued interest
4. Fair value floor
5. End-of-period adjustment

Note

PoT component of TLCA composition will not be calculated for the day when new CL allowance balances are imported. CL allowance PoT amounts will be calculated on the next day, if tax lot combined adjustment is booked on that date.

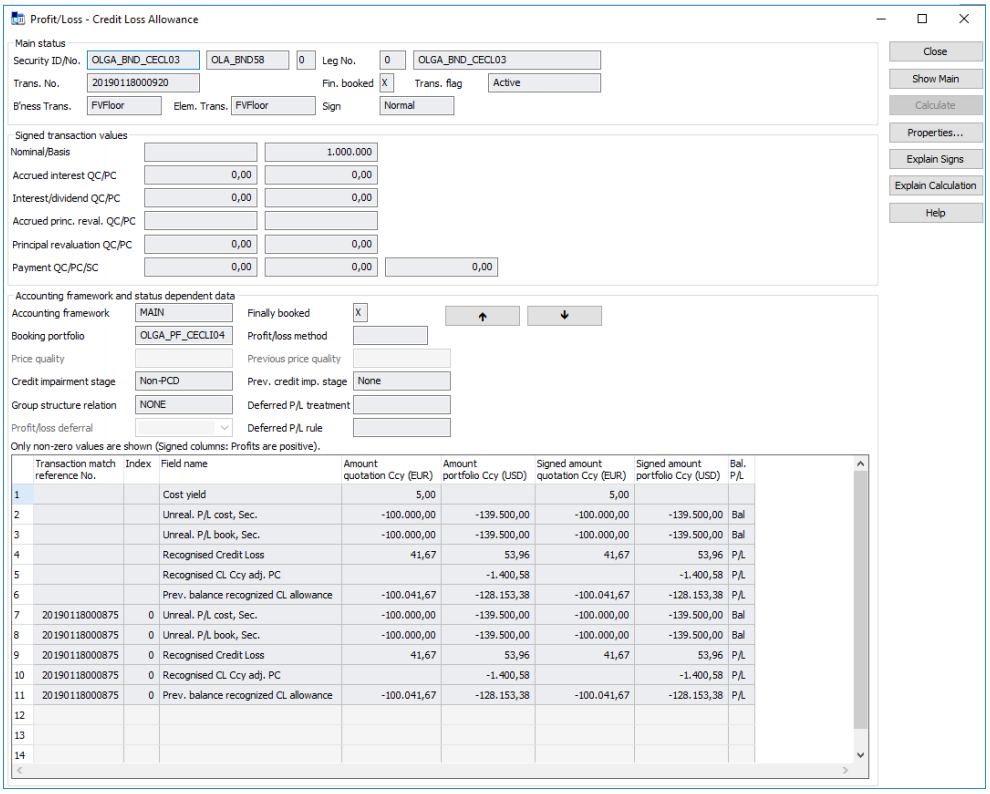
For more information about tax lot combined adjustment, read this article.

11.1.2.6 Unrealised profit/loss results on fair value flooring

As of version 19.04, SimCorp Dimension provides unrealised profit or loss results on the fair value floor transaction.

It is now possible to report market to market adjustment from the fair value floor transaction. For that purpose, unrealised profit or loss and previous balance of recognised CL allowance fields are available in the

Profit/Loss results sub-window of fair value floor transaction window, as shown in the image below.



Note

Generate the end-of-period adjustment transaction before the fair value floor transaction. In this case the latest market data, such as price and FX rate, are taken into account to provide the up-to-date profit or loss amounts on the fair value flooring.

11.1.2.7 Writing off the current expected credit losses

As of version 19.04, it is possible to write off the credit loss allowance (CL Allowance) balance of the debt securities accounted under the available for sale (AFS) or held to maturity (HTM) holding categories.

Specifically, if all or a portion of the principal or coupon payments of debt security has become uncollectible, then the CL Allowance balance must be reduced for this amount.

The write-off amount is calculated externally, imported to SimCorp Dimension and registered per tax lot.

The write-off event is registered in SimCorp Dimension by a write-off transaction.

If the write-off amount that is imported in SimCorp Dimension exceeds the gross credit loss allowance amount stored in the **Balance CL Allowance QC**

and **Balance CL Allowance PC** fields then this amount must be increased to the write-off value prior to generating the write-off transaction.

As a result of the write-off transaction:

- Credit loss allowance balance is reduced for the write-off amount in the following fields:
  - **Balance Recognised CL allowance QC**
  - **Balance Recognised CL allowance PC**
  - **Balance CL Allowance QC**
  - **Balance CL Allowance PC**
- Write-off amounts are booked in separate dedicated **Balance write-off QC** and **Balance write-off PC** fields per tax lot.

Once an AFS security is transferred from non ITS/RTS intent to ITS/RTS intent, the write off balance that existed before the transfer is transferred to ITS intent and is not included in the discount accreted.

Note

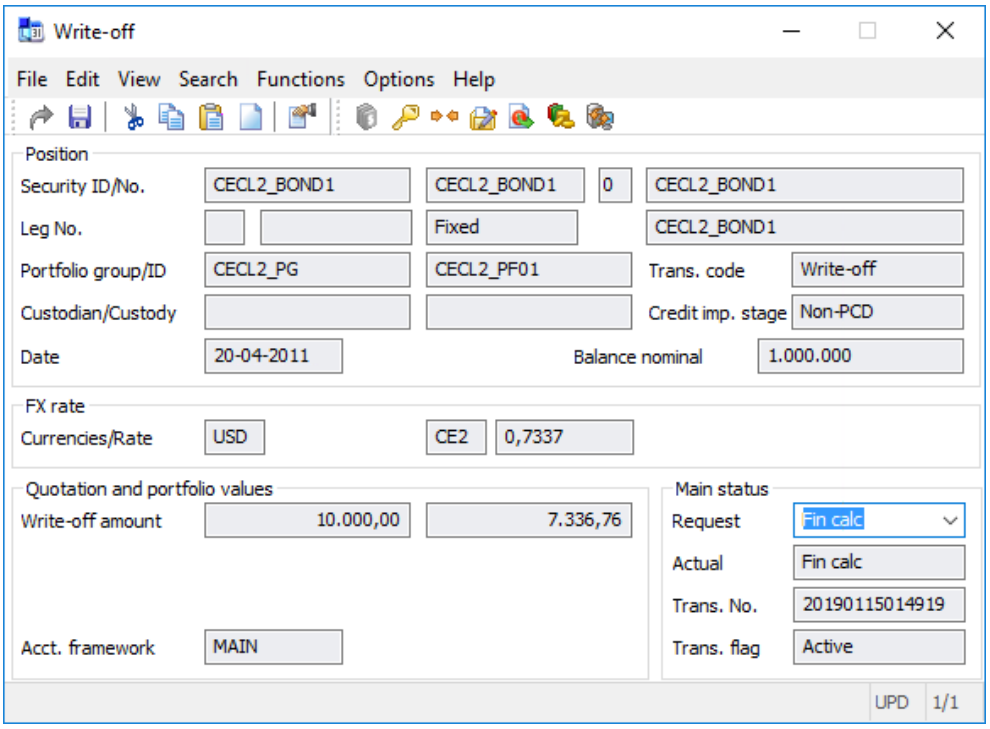
Cost value balance and the yield for interest appreciation is not effected as a result of the write-off transaction.

The amount, which is written-off, is not accreted to the interest income on the subsequent interest appreciation transactions.

Write off transaction for current expected credit losses

The write off event is registered in SimCorp Dimension in the **Write-off** window.

See the image below for an example of the write-off transaction setup:



Verify balances for the write off transaction

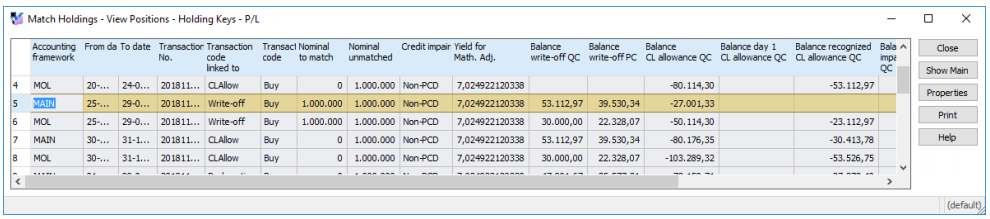
After the write off transaction is generated and saved, the balances can be verified.

To verify how values from the **Write-off** transaction effect corresponding balances on tax lots, complete the following steps:

1. Open the **View Positions** window.
2. Load the portfolio with the created **Write-off** transactions.
3. Select the position line and click **Functions > View Match Holdings** in the menu bar.

   The **Match Holdings** sub-window opens.

   In the **Balance write-off QC** and **Balance write-off PC** fields you can inspect the write-off amounts that are booked per tax lot.



11.1.2.8 Redemptions are supported for tax lots accounted under the CECL rules

As of version 19.04, in SimCorp Dimension, you can create redemption transactions for tax lots accounted in accordance with CECL requirements.

Specifically, it is possible to:

- Generate redemptions for tax lots for which credit loss allowance was imported or calculated based on expected cash flows
- Configure how gross and recognised credit loss allowance balances are dissolved on redemption transactions
- Define how write off and passage of time (PoT) values are dissolved on redemption transactions

Current expected credit loss (CECL) rules apply to the 99-20 securities. The initial measurement of a beneficial interest depends on whether the beneficial interest is classified as purchased credit-deteriorated (PCD) or not credit-deteriorated (non-PCD).

Beneficial interest securities can:

- Belong to available for sale (AFS) and held to maturity (HTM) holding categories
- Be PCD and non-PCD
- Be impaired or not impaired before the date of transfer to CECL

For beneficial interests that are considered as PCD:

- Credit loss allowance (CL allowance), calculated at the date of acquisition, is added to the amortised cost. Amortised cost is calculated based on the carrying price.

  $$Carrying\ price\ =\ acquisition\ price\ +\ day\ 1\ CL\ allowance$$

- Non-credit related discount that should be accreted is equal to:

  $$Par\ amount\ -\ carrying\ price$$

  Interest appreciation is based on the contractual cash flow adjusted for the prepayments.

For beneficial interests that are considered as non-PCD:

- Amortised cost is based on the acquisition price
- Interest appreciation is based on the expected cash flow

Configuring Financial Accounting Methods for redemptions under CECL

To enable calculation of redemptions on tax lots accounted under the CECL model, configure the following in the **Financial Accounting Methods** window:

1. In the **Book value of coupons and redemptions** field select one of the following options:
   - **Standard**
   - **Full amount redemption only**
2. In the **CL Allowance** field select one of the following options:
   - **CECL**. This option can be selected for all instrument types under the CECL rules.
   - **CECL import**.
3. In the **CL allowance dissolution on redemption** field select:
   - **Proportional** option to dissolve CL allowance balances proportionally to the nominal fraction redeemed on partial redemption.
   - **Full amount, final redemption** option to dissolve CL allowance only on final redemption.

   The default **None** option ensures that CL Allowance balances are dissolved in accordance with the logic introduced by the redemption method setting defined in the **Book value of coupons and redemptions** fields.

Note

It is possible to select **Full amount redemption only** in the **Book value of coupons and redemptions** field and **CECL** option in the **CL Allowance** field for all instrument types under the CECL rules.

However, you can only select **Full amount redemption only** in the **Book value of coupons and redemptions** field and **CECL import** option in the **CL allowance** field for instrument type of US pool.

The table below provides an overview of the possible combinations for the settings that can be configured in the **Financial Accounting Methods** window to enable redemptions for tax lots accounted under the CECL rules.

Settings to select in the Financial Accounting Methods window			**Instrument type**
CL Allowance field	**Book value of coupons and redemptions** field	**CL allowance dissolution on redemption** field	

Settings to select in the Financial Accounting Methods window			Instrument type
CECL	**Standard**	**Proportional**	All the instrument types to which CECL rules are applicable
		Full amount, final redemption	
	Full amount redemption only	**Full amount, final redemption**	
CECL import	**Standard**	**Proportional**	
		Full amount, final redemption	
	Full amount redemption only	**Full amount, final redemption**	Only US pools

Update of the balances on redemption transactions under CECL

Once you create a partial redemption transaction for a security accounted in accordance with the CECL requirements, credit loss allowance, write off and PoT balance values are updated on the tax lot and position level.

The following table provides an overview of how these balances are updated in corresponding fields in the **Holdings** and **Match Holdings** windows as a result of the partial redemption depending on the configuration in **Financial Accounting Methods.**

In the in Financial Accounting Methods window			Field names in the Holdings and Match Holdings windows				
Book value of coupons and redemptions field is set to	CL allowance dissolution on redemption field is set to	CL allowance field is set to	Balance CL allowance QC and Balance CL allowance PC	Balance recognized CL allowance QC and Balance recognized CL allowance PC	Balance interest appreciation for CLA QC and Balance interest appreciation for CLA PC	Balance CL allowance PoT QC and Balance CL allowance PC	Balance write-off QC and Balance write-off PC
Standard	**Full amount, final redemption**	**CECL import**	Field value is not realized on partial redemptions, realised fully on final redemption	Field value is not realised on partial redemptions, realised fully on final redemption	Field value is dissolved proportionally to the nominal redeemed	Field value is not realized on partial redemptions, realised fully on final redemption	Field value is not realized on partial redemptions, realised fully on final redemption

In the in Financial Accounting Methods window			Field names in the Holdings and Match Holdings windows				
Standard	**No**	**CECL**	Field value is not realized on partial redemptions, realised fully on final redemption	Field value is not realised on partial redemptions, realised fully on final redemption	Field value is dissolved proportionally to the nominal redeemed	Field value is not calculated	Field value is not realised on partial redemptions, realised fully on final redemption
Standard	**Proportional**	**CECL import**	Field value is reduced proportionally to the nominal redeemed	Field value is reduced proportionally to the nominal redeemed	Field value is dissolved proportionally to the nominal redeemed	Field value is dissolved proportionally to the nominal redeemed	Field value is dissolved proportionally to the nominal redeemed
Standard	**Proportional**	**CECL**	Field value is reduced proportionally to the nominal redeemed	Field value is reduced proportionally to the nominal redeemed	Field value is dissolved proportionally to the nominal redeemed	Field value is not calculated	Field value is dissolved proportionally to the nominal redeemed
Full amount redemption only	**Full amount, final redemption**	**CECL**	Field value is not realized on partial redemptions, realised fully on final redemption	Field value is not realised on partial redemptions, realised fully on final redemption	Field value is not realised on partial redemptions, realised fully on final redemption	Field value is not calculated	Field value is not realised on partial redemptions, realised fully on final redemption
Full amount redemption only	**Full amount, final redemption**	**CECL import**	Field value is not realized on partial redemptions, realised fully on final redemption	Field value is not realised on partial redemptions, realised fully on final redemption	Field value is not realised on partial redemptions, realised fully on final redemption	Field value is not realised on partial redemptions, realised fully on final redemption	Field value is not realised on partial redemptions, realised fully on final redemption

11.1.2.9 Support of passage of time component for imported CL Allowance

As of version 19.04, SimCorp Dimension calculates changes in credit loss allowance (CL Allowance) with respect to the passage of time. The passage of time (PoT) component is applicable to the imported CL Allowance balances that were calculated using the discounted cash flow methodology.

A PoT transaction calculates PoT amounts based on the latest available recognised CL Allowance balance and the effective interest rate (yield for

mathematical adjustment). If the PoT amount is calculated with a different frequency than daily, daily interest compounding is applied, in this case PoT amount is calculated for the period since last recognised CL Allowance update to the date of PoT transaction.

Calculated CL Allowance PoT amounts can be balance booked.

Validation and specifics of the passage of time transaction

The passage of time transaction has some dependencies and validations. They are the following:

- PoT transaction should be generated at the end of each year to ensure that correct number of days is taken as the basis for calculations.
- It is not possible to create PoT transaction on the term date if variable yield transaction is missing.
- To ensure that correct effective interest rate is used for PoT calculations, PoT transaction should be generated a day before the term date.

Configuring Financial Accounting Methods

The table below describes relevant settings in the **Financial Accounting Methods** window for the passage of time transaction.

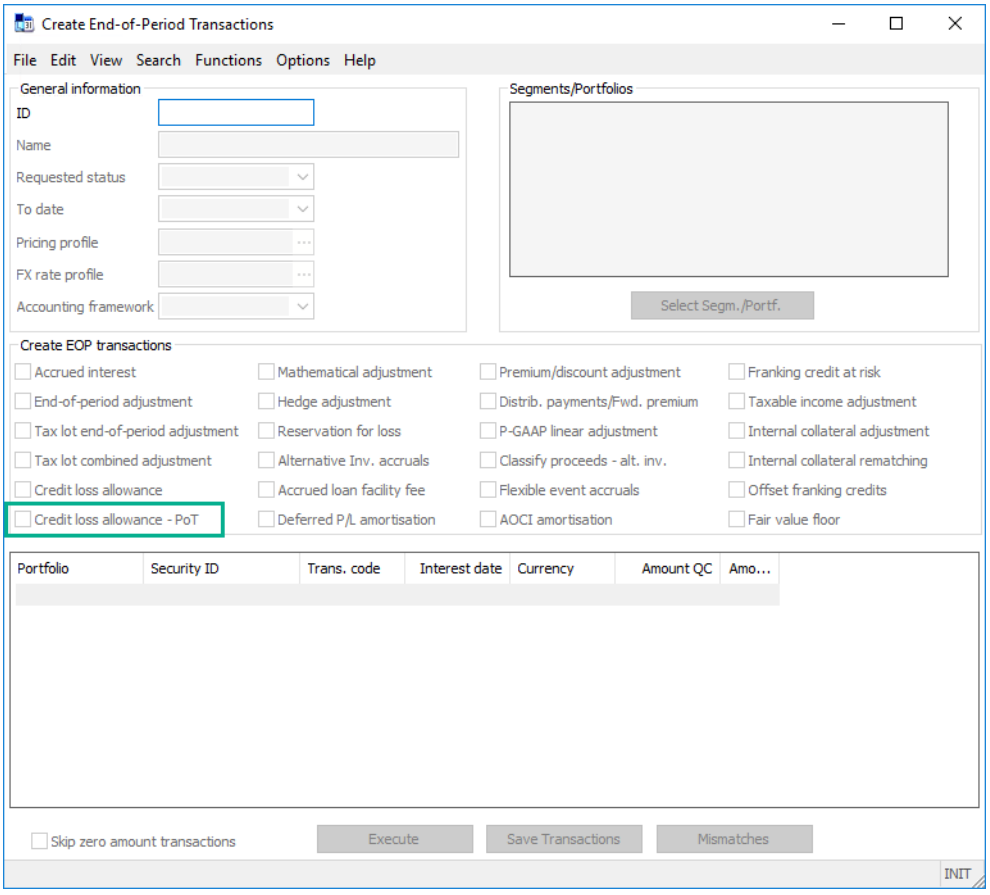
Field in the Financial Accounting Methods window	Description of the field setting in the Financial Accounting Methods window
Use maturity adjustment on for CL allowance	If **Maturity adjustment on** field is set to other than **None**, it is possible to control, which yield should be used for PoT calculations: • With **No** setting, the same yield as for mathematical adjustment calculations will be used. • With **Yes** setting, yield for CL Allowance will be used for PoT calculations. Yield for CL Allowance is calculated based on the contractual cash flow till maturity.
CL allowance dissolution on redemption	**Proportional** – PoT balances are reduced proportionally to the nominal; **Full amount, final redemption** – PoT balances are not reduced till final Redemption transaction.
Fair value floor	**No** – recognised CL Allowance is updated with the calculated PoT component directly with the PoT transactions. **Yes** – PoT transaction updates only the gross CL Allowance balance. Recognised CL Allowance balances will be updated with the PoT component on the fair value floor transaction.

Introduce passage of time component in SimCorp Dimension

SimCorp Dimension processes the passage of time calculation with the PoT transaction. The PoT transaction is booked per tax lot only for positions where **CL allowance** setting in **Financial Accounting Methods** is configured to **CECL import**.

It is possible to introduce the PoT balances via opening balance transactions. **CL allowance PoT** fields in quotation and portfolio currencies are available in the grid section of the **Opening Balance** window for entering relative amounts.

The PoT transaction can be created in the **Create End-of-Period Transactions** window by selecting a **Credit loss allowance - PoT** check box. The PoT transaction created in the **Create End-of-Period Transactions** window can be either user owned or system owned. The image below shows the **Credit loss allowance - PoT** option:

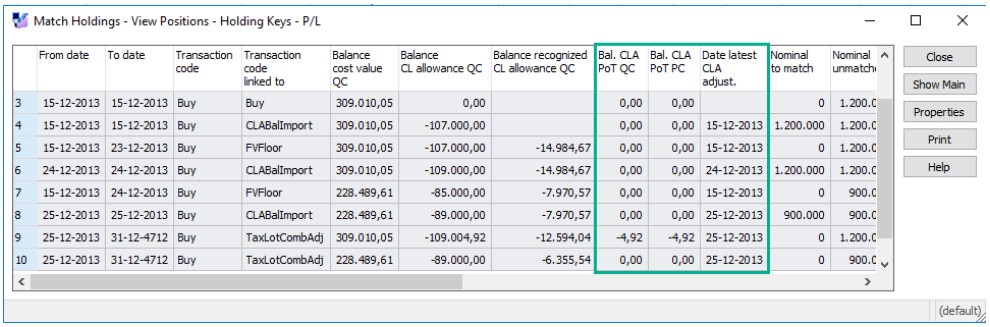


To generate a single user owned transaction, use the **Credit Loss Allowance** window and select a **CLAllowPoT** transaction code.

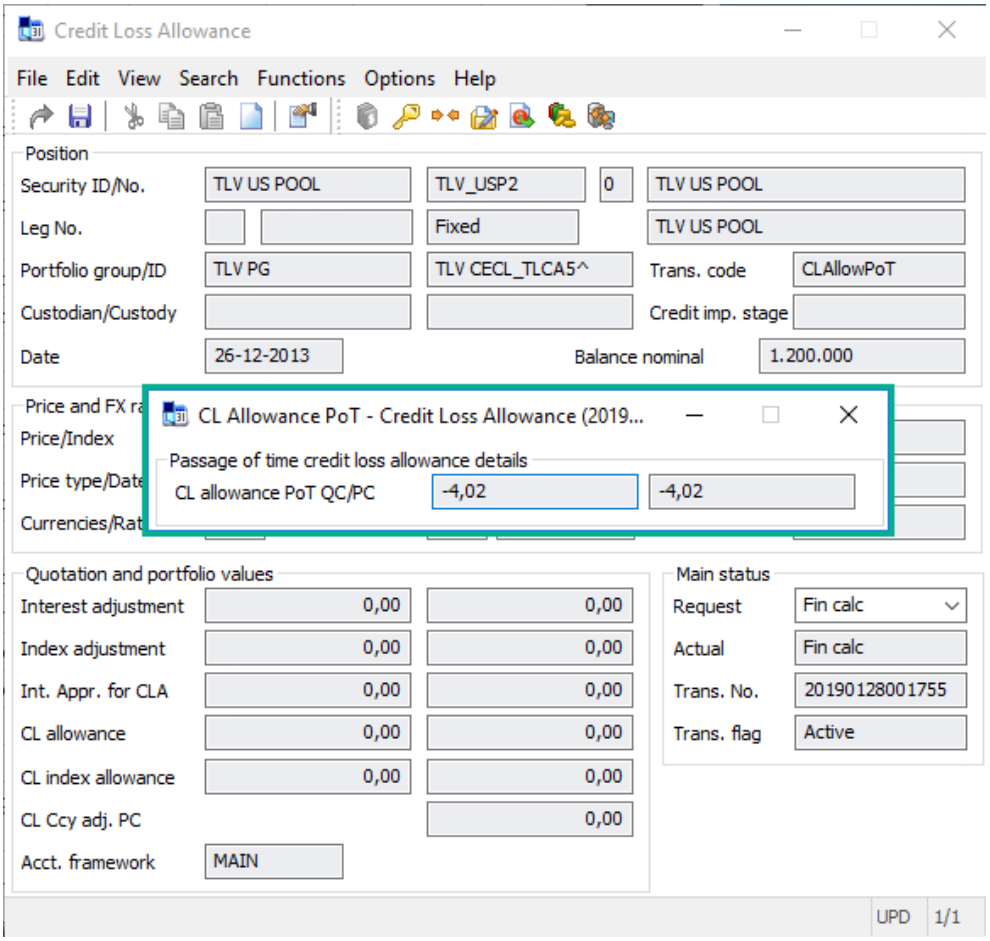
Verify the results for PoT transactions

The calculations of the PoT transactions are reflected in **Balance CLA PoT QC/PC** fields in the **Match Holdings** sub-window of **View Positions**. The

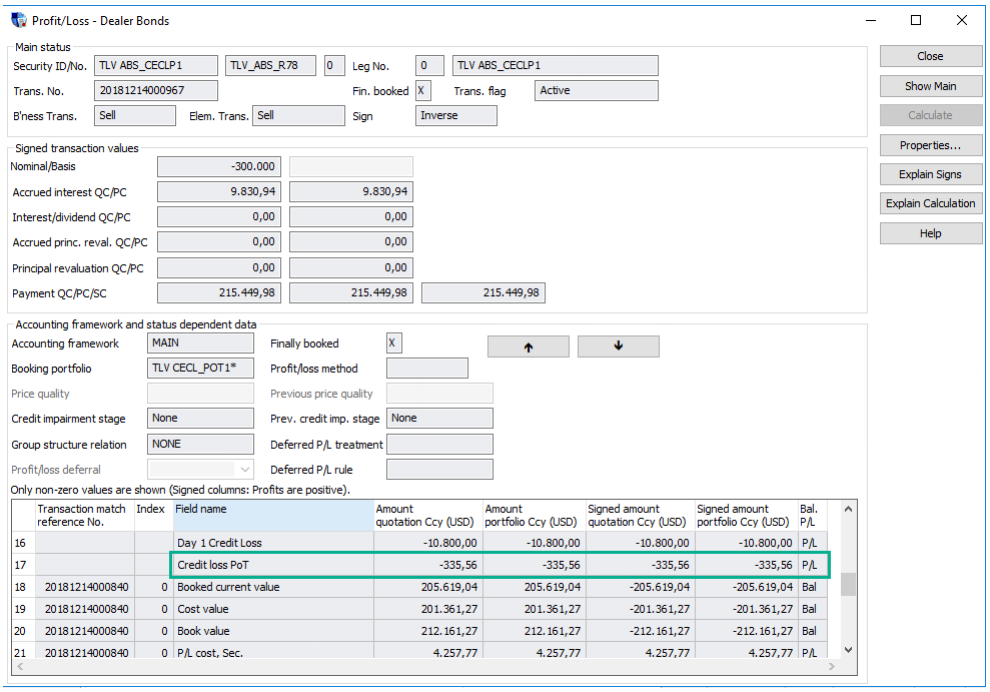
date of the latest adjustment of the CL Allowance is also shown in the respective field in the same sub-window. For example:



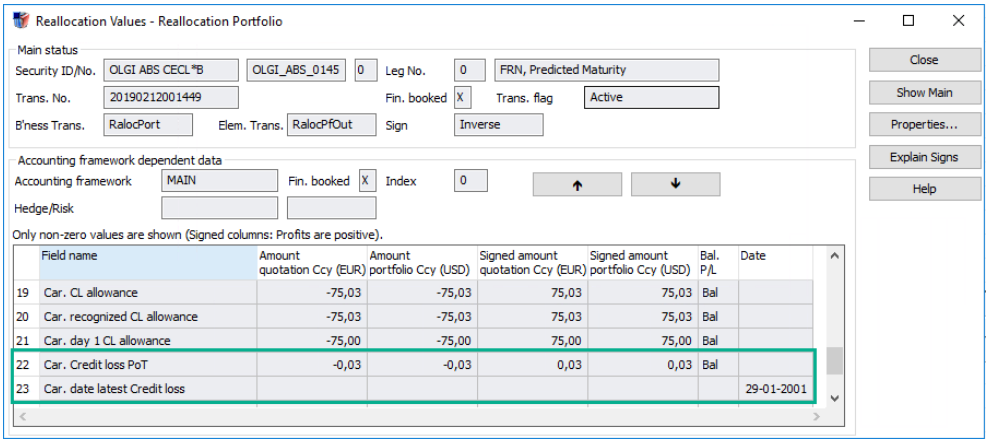
The passage of time credit loss allowance details are available in the **CL Allowance PoT** sub-window from the **Functions** menu of the **Credit loss Allowance** window, as shown in the following example:



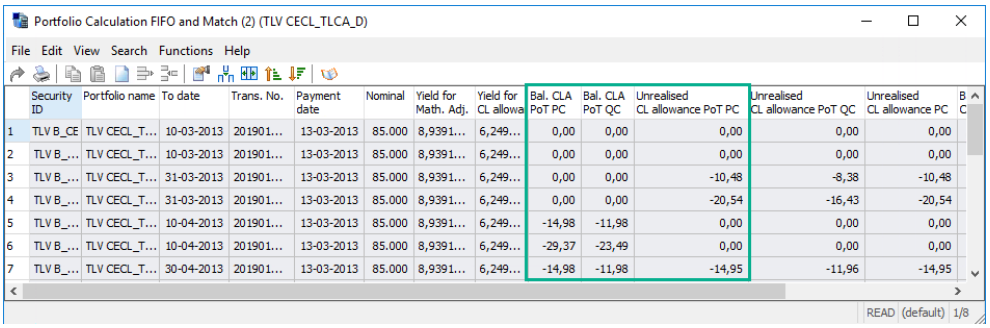
The CL Allowance PoT balances realised on decrementing transactions, such as sell transaction or reallocation, are shown in a **Credit loss PoT** field of the **Profit/Loss** sub-window of the main transaction window. For example:



The **Car. Credit Loss PoT** field in the **Reallocation Values** sub-window of **Reallocation Portfolio** reflects transferred CL Allowance PoT values in quotation/portfolio currency and **Car. date latest Credit loss** field shows the transfer date of the latest CL Allowance adjustment of the position. For example:



A set of fields in the **Portfolio Calculation List FIFO and Match** and the **Portfolio Calculation List** sub-windows show simulation of CL Allowance passage of time values in quotation and portfolio currencies and unrealised CL Allowance passage of time balances. For example:



	Security ID	Portfolio name	To date	Trans. No.	Payment date	Nominal	Yield for Math. Adj.	Yield for CL allowa	Bal. CLA PoT PC	Bal. CLA PoT QC	Unrealised CL allowance PoT PC	Unrealised CL allowance PoT QC	Unrealised CL allowance PC	B C
1	TLV B_CE	TLV CECL_T...	10-03-2013	201901...	13-03-2013	85.000	8,9391...	6,249...	0,00	0,00	0,00	0,00	0,00	
2	TLV B_...	TLV CECL_T...	10-03-2013	201901...	13-03-2013	85.000	8,9391...	6,249...	0,00	0,00	0,00	0,00	0,00	
3	TLV B_...	TLV CECL_T...	31-03-2013	201901...	13-03-2013	85.000	8,9391...	6,249...	0,00	0,00	-10,48	-8,38	-10,48	
4	TLV B_...	TLV CECL_T...	31-03-2013	201901...	13-03-2013	85.000	8,9391...	6,249...	0,00	0,00	-20,54	-16,43	-20,54	
5	TLV B_...	TLV CECL_T...	10-04-2013	201901...	13-03-2013	85.000	8,9391...	6,249...	-14,98	-11,98	0,00	0,00	0,00	
6	TLV B_...	TLV CECL_T...	10-04-2013	201901...	13-03-2013	85.000	8,9391...	6,249...	-29,37	-23,49	0,00	0,00	0,00	
7	TLV B_...	TLV CECL_T...	30-04-2013	201901...	13-03-2013	85.000	8,9391...	6,249...	-14,98	-11,98	-14,95	-11,96	-14,95	

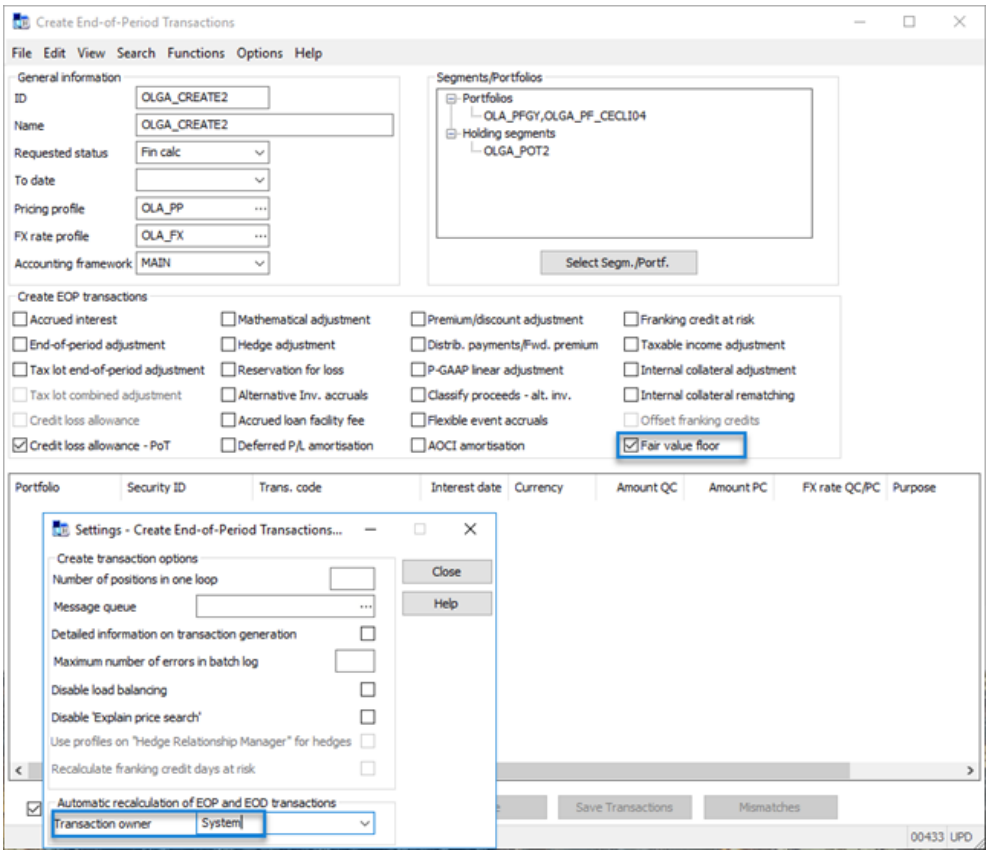
Note

The PoT component is simulated before the fair value flooring, so that the latest recognized CL Allowance amount is appropriately updated.

11.1.2.10 Fair value floor recalculates after backdated changes

As of version 19.04, SimCorp Dimension recalculates recognised CL Allowance amounts on fair value floor transactions in case of backdated changes, if the fair value floor transaction is set up as system-owned.

To create system-owned fair value floor transaction, make sure that in the **Create End-of-Period Transactions** window, you specify all the relevant information and set the transaction owner in the **Functions** > **Settings** to be **System**, as shown in the image below.



11.1.2.11 Impairment amounts calculated prior to the transfer to the CECL rules

As of version 19.04, SimCorp Dimension ensures that, for the tax lots that are subject to current expected credit losses (CECL) accounting standard, you can keep impairment balances, calculated prior to the transfer to the CECL rules (pre-CECL impairment), in the separate dedicated fields also after the transfer to the CECL rules.

Specifically, for CECL tax lots, it is possible to introduce impairment balances that were calculated before transfer to CECL rules, via opening balance or tax lot correction transactions. Once you have booked the pre-CECL impairment balance, it can only be reduced on decrementing transactions proportionally to the nominal dissolved. On redemption transactions, however, the pre-CECL impairment amounts are dissolved in accordance with the redemption method you select. If you set the **Book value of coupons and redemption** field in the **Financial Accounting methods** window to:

- **Standard**, then the pre-CECL impairment balances are dissolved on partial redemptions proportionally to the nominal redeemed;
- **Full amount redemption only**, then the pre-CECL impairment balances are dissolved only on final redemption transactions.

Besides, on transition of a tax lot from the intent not to sell a security to the intent to sell (from non-ITS/RTS intent to ITS/RTS intent) the pre-CECL impairment balances are also transferred and stored separately from the impairment balances generated as a result or after the transfer transaction.

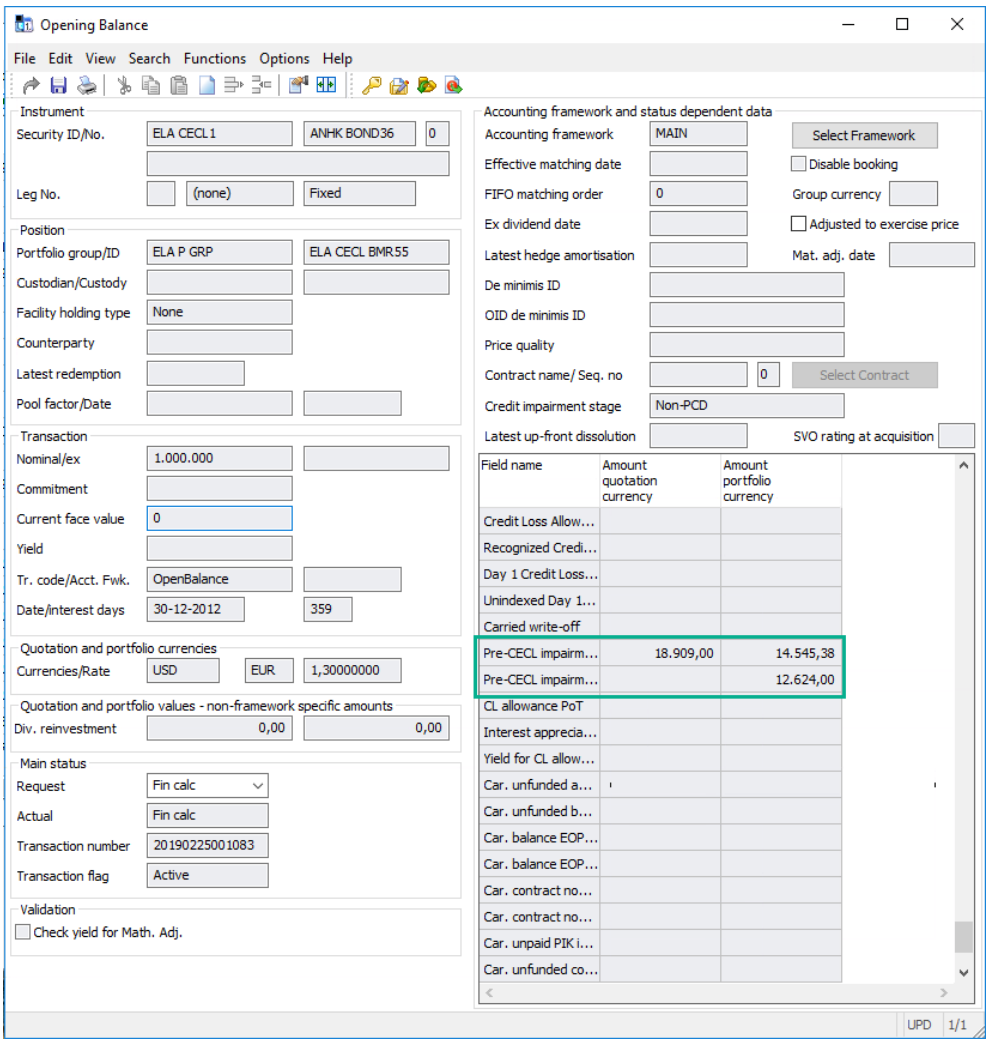
Configuration in Financial Accounting Methods

Only tax lots for which in the **Financial Accounting Methods** window the **CL Allowance** field is set to **CECL import** can contain the pre-CECL impairment balances.

Introduce the pre-CECL balances

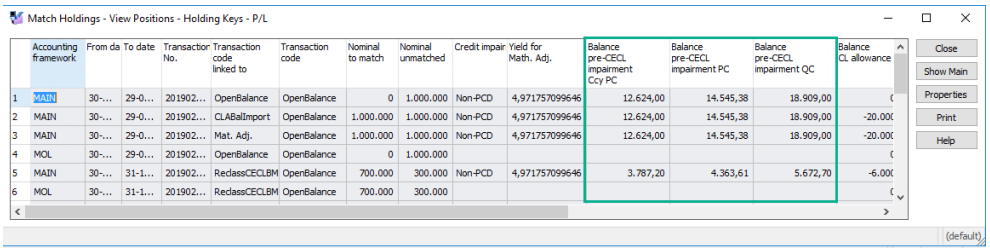
You can introduce the pre-CECL impairment balances to a CECL position via opening balance or tax lot correction transactions.

To transfer the pre-CECL impairment balances via opening balance transaction, enter these values into the relevant fields in the grid section of the **Opening Balance** window, as illustrated on the picture below.



Once you have saved the opening balance transaction, you can view and verify the pre-CECL impairment amounts in the corresponding balance fields in the **Holdings** and the **Match Holdings** sub-windows.

The following image shows how the pre-CECL balances were booked in the **Match Holdings** window.



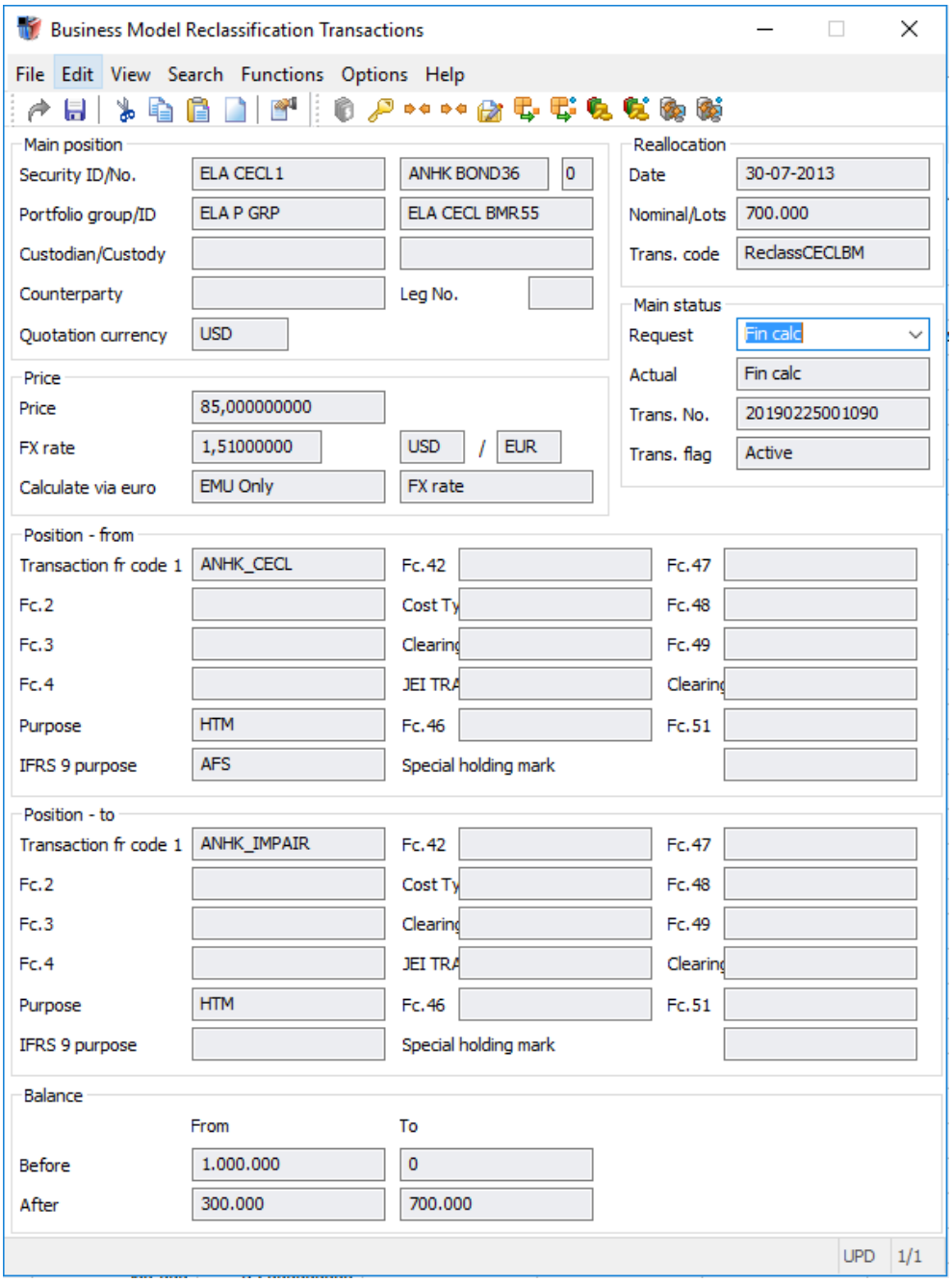
	Accounting framework	From da	To date	Transactior No.	Transaction code linked to	Transaction code	Nominal to match	Nominal unmatched	Credit impair	Yield for Math. Adj.	Balance pre-CECL impairment Ccy PC	Balance pre-CECL impairment PC	Balance pre-CECL impairment QC	Balance CL allowance
1	MAIN	30-...	29-0...	201902...	OpenBalance	OpenBalance	0	1.000.000	Non-PCD	4,971757099646	12.624,00	14.545,38	18.909,00	0
2	MAIN	30-...	29-0...	201902...	CLABalImport	OpenBalance	1.000.000	1.000.000	Non-PCD	4,971757099646	12.624,00	14.545,38	18.909,00	-20.00(
3	MAIN	30-...	29-0...	201902...	Mat. Adj.	OpenBalance	1.000.000	1.000.000	Non-PCD	4,971757099646	12.624,00	14.545,38	18.909,00	-20.00(
4	MOL	30-...	29-0...	201902...	OpenBalance	OpenBalance	0	1.000.000						0
5	MAIN	30-...	31-1...	201902...	ReclassCECLBM	OpenBalance	700.000	300.000	Non-PCD	4,971757099646	3.787,20	4.363,61	5.672,70	-6.00(
6	MOL	30-...	31-1...	201902...	ReclassCECLBM	OpenBalance	700.000	300.000						0

Transfer from non-ITS/RTS intent to ITS/RTS intent

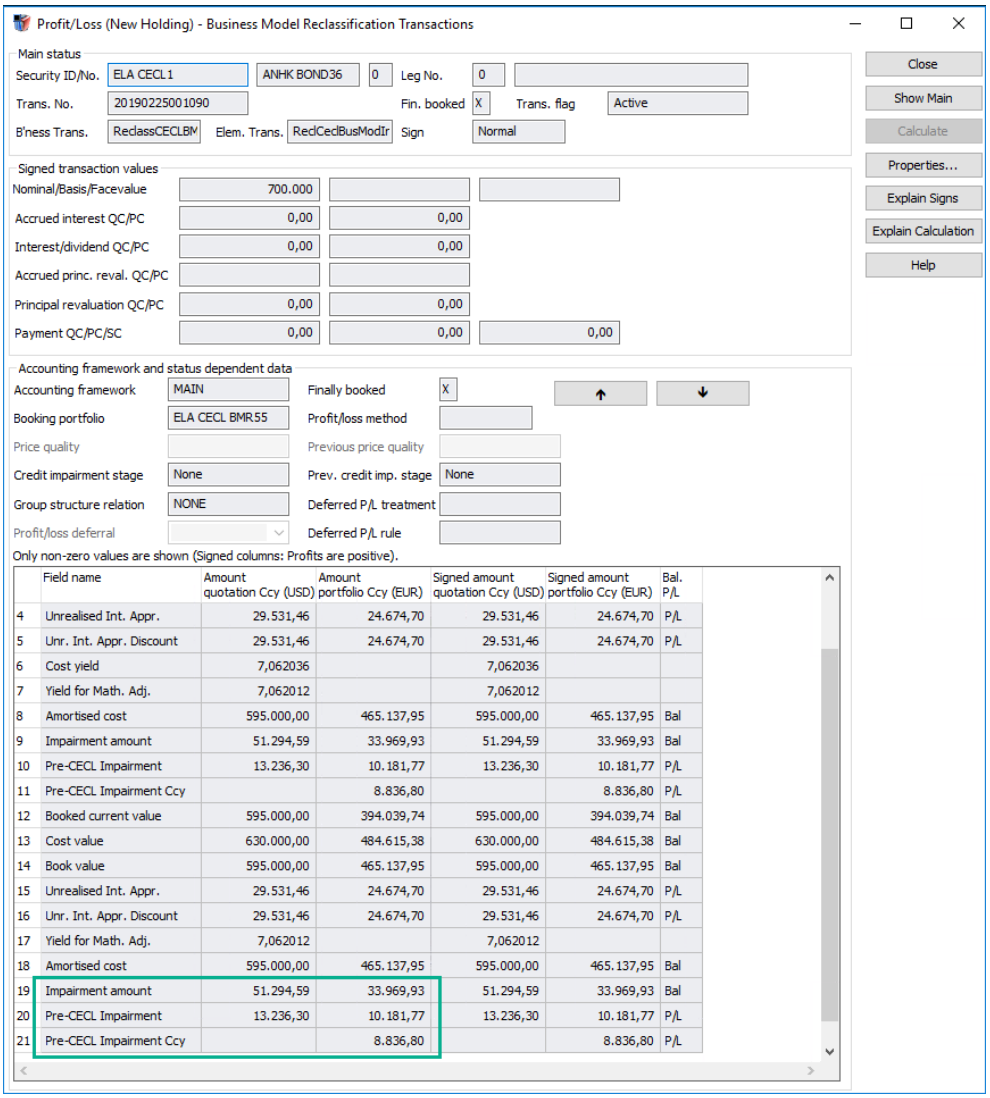
You can transfer AFS tax lots that are accounted under the CECL rules and hold the pre-CECL impairment balances from non-ITS/RTS to ITS/RTS intent.

Once a tax lot is moved to ITS/RTS intent, the CL Allowance calculation is not applicable any more and impairment must be calculated instead. Also, after the transfer, the pre-CECL impairment balances are hold in the separate balance fields in which those amounts were stored prior to the transfer. This ensures that pre-CECL impairment amounts and impairment values that are calculated as a result of the transfer of AFS lot to ITS/RTS intent are maintained separately.

The image below shows a case where 70% of a position is transferred from non-ITS/RTS to ITS/RTS intent.

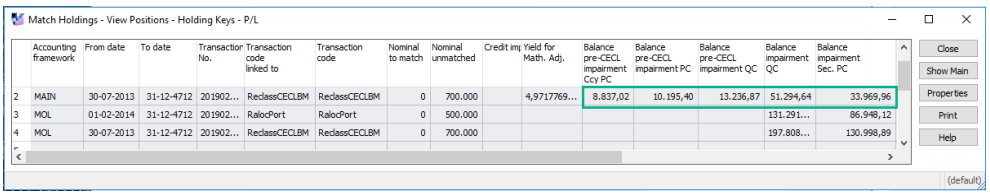


The **Profit/Loss** sub-window available from the **Functions** menu shows the impairment balance generated as a result of the transfer transaction and the impairment amounts calculated before the security became accountable under the CECL rules.



Once the transfer transaction is saved, you can view and inspect the pre-CECL impairment balances in the **Balance pre-CECL impairment QC**, **Balance pre-CECL impairment PC** and **Balance pre-CECL impairment Ccy PC** fields of the **Match Holdings** and **Holdings** tables.

The image below shows the ingoing position in the **Match Holdings** window in the case when 70% of a position is transferred to ITS/RTS intent.



The impairment balances generated as a result of the transfer transaction are booked separately from the pre-CECL impairment balances.

11.1.2.12 Possibility to transfer AFS security from non-ITS/RTS intent to ITS/RTS intent

As of version 19.04, it is possible to transfer a tax lot accounted under available for sale (AFS) holding category from an intent not to sell the security (non-ITS/RTS intent) to the intent to sell this security (ITS/RTS intent).

In accordance with the current expected credit loss (CECL) requirements, the entity should calculate credit loss allowance (CL Allowance) for the AFS tax lot if:

- An entity does not intend to sell an AFS debt security and it is not likely that entity will be required to sell the security prior to recovery of its amortised cost (non-ITS/RTS security);
- Fair value of the tax lot is below the amortised cost.

However, if an entity changes an intent for this tax lot (an entity intends to sell an AFS lot and it is more likely that the entity will be required to sell this lot prior to recovery of its amortised cost basis), the credit loss allowance calculation is not applicable any more. Instead, impairment must be calculated for this tax lot.

The business model reclassification transaction transfers a security from non-ITS/RTS intent to ITS/RTS intent. The transaction can be generated at market price or without the price specified. The balances calculated on the transaction with the market price specified vary from the balances on the transaction without the price specified.

When the transaction is generated with the market price specified, the following is run (when transferring the tax lot from non-ITS/RTS intent to ITS/RTS intent):

- Gross, recognised, and day 1 credit loss allowance balances are written off. So, after the transfer to ITS/RTS intent, there are no values in the following balance fields:
  - **Balance CL Allowance QC**
  - **Balance CL Allowance PC**
  - **Balance Recognised CL Allowance QC**
  - **Balance Recognised CL Allowance PC**
  - **Balance Day 1 CL Allowance QC**
  - **Balance Day 1 CL Allowance PC**

- Depending on whether the fair value (FV) is below or above the amortised cost (AC), SimCorp Dimension updates different balances. Specifically:
  - If FV > AC,

    then the difference between the fair value and amortised cost is calculated and shown as unrealised profit or loss in the **Profit/Loss** sub-window of the **Business Model Reclassification Transactions** window. This balance is not reflected in the **Match Holdings** window. Amortised cost balance is not effected by the transfer transaction;
  - If FV < AC,

    then the difference between fair value and amortised cost is calculated and booked as impairment amount;
  - If FV < AC but FV > (Amortised cost + recognized CL allowance) calculated before transfer transaction, then only that part of the recognized CL Allowance balance that equals the amortised cost to the fair value is booked as impairment amount. The other part of recognised CL Allowance reverses and is available for finance booking;
- Amortised cost and book value balances of the tax lot of the debt security are reduced for the amount of recognised credit loss allowance which is written off;
- If amortised cost and book value are greater than fair value after the reduction of the recognized CL Allowance, amortised cost and book value balances are decreased further so that these balances are equal to the fair value after the transfer.
- Amount stored in the impairment balance after the transfer consists of:
  - Recognised CL Allowance, if amortised cost before transfer – recognised CL Allowance = fair value
  - Recognised CL Allowance + (amortised cost – recognised CL Allowance – fair value) if amortised cost before transfer – recognised CL Allowance > fair value

    where:

    Fair value is equal to the nominal multiplied by market price;

    Recognised CL Allowance — recognized CL Allowance balance calculated till the date of transfer;

    Amortised cost — amortized cost balance calculated till the date of transfer;

When the transaction is generated without the price specified, the following is run (when transferring the tax lot from non-ITS/RTS intent to ITS/RTS intent):

- Gross, recognised, and day 1 credit loss allowance balances are written off. So, after the transfer to ITS/RTS intent, there are no values in the following balance fields:
  - **Balance CL Allowance QC**
  - **Balance CL Allowance PC**
  - **Balance Recognised CL Allowance QC**
  - **Balance Recognised CL Allowance PC**
  - **Balance Day 1 CL Allowance QC**
  - **Balance Day 1 CL Allowance PC**
- Amortised cost and book value balances of the tax lot of the debt security are reduced for the amount of recognised credit loss allowance which is written off;
- Recognised credit loss allowance value is booked as impairment and update the following fields:
  - **Balance impairment QC**
  - **Balance impairment PC**

Once the tax lot is transferred from non-ITS/RTS intent to ITS/RTS intent, the impairment must be calculated.

Note

It is only possible to transfer a tax lot from non-ITS/RTS intent to ITS/RTS intent. Transfer in opposite direction is not supported in SimCorp Dimension.

The decision to transfer the lot from non-ITS/RTS intent to ITS/RTS intent is taken by the entity outside of SimCorp Dimension.

Setup in SimCorp Dimension

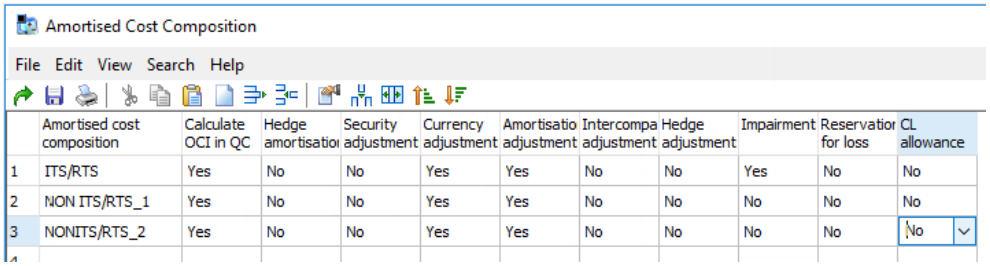
As a result of transferring a tax lot from non-ITS/RTS intent to ITS/RTS intent, particular settings in the **Financial Accounting Methods** window change. The list of the settings that change on the transfer are shown in the following table:

Field name in the Financial Accounting Methods window	Field options in the Financial Accounting Methods window	
	Non ITS/RTS intent	ITS/RTS intent

Field name in the Financial Accounting Methods window	Field options in the Financial Accounting Methods window	
CL allowance	**CECL** **CECL Import**	**None**
Fair value floor	**Yes** **No** Only **No** option is supported on incoming leg.	**No**
Impairments	**None**	**Impairments, unchanged amortisation** **Impairments, no amortisation** **Impairments, new prospective math. yield**

All other settings in the **Financial Accounting Methods** window for non-ITS/RTS and ITS/RTS are the same.

The difference in amortised cost composition settings used for non-ITS/RTS and ITS/RTS securities is shown in the image below:



	Amortised cost composition	Calculate OCI in QC	Hedge amortisatio	Security adjustment	Currency adjustment	Amortisatio adjustment	Intercompa adjustment	Hedge adjustment	Impairment	Reservatior for loss	CL allowance
1	ITS/RTS	Yes	No	No	Yes	Yes	No	No	Yes	No	No
2	NON ITS/RTS_1	Yes	No	No	Yes	Yes	No	No	No	No	No
3	NONITS/RTS_2	Yes	No	No	Yes	Yes	No	No	No	No	No

Note

In the **Amortised Cost Composition** window, only the **No** setting is supported in the **CL Allowance** field.

Business model reclassification transaction for ITS/RTS intent

The business model reclassification transaction transfers the tax lot from non-ITS/RTS intent to ITS/RTS intent.

As a result of the transfer, the following is run:

- Recognised credit loss allowance balance is booked as impairment balance;
- No profit or loss is calculated;
- All the values are transferred proportionally to the nominal defined on the business model reclassification transaction.

Note

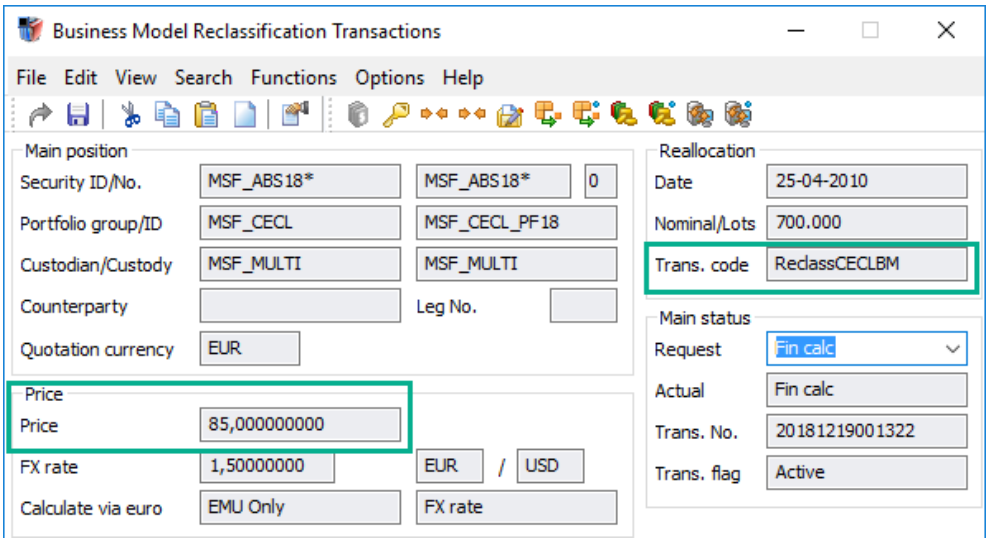
To transfer the lot from non-ITS/RTS intent to ITS/RTS intent, ensure that financial accounting settings in the **Financial Accounting Methods** window of the outgoing and incoming positions are compatible.

Transfer a tax lot from non-ITS/RTS intent to ITS/RTS intent at market price

To transfer a tax lot from non-ITS/RTS intent to ITS/RTS intent, follow these steps:

1. Open the **Business Model Reclassification Transaction** window.
2. In the **Main position** section, enter the required data, such as security ID, portfolio ID, and counterparty.
3. In the **Price** section, in the **Price** field, specify the price at which you want to transfer.
4. In the **Reallocation** section, enter date and nominal. Furthermore, in the **Trans. code** field, select one of the following options:
   - **ReclassCECLBM** to generate a transfer transaction that effects holdings at the middle of the day.
   - **ReclassCECLBMSD** to generate a transfer transaction that effects holdings at the start of the day.
5. In the **Position - from** section, enter the purpose code that corresponds to the AFS holding category from which you want to reclassify the position.
6. In the **Position - to** section, enter the purpose code that corresponds to the AFS holding category to which you want to reclassify the position.
7. Select **Functions > Positions** to select the required position.
8. Click **Save**.

The following image shows the setup in the **Business Model Reclassification Transaction** window with corresponding transaction code and the price specified in the **Price** field.

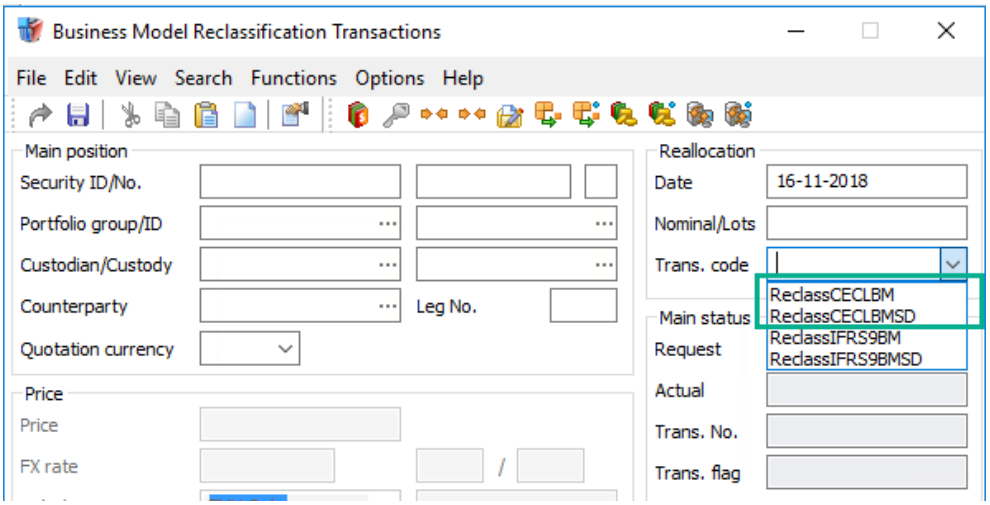


Transfer a tax lot from non-ITS/RTS intent to ITS/RTS intent without price specified

To transfer a tax lot from non-ITS/RTS intent to ITS/RTS intent, follow these steps:

1. Open the **Business Model Reclassification Transaction** window.
2. In the **Main position** section, enter the required data such as security ID, portfolio ID, and counterparty.
3. Leave the **Price** field empty in the **Price** section.
4. In the **Reallocation** section, enter date and nominal. Furthermore, in the **Trans. code** field, select one of the following options:
   - **ReclassCECLBM** to generate a transfer transaction that effects holdings at the middle of the day.
   - **ReclassCECLBMSD** to generate a transfer transaction that effects holdings at the start of the day.
5. In the **Position - from** section, enter the purpose code that corresponds to the AFS holding category from which you want to reclassify the position.
6. In the **Position - to** section, enter the purpose code that corresponds to the AFS holding category to which you want to reclassify the position.
7. Select **Functions > Positions** to select the required position.
8. Click **Save**.

The following image shows the **Business Model Reclassification Transaction** window and corresponding transaction codes.



Verify balances for the transfer transaction

After the business model reclassification transaction is generated and saved, the balances can be verified.

To verify how the **Business Model Reclassification** transaction has effected the corresponding balances on tax lots, complete the following steps:

1. Open the **View Transactions** window.
2. Load the portfolio with the created **Business Model Reclassification** transactions.
3. Select the row with the transaction to verify the balances.
4. Select **Functions > View Holding Keys**.

   The **View Positions** window opens.

5. Select the position row and click **Functions > View Match Holdings** from the menu bar.

   The **Match Holdings** sub-window opens.

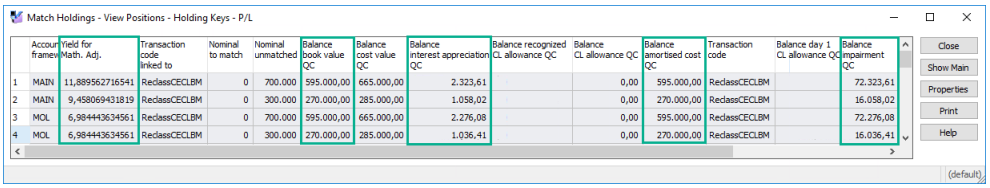
   You can control that there are no values in these balance fields:

   - **Balance CL Allowance QC**
   - **Balance CL Allowance PC**
   - **Balance Recognized CL Allowance QC**
   - **Balance Recognized CL Allowance PC**
   - **Balance Day 1 CL Allowance QC**
   - **Balance Day 1 CL Allowance PC**

   The CL Allowance balances are reversed. Also the impairment balance is updated with the recognized CL Allowance calculated till the date of transfer.

   Book value and amortised cost value balances are reduced by the recognized CL Allowance amount.

   See an example in the picture below:



	Accounting framework	Yield for Math. Adj.	Transaction code linked to	Nominal to match	Nominal unmatched	Balance book value QC	Balance cost value QC	Balance interest appreciation QC	Balance recognized CL allowance QC	Balance CL allowance QC	Balance amortised cost QC	Transaction code	Balance day 1 CL allowance QC	Balance impairment QC
1	MAIN	11,889562716541	ReclassCECLBM	0	700.000	595.000,00	665.000,00	2.323,61		0,00	595.000,00	ReclassCECLBM		72.323,61
2	MAIN	9,458069431819	ReclassCECLBM	0	300.000	270.000,00	285.000,00	1.058,02		0,00	270.000,00	ReclassCECLBM		16.058,02
3	MOL	6,984443634561	ReclassCECLBM	0	700.000	595.000,00	665.000,00	2.276,08		0,00	595.000,00	ReclassCECLBM		72.276,08
4	MOL	6,984443634561	ReclassCECLBM	0	300.000	270.000,00	285.000,00	1.036,41		0,00	270.000,00	ReclassCECLBM		16.036,41

11.1.2.13 Current expected credit losses configuration under US GAAP

As of version 19.04, it is possible to account for tax lots in accordance with the US GAAP impairment model which is also known as the current expected credit losses (CECL) model. When enabling the feature, it is possible to:

- Configure **Financial Accounting Methods** and **Financial Accounting Principle** to account for financial instruments in accordance with CECL requirements;
- Classify a tax lot as the one that has experienced more than significant credit deterioration since origination (PCD) or the one that has not experienced more than significant credit deterioration (non PCD) based on the credit ratings data. It is also possible to import the PCD and non-PCD identifiers per tax lot in SimCorp Dimension.

Applicable holding categories of financial assets

In SimCorp Dimension, the CECL model is supported for debt instruments accounted under the following holding categories:

- HTM — held to maturity
- AFS — available for sale

Financial instruments accounted under the CECL model are ABS, bond, CD, CP, index bond, reduced face value bond, SSD, US pool.

Financial instruments accounted under HFT (held for trading) holding category are not a subject for credit loss allowance.

With the CECL solution supported in SimCorp Dimension, you can account for:

- Financial assets that have experienced more-than-insignificant credit deterioration since origination (PCD assets);
- Financial assets that have not experienced more-than-insignificant credit deterioration since origination (non-PCD assets).

Under the CECL rules, all financial assets, for which the calculation of the credit loss allowance is applicable, that are not purchased with credit deterioration (non- PCD assets) belong to the non-PCD stage. Once the performing security becomes worse, it cannot move from non-PCD stage to any other stage but it accumulates more and more credit loss allowance. That is, the fact that credit risk is increasing is indicated by the credit loss allowance balance that is growing.

The CECL model requires an estimate of the credit losses expected over the life of the security. Therefore, credit loss allowance for financial assets at any stage is calculated based on the expected life time cash flow.

Credit Ratings

Similarly to the IFRS 9 solution, under CECL model, the credit ratings data is used to assign an impairment stage for the tax lots. However, the logic used to classify the assets for stages is different from the logic supported under the IFRS 9 solution, since there are only two credit impairment stages under CECL.

Calculation of the credit loss allowance and interest appreciation under the CECL model

In SimCorp Dimension, it is possible to calculate the credit loss allowance in accordance with the requirements of the US GAAP or import the calculated credit loss allowance (CL Allowance) amount per tax lot.

In the CECL solution, you can :

- Calculate CL Allowance in SimCorp Dimension. Specifically, it is possible to:
  - Calculate the CL Allowance based on cash flows imported in SimCorp Dimension. In this case, the CL Allowance amount is calculated as a difference between the net present value of the life time expected

cash flow and the net present value of the contractual cash flow;

- Calculate the CL Allowance based on the life time expected factors;

Note

It is possible to calculate the CL Allowance in accordance with CECL rules only for non-PCD tax lots.

- Import CL Allowance amounts calculated outside of SimCorp Dimension per tax lot.

Financial Accounting Methods configuration

Fair value floor	Can be set to **Yes** or **No**. Default setting is **No** for any new transaction and for transaction that do not use credit loss allowance. To apply credit loss allowance, select **Yes** option.
CL allowance	To activate the calculation of credit loss allowance amounts in accordance with the CECL model, select the **CECL** option. To activate the import of the credit loss allowance amounts in accordance with the CECL model, select the **CECL import** option.
Interest appreciation	The following options are supported for the current expected credit loss model: • **Book value and Ccy** • **Book value no Ccy** • **Book value, daily coupon** • **Book value, daily coupon, no Ccy**

Profit/loss method	The following profit and loss methods are supported: • **Closest to proceeds** • **Dynamic profit/loss selection** • **FIFO** • **FIFO DK taxable after 27/01/2010** • **FIFO compensational tax** • **High amortised cost (PC)** • **High cost** • **High cost (PC)** • **LIFO** • **Low cost** • **Match manual** • **Match manual compensation tax** • **Pro rata** • **Pro rata, not for monetary** • **Tax bucket** Only **FIFO**-like methods are supported.
Impairments	For the tax lot, accounted under CECL rules, calculation of impairment does not apply. Therefore, the only value supported is **(none)**.
Cash flow composition	For the tax lots that are accounted under the CECL rules and for which CL Allowance is calculated in SimCorp Dimension, it is possible to configure cash flow composition that uses only life time cash flows or life time credit loss allowance factors.

Amortised Cost Composition Configuration

In SimCorp Dimension, for tax lots accounted under the CECL rules, amortised cost balance is not updated by the CL Allowance values. Therefore, for such lots in the **Amortised Cost Composition** window, only the **No** setting is supported in the **CL Allowance** field.

Credit rating setup

It is possible to use credit rating data to assign an impairment stage for tax lots or positions. That is to define whether a lot is PCD or non-PCD. Regardless of the credit impairment stage assigned to the tax lot or the position, the credit loss allowance is calculated based on the life time expected cash flow.

When creating a portfolio, define a credit rating in the **Impairment rating threshold** field in the **Portfolios > Functions > Impairment Credit Rating Setting** window. A stage lower than **B** becomes a **PCD Stage**. A higher than **B** is a **Non-PCD Stage**.

To apply a stage to a tax lot under the CECL model, complete the following:

1. When creating a simple bond purchasing transaction in the **Dealer Bond** window, select **Functions > Profit/Loss**.

   The **Profit/Loss** window opens.
2. In the **Accounting framework and status dependent data** section, select a stage from the **Credit impairment stage** drop down list.
3. Click the **Close** button.
4. Save the transaction in the **Dealer Bonds** window.

11.1.2.14 Credit loss allowance and fair value flooring transactions under US GAAP

As of version 19.04, SimCorp Dimension can calculate, import and fair value floor the credit loss allowance balances in accordance with the CECL impairment model.

In SimCorp Dimension, the CECL impairment model makes it possible to:

- Open a tax lot with configured credit loss allowance functionality and assign or import the credit impairment stage for such a lot. This can be achieved by using the opening balance or dealer transaction;
- Calculate and book the credit loss allowance based on expected cash flows imported in SimCorp Dimension.

Note

In SimCorp Dimension, you can calculate the credit loss allowance in accordance with the CECL model requirements only for non-PCD tax lots.

- Calculate and book the credit loss allowance based on life time expected credit factors;
- Import and book the credit loss allowance calculated outside of SimCorp Dimension per a tax lot. You can import the CL Allowance for PCD and non-PCD tax lots;
- Apply fair value flooring to the gross credit loss allowance value and calculate recognized credit loss allowance for assets accounted under the AFS (available for sale) holding category.

Financial Accounting Methods configuration

The key settings in the **Financial Accounting Methods** window for the credit loss allowance and fair value floor transactions are the following:

Field in the Financial Accounting Methods window	Field setting in the Financial Accounting Methods window
CL Allowance	The credit loss allowance settings applicable for CECL rules are **CECL** and **CECL import**
Fair value floor	When **Yes** setting is selected, the credit loss allowance is fair value floored. The **No** setting disables the fair value flooring for the credit loss allowance.

Introduce the credit impairment stage via opening balance transaction

It is possible to manually introduce or import the credit impairment stage — PCD or non-PCD, per tax lot via the opening balance transaction or a dealer transaction.

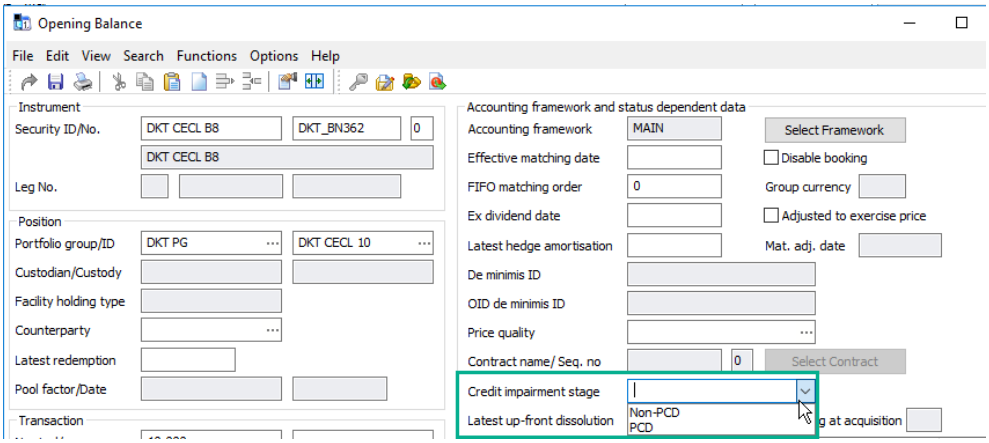
To introduce the credit impairment stage via opening balance transaction, complete the following steps:

1. Open the **Opening Balance** window.
2. Upload the instrument, position and transaction information.
3. Set transaction code to be **OpenBalance**. Specify portfolio and quotation currencies and select the main status to be **Fin calc**. Enter accounting framework information.
4. In the **Functions > Additional Data** sub-window, specify **CECL** in the **Purpose** field.

   Click **Close**

   This allows CECL stages to be available in the **Credit impairment stage** drop-down menu in the **Opening Balance** main window.

5. Select the CECL stage in the **Credit impairment stage** field, as shown in the image below.



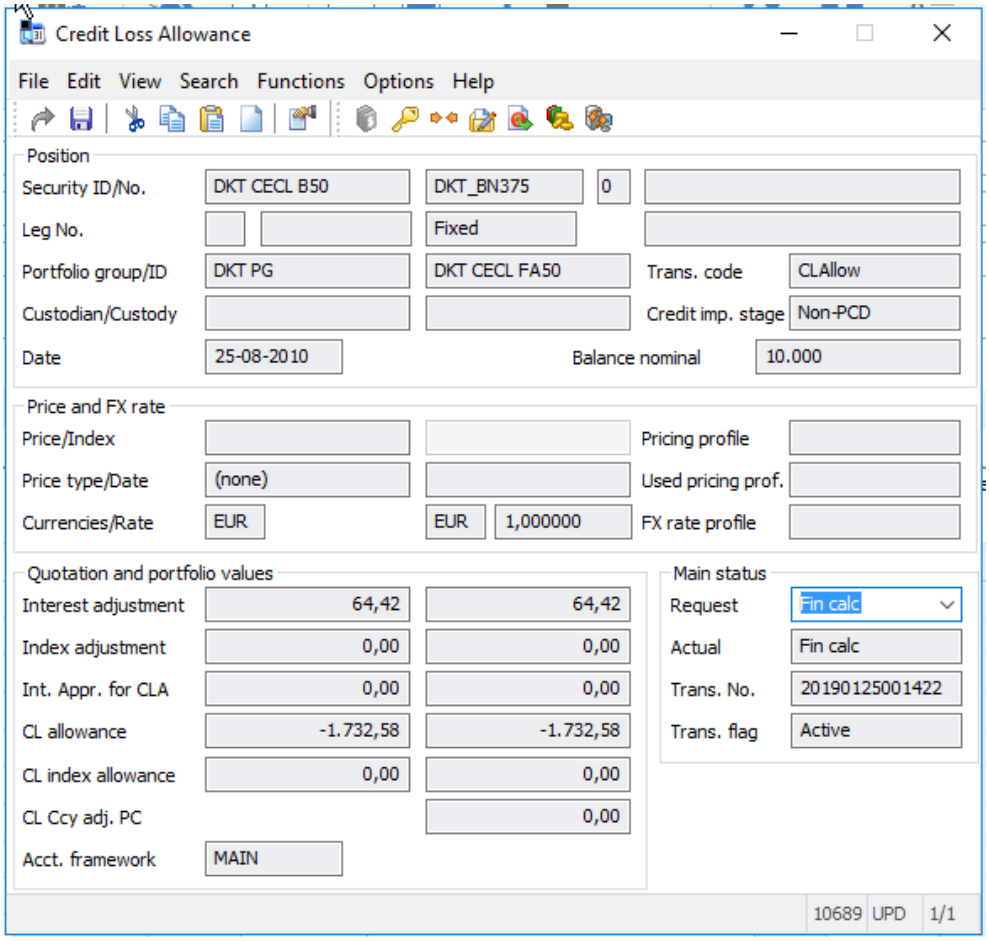
Once the opening balance transaction is saved, it is possible to see the credit impairment stage in the **Match Holding** window per a tax lot.

Calculating the credit loss allowance

In SimCorp Dimension, you can calculate the CL Allowance amounts based on the expected cash flows. To accomplish this, complete the following steps:

1. Open the **Credit Loss Allowance** window.
2. In the **Position** section, enter required data such as portfolio, security ID and date.
3. In the **FX rate profile** field, specify the FX rate profile.
4. In the **Acc. framework** field, specify an accounting framework.
5. From **Functions** > **Positions**, select the appropriate position.
6. Select the **CLAllow** option in the **Trans. code** field.
7. Save the transaction.

The image below shows an example of the setup in the **Credit Loss Allowance** window for the credit loss allowance calculation transaction.



Once the transaction is saved, the calculated CL Allowance values update the **Balance CL allowance QC** and **Balance CL allowance PC** fields in the **Match Holdings** and **Holdings** sub-windows.

It is also possible to calculate the CL Allowance via the **Create End-of-Period Transactions** window. In the **Create End-of-Period Transactions** window, specify general information about the security, portfolio or segment, and select the **Credit loss allowance** check box, then click **Execute**.

Importing the credit loss allowance amounts

You can import a CL Allowance amount calculated outside of SimCorp Dimension per tax lots accounted under the CECL rules. Specifically, it is possible to import CL Allowance amounts for PCD and non-PCD tax lots of the AFS or HTM holding categories.

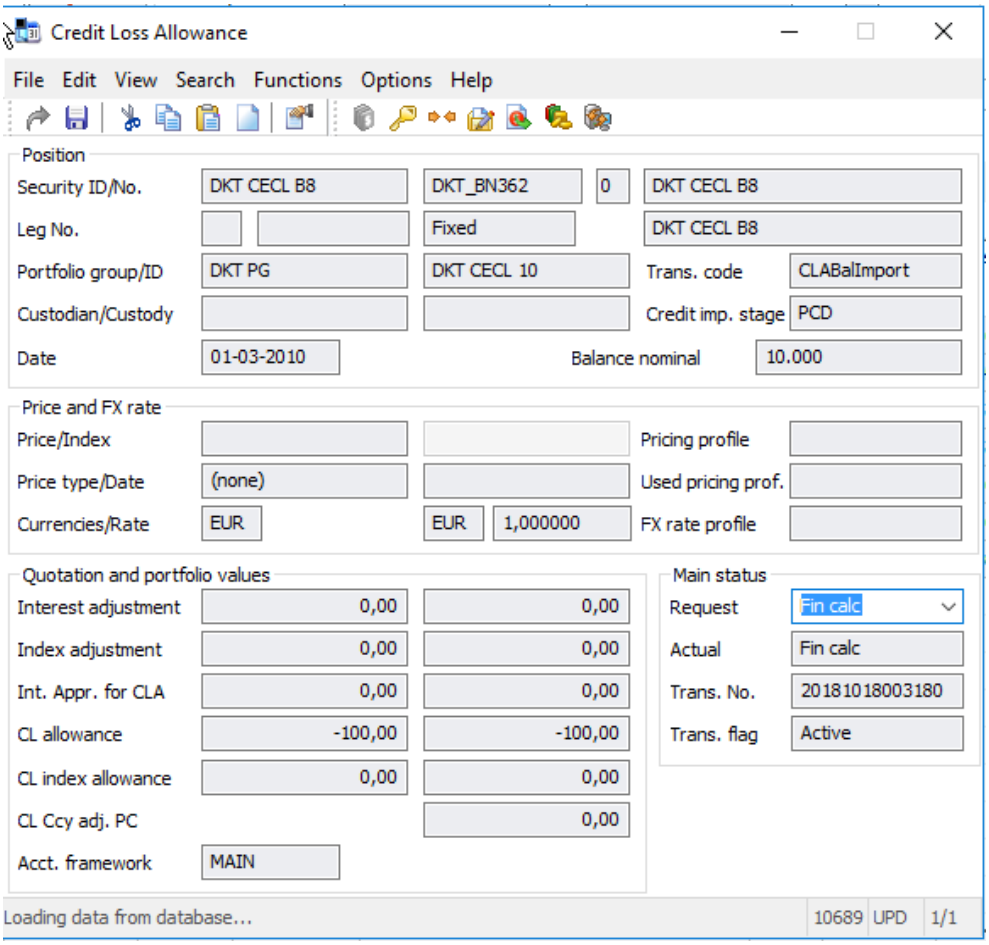
To import the CL Allowance per tax lots, complete the following:

1. Open the **Credit Loss Allowance** window.
2. Select **CLABalImport** in the **Trans. code** field.

3. In the **Position** section, enter the required data such as portfolio, security ID and date.
4. In the **FX rate profile** field, specify the FX rate profile.
5. In the **Acc. framework** field, specify an accounting framework.
6. Select **Fin calc** status in the **Request** field in the **Main status** area.
7. Upload a position via **Functions > Positions**.
8. Select **Functions** > **Match**. The **Transaction Match** window opens. Place the check mark in the **Select** field.

   When the tax lot is matched, interest adjustment is calculated and generated, and uploaded to the **Interest adjustment** field and balance uploads into the **Balance nominal** field.
9. Save the transaction.

See the image below for an example of the credit loss allowance balance import in the **Credit Loss Allowance** window.



Once the transaction is saved, the CL Allowance updates the **Balance CL allowance QC** and **Balance CL allowance PC** fields available in the **Match Holdings** and **Holdings** windows.

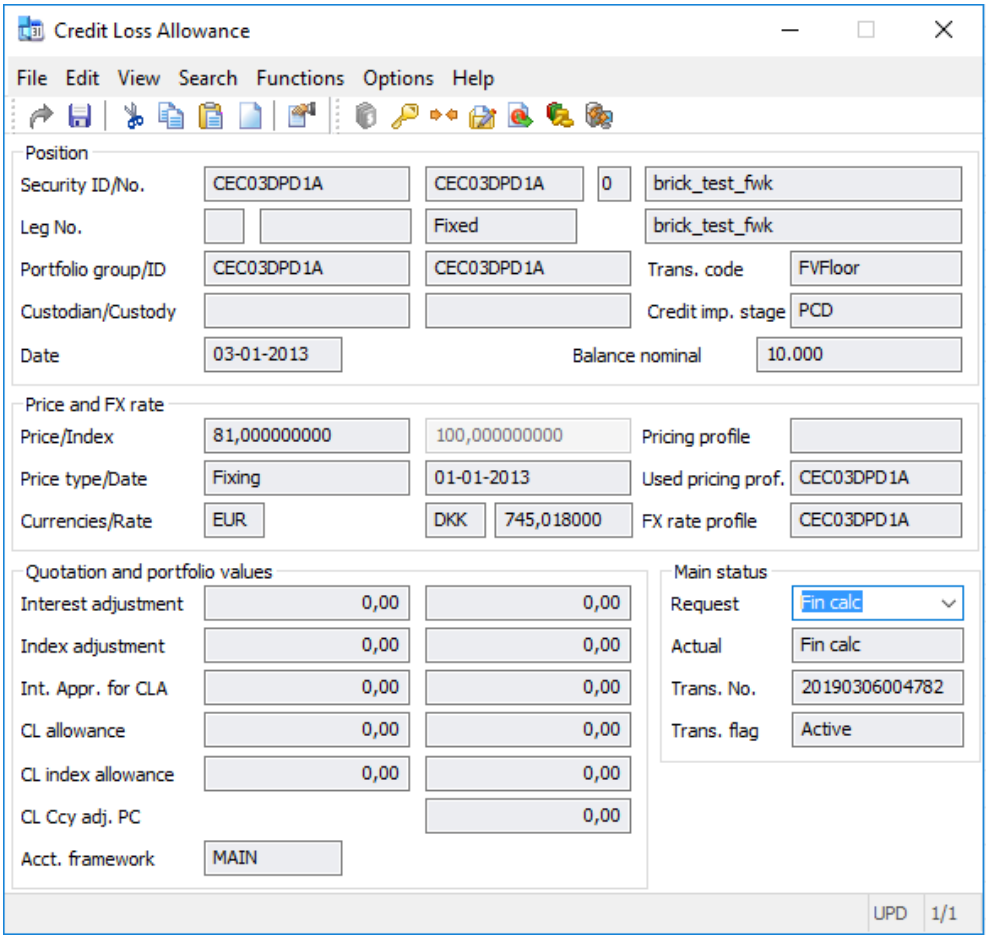
Create the fair value floor transactions

For tax lots accounted under the AFS holding category, it is possible to run the fair value flooring transaction. As a result of the fair value flooring, you can calculate the recognised credit loss allowance amount which can not exceed the difference between the fair value and amortised cost value for the date of calculation.

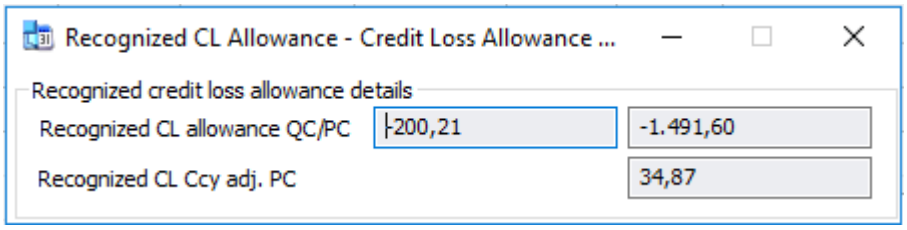
To create a fair value flooring transaction, follow these steps:

1. Open the **Create End-of-Period Transactions** window.
2. Specify the data in the **General information** area.
3. Create a portfolio segment.
4. Select the **Fair value floor** option in the **Create EOP transaction** area.
5. Click the **Save Transaction** button.

You can also create a fair value flooring transaction via the **Credit Loss Allowance** window. To accomplish this, select the **FVFloor** in the **Trans. code** field of the **Credit Loss Allowance** window, as shown in the image below.



View and verify the calculated recognized CL allowance values under the **Functions** > **Recognized CL Allowance** sub-window, which is shown in the image below.



View the results in the **View Positions** window by specifying the portfolio and pressing **Enter**. Then in the **Functions** > **View Match Holdings** sub-window, you can inspect all the relevant balances and track the holdings.

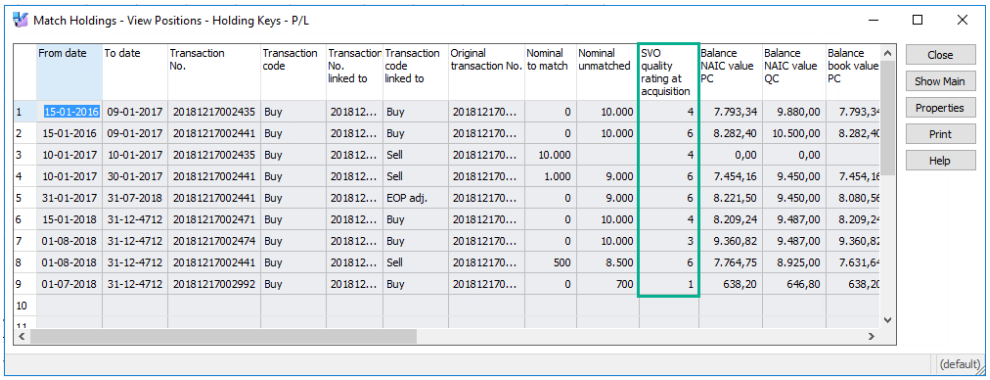
11.1.3 NAIC reporting

11.1.3.1 SVO rating on acquisition transactions

As of version 19.04, SimCorp Dimension identifies the SVO quality rating at acquisition for structured securities within the NAIC reporting framework.

The appropriate SVO rating is taken into account on an acquisition transaction. This enables reporting the correct SVO rating for the NAIC framework. The functionality is supported for ABS and US Pools instrument types.

Verify the correct rating in the **SVO quality rating at acquisition** field in the **View positions > Functions > View Match Holdings** window, as shown in the image below:



	From date	To date	Transaction No.	Transaction code	Transaction No. linked to	Transaction code linked to	Original transaction No.	Nominal to match	Nominal unmatched	SVO quality rating at acquisition	Balance NAIC value PC	Balance NAIC value QC	Balance book value PC
1	15-01-2016	09-01-2017	20181217002435	Buy	201812...	Buy	201812170...	0	10.000	4	7.793,34	9.880,00	7.793,3
2	15-01-2016	09-01-2017	20181217002441	Buy	201812...	Buy	201812170...	0	10.000	6	8.282,40	10.500,00	8.282,4
3	10-01-2017	10-01-2017	20181217002435	Buy	201812...	Sell	201812170...	10.000		4	0,00	0,00	
4	10-01-2017	30-01-2017	20181217002441	Buy	201812...	Sell	201812170...	1.000	9.000	6	7.454,16	9.450,00	7.454,16
5	31-01-2017	31-07-2018	20181217002441	Buy	201812...	EOP adj.	201812170...	0	9.000	6	8.221,50	9.450,00	8.080,56
6	15-01-2018	31-12-4712	20181217002471	Buy	201812...	Buy	201812170...	0	10.000	4	8.209,24	9.487,00	8.209,2
7	01-08-2018	31-12-4712	20181217002474	Buy	201812...	Buy	201812170...	0	10.000	3	9.360,82	9.487,00	9.360,8
8	01-08-2018	31-12-4712	20181217002441	Buy	201812...	Sell	201812170...	500	8.500	6	7.764,75	8.925,00	7.631,6
9	01-07-2018	31-12-4712	20181217002992	Buy	201812...	Buy	201812170...	0	700	1	638,20	646,80	638,2
10													
11													

SVO quality rating for portfolio calculations

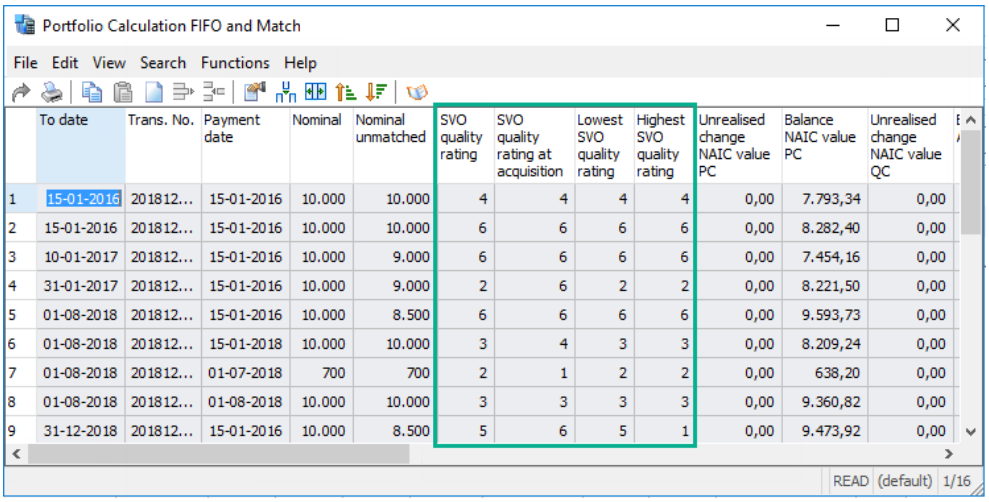
The SVO quality rating is included in portfolio calculation simulations for AVR (life insurance) and NON-AVR (property and casualty) portfolios.

The price point-based rating is simulated at tax lot level in the **List FIFO and Match** sub-window in the **Functions** menu of the **Portfolio Calculation** window.

The following fields get updated:

- **SVO quality rating** – current SVO rating at calculation date. This means that, in portfolio calculation, the new price is calculated having all necessary transactions and/or adjustments simulated. The new price is then compared to corresponding price points on the static data of the security.
- **SVO quality rating at acquisition** – retrieved SVO rating as of acquisition date.
- **Lowest SVO quality rating** – the lowest rating selected from SVO quality rating and SVO quality rating from transaction. SVO quality rating from transaction is calculated comparing original transaction price to the current price points.
- **Highest SVO quality rating** – the highest rating selected from SVO quality rating and SVO quality rating from transaction. SVO quality rating from transaction is calculated comparing original transaction price to the current price points.

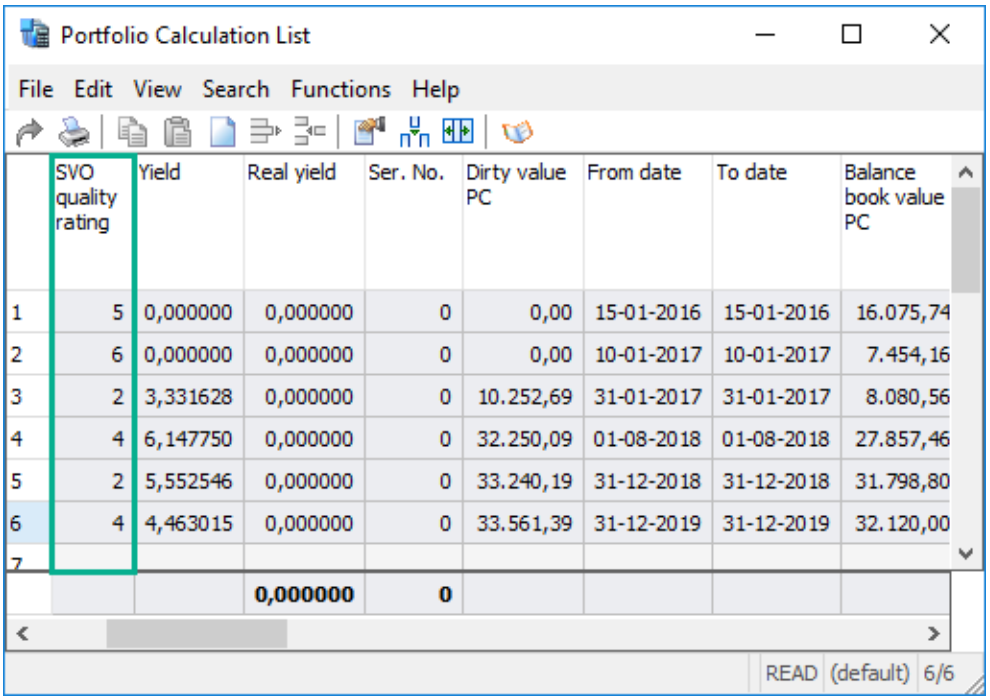
See an example in the image below:



	To date	Trans. No.	Payment date	Nominal	Nominal unmatched	SVO quality rating	SVO quality rating at acquisition	Lowest SVO quality rating	Highest SVO quality rating	Unrealised change NAIC value PC	Balance NAIC value PC	Unrealised change NAIC value QC
1	15-01-2016	201812...	15-01-2016	10.000	10.000	4	4	4	4	0,00	7.793,34	0,00
2	15-01-2016	201812...	15-01-2016	10.000	10.000	6	6	6	6	0,00	8.282,40	0,00
3	10-01-2017	201812...	15-01-2016	10.000	9.000	6	6	6	6	0,00	7.454,16	0,00
4	31-01-2017	201812...	15-01-2016	10.000	9.000	2	6	2	2	0,00	8.221,50	0,00
5	01-08-2018	201812...	15-01-2016	10.000	8.500	6	6	6	6	0,00	9.593,73	0,00
6	01-08-2018	201812...	15-01-2018	10.000	10.000	3	4	3	3	0,00	8.209,24	0,00
7	01-08-2018	201812...	01-07-2018	700	700	2	1	2	2	0,00	638,20	0,00
8	01-08-2018	201812...	01-08-2018	10.000	10.000	3	3	3	3	0,00	9.360,82	0,00
9	31-12-2018	201812...	15-01-2016	10.000	8.500	5	6	5	1	0,00	9.473,92	0,00

On position level, the SVO quality rating is the weighted average of SVO quality ratings from tax lots, which is shown in the **List Calculation** sub-window in the **Functions** menu of the **Portfolio Calculation** window.

See an example in the image below:



For more information about the NAIC reporting framework, see the ***NAIC*** user manual.

11.1.3.2 Reporting Pool Types window enabled for configuration transport

As of version 19.04, you can transport setups in the **Reporting Pool Types** window between SimCorp Dimension installations by using the configuration transport system.

The configuration transport system enables you to quickly move a configuration from one installation to another – for example, from test to UAT.

You can, for example, configure the **Configuration Transport – Mass Action Export** window and include setups created in the **Reporting Pool Types** window. In the **Reporting Pool Types** window, you can also select **File** > **Configuration** and select if you want to export or import a setup.

For more information about the configuration transport system in SimCorp Dimension, see the ***System Maintenance*** user manual.

11.1.3.3 NAIC Value in Opening Balance

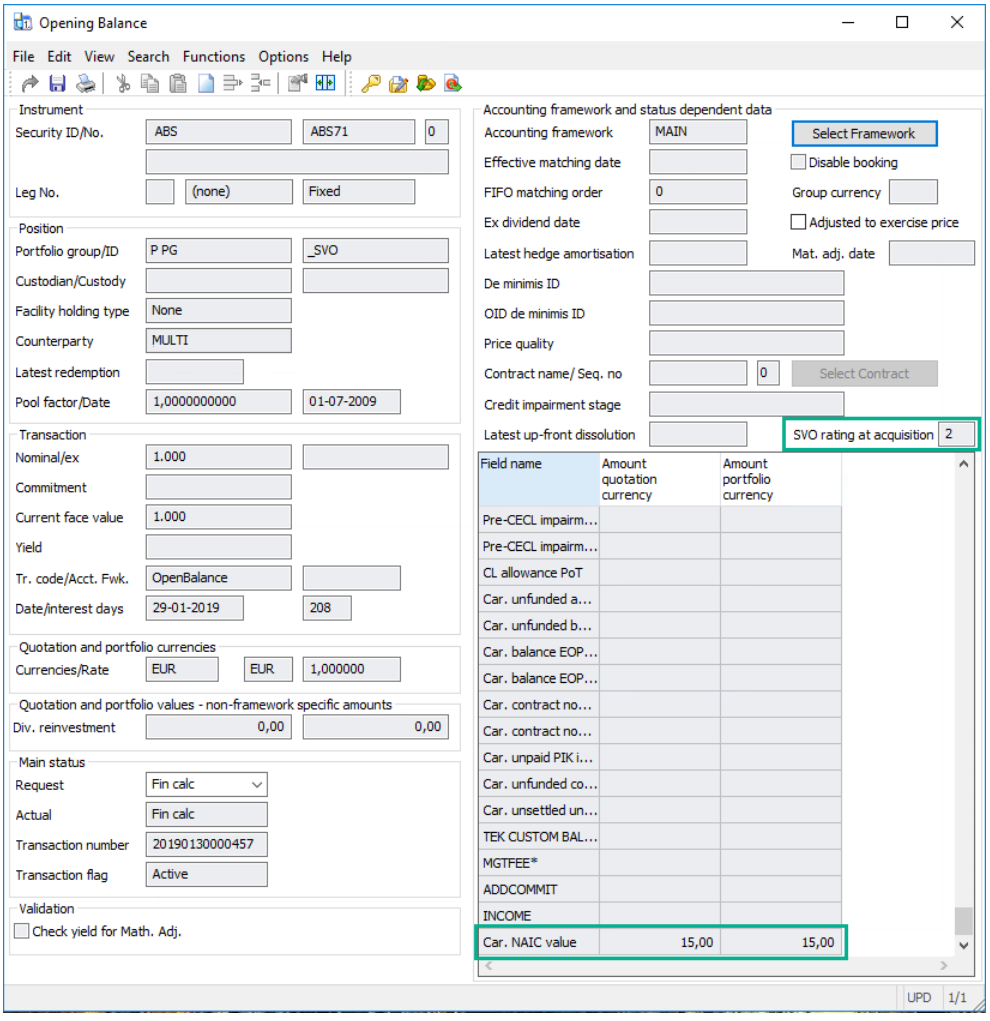
As of version 19.04, NAIC value balances can be imported via opening balance functionality.

The NAIC value balances are reported as book value to NAIC statistics and are core to NAIC reporting.

To support an overview of historical acquisition SVO rating for NAIC

balances, an **SVO rating at acquisition** field is available in the **Opening Balance** window for all instrument types. The **Opening Balance** window is also enhanced with a **Car. NAIC Value** field in the grid section. These fields are open for entry only for holdings where the **SVO rating for NAIC balances** setting is configured to other than **None** in Financial Accounting Methods. It is possible to insert values into the **Car. NAIC Value** field in the grid section of the **Opening Balance** window for the frameworks where the **SVO rating for NAIC balance** setting in Financial Accounting Methods is configured to **None**, though those values do not reflect in the **Match Holdings** window.

The image below shows an example of setup in the **Opening Balance** window with the values specified in the **SVO rating at acquisition** and **Car. NAIC value** fields.



Configure the NAIC-related settings for opening balance

1. In the **Financial Accounting Methods** window, configure the **SVO rating for NAIC balances** setting to other than **None**.

   If **SVO rating for NAIC balances** is set to **None**, the **SVO rating at acquisition** option in the **Opening Balance** window is not available.
2. In the **Opening Balance** window, fill in all the necessary information.
3. Fill in the **SVO rating at acquisition** field with the appropriate value per framework.
4. Input the balance into the **Car. NAIC Value** field in the grid section per framework.

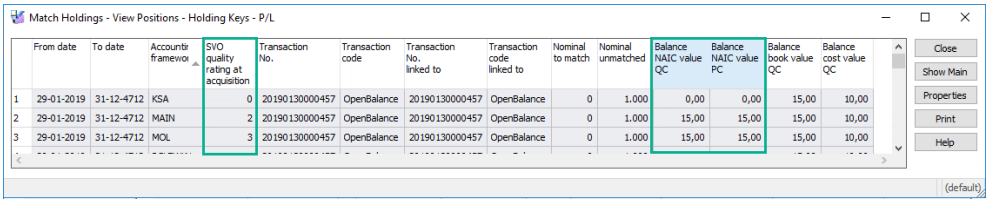
Base filter for opening balance functionality supports import of NAIC balances in batch.

Verify SVO ratings and NAIC balances

To verify the SVO quality rating at acquisition and NAIC value balances for opening balance transactions, refer to the **Match Holdings** window, which can be opened from the **Functions** menu of the **View Positions** window after the position is loaded.

The image below shows holdings within several frameworks.

The **SVO rating for NAIC balances** setting was configured to **None** in the **Financial Accounting Methods** window for the KSA framework. That is why no values display in the **SVO quality rating at acquisition** and **Balance NAIC value QC/PC** fields for KSA accounting framework.



More information about opening balance functionality is available in the ***Financial Accounting*** user manual in the ***Introducing holdings via opening balance*** section.

11.1.4 IFRS 9

11.1.4.1 Reallocations for P-GAAP adjustment balances for tax-lot based profit/loss method

As of version 19.04, you can reallocate a part of or an entire portfolio including the Purchase Accounting Adjustment (P-GAAP) balances. This functionality improves the support for IFRS 9 in SimCorp Dimension.

P-GAAP reallocations on tax lot level reallocate each tax lot into a new empty tax lot on the In-leg of the transaction. Each new tax lot is opened

with a P-GAAP main balance only.

This means that a reallocated P-GAAP dissolution balance is not supported on a new tax lot. This applies to all newly reallocated tax lots, even though the tax lot to be reallocated from the Out-leg contains both a P-GAAP main balance and a P-GAAP dissolution balance.

The profit/loss for the P-GAAP reallocation Out-leg contains the same contribution fields as on a P-GAAP sell transaction.

The P-GAAP dissolution balance is handled as follows:

- The P-GAAP dissolution part is handled as profit/loss on the Out-leg and deducted from the reallocation main P-GAAP purchase accounting carried amount.

  Note

  There is not a 1:1 mapping of the existing number of P-GAAP balances on the Out-leg to the number of shown reallocated balances on the In-leg.

- In the reallocation process, there is an internal up-to-date calculation since the **Date latest purchase accounting dissolution** (available in **View Positions** > **View Holdings**) was defined.

  This applies for instruments that are open for linear P-GAAP adjustment transactions (with transaction code **PGAAPLinAdj**).

Settings in Financial Accounting Methods

The functionality is supported for the **Pro rata, not for monetary** profit/loss method.

The following related settings are not supported when you configure the **Purchase accounting historical costs** field in the **Financial Accounting Methods** (FAM) window together with the **Pro rata, not for monetary** profit/loss method:

- **Tax lot based EOX balance dissolution** field: **None**
- **Transfer into tax lot** field: **Original tax lot**

Calculations of profit/loss fields and carried fields

Handling of P-GAAP profit/loss on Out-leg:

- Booked interim purchase Acc. = Nominal fraction (nfrc) x (Balance dissolved pur. acc. since EOP_prev + up-to-date) - Balance dissolved pur. acc. since EOP_prev
- Dissolution purchase Acc. = (1-nfrc) x (up-to-date + Balance dissolved pur. acc. since EOP_prev)

Handling of P-GAAP carried fields Out-leg, calculated from Out-leg values:

- Car. Bal. purchase accounting = (1-nfrc) x (Balance purchase accounting_prev - (Balance dissolved pur. acc. since EOP_prev + up-to-date))
- Car. Bal. purchase accounting = (1-nfrc) x Balance purchase accounting_prev - Dissolution purchase Acc.
- Car Bal. dissolution balance = 0

Handling of P-GAAP profit/loss on In-leg:

- Booked interim purchase Acc. = Dissolution purchase Acc.= 0 (as new tax lot on In-leg)

Handling of P-GAAP carried fields In-leg:

- The calculated carried values from the Out-leg are used as carried values for the In-leg.

In more detail

- '_prev': Postfix used to refer to previous relevant balance on Out-leg before the reallocation.
- 'up-to-date': The calculated internal up-to-date amount since last **Date latest purchase accounting dissolution** on Out-leg (Balance P-GAAP * day fraction).
- nfrc (nominal fraction) = 1-reallocation % = New nominal/old nominal.

11.1.4.2 Base filter for importing purchase accounting adjustments

As of version 19.04, you can use the **BASE_2338** base filter to import purchase accounting adjustment (P-GAAP) balances in the the Filter Tool Box. You can match the P-GAAP balances to tax lots when using the base filter.

You can select the base filter for the **Purchase Accounting Adjustments** window in the **Data Format Setup – Definitions** window.

For more information about the supported fields in the base filter, open the **Base Filters** window. For more general information, see the ***Filter Tool Box*** user manual.

11.1.4.3 Enabled support for importing credit loss allowance for bank account and call money

As of version 19.04, you can import credit loss allowance (CL Allowance) balances for the bank account and call money instruments.

CL Allowance balances can be updated manually or via filter import in the **Credit Loss Allowance** window by using the transaction code **CLAllow**.

Decrementing transactions will dissolve CL Allowance balances proportionally if the setup in the **Financial Accounting Methods** window includes a setup in the **Amortised cost composition** field. If not, CL Allowance balances can only be dissolved manually.

Reallocations are not supported and will therefore display inconsistent results. Ensure that you update CL Allowance balances after reallocations as needed.

Ensure that you update the setups in the **Financial Accounting Methods** window that are used by bank accounts and call money by selecting **IFRS9** in the **CL allowance** field.

11.1.4.4 EOP negative adjustment values on credit loss allowance transactions

As of version 19.04, you can report balance EOP (end-of-period) negative adjustment values from the tax lot level on credit loss allowance (CL Allowance) transactions.

In addition, you can view Balance EOP negative adjustment QC/PC in the profit/loss results on the CL Allowance transaction.

The **Balance EOP negative adjustment QC/PC** and **Balance EOP negative Ccy Adj. PC** fields in the profit/loss results on CL Allowance transactions are available on both position and on tax lot level, as shown in the following image:

	Field name	Amount quotation Ccy (EUR)	Amount portfolio Ccy (USD)	Bal. P/L	Transaction match reference No.
1	Cost yield	11,738083			
2	Yield for Math. Adj.	13,692666			
3	Amortised cost	3.937,34	1.008,13	Bal	
4	OCI gain	-3.937,34	-1.008,13	P/L	
5	Unrealised Credit Loss	3.937,34	4.842,53	P/L	
6	Unrealised CL Ccy adj. PC		-3.834,40	P/L	
7	Unrealised Int. Appr. for CLA	-7.199,77	-8.855,00	P/L	
8	Prev. balance CL allowance	-129.540,77	-155.487,79	P/L	
9	Balance EOP negative adjustment	-11.818,67	-24.261,53	Bal	
10	Balance EOP negative Ccy Adj. PC		-10.449,05	Bal	
11	Yield for Math. Adj.	13,692666			20190213001275
12	Amortised cost	3.937,34	1.008,13	Bal	20190213001275
13	OCI gain	-3.937,34	-1.008,13	P/L	20190213001275
14	Unrealised Credit Loss	3.937,34	4.842,53	P/L	20190213001275
15	Unrealised CL Ccy adj. PC		-3.834,40	P/L	20190213001275
16	Unrealised Int. Appr. for CLA	-7.199,77	-8.855,00	P/L	20190213001275
17	Prev. balance CL allowance	-129.540,77	-155.487,79	P/L	20190213001275
18	Balance EOP negative adjustment	-4.258,08	-9.482,27	Bal	20190213001275
19	Balance EOP negative Ccy Adj. PC		-4.505,85	Bal	20190213001275
20	Yield for CL allowance	8,509063			20190213001275

On the position level, the balance EOP negative adjustment balance fields show the corresponding balance amounts from the position level.

The **Balance EOP negative adjustment** and **Balance EOP negative Ccy Adj. PC** fields with transaction match reference number show the EOP balances that correspond to the tax lot for which the CL Allowance transaction was booked.

11.1.4.5 Formula functions sumTaxLotinTrans and sumTaxLotinPos updated

As of version 19.04, the sumtaxlotintrans and sumtaxlotinpos formula functions have been updated with the following changes.

sumTaxLotinTrans	This formula function can now use the credit impairment stage as a condition. The formula function has **Portfolio Calculation – Transaction** as the **Usage** in the **Formulas** window. You can specify this formula function when you want to use tax lot level values from transactions. When you create the formula function, specify the credit impairment stage in a tax lot characteristics formula which is then used as the second argument to the sumtaxlotintrans formula function. As the first argument, you can use any field from the TRANSPRLMATCH table. For example, if the **P/L cost QC** field is used as the first argument, the formula result in the **List Calculation** of the **Portfolio Calculation** will show the sum of P/L cost QC amounts from transactions for the specified period based on the credit impairment stage: sumtaxlotintrans(totext({P/L cost QC});'STAGE 0')

sumTaxLotinPos	This formula function now supports the nominal unmatched field as argument. The formula function has **Portfolio Calculation – Static** as the **Usage** in the **Formulas** window. You can use the formula for summing up tax lot level data to the position level based on a condition. This condition is set as the second argument to the formula, which is a tax lot characteristics formula. The tax lot characteristics formula can specify the credit impairment stage. For example, the **List Calculation** of the **Portfolio Calculation** will show the sum of nominal unmatched from tax lots, based on the specified credit impairment stage. The results can be used, for example, to derive the interest payment for the position with the specified credit impairment stage by using another formula. For example: sumtaxlotinpos ('Nominal unmatched';'STAGE 0')

11.1.4.6 Credit impairment stage on mathematical and tax lot value adjustment transactions

As of version 19.04, the **Credit impairment stage** and **Previous credit impairment stage** fields in the profit/loss sub-window are updated with the current stage value on mathematical adjustment transactions and tax lot value adjustment transactions.

With this feature, you can report figures (for IFRS 9) in different general ledger (G/L) accounts depending on the credit impairment stage of the tax lot.

- The credit impairment stages shown on the transaction correspond to the stages in **Match Holdings**.
- The values in **Credit impairment stage** and **Previous credit impairment stage** on tax lot value adjustment transactions are the same since the tax lot value adjustment transactions do not change the credit impairment stage of the tax lot.
- The same logic is implemented for the mathematical adjustment transactions.

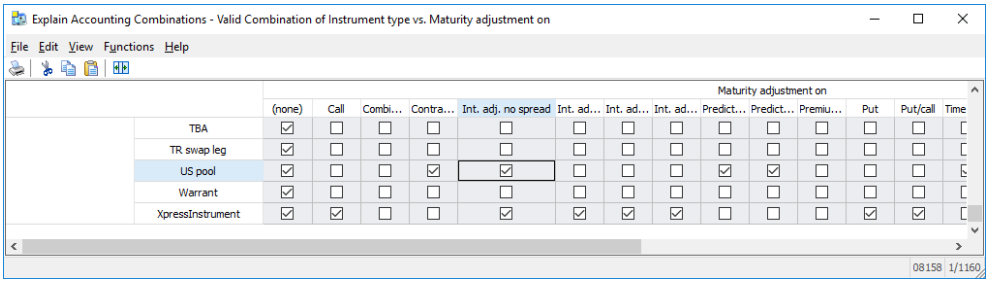
You can use the information in the **Credit impairment stage** and **Previous credit impairment stage** fields in finance formulas, when you raise the mathematical adjustment transaction or the tax lot value adjustment transaction to the general ledger (G/L) status.

11.2 Financial Accounting

11.2.1 Int. adj. no spread support for US Pools

Client segment	Asset Management, Service Provider, Bank, Wealth Management
Target audience	Mortgage Investors
Subscription based licensing	Investment Accounting Manager
Sales Modules and sales module dependencies	TBA, US MBS

The **Int. adj. no spread** maturity adjustment is now also supported for the US Pool instrument type.



Benefits

- Possibility to register ARMs (Adjustable Rate Mortgages) as US pools instead of ABS.
- Being able to use maturity simulation method = 'Int. Adj no spread' so that amortization goes until first coupon date at par value for ARMs registered as US Pools.
- Retire workarounds where financial instruments had to be defined using another instrument type in SimCorp Dimension.

11.2.2 Maturity adjustment on setting is enabled for US pools

As of version 19.04, the **Financial Accounting Methods** window, in SimCorp Dimension, can be configured to use the **Maturity adjustment on** field with the **Int. adj. no spread** setting for US pool instruments. With this setting, trades amortise until the first coupon date at par value.

This maturity simulation method is allowed for both average and non-average profit/loss methods.

11.2.3 Italian GAAP and Tax

11.2.3.1 Reclassification between durable and non-durable positions

As of version 19.04, you can reclassify a position from the durable (hold to

maturity, HTM) category to the non-durable (available for sale, AFS) category and vice versa. SimCorp Dimension calculates original issue discount (OID) and premium/discount (P/D) balances when you reclassify holdings between non-durable and durable positions.

This feature is supported for the following instrument types:

- Bonds
- ABS
- Index bonds
- BTP Italia

The reclassification supports the following workflow:

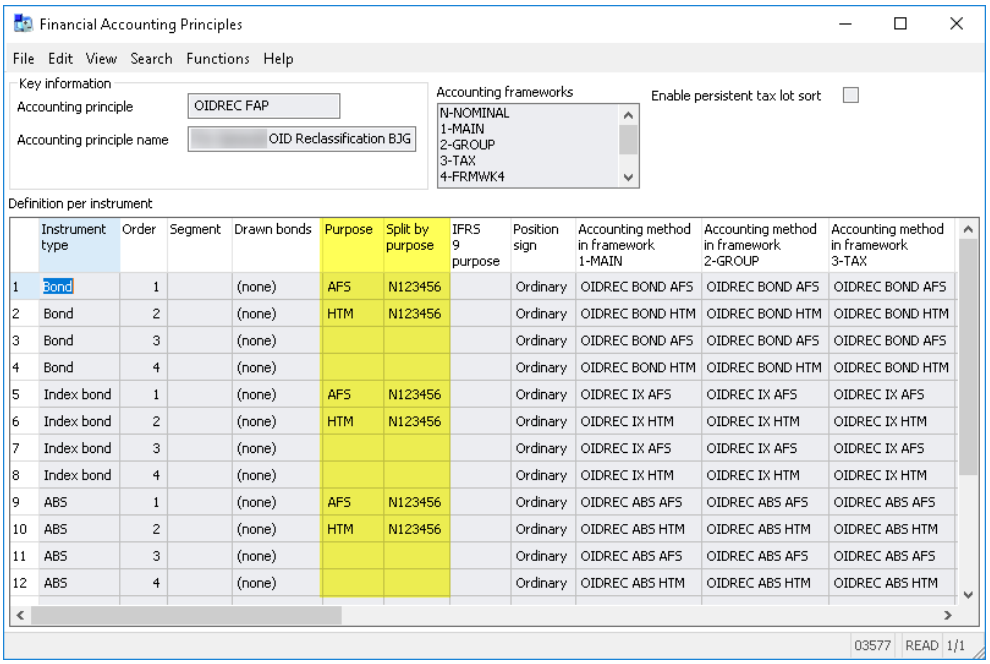
1. 31 December 2019—the AFS holding is being adjusted with end-of-period (EOP) and premium/discount transactions.
2. 1 January 2020—a part of the AFS holding is being reclassified to HTM.

The workflow is also supported in the opposite direction. The feature supports end-of-period, premium/discount, index appreciation, and OID balances. Accrued interest is not yet supported.

Setting up Financial Accounting Methods and Financial Accounting Principles

The feature assumes that non-durable positions (Circolante, AFS) use the **Original issue discount, BV** setting in the **Financial Accounting Methods** window > **Premium/discount adjustment** field, and that the durable positions (Immobilizzato, HTM) use the **OID and premium/discount increasing, BV** setting in the **Premium/discount adjustment** field.

The reclassification is supported by reallocations by purpose and by special holding mark (in the **Reallocation Purpose** and **Reallocation Special Holding Mark** windows). Ensure that the setups in the **Financial Accounting Principles** window include splits on purpose or special holding mark, as shown in the following image:

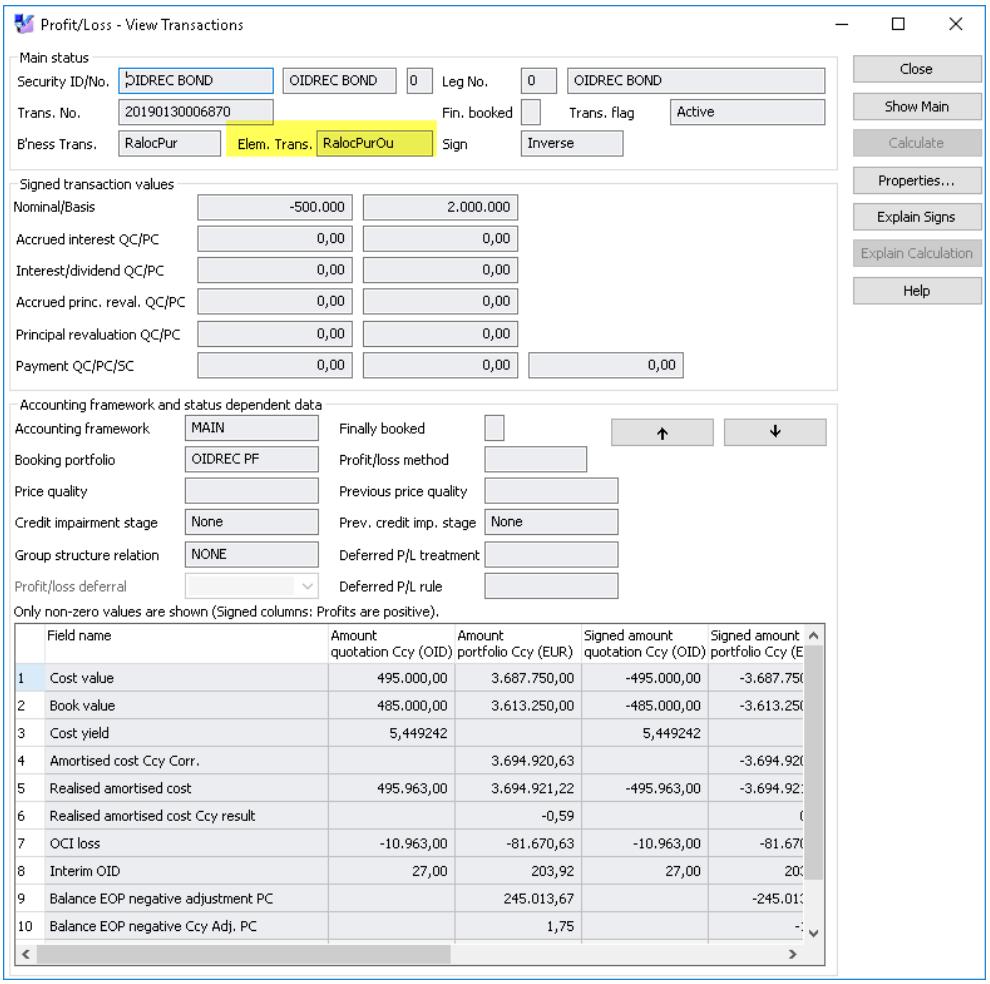


	Instrument type	Order	Segment	Drawn bonds	Purpose	Split by purpose	IFRS 9 purpose	Position sign	Accounting method in framework 1-MAIN	Accounting method in framework 2-GROUP	Accounting method in framework 3-TAX
1	Bond	1		(none)	AFS	N123456		Ordinary	OIDREC BOND AFS	OIDREC BOND AFS	OIDREC BOND AFS
2	Bond	2		(none)	HTM	N123456		Ordinary	OIDREC BOND HTM	OIDREC BOND HTM	OIDREC BOND HTM
3	Bond	3		(none)				Ordinary	OIDREC BOND AFS	OIDREC BOND AFS	OIDREC BOND AFS
4	Bond	4		(none)				Ordinary	OIDREC BOND HTM	OIDREC BOND HTM	OIDREC BOND HTM
5	Index bond	1		(none)	AFS	N123456		Ordinary	OIDREC IX AFS	OIDREC IX AFS	OIDREC IX AFS
6	Index bond	2		(none)	HTM	N123456		Ordinary	OIDREC IX HTM	OIDREC IX HTM	OIDREC IX HTM
7	Index bond	3		(none)				Ordinary	OIDREC IX AFS	OIDREC IX AFS	OIDREC IX AFS
8	Index bond	4		(none)				Ordinary	OIDREC IX HTM	OIDREC IX HTM	OIDREC IX HTM
9	ABS	1		(none)	AFS	N123456		Ordinary	OIDREC ABS AFS	OIDREC ABS AFS	OIDREC ABS AFS
10	ABS	2		(none)	HTM	N123456		Ordinary	OIDREC ABS HTM	OIDREC ABS HTM	OIDREC ABS HTM
11	ABS	3		(none)				Ordinary	OIDREC ABS AFS	OIDREC ABS AFS	OIDREC ABS AFS
12	ABS	4		(none)				Ordinary	OIDREC ABS HTM	OIDREC ABS HTM	OIDREC ABS HTM

Reallocating from non-durable to durable

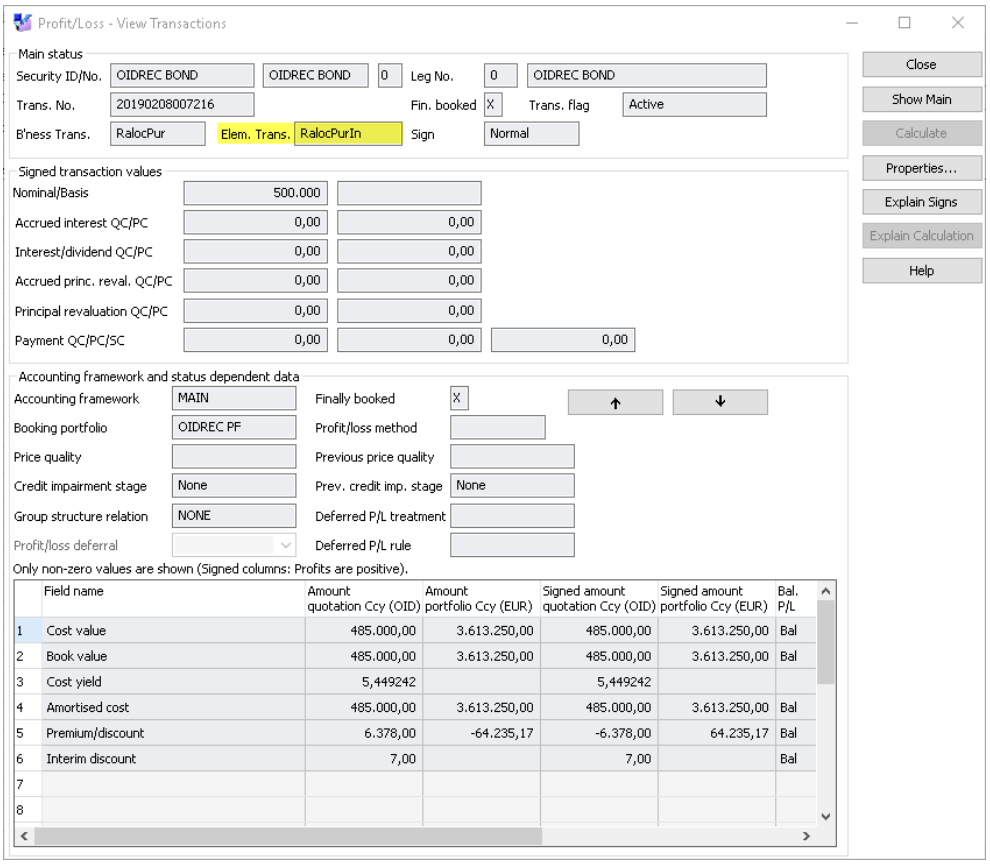
The reclassification moves the proportional OID balances from the AFS to the HTM position. The reclassification will also account for premium/discount balances in the HTM position.

For the AFS holding, it will look like a normal reallocation and the relevant balances are decreased as expected. The following image shows the profit/loss sub-window for the reclassification out-leg:



For the HTM holding, it will look like a buy in a new position. This means that the profit/loss sub-window for the reclassification in-leg shows equal values in the **Book value**, **Cost value**, and **Amortised cost** fields.

For example:



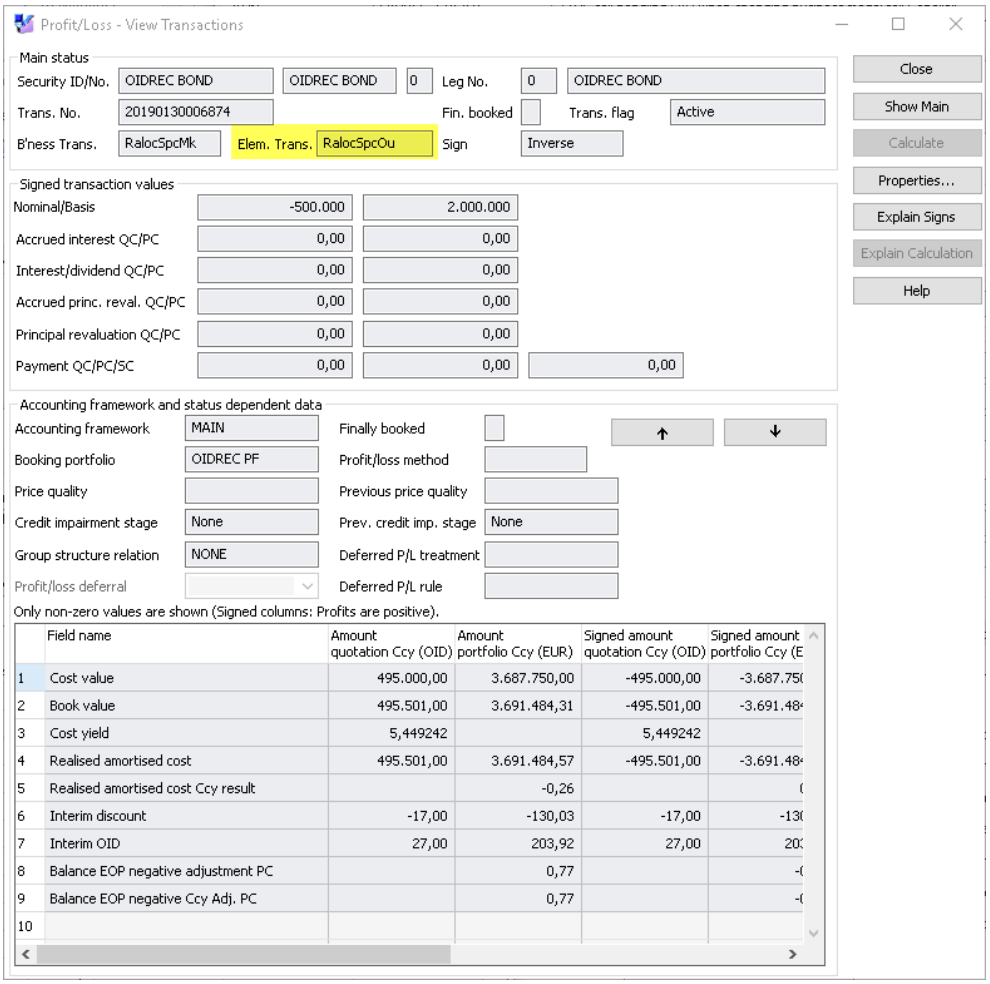
Note

The out-leg of the reclassification does not calculate any premium/discount amounts, but the in-leg does.

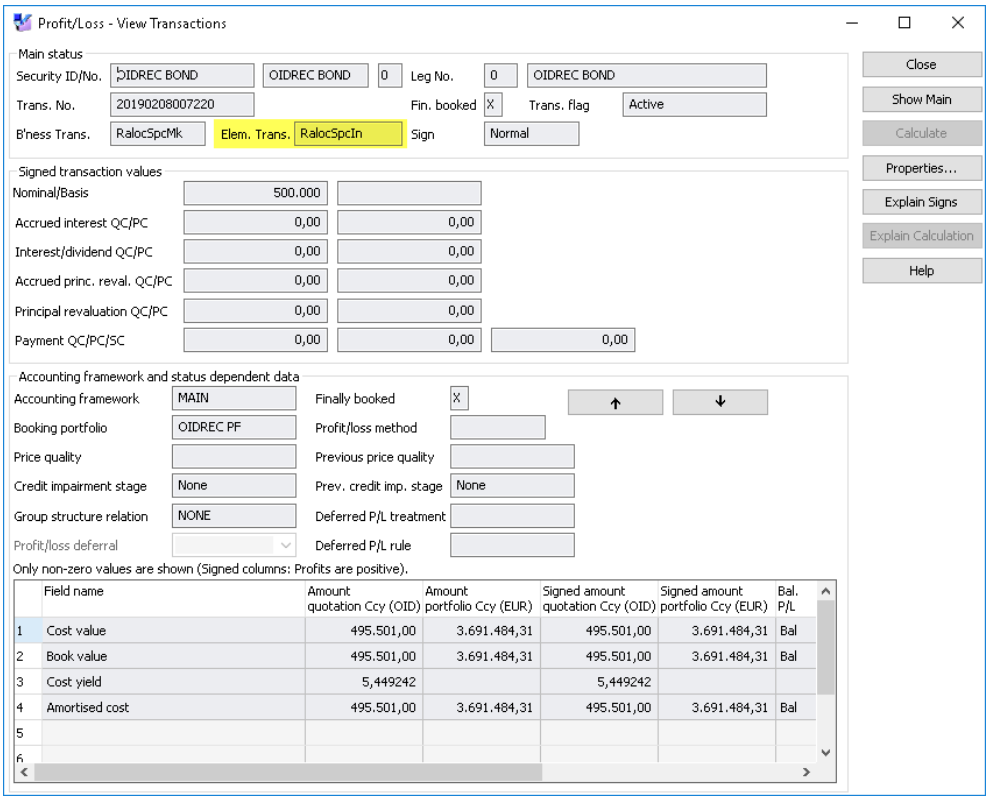
Reallocating from durable to non-durable

The reclassification moves the proportional OID and EOP (End-of-Period) value adjustment balances from the HTM to the AFS position.

For the HTM holding, it will look like a normal reallocation and the relevant balances are decreased as expected. The following image shows the **Profit/Loss** sub-window for the reclassification out-leg:



For the AFS holding, the reallocation will look like a buy in a new position. The **Profit/Loss** sub-window for the reclassification in-leg shows equal values in the **Book value**, **Cost value**, and **Amortised cost** fields, as shown in the following image:



Note

The out-leg of the reclassification calculates premium/discount amounts, but the in-leg does not. Premium/discount balances are dissolved in the HTM holding, but they are not transferred to the AFS holding.

11.2.3.2 Enhancement of the hedge adjustment rules for Italian GAAP

As of version 19.04, you can select **Italian** as a hedge adjustment method in the **Hedge Types** window. This new method calculates hedge adjustments according to the Italian GAAP regulation.

The following instruments are supported:

- Underlying assets (hedged item): bond, ABS, index bond, and equities
- Derivatives (hedging item): IRS, TRS, asset swap, option, and forward

Note

Cross currency swaps are handled differently for the Italian GAAP hedge adjustments. For more information, see Enabled hedge adjustments for cross currency swaps.

The result of the hedge evaluation affects the derivative position. The underlying security follows the general strategy (durable or non-durable), and the evaluation of assets (independently from derivatives) are captured.

For more general information about hedge accounting concepts and workflows in SimCorp Dimension, see the ***IFRS/US-GAAP – Hedge Accounting*** user manual.

The calculation of hedge adjustments for Italian GAAP is created according to the following workflow:

1. First, market-to-market profit/loss is calculated for the hedged item and the hedging item. Profit/loss on the hedged item is split on the loss or plus/recovery that is not registered according to the LOACOM end-of-period adjustment methods.
2. Second, the hedge adjustments value for the transaction is calculated. For the hedged item, it is the loss/recovery value according to the LOACOM end-of-period adjustment methods (plus is not registered). For the hedging item, the Italian hedge rules table is applied when calculating the hedge adjustment.

The hedge adjustment transaction calculates hedge balances based on a set of rules. The following table describes the Italian hedge accounting rules in more detail:

	If the book value before evaluation = 0	**If the book value before evaluation > 0**	**If the book value before evaluation < 0**
Criteria	**Actions**	**Actions**	**Actions**
Minus adjustment on the asset > Plus on the derivative	Recording of the plus of the derivative	Recording of the plus of the derivative	Recording of the plus of the derivative
Minus adjustment on the asset < Plus on the derivative	Recording of the plus of the derivative until the minus of the asset	Recording of the plus of the derivative until the minus of the asset	Recording of the plus of the derivative until the minus of the asset
Plus on the asset (not recorded) > Minus on the derivative	No recording	No recording	Recording plus on the derivatives calculated as the difference between the loss on the derivative and the gain on the asset; the new book value of derivative can be increased maximum to 0

	If the book value before evaluation = 0	If the book value before evaluation > 0	If the book value before evaluation < 0
Criteria	**Actions**	**Actions**	**Actions**
Plus on the asset (not recorded) < Minus on the derivative	Recording of the minus calculated as the difference between the loss on the derivative and the gain on the asset	Recording of the minus calculated as the difference between the loss on the derivative and the gain on the asset	Recording plus on the derivatives calculated as the difference between the loss on the derivative and the gain on the asset; the new book value of derivative can be increased maximum to 0
Recovery of value on the asset > Minus on the derivative	Recording of the minus of the derivative	Recording of the minus of the derivative	Recording of the minus of the derivative
Recovery of value on the asset < Minus on the derivative	Recording of the minus of the derivative	Recording of the minus of the derivative	Recording of the minus of the derivative
Recovery value and Plus not recorded < Minus on the derivative	Recording minus from the derivative exceeding the plus not recorded	Recording minus from the derivative exceeding the plus not recorded	Recording minus from the derivative exceeding the plus not recorded
Recovery value and Plus not recorded > Minus on the derivative	No recording	Recording a value on the derivative to set book value to 0	Recording plus on the derivatives calculated as the difference between the loss on the derivative and the gain(not recorded) on the asset; the new book value of derivative can be increased maximum to 0
Minus both on the asset and the derivative	Recording of the minus of the derivative	Recording of the minus of the derivative	Recording of the minus of the derivative
Plus both on the asset and the derivative	No recording	Recording a value on the derivative to set book value to 0	Recording a plus on the derivative to set book value to 0

Note

Original issue discount (OID) is included in the calculation of hedge adjustment for bonds in the Circolante category (available for sale). OID is included in the plus/minus

calculation on the asset.

Supported settings in SimCorp Dimension

The following settings in the **Financial Accounting Methods** window are supported:

- **Hedge adjustment booking** field: **Realised**
- **Hedge amortisation** field: **None**

The following hedge type settings are supported in the **Hedge Types** window:

- **Hedge amortisation** field: **None**
- **Hedge yield adaptation** field: **None**
- **Include in amortised cost** field: **None** or **Hedge adjustment**

Only single hedges are supported when you are using the **Italian** hedge adjustment method.

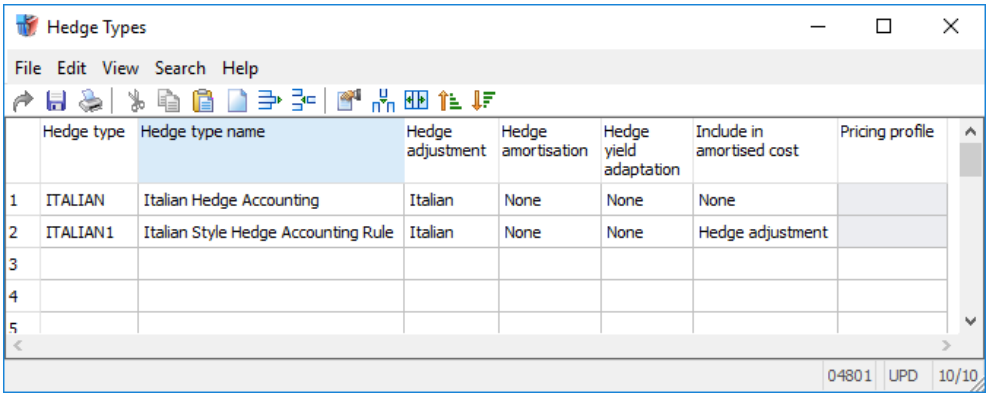
Ensure that you select **Total** as the hedge risk in the **Hedge risk** field for both the hedged item and the hedging item when you set up a new hedge relation in the **Hedge Relationship Manager**.

Note

The PC (Portfolio Currency) values are calculated as QC (Quotation Currency) to the current FX rates.

Define Italian hedge adjustments in Hedge Types window

In the **Hedge Types** window, you can select **Italian** in the **Hedge adjustment** field, as shown in the following image:



Define hedge relationships for the Italian hedge category

Open the **Hedge Relationship Manager** to define the hedge including the calculation and the different legs.

Create hedge adjustment transactions

You can create hedge adjustment transactions in the following windows:

- Open the **Create End-of-Period Transactions** and select the **Hedge adjustment** check box.
- Open the **Create End-of-Year Transactions** and select the **Hedge adjustment** check box.
- Open the **Hedge Adjustments** window to create and view the transactions.

11.2.3.3 Enabled hedge adjustments for cross currency swaps

As of version 19.04, you can apply the Italian hedge adjustment rules to cross currency swaps in SimCorp Dimension for Italian GAAP.

The calculation for cross currency swaps are different compared to regular swaps. The hedge adjustment rules table is applied similar as for regular swaps, but for cross currency swaps the total price changes are split into a currency part and a security part.

- For the hedged item, the PC part of the price change is calculated as QC evaluated according to the current FX rates.
- For the hedging items, the market change in PC is equal to the market value changes minus the nominal FX rate evaluation change. The currency risk indicates that special hedge adjustment rules are applied.

The paid leg of the cross currency swap calculates the currency part of the hedge adjustment (FX part). The received leg of the cross currency swap calculates the interest rate/security part of the hedge adjustment.

The calculations for the IMMO (HTM/Durable) and CIRC (AFS/non-durable) cases are handled differently.

Calculations for IMMO (HTM/Durable)

For the IMMO case, the hedge adjustments do not consider the underlying asset. That is, no adjustments are generated because the underlying asset is kept until maturity.

For the derivative (the hedging item), only the FX part of the price change is used for the hedge adjustment. For IMMO holdings, only the pay leg is updated.

This means that only the currency effect/pay leg is evaluated. One adjustment transaction is generated.

The Pay (FX) leg always have a price 100 on the hedge inception and on the hedge adjustment calculations. The Receive (Security) leg have market price on the hedge inception and hedge adjustment calculation.

Calculations for CIRC (AFS/non-durable)

For the CIRC case, the total price changes are split and the FX part of the price change go directly to the book value.

The hedged part is compared to the changes on the underlying asset, and then the hedge adjustment rules are applied. For CIRC holdings:

- Pay leg holding is updated with the FX effect with hedge risk **Currency**.
- Receive leg holding is updated with the hedge part effect (total market except FX part with hedge risk **Security**).
- Total book value of the swap is the sum of the swap leg's book values.

All legs and the asset are evaluated for the hedge adjustment. Three transactions are generated.

The hedged item is evaluated according to the selected LOCOM adjustment method with **Total** as the hedge risk.

The Pay (FX) leg always have a price 100 on the hedge inception and on the hedge adjustment calculations. The Receive (Security) leg have market price on the hedge inception and hedge adjustment calculation.

Hedge adjustment rules table for Italian GAAP

The following table shows the hedge adjustment rules in more detail:

	If the book value before evaluation = 0	If the book value before evaluation > 0	If the book value before evaluation < 0
Criteria	**Actions**	**Actions**	**Actions**
Minus adjustment on the asset > Plus on the derivative	Recording of the plus of the derivative	Recording of the plus of the derivative	Recording of the plus of the derivative
Minus adjustment on the asset < Plus on the derivative	Recording of the plus of the derivative until the minus of the asset	Recording of the plus of the derivative until the minus of the asset	Recording of the plus of the derivative until the minus of the asset

	If the book value before evaluation = 0	If the book value before evaluation > 0	If the book value before evaluation < 0
Criteria	**Actions**	**Actions**	**Actions**
Plus on the asset (not recorded) > Minus on the derivative	No recording	No recording	Recording plus on the derivatives calculated as the difference between the loss on the derivative and the gain on the asset; the new book value of derivative can be increased maximum to 0
Plus on the asset (not recorded) < Minus on the derivative	Recording of the minus calculated as the difference between the loss on the derivative and the gain on the asset	Recording of the minus calculated as the difference between the loss on the derivative and the gain on the asset	Recording plus on the derivatives calculated as the difference between the loss on the derivative and the gain on the asset; the new book value of derivative can be increased maximum to 0
Recovery of value on the asset > Minus on the derivative	Recording of the minus of the derivative	Recording of the minus of the derivative	Recording of the minus of the derivative
Recovery of value on the asset < Minus on the derivative	Recording of the minus of the derivative	Recording of the minus of the derivative	Recording of the minus of the derivative
Recovery value and Plus not recorded < Minus on the derivative	Recording minus from the derivative exceeding the plus not recorded	Recording minus from the derivative exceeding the plus not recorded	Recording minus from the derivative exceeding the plus not recorded
Recovery value and Plus not recorded > Minus on the derivative	No recording	Recording a value on the derivative to set book value to 0	Recording plus on the derivatives calculated as the difference between the loss on the derivative and the gain(not recorded) on the asset; the new book value of derivative can be increased maximum to 0
Minus both on the asset and the derivative	Recording of the minus of the derivative	Recording of the minus of the derivative	Recording of the minus of the derivative
Plus both on the asset and the derivative	No recording	Recording a value on the derivative to set book value to 0	Recording a plus on the derivative to set book value to 0

Validations for cross currency swaps

The following instruments are supported:

- Derivatives: cross currency swap
- Underlying asset: bond, index bond, and ABS

Validation for the **Italian FX** hedge type (in the **Hedge Types** window):

- **Hedge amortisation** field: **None**
- **Hedge yield adaptation** field: **None**
- **Include in amortised cost** field: **None** or **Hedge adjustment**

Validation on hedge inception in the **Financial Accounting Methods** window:

- **Profit/loss method** field: **Average**
- **Hedge adjustment booking** field: **Realised**
- **Hedge amortisation** field: **None**

Setting up hedge adjustments for cross currency swaps

To set up hedge adjustments for cross currency swaps:

- Hedge adjustment type: select **Italian FX** in the **Hedge Types** window. The **Italian FX** hedge adjustment type is supported only for swaps.
- Hedge risk on the pay leg: select **Currency** in the **Hedge Relationship Manager** window.
- Hedge risk on the receive leg: select **Security** in the **Hedge Relationship Manager** window.
- Hedge risk on the asset: select **Total** in the **Hedge Relationship Manager** window.

The **Italian GLD** (General Ledger Destination) field in the **Financial Accounting Methods** window determines if the calculation is run for the IMMO or CIRC case. In the **Italian GLD** field, ensure that you select **Non-durable** or **Durable**.

When you set up hedge adjustments, ensure that you set up:

- Pay leg with a price 100
- Receive leg with market price

The asset is evaluated by the selected LOACOM adjustment method.

11.2.4 Securities in default

11.2.4.1 Support for securities in default with deferred profit/loss balances

As of version 19.04, you can use the Defaulted Securities functionality for positions with deferred profit/loss balances.

The Default Adjustment transaction stops further deferred profit/loss amortisation after the default date. The Default Adjustment transaction does not calculate up-to-date deferred profit/loss amortisation. Open the **Create Security Default and Recovery Transactions** window to create Default Adjustment transactions.

Backdated Default Adjustment transactions

If you generate a backdated Default Adjustment transaction, user-owned deferred profit/loss amortisation transactions will remain unchanged. Ensure that you re-create these transactions in SimCorp Dimension.

You will get a warning message when you create a backdated Default Adjustment transaction. The warning message includes the Deferred profit/loss amortisation/realisation transaction number so that you can identify and correct the transactions manually.

11.2.5 Enabled finance booking for Internal Collateral Re-matching transactions

As of version 19.04, the Internal Collateral Re-matching transaction type (**IntCollRematch** transaction code) can be finance booked.

If you are using this transaction type, ensure that you configure your finance schemes (in the **Finance Schemes** window) and finance account assignments (in the **Finance Account Assignments** window) to handle the transaction type.

To plan DAT developer support for generating finance transactions for existing transactions in your installation, see your SimCorp representative.

The Internal Collateral Adjustment transaction type (**IntCollAdj** transaction code) is already supported for finance booking.

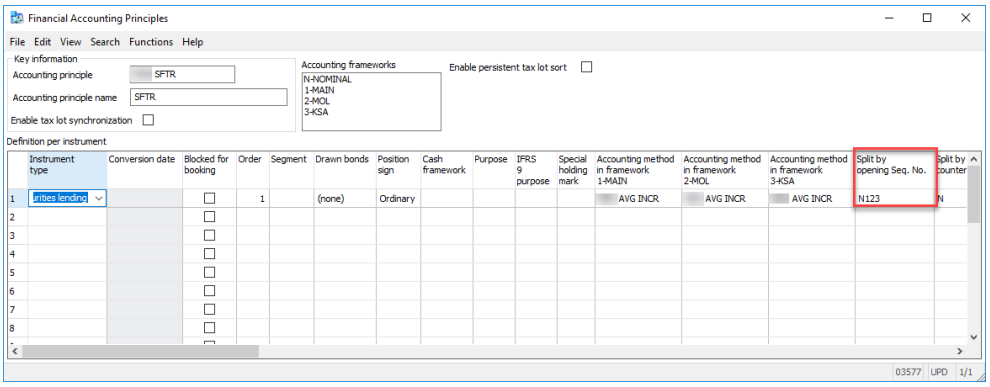
You can, for example, create these transactions in the **Create End-of-Period Transactions** window by selecting the **Internal collateral adjustment** check box and **Internal collateral rematching** check box.

11.2.6 Enabled split on opening sequence number for supporting UTIs for SFTR transactions

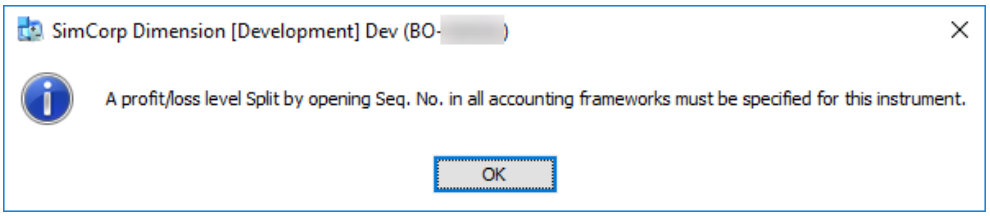
As of version 19.04, when you save a new financial accounting principle setup (in the **Financial Accounting Principles** window) for the **Securities Lending** instrument type, a mandatory split is automatically set on **Split by Opening Sequence No**.

This feature is relevant for the Securities Financing Transactions Regulation (SFTR) to ensure that the SFTR transactions can be identified with a Unique Transaction Identifier (UTI).

The following image shows a setup with the mandatory split.



You will get an error message if you try to change this mandatory split, as shown in the following image:



Check Before Upgrade and Conversion programs

SimCorp Dimension is enhanced with a Check Before Upgrade (CBU) program and a Conversion program.

The CBU program validates the following:

- If there are securities lending transactions with a non-zero transaction opening sequence number (OSN).
- If all securities lending transactions have a zero transaction opening sequence number, then the CBU program passes the validation.

The Conversion program ensures that a financial accounting principle setup that has securities lending after the upgrade will have a mandatory split in all nominal and P/L frameworks for **Split by Opening Sequence no**.

11.2.7 Enabled general ledger (GL) counterparty split for GL postings

As of version 19.04, you can configure a split on the GL counterparty value for the internal general ledger holdings in SimCorp Dimension.

By using this split, you can set up non-party specific G/L accounts (for example). This feature simplifies the process of configuring the accounts for reporting.

The feature is relevant when you have many transactions, and new counterparties and general ledger accounts that can be created at any time.

Previously, you had to define G/L accounts for each GL counterparty. With this feature, this is no longer needed, as the information can be received from a party field on the transaction.

In more detail

You can use the GL counterparty values on G/L transactions, G/L holdings, and finance transactions in internal and external general ledger systems.

In the internal G/L in SimCorp Dimension, you can:

- Use the same GL counterparty value for different parties.
- Define a GL counterparty type in finance schemes.
- Define and maintain GL counterparty values as a time series.

In addition, you can:

- View the GL counterparty values in manual finance transaction (only multi manual finance transactions are supported) and in manual GL transactions.
- Compress finance transactions using the GL counterparty value. The GL counterparty values are also supported in finance transaction simulation.

You can export the transactions to the external G/L, for example by using the **General Ledger Tool Box**, to ensure consistency between the internal and external general ledger solutions.

Party types supported for GL counterparty split

The following party types are supported for the general ledger counterparty split in the **Finance Schemes** window > **GL counterparty type** field.

- Main transaction window:
  - Bank of the transaction’s bank account
  - Broker
  - Counterparty
  - Custodian

- Additional data (settlement)
  - Correspondent bank
  - Counterparty's correspondent bank
  - Counterparty's delivery place
  - Delivery clearinghouse
  - Paying agent
  - Payment clearinghouse
  - Payment place
  - Place of settlement
- Security static data
  - Issuer of the transaction's security
  - Original issuer of the transaction's security
- Additional data (order)
  - Margin clearer
- Additional data (workflow 2)
  - Trading platform
- Portfolio static data
  - Portfolio party

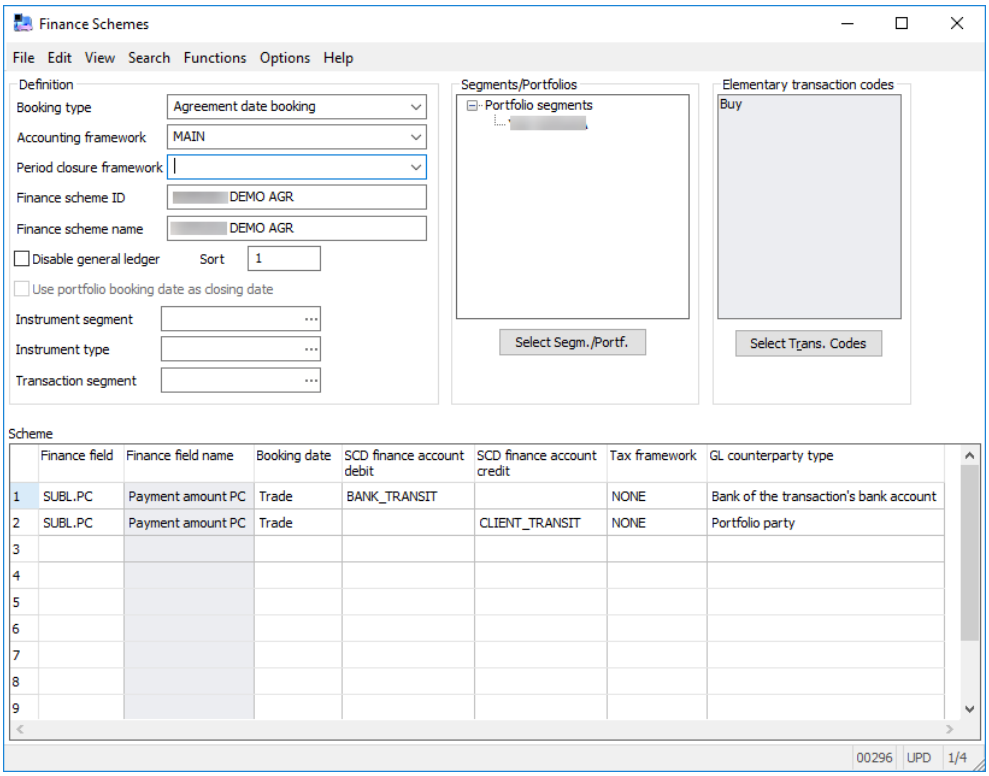
Configuring GL counterparty split

Setting up:

- Define the relevant finance accounts (in the **Finance Accounts** window) and general ledger accounts (in the **General Ledger Accounts** window).

- Define the relevant finance schemes in the **Finance Schemes** window. In the window, ensure that you select the type of GL counterparty in the **GL counterparty type** field.

  For example:



The GL counterparty is fetched from the following windows according to the GL counterparty type selected in the **Finance Schemes** window.

- **Portfolios** window > **Extra Information** sub-window > **PF part link** field (right-click to open **Parties** window).
- **Parties** window > **Miscellaneous** tab > **GL Counterparties** sub-tab > **GL counterparty** field.

  You can maintain the GL counterparty values as a time series.

In the **View Finance Transactions** window, you can view the G/L account and GL counterparty fields. For example, in the following fields:

- **G/L account**
- **GL counterparty**
- **GL counterparty related party**
- **GL counterparty type**

In the **View G/L Holdings** window, you can view the GL counterparty in the **GL counterparty** field.

In the **General Ledger Format Setup** window > **Fields** tab, you can select the **GL counterparty** fields. You can also select a **Fin. grouping** field so that you can use the CL counterparty for grouping. Open the **Finance Grouping Fields Setup** window to define the grouping fields.

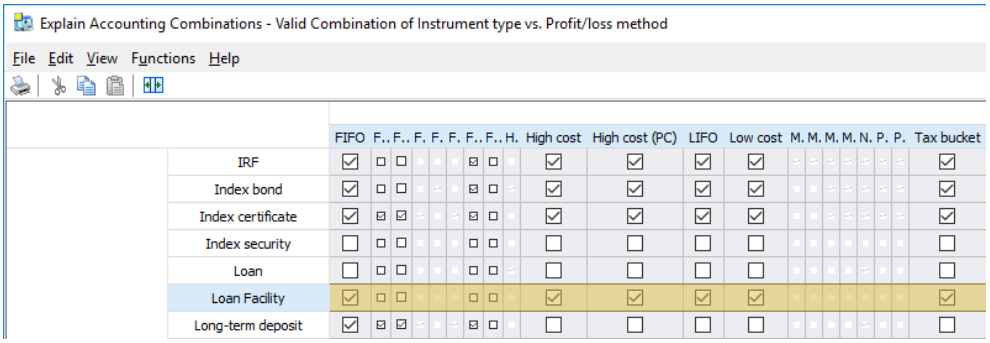
To manually create finance transactions, open the **Multi Manual Finance Transactions** window.

11.3 Private Debt

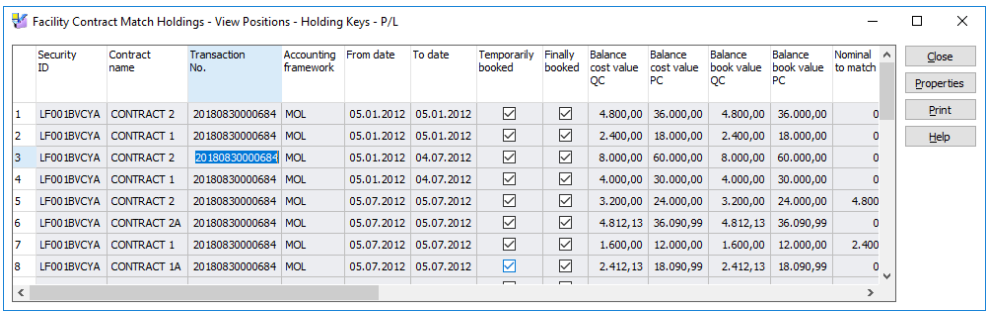
11.3.1 [New module] Private Debt Tax Lots

Client segment	US asset managers and (tax) lot based EU asset owners
Target audience	Back Office User, Accountant
Subscription based licensing	Only available for pilot clients. Contact your account manager to sign up as a pilot.
Sales module dependencies	Private Debt, Tax Lots

For the Private Debt (Loan Facility) instrument type it is now possible to activate (tax) lot based P/L methods. This includes FIFO, LIFO, High Cost, Low Cost and also the Tax bucket P/L Method:



The (tax) lots are carried per contract:



Benefits

- Comply with market requirements regarding lot-based P/L calculations.
- Full integration of automatic (tax) lot accounting into the Private Debt workflows.
- Retire existing external, manual solutions for tracking of (tax) lots.
- Enablement of future (tax) lot-based accounting treatment.

11.3.2 Supporting tax buckets for loan facilities

As of version 19.04, the **Tax Bucket** profit/loss method is supported for loan facilities to comply with US tax reporting requirements.

In SimCorp Dimension, the profit/loss on decrementing transactions are split among tax buckets.

Validations for tax buckets

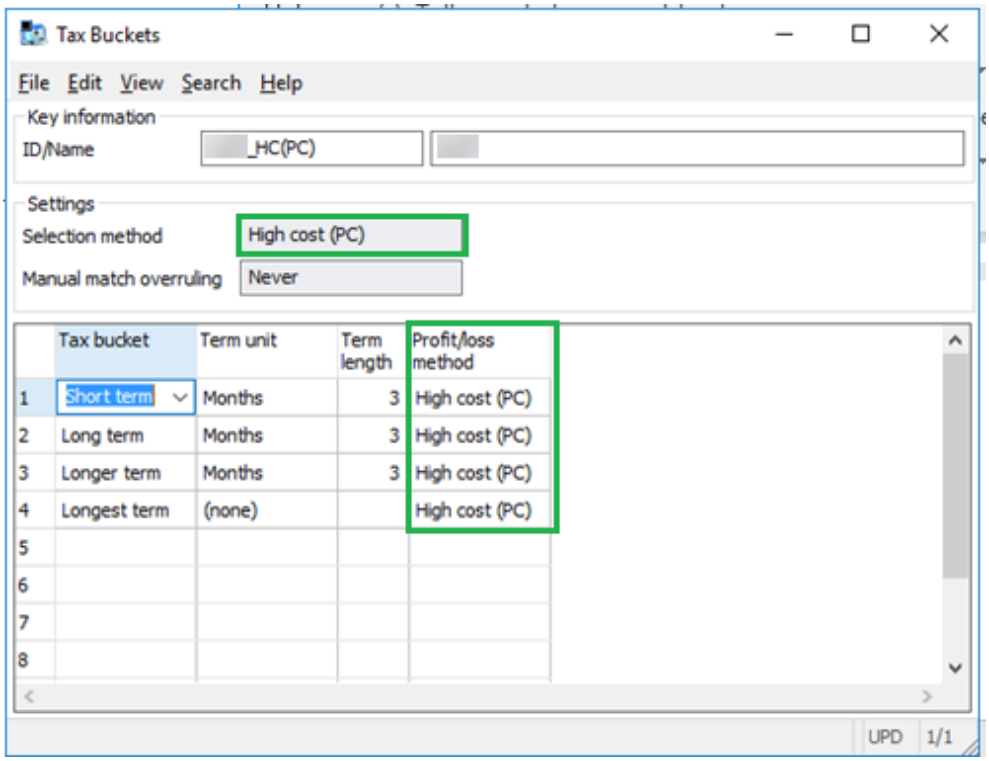
The tax bucket definition specified in the **Tax Buckets** window supports **FIFO** and **High cost (PC)** as the selection method. Ensure that you select the same method in the profit/loss method for tax buckets.

- You can only select **FIFO** across buckets (in the **Tax Buckets** window > **Selection method** field) and within buckets (in the **Tax Buckets** window > **Profit/loss method** field), or
- You can only select **High cost (PC)** across buckets (in the **Tax Buckets** window > **Selection method** field) and within buckets (in the **Tax Buckets** window > **Profit/loss method** field).

In the **Financial Accounting Methods** window > **Short check** field, only the **Nom. level, deny** option is supported.

In the **Tax Buckets** window, only the **Never** option is supported in the **Manual match overruling** field.

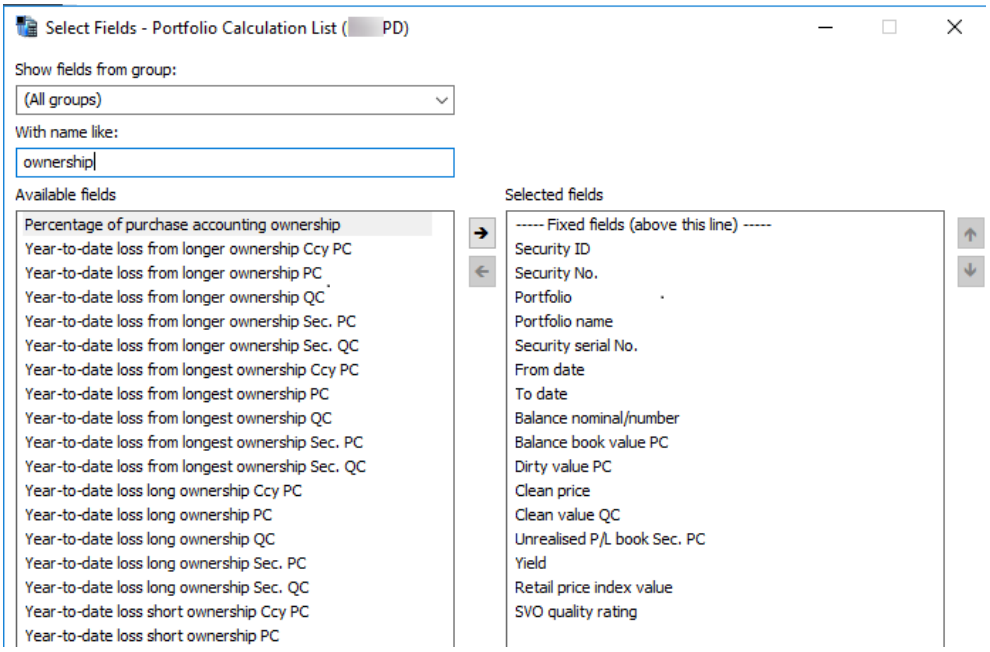
The following image shows a tax bucket setup with **High cost (PC)** as the selection method and profit/loss method:



Portfolio calculation for loan facilities using tax buckets

The profit/loss from the short/long/longer/longest ownership fields are populated in the **List Calculation** sub-window available in the **Portfolio Calculation** window. These fields are related to the loan facility level.

The following image shows some of the available ownership fields:



Profit/loss on decrementing transactions for tax buckets

On decrementing transactions, the profit/loss are calculated according to the tax bucket profit/loss method.

This means that when you select the **Tax Bucket** profit/loss method and you book a decrementing transaction (for example, a paydown transaction), the profit/loss is decomposed between the buckets according to the tax bucket term length.

11.3.3 Consumed EOP unfunded value for paydown transactions

As of version 19.04, the value for the **Consumed EOP unfunded value Sec. QC**, **Consumed EOP unfunded value Sec. PC**, and **Consumed EOP unfunded value Ccy. PC** profit/loss fields are 0 on paydown transactions.

This is because the paydown transaction does not change the unfunded value and there is nothing to consume or recover.

This change is relevant for both average-like and FIFO-like profit/loss methods.

The value for the Consumed EOP unfunded value Sec QC/PC, Ccy PC profit/loss fields are 0 according to the following formulas (on paydown transactions):

- For Term Loan Facilities:

  Consumed EOP unfunded value = EOP unfunded balance/Balance unfunded amount * change in Balance unfunded amount (which is always = 0 for Term Loan Facilities), and

- For Revolving Loan Facilities:

  Consumed EOP unfunded value = EOP unfunded balance/Balance Nominal Number * change in Balance Nominal Number (which is always = 0 for Revolving Loan Facilities)

12 Order Manager

12.1 Support TRAX Approved Publication Arrangement for fill amendments and cancellations

As of version 19.04 of Order Manager, you can comply with MiFID II transparency reporting obligations with regard to fill amendments and cancellations for the TRAX Approved Publication Arrangement (APA) for electronic trading (where another party is not reporting on your behalf).

Amend or cancel reports are now sent for Equities, Futures, Options, Fixed Income (excluding OTC) and FX (excluding FX Spot) executions. Additionally, you can remedy, amend or cancel reports on TRAX if Order Manager cannot find the TRAX reference ID for the original reports or Order Manager is restarted.

For details of supported coverage, please see the following matrix:

TRAX APA Cancel and Amend Coverage				
	Manual		FIX	
	Cancel	Amend	Cancel	Amend
Fixed Income	Y	Y	Y	N
Equity	Y	Y	Y	y
Future	Y	N	Y	Y
Option	Y	N	Y	Y
FX Swap	Y	N	N	N
FX Forward	Y	N	N	N

12.2 Support for settlement date on program placement

As of version 19.04 of Order Manager, you can specify a settlement date at the point of placement for program trades (equities and futures) placed over FIX.

To do so:

1. From **Program Navigation**, select a sub-program and right-click **Place sub-program** to open the **Place Program** window.
2. Specify a **Settlement date** that is equal to or later than the **Trade date**. By default the field is blank and the current date is selected in the pop-up calendar that is displayed when you click in the field.

Note

If you specify a date that is earlier than the **Trade date**, validation of the placement fails and an error message is displayed.

Any date you specify is applied to all items in the program trade and is transferred over FIX in tag 64. If you do not specify a date, then tag 64 is not sent.

12.3 Support for displaying the estimated value of a single order

As of version 19.04 of Order Manager, when you select a single order, you can view its estimated value in the banner as well as in the blotter column, thus making it easier to find the information.

Note

The estimated value is shown in the **Display Currency** which is specified in the **Options** window.

12.4 Support for workflows for Inflation Linked Swaps

With the introduction of Inflation Linked Swaps (ILS) in version 19.04 of Order Manager, the following workflows are supported:

- Release to the centralised dealing desk of orders in centrally cleared and bilateral zero coupon and year-on-year ILS
- Bid capture for manual execution
- Display of transaction history and competing bid records in Order Manager dashboards

Note

In general, workflows for ILS are the same as for other OTC derivatives (Interest Rate Swaps (IRS) and Credit Default Swaps (CDS)). However, electronic execution of ILS orders with trading venues (by way of FIX) is not currently supported.

You can also execute orders that have been created as a result of a termination or novation of ILS positions. Centrally cleared swaps are supported through offset trades, including the relevant information pertaining to the original contract. For bilateral swaps, you can send orders as:

- Termination
- Novation

- Trader's choice—where you decide whether a termination or a novation is going to lead to the best price

Note

The portfolio manager defines the zero coupon ILS and year-on-year ILS templates in Trade Manager, and these are used to generate portfolio orders in Asset Manager and route them to Order Manager.

To use ILS workflows on Order Manager the new Order Manager technical architecture is required, which means the services and associated hardware must be set up and configured. See the ***Front Office Implementation Guide*** and the ***System Administrators Guide*** for more information.

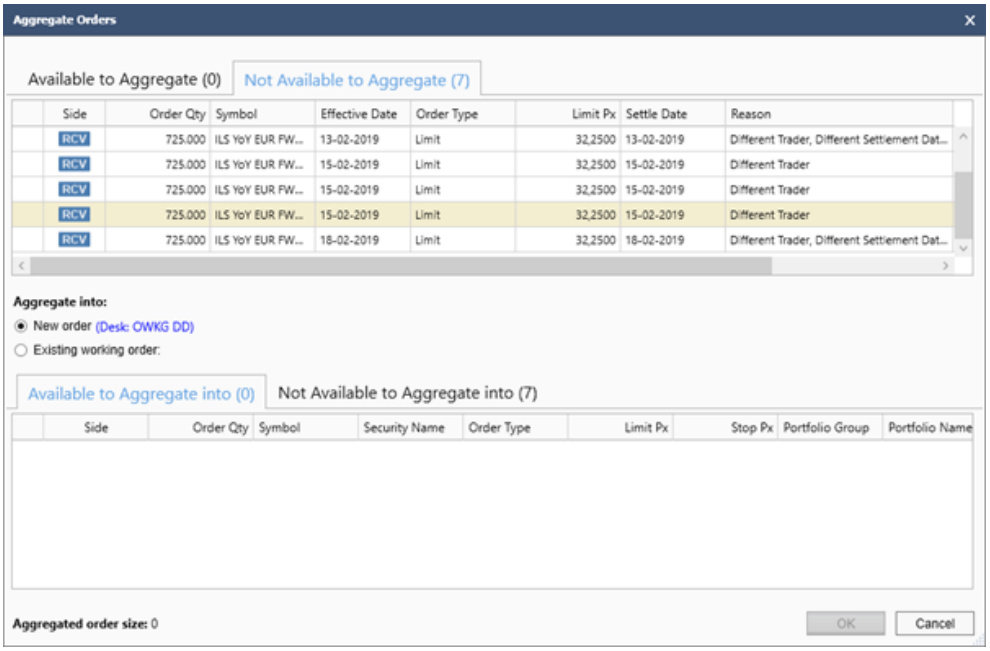
Zero coupon ILS and year-on-year ILS in Order Manager follow the same workflow as non-Trade Manager Fixed Income securities. You can accept, or reject, and apply broker restrictions to them just as you would for Fixed Income orders. However, you can also use the following new features which have been developed specifically for the ILS trading flow:

- Entry of bids for new ILS—you can pre-load quotes using the **Bid Entry** panel from which you can take the best bid or a specific bid. Taking a bid then displays the **Capture Trade** window where you can manually capture and allocate the ILS.
- Manual capture of new ILS—you can capture new zero coupon and year-on-year ILSs using the **Capture Trade** window.
- Entry of bids an manual capture of post-trade ILS—you can accept post-trade ILS from Asset Manager and aggregate them in Order Manager. These post-trade orders include close (offset) orders for cleared ILS which you can execute as open orders, and close and novation orders for bilateral ILS which you can execute as close and novation orders respectively. As with new ILS, post-trade orders have their side indicated by **Pay** or **Receive** banner icons, with an additional **Post Trade** label in the banner. You capture these trades in a similar way to new ILS, however, the **Details** tab includes a **Novation/Close** field and a **Broker** field which you can use to select the required execution and broker.
- OTC limit order—you can view a limit price for an ILS sent from the portfolio manager to you with a **Price Type** of **Limit Price** and an **Order Type** of **Limit** on the portfolio order. This can be for new zero coupon ILS, or year-on-year ILS, or post-trade versions of these. The portfolio manager can quote a limit price as a fixed rate or an upfront amount, specified in the **Limit Price Type** field on the order. You can view this quote in the **Banner**, **Inbox**, parent order and **Placements** panels.

The following specific behaviour for ILS orders is available:

Aggregation

You can use the enhanced aggregation window for ILS orders. You can resize it for ease of use, and can use it to customise columns and view additional data.



Note

Aggregation into working orders (orders that have been partially traded) is not supported in this version of Order Manager.

Stale data validation

You cannot proceed with economically significant actions on an ILS order if another trader has performed an economically significant action at the same time. This enables you to assess whether the action taken by the other trader means you should still proceed with your originally intended action.

This stale data validation is performed for **Capture**, **Capture and Allocate**, **Allocate**, **Amend Allocate**, and **Aggregate**. If the **Order Quantity**, **Placed Quantity** or **Allocated Quantity** of the parent order changed between the window being opened and the action you request, the action cannot proceed. Instead a warning is displayed informing you that you need to re-initiate your action after you close the pop-up.

Amend allocation

In line with IRS and CDS orders, transaction initiated amend allocation is

supported for ILS orders.

Note

Force amend allocation for ILS orders is not supported in this version of Order Manager.

Unsupported functions

The following functions are not supported for ILS orders in this version of Order Manager:

- Parking orders
- Entry or update of Free Code values (receipt and display of Free Codes is supported)
- Receiving and sending comments from or to a Portfolio Manager
- Adding notes to an order
- Editing the parent order values of an order

13 Performance Manager

13.1 Performance Calculation

13.1.1 Added factor-based FIPA Pricing effect

As of version 19.04, you can capture the effect of pricing portfolio and benchmark positions with different prices. The enhancement enables you to break down excess returns, that is portfolio returns exceeding benchmark returns, to relevant effects after isolating a dedicated pricing effect. The pricing effect is available in **Performance Calculation**, **Benchmark Calculation**, **Performance Manager**, **Performance Reports**, and performance analytics dashboards.

Portfolio positions are priced according to a **Pricing profile** setup, whereas indexes are priced according to index vendor methods or practices. Securities that are common in portfolios and benchmarks can exhibit non-equal returns due to pricing differences, even after removing the trading impact, the so-called Factor-based FIPA Timing effect.

The **Factor based FIPA pricing effect** is defined from the relation:

Factor based FIPA pricing effect = Factor based FIPA local return - Factor based FIPA master local return,

Where:

- **Factor based FIPA local return** is the natural return, excluding impact from trading or timing
- **Factor based FIPA master local return** is an imported return

If portfolio returns are imported into **Factor based FIPA master local return** values, the benchmark return breakdown can exhibit a non-zero pricing effect.

If benchmark returns are imported into **Factor based FIPA master local return** values, the portfolio return breakdown can exhibit a non-zero pricing effect.

As a side effect, the existing **Factor based FIPA mispricing effect** field in the **Performance Manager** is renamed to **Excess unexplained effect** to avoid confusion with the Pricing effect.

To define factor-based FIPA master return values, import or enter applicable return values per holding/index constituent in the **Factor Based FIPA Master Returns** window. Create one row per security and price date:

1. Fill the **Security ID** and **Leg No.** fields.
2. Set the **Currency** field to the quotation currency.
3. Record daily returns with the **Price date** and the unscaled **Factor based FIPA master local return** value.

To calculate the contributions of the pricing effect as part of the calculation, open the **Performance Measurement** window:

1. Load your setup.
2. On the **Attributions** tab in the **Factor based FIPA** section:
   A. Ensure that the **Calculate factor based FIPA** check box is selected.
   B. Click **Contributions**. The **Contributions** sub-window opens.
      I. To calculate the contribution to the parent, select the **Calculate contributions** check box in the **Pricing** row.
      II. To calculate the contribution to the top node, select the **Calculate contributions to top node** check box in the **Pricing** row.

To calculate the pricing effect for a period that is defined in **Performance Extra** fields, open the **Performance Extra Fields** window:

1. Load or create a setup.
2. In the grid:
   A. Enter a **Field name**.
   B. Set the **Key ratio** field to **Factor based FIPA pricing effect**.
   C. Fill in the remaining fields as applicable.

As a result, Performance Calculation and Benchmark Calculation takes the **Factor based FIPA master local return** values into account if they have been recorded and are not zero.

The **Factor based FIPA pricing effect** and the **Factor based FIPA master local return** fields are shown:

- In the **Performance Calculation List** window
- In the **Benchmark Calculation - View Index Constituents** window

The pricing effect, the excess pricing, the contribution to it, and the **Performance Extra** fields are shown:

- In the **Performance Manager** on the **Data** tab and the **Graphics** tab
- In the **Performance Reports** window

- In dashboards that use widgets where **Type** is set to **Middle Office** and **Data source** is set to **Performance reports**.

> Note
>
> The **Factor based FIPA mispricing effect** field has been renamed to **Factor based FIPA excess unexplained effect**.
>
> This means that this field is dropped from existing field selections, so you must select the field again under the new name to see it.

13.1.2 Added batch job to clean up Performance Generic Decomposition Components

As of version 19.04, you can use a batch job to clean up data in the **Performance Generic Decomposition Components Returns** window for a specific segment and a specific time range. This enhancement enables you to quickly delete selected data or all data in the window which is very cumbersome to do manually for large amounts of data.

This enhancement is part of the **PERFORMANCE – FUND LOOK-THROUGH** module.

To clean up Performance Generic Decomposition Components, set up a batch job as usual with the following parameters:

1. Set the **Batch task** field to **Cleanup Performance Generic Decomposition Components**.
2. Define the fund certificates for which you want to delete the component returns by **Parent Security ID** value in the **Parent security segment** field. If you leave the **Segment** field empty, all records within the selected time range are deleted.
3. Use the **From date** and **To date** fields to define the time range for which you want to delete the data. You can specify fixed dates or reference dates.

As a result, executing the batch job deletes all data in the **Performance Generic Decomposition Components Returns** window where

- The **Parent security ID** value is inside the selected **Parent security segment** setup and
- The **Return date** day is inside the time range defined by the **From date** and **To date** fields.

14 Reconciliation Manager

14.1 Deactivate unwanted records in the Reconciliation Manager

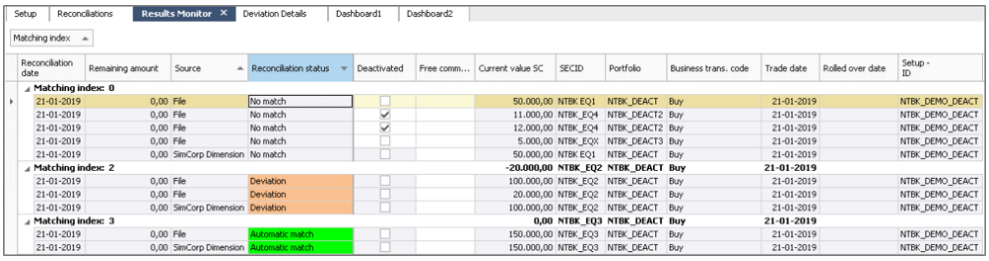
Client Segment	All - Asset Management, Fund Insurance, Life & Pension, Service Provider, Bank, Wealth Management
Target audience	Reconciliation Teams
Subscription based licensing	Reconciliation Manager
Sales Modules and sales module dependencies	Reconciliation Manager

As of version 19.04, you can remove unwanted external records with a no-match status from reconciliations so that they are not included in future reconciliations runs or calculations.

Deactivation is controlled by authorisation. You can authorise which user or group of users can deactivate records. Even though a user is not authorised to deactivate records, they can still see the records that are deactivated.

To specify unwanted external records:

- Select the new **Deactivated** check box in the **Results Monitor** applet as shown in the following image:



You can only select this check box for external records that are not matched; that is, they have the status of **No match** in the **Reconciliation status** field. If you want to deactivate records that have deviations or which have been automatically matched, you must unmatch the records before they can be deactivated.

To show deactivated records in the visualisations:

- Select the new **Show deactivated results** check box when you configure the **General Reconciliation - Results** widget.

The **Deactivated** check box is also available in the **General Reconciliation Results** window, but for information only.

You can create a rule to generate an alert for deactivated records in the **Business Rules Manager** window.

Deactivated records excluded from statistics

When you have deactivated records in the **Results Monitor** applet, those deactivated records will be excluded from the statistics for records categorised as not matched or external in:

- The **View General Reconciliations** window
- The **Reconciliations** applet
- The **General Reconciliation - Statistics** widget

Filtering on deactivated records

When you view records in the **Results Monitor** applet, you can use the **Deactivated** check box in the **Status** section in the **Reconciliations** applet to filter deactivated records:

- When the check box is selected, both deactivated and active records are shown.
- When the check box is cleared, only active records are shown. The check box is cleared by default.

Available actions on deactivated records

If a record is marked as deactivated, it is not available to be matched in future reconciliation events such as re-execution or rollover.

When you view a deactivated record in the **Results Monitor** applet, the only action that you can take on the record in terms of reconciliation is clicking the **Free Comment** or the **Show Manual Changes** buttons on the Ribbon or right-clicking and selecting **Show Manual Changes**. The same limited action also applies to the **General Reconciliation Results** window.

15 Risk Analysis Manager

15.1 MSCI RiskMetrics Integration

15.1.1 Omit model portfolios in MSCI Risk Manager [6.4] [6.41] [19.01]

Client segment	All clients who use the MSCI RiskMetrics interface solution and model portfolios
Target audience	Middle office, risk managers, and portfolio managers
Role-based licensing	Risk Analysis Manager and add-ons
Module-based licensing	• Risk Reporting • MSCI RiskMetrics - Adaptor

As of version 19.04, you can choose to omit the display of model portfolios in MSCI Risk Manager. This enables you to focus your analysis on the actual portfolios by streamlining the displayed data and skipping content that you may not need. Previously, model portfolios were included along with portfolios in MSCI Risk Manager, so they cluttered up the display. Model portfolios were also included for each portfolio in the position files that are transferred to MSCI, so this enhancement also optimises the position files and meta files.

Note

Omitting model portfolios means you can no longer map a specific risk to a specific model portfolio.

This only works for **Reporting Structures** setups where the **Tree type** field is set to **Investment structure**.

You can still use modelling to blend portfolios and benchmarks. This enhancement only affects the position and meta files that are transferred to MSCI and the data displayed in the MSCI Risk Manager.

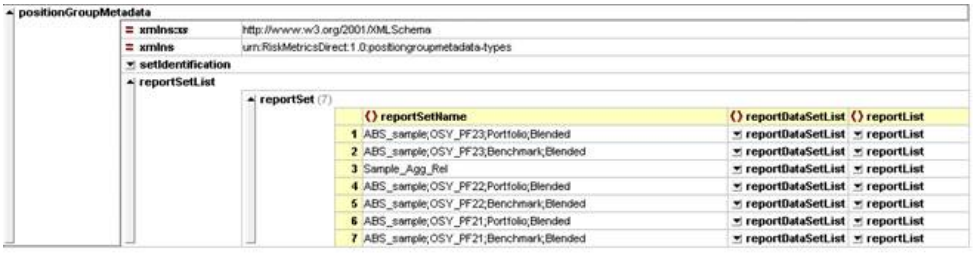
To omit model portfolios in MSCI Risk Manager:

1. Open the **Risk Measurement** window on the **MSCI Risk Metrics > Settings** tab.
2. Clear the **Blended reporting structure representation** check box. (Selecting the check box includes model portfolios as before, also in the MSCI position files.)

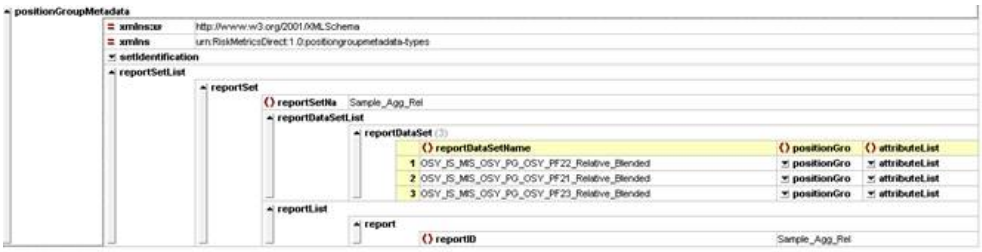
As a result:

1. The MSCI position file aggregates model portfolios under portfolios and thus omits holding groups with model portfolios.
2. The MSCI meta file requests reports for each portfolio.

   Consider this sample meta file before the enhancement:



   Compare it to this sample meta file with the enhancement:



15.1.2 Added price tags for CTD futures in Exchange traded model

As of version 19.04, Cheapest-to-Deliver (CTD) futures that use the Exchange traded model include additional tags `<quotedPrice>` and `<entryPrice>` in the `rmlFieldList` section. This enables you to calculate risks for CTD futures and to cover them properly in MSCI risk reports.

`<quotedPrice>` contains the price of the CTD future from the **Prices** window.

`<entryPrice>` contains the forward price from the **Transactions** window.

Using these values, you can calculate the clean value of the CTD future:

Quoted price - Entry price = Clean value

15.2 Risk Measurement

15.2.1 Risk models observe CTD price method for cross-currency swaps

Client segment	All clients who use the Internal risk models, the Market Data Stress Test and/or the Strategy Manager
Target audience	Middle office, risk managers, and portfolio managers

Role-based licensing	• Risk Analysis Manager and add-ons • Advanced yield curve Estimation
Module-based licensing	• Risk Reporting • Bootstrapping with FX Forwards and Cross Currency Swaps

As of version 19.04, you can apply the **Theoretical price, collateral CTD** price method for cross-currency swaps (which was introduced in version 6.2) to risk models. This ensures correct risk data for cross-currency swaps, such as scenario prices, risk positions and analytics, including VaR.

For instrument types with non-linear or complex pricing relationships to the risk factors, use the Parametric VaR, Ex-ante Volatility, and Modified VaR/ex-ante Volatility with care. These models reduce the pricing function to a first-order or second-order sensitivity approximation. Instead consider using the Monte Carlo and Historical VaR models with the full pricing model in such scenarios. This also applies for CTD instruments where the risk factor relating to the cheapest element may apply only in a very local scenario. This would misrepresent the risk factor sensitivities for more extreme scenarios that are typically depicted in the VaR and ex-ante Volatility models.

To set up the prerequisites of this price method for risk models:

1. Follow the instructions in the Help for the **Collateral Discount Curve Mapping** window.
2. Create or edit a **Pricing Profiles** setup which uses the **Pricing Definitions** setup from step 1.
3. Create or edit a **Risk Measurement** setup which assigns the **Pricing Profiles** setup from step 2 in the **Prices** field of the **Profiles** section.

You can confirm the setup by selecting the **Explain price search** right-click option on a corresponding swap in the **Position Results** window. The **Explain price search** dialog shows the price method under **Found price structure**.

16 Settlement Manager

16.1 Modify non-relevant fields in the Netting Manager before generating SWIFT messages

As of version 19.04, you can modify non-relevant fields in a payment transaction in the **Netting Manager**, save the modifications, and continue with the netting process without any re-initialisation. Now, only the fields listed in the **Fields** sub-window on the **Auxiliary Job Definitions** window require re-initialisation of the netting process.

Fields that can change the content of the payment instruction in the **Netting Manager** are defined as relevant. You can define these relevant fields in the **Fields** sub-window on the **Auxiliary Job Definitions** window. Previously, fields that were not listed in the **Fields** sub-window and consequently not relevant and not at risk of modifying payment instructions, would also stop the netting process and prevent the sending of payment instructions.

16.2 Added more SWIFT addresses to Parties window

As of 19.04, you can now add up to five additional SWIFT addresses in the grid on the **SWIFT** sub-tab of the **Interfaces** tab in the **Parties** window.

With the addition of more fields in which to specify SWIFT addresses, you can now fully specify all requirements that are required for an MT message.

The fields can handle up to 35 characters and are named:

- **Additional SWIFT address 1**
- **Additional SWIFT address 2**
- **Additional SWIFT address 3**
- **Additional SWIFT address 4**
- **Additional SWIFT address 5**.

Note

SimCorp Dimension does not validate whether the SWIFT addresses that you have entered are unique.

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17 Strategy Manager

17.1 Middle Office Calculation Manager

17.1.1 Added synthetic payments to Position Calculation

As of version 19.04, the Position Calculation includes synthetic payments when opening, closing, or rolling over positions for certain instruments.

Synthetic payments do not impact overall performance, but without them, the daily Time-Weighted Return (TWR) will be unintuitive for some derivatives and multi-legged instruments, when considering the individual legs of the security.

The Position Calculation includes **Synthetic payment QC** and **Synthetic payment PC** fields in the **Position Results** window for opening and closing transactions of the following instruments:

- FX spot
- FX swaps
- FX forwards
- Preemptives
- Deposits
- Swaps and TRS
- Dual currency bonds and dual currency swaps
- Credit default swaps
- Rollover of loans
- Exercising options

The synthetic payments are based on the dirty value of the multi-legged instruments.

The net cash flow calculation includes synthetic payments which affects the **Net cash flow SOD** and **Net cash flow EOD** values.

17.1.2 Added reallocation payments to Position Calculation

As of version 19.04, the Position Calculation includes **Reallocation payments QC** and **Reallocation payments PC** fields in the **Position Results** window for opening balances, security transfers, and corporate actions, as well as reallocation transactions, such as portfolio reallocations and full or partial reallocations. These payments are relevant for the correct calculation of Time-Weighted Return (TWR).

The reallocation payments are based on the (t-1) dirty value of the instruments. For flexible cash flow timing methods, the reallocations are mapped to SOD cash flows and affect the **Net cash flow SOD** field.

17.1.3 Added alternative valuations in Alternative Investments analytics

Client segment	All clients
Target audience	Front and middle office
Role-based licensing	Alternative Investments Manager
Module-based licensing	Alternative Investments Manager

As of version 19.04, you can configure and compare alternative valuations for a limited set of Position Calculation analytics which are clean value, dirty value, and dirty value total in quotation currency, portfolio currency, and reporting currency. These valuations are based on pricing profile setups. By configuring alternative pricing profiles in addition to the one used in the Position Calculation, you can compare an estimated cash-adjusted valuation with the official valuation.

Note

SimCorp Dimension does not calculate additional, dependent analytics that are based on the limited set of analytics that use additional valuations.

You do this by adding alternative **Pricing profile** setups in the **Position Calculation** to calculate alternative analytics for the **Alternative Investments Manager** and compare them in the same widget.

This function is also supported in the **Configuration Transport** sub-window of the **Position Calculation**. For more instructions, see the window help.

To configure an additional valuation type, open the **Analytics Editor** and load or create a setup:

1. Ensure that the **Name** field of your setup has a unique value.
2. Set the **Type** field to **Alternative valuation**.
3. In the **Pricing profile** field, select the applicable setup for the additional valuation. If necessary, create such a pricing profile.

   Note

   You can only assign a **Pricing profile** setup to a single **Analytics Editor** setup.

To calculate additional valuations as part of your Position Calculation, open your setup in the **Position Calculation Definition** window on the **Analytics** tab and select the **Alternative valuations** check box. When cleared, the Position Calculation only calculates valuations based on the **Pricing profile** setup assigned on the **Position Calculation Definition > Settings** tab.

You can find the additional analytics based on multiple valuations in the **Position Results** applet, the **Position Results** window, and in corresponding time series and single day widgets in the **Alternative Investments Manager**.

Portfolio - ID	Instrument type	Security - ID	Grand Total			
			Balance nominal/number	Dirty value QC	Dirty value QC Official reported NAV	Dirty value QC Accounting NAV
CRLC 320	Call money	CC BACHTAL USD	47.500,00	47.500,00	47.500,00	0,00
CRLC 400	Alternative investment	BACHTALCHF	172.000,00	448.000,00	436.000,00	429.500,00
		BACHTALUSD	319.600,00	526.878,03	526.878,03	537.415,59

The additional analytics are dynamic, with dynamic field labels:

- **Clean value [currency] [setup]**
- **Dirty value [currency] [setup]**
- **Dirty value total [currency] [setup]**

where **[currency]** is **QC**, **PC** or **RC** and **[setup]** is the **Name** value of the corresponding **Analytics Editor** setup.

In the **Position Results** applet, the **Pricing definition** and **Pricing profile** fields identify the main setups, not the alternative valuation setups.

17.1.4 Added Unshocked Market Value in Market Data Stress Test and Solvency II

As of version 19.04, you can calculate and display Unshocked Market Value as part of the analytics in the **Middle Office Calculation Manager** during the Market Data Stress Test and for Solvency II. This adds shocked and unshocked values for each risk category and sub-category.

The analytic value is available in the **Position Results** applet:

- For Market Data Stress Tests, in the **Unshocked dirty value QC** field
- For Solvency II, in the **Unshocked dirty value QC** and **Unshocked dirty value RC** fields

As part of this enhancement, SimCorp Dimension no longer shocks the curve with zero values when calculating Market Data Stress Test zero scenarios and unshocked dirty value for Solvency II based on market Data Stress Tests. That means that SimCorp Dimension does not insert new points that do not belong to the curve when calculating prices for dirty value zero scenarios.

As a result, Market Data Stress Tests no longer show differences from interpolation between Dirty Value Zero Scenarios:

- For Market Data Stress Tests, the values in the **Stress test dirty value** fields are the same across all stress test definitions and equal to **Unshocked dirty value**.

- For Solvency II, the values in the **Solvency 2 Stress test unshocked dirty value** fields are the same across all stress test definitions and equal to **Unshocked dirty value**.

The calculation of shocked dirty values does not change. If additional tenors are defined in the Market Data Stress Test, they are still added to the pricing curve. The calculation of these tenors uses the interpolation method defined on the **Yield Curve Manager** or the **Volatility Curve Manager**.

The following very small differences remain for setups which use eligible pricing definitions:

- When using the price method setting **QP+YC**, the implied spread rounding incurs a rounding difference of factor 10^{-8} between **Dirty value QC** and **Unshocked dirty value QC** values.
- A difference of factor 10^{-15} occurs between **Dirty value RC** and **Unshocked dirty value RC** values due to the way the values are stored in the database.

Note that the inaccurate configuration of currency cross rates and inconsistent FX rates can lead to additional deviations.

To aggregate Solvency II analytics, you can set up an **Aggregation Calculation Definition** for your **Position Calculation** setup as usual. Assign a **Middle Office Analytics Group** setup of fields to be aggregated where you set the **Model** field to **Custom** and the **Analytics** field to **Custom Solvency 2 sum**. The results are available in the **Aggregation Results** applet.

To retrieve the **Unshocked dirty value QC** field through an **Extraction Definitions** setup, select the **Scenario zero dirty value QC** field from the MOPOSCALCRES_MDSTUNSHOCK table.

17.1.5 Holdings no longer block Position Calculation on Portfolio level

As of version 19.04, holdings which are currently in scope of a Position Calculation execution no longer block Position Calculation executions for other holdings of this portfolio. That means you can now run Position Calculations with different securities in parallel, even if they appear in the same portfolio. Previously, a security or holding that was involved in a Position Calculation execution would block users to run Position Calculations for all other portfolios that include the same security or holding.

This restriction has been removed, so there are fewer interdependencies between different Position Calculation executions. The Position Calculation now only blocks securities on holding level for the duration of a Position Calculation. This change also affects Live services, so users of the **Alternative Investment Manager** also benefit from this enhancement.

17.1.6 Group concentration risk details by special exposure type

As of version 19.04, you can retrieve intermediate calculation results of concentration risk, grouped by special exposure type, through Data Extraction. This enables you to trace, understand, reproduce, and approve Solvency II Concentration Risk calculation results in sufficient detail. Previously, such grouped results were not saved.

Specifically, you can retrieve such intermediate results with the same **Single name** value by using a **Special exposure type** ID, for example, for EU government bonds or for covered bonds with a low Credit Quality Step, for the following fields:

- **Dirty value (unshocked)**
- **Weighted average CQS** where CQS means Credit Quality Step
- **Shock factor**

The following concentration risk fields are empty for results which are split by exposure type because they are not calculated on special exposure type level:

- **Concentration threshold**
- **Excess exposure**
- **Capital requirement**

To prepare such results for Data Extraction, create a **Middle Office Analytics Settings** setup for a concentration risk calculation as usual:

1. In the **Settings** section, set the **Type** field to **Concentration**.
2. In the **Concentration categories** section, create one row entry for each exposure group you need:
   - Assign the same **Concentration category** ID for all.
   - Enter a distinct **Special exposure type** ID for each row. Ensure that the underlying position selection of each **Special exposure type** ID is also distinct and does not overlap with those of other exposure types.
   - Set the **Shock factor type** field as appropriate.

Then set up the Data Extraction as usual.

17.1.7 Calculate cash flows and alternatives analytics separately

As of version 19.04, you can calculate cash flows without calculating alternative investment analytics. Previously, the position calculation offered a single check box which calculated cash flows and alternative investment analytics, even if you only needed one of the data sets. Now:

- The **Performance and alternative investments analytics** check box in the **Position Calculation Definition** window on the **Analytics** tab has been split in two and renamed.
- The **Performance analytics** label in the **Position Calculation Results** window has been renamed **Cash flows** to align with the new check boxes.

Open the **Position Calculation Definition** window on the **Analytics** tab and select the required calculation options:

- The **Cash flows** check box configures the calculation of these figures:
  - Cash flow SOD
  - Cash flow EOD
  - Cash paid
  - Cash received
  - Payments

  To use a setup as a data source for Risk and Performance Analytics Configuration (RAPAC), select the **For use with Risk and Performance Analytics Configuration** check box, which is displayed to the right of the **Cash flows** check box when it is selected and highlighted. SimCorp Dimension then insists on position calculation definitions with a unique combination of **Reporting currency**, **Accounting framework**, and **Do not add settlement days** settings.
- The **Alternative investment analytics** check box configures the calculation of these figures:
  - Balance unpaid commitment
  - Capital called
  - Capital invested
  - Commitment
  - Committed shares
  - Custom analytics
  - Flexible custom balances
  - Fund closed
  - Ownership %
  - Paid in
  - Proceeds
  - Recallable
  - Return of capital
  - Total distributed
  - Total paid-in capital

17.1.8 Added Position Calculation execution status

Client segment	All clients.
Target audience	Users of the Position Calculation (Solvency II, Alternative Investments solutions, and so on)
Role-based licensing	Strategy Manager
Module-based licensing	Position Calculation

As of version 19.04, you can display the execution status of the **Position Calculation** in the **Action Log** window. Two new fields, **Action status** and **Forced**, make your workflow more transparent, so you know when you can proceed with the analysis of the calculated data.

To show the **Position Calculation** execution status, open the **Action Log** window, for example, from a specific position calculation setup on the **Position Calculation** tab of the **Middle Office Calculation Manager**:

- The **Action status** field shows the status information for the selected **Position Calculation** setup:
  - **Queued** for execution
  - **Started** from the queue
  - **Finished** successfully
  - **Aborted** by a user or another process
  - **Failed** execution
  - **Queuing failed**, for example, if you are not authorised to start the calculation or the calculation setup is not active

  If the latest **Action status** entry is **Finished**, then you can proceed with your analysis. Otherwise, the data can be inconsistent.
- The **Forced** field indicates whether the position calculation started even though an earlier calculation of the setup did not finish.
- The **Start time** and **End time** fields indicate the start and end time of the action.

Note that the **Action Log** window does not update automatically. You have to close and open it to see the latest status information.

18 System Operations

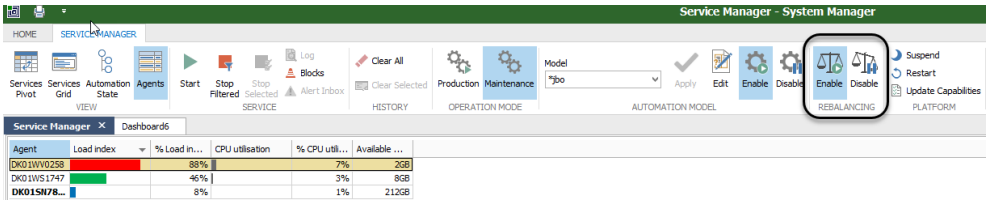
18.1 Service Administration

18.1.1 Enable/Disable rebalancing in Service Manager

As of version 19.04, you can enable or disable the rebalancing of services in the **Service Manager** applet of the **System manager**. Rebalancing is part of SimCorp's drive for self-healing and elastic capabilities on the Service Platform.

You enable the rebalancing to ensure that the workload of your service agents is distributed effectively among your available server capacity based on the service agents' load indexes. The calculation of automatic redistribution takes place every 60 seconds. You would disable the rebalancing to ensure that no services are redistributed during a maintenance period.

The following image illustrates the location of the buttons and a scenario where rebalancing is enabled.



To enable rebalancing of service agents on the Service Platform:

Ensure that the utilisation thresholds of the load index have been set up according to your preferences in the **Service Options** window, on the **Service platform** tab in the **Service agent thresholds** section. For more information, see View service agent workload in Service Manager.

1. Open the **Service Manager** applet in **System Manager**.
2. From the **OPERATION MODE** ribbon group, select **Maintenance** mode.

   Note

   You cannot enable nor disable rebalancing while in production mode.

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3. From the **REBALANCING** ribbon group, select **Enable** to initiate the rebalancing of services.

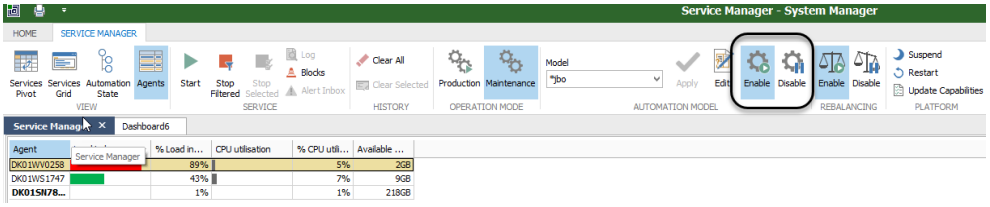
   Depending on your server capacity (number of services, cores, CPU utilisation, available RAM, and so on), the workload of the service agents will now be automatically monitored every 60 seconds and redistributed and rebalanced according to the service agent thresholds and services that are rescheduable.

Alternately, you can also control the rebalancing from the Service Control Utility tool (ScdSvcCtl.exe) with the following parameters:

- `ScdSvcCtl rebalancing enable (alias on)`
- `ScdSvcCtl rebalancing disable (alias off)`
- `ScdSvcCtl rebalancing getmode`

18.1.2 Renamed Service Manager automation model buttons

As of version 19.04, the automation model buttons in the **Service Manager** applet of the **System Manager** have been renamed. In an effort to harmonise the user interface, the automation model buttons **Start** and **Pause** have been renamed to **Enable** and **Disable**.



Note

The Service Control Utility tool (ScdSvcCtl.exe) command lines regarding enabling/disabling of an automation model have not been changed and therefore customer-specific scripts will not be affected by the renaming.

18.1.3 Cleaned up Exit codes

As of version 19.04, redundant exit codes have been removed from the Service Control Utility tool (ScdSvcCtl.exe), the command line utility to deploy and manage the Service Platform. Most commands now use exit code `3 CommandFailed` to indicate a failing command.

The following list shows the current **Exit codes** as of version 19.04:

Exit codes	Descriptions
`0 Success`	Command completed successfully.
`-1 Enabled`	Enabled (Rebalancing started).
`-2 Disabled`	Disabled (Rebalancing paused).
`-3 PlatformSuspended`	The Service Platform is suspended.
`-4 PlatformRestarting`	The Service Platform is restarting.
`-5 Blacklisted`	Blacklisted services were found.

Exit codes	Descriptions
-6 NotFulfilled	The condition was not fulfilled.
-7 ImportModelReplaced	The import model succeeded. An existing model was replaced
-8 ImportModelIdenticalExist	The import model succeeded. An identical model already exists.
-9 UserBlocksExist	User blocks exist.
-10 ProductionMode	The system is in production mode.
-11 MaintenanceMode	The system is in maintenance mode.
1 ParseError	There was an error in the command line parameters, so they could not be parsed. Check help for the command. help (?|h|hlp) can be used after all commands on any level.
2 UnknownCommandLineAction	The command entered is not known.
3 CommandFailed	The command failed.
7 AutomationFailed	An operation related to automation failed.
11 AuthorizationFailed	Authorisation failed. Courses could be that the service platform is not running, or the user is not authenticated, or the user is not authorised.
15 StopServicesSomeFailed	Failed to stop some or all service instances
17 InternalError	Internal error. See error messages for more information
20 MustBeInMaintenanceMode	Must be in maintenance mode to enable rebalancing.
21 CannotBePinged	The service type cannot be pinged, as it does not define any endpoints .
22 AutomationNotActive	No active automation was found. See error messages for more information.
23 NoneBlacklisted	No blacklisted services were found.

Exit codes	Descriptions
`24 ServicesNotOnline`	No service instances are online for the specified filter or a specific count was specified and the number of online service instances does not match.
`28 ImportModelNameExist`	The import model failed. The model name already exists.
`29 ImportModelInvalidModel`	The import model failed. The model was invalid. See output for more information.
`30 ExportFileExists`	The export model failed. An identical file already exists.
`31 VersionViolation`	The version is not supported.
`32 SvcOpsControllerNotActive`	No active service operations controller was found. See error messages for more information.

18.1.4 Supports for Managed Service Accounts in Service Agent installer

As of version 19.04, the service agent installer offers full support for Managed Service Accounts. To install with a Managed Service Account, you specify the following parameters:

- `-osuser=DOMAIN\MSA_Agent$`
- `-cachemanagerosuser=DOMAIN\MSA_Cache$`

For more information, see the section on Install the main service agent in the ***Service Administration*** user manual.

18.1.5 Enhanced Service Capability Checks window

As of version 19.04, you can use additional parameters as part of checking arguments in combination with service capability checks. By adding a variable as parameter to the capability checks, you can easily reuse the service capability checks in different SimCorp Dimension environments, since the introduction of such variables ensures that the setup will be the same for capability checks used in different installations; thus avoiding manual updates of the service capability checks for each installation. You can specify a parameter variable for the various check types for which you can create a service capability check.

For example, you can use a parameter variable as part of checking for a present file located in a folder that may vary from installation to installation. So when you have specified a variable as the following, inside the hashtags, `#MYDIRECTORY#\thisfile.txt`, this will be expanded to

C:\myfolder\thisfile.txt when the variable is defined as `MYDIRECTORY=C:\myfolder`.

You define the variables in the **System Environment Configuration** window which saves the settings from the window in the cnf.ini file. Therefore, you must have write access to the cnf.ini file to be able to modify or enter any settings in this window. SimCorp Dimension does not support any audit logs of the cnf.ini file, instead, you must set this up externally, if needed.

Note

It is also possible to define a variable which has an environment variable assigned as value.

To define a variable for a check argument:

1. Open the **System Environment Configuration** window and click the **Directories** tab.
2. In the **Additional definitions** section, assign a value to the variable that you want to use in a check argument parameter.
3. Click **OK** to close the window.

   You will be prompted to confirm to restart SimCorp Dimension for the changes to be applied, however, it is not necessary to restart SimCorp Dimension for this change. The updates will be initiated when updating service capability checks.

To add parameters to service capability checks:

1. In the **Service Capability Checks** window, create or modify a capability check in the grid.
2. In the **Check argument** field, enter the defined variable inside hashtags, such as `#some certificate#` or `#webfile#\web.text`.
3. Save your changes.

To evaluate the capability check, click **Update Capabilities** in the **PLATFORM** ribbon group in **System Manager**, or alternatively, use the Service Control Utility (`ScdSvcCtl.exe platform reevaluate`). For more information about capability checks, see Manage service capabilities.

18.1.6 Automation requests and elastic values

As of version 19.04, an **Elastic** column has been added to the **Pending action details** section of the **Service Manager** applet in the **System Manager**. For each pending action, when a service is starting, the **Elastic** column can show the following elastic values based on automation requests:

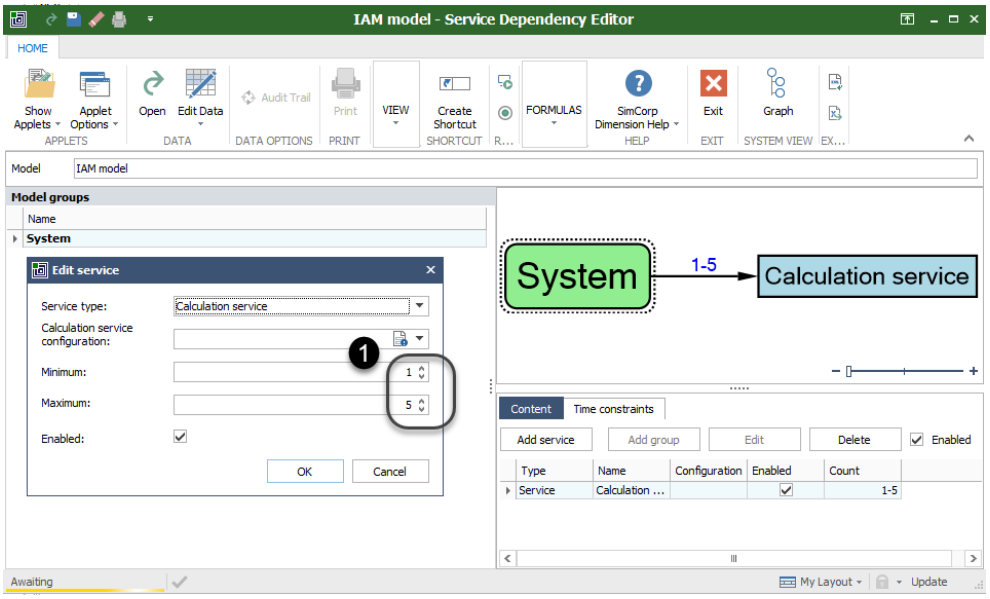
- **No** – for the first **Minimum** number of services according to the individual service type's configuration in the **Service Dependency Editor** of the automation model.
- **Yes** – for the services starting after up to the **Maximum** number of services according to the individual service type's configuration in the **Service Dependency Editor** of the automation model.

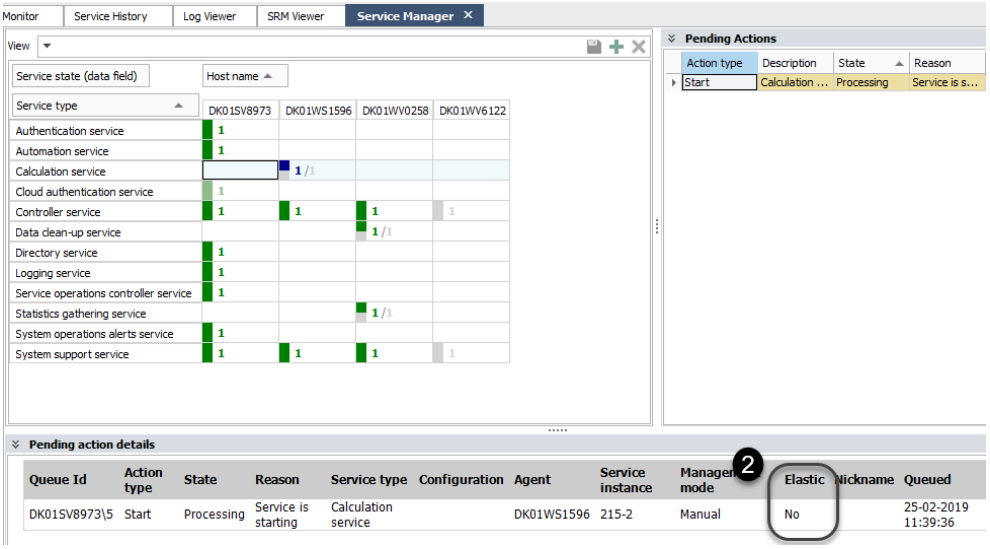
In other words, the elastic values depend on the configuration of the service type in a specific dependency model. The minimum value represents the number of services of this type that will start automatically when the model is enabled. The maximum value represents the number of services of this type that can possibly be online in total at any given time. The automation model will then start one elastic service at a time when needed, resources allowing, or close one down when the need subsides.

Note

The ELASTIC SERVICES module is a prerequisite for using this functionality.

In the following example, the calculations service is set up for the IAM model ❶ with minimum set to 1 and maximum set to 5 elastic service instances. Once the minimum service is starting, the elastic value is **No** ❷, because minimum was set to 1. When more than the minimum services is needed, the additional elastic services up to the maximum of five will start and get the elastic value **Yes**, as they can be started and shut down depending on the current need.





Automation requests and elastic values are part of SimCorp's strategy for improving self-healing and elastic capabilities on the Service Platform.

18.2 SimCorp Cloud

18.3 System Maintenance

18.3.1 Added From date to Cleanup Fund Decomposition Components

As of version 19.04, you can set a **From date** for the batch job to clean up fund decomposition components. This optional field enables you to define a start date for the period that is to be cleaned up.

To do so:

1. Set up a batch job as usual with the **Batch task** field set to **Delete Fund Decomposition Components**.
2. Set the **From date** field to the earliest date for which to delete the component data.

18.3.2 Removed Direct access as cloud connection option [19.01]

As of version 19.04, you can no longer configure a new cloud connection through the direct connection scenario. This option has been removed as connection scenario in the **Cloud Connection Configuration** window to ensure that you will only use our recommended cloud connection scenarios going forward.

However, if you have used the direct access scenario for configuring your cloud connection in a previous version, this will still be fully valid and the option will be displayed in the **Cloud scenario** field in the window.

18.3.3 Automatic cleanup of log messages

As of version 19.01, all log messages saved to the database will be cleaned up automatically by the **Data cleanup service** within a specified retention period.

This service is an infrastructure service and is therefore started automatically by the Service Platform. However, when you upgrade to this version, the data cleanup service will not be initiated until a month after the upgrade. This leaves you time to change the default setting to how long you want to keep the stored log messages. By default, the retention period for log messages is set to 13 months, but you can specify a number between three and 99 months if required.

To specify a retention period for cleanup of log messages:

1. Open the **Miscellaneous Options** window and select the **Miscellaneous Options - 3** tab.
2. In the **Miscellaneous Options** section, enter the number of months that you want to keep the log messages in the **Retention period (months)** field.
3. Click **OK** to save and close the window.

18.4 Tools

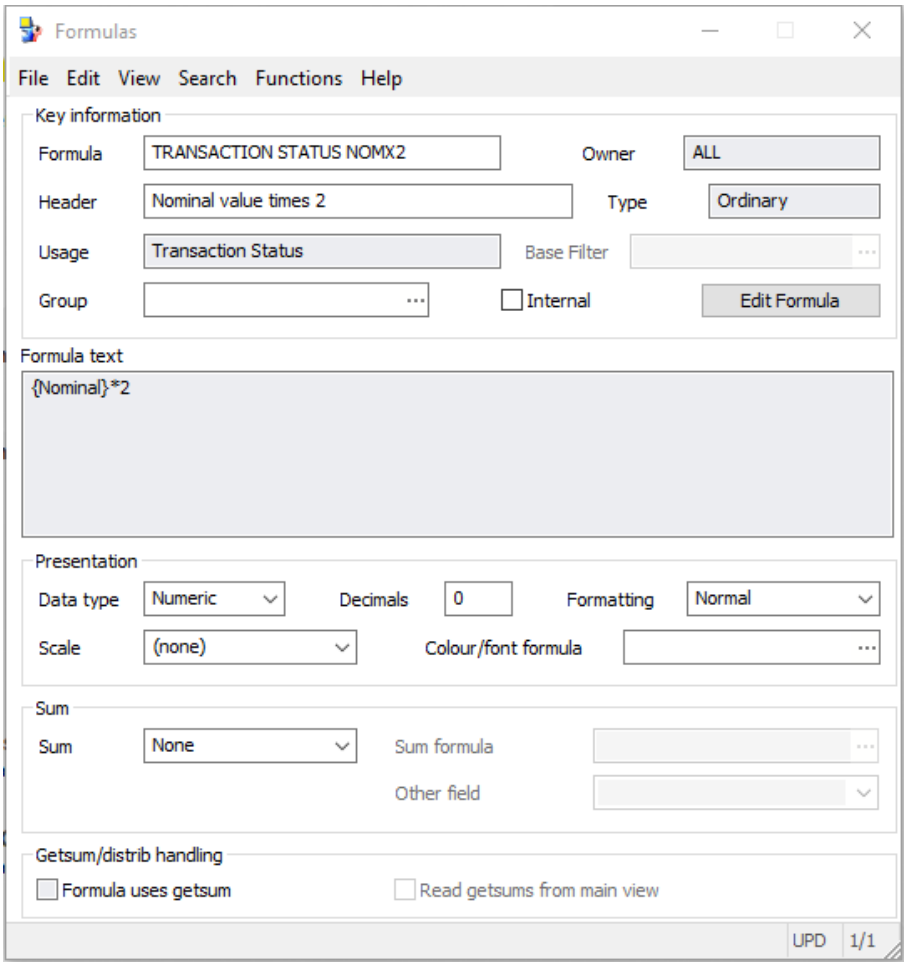
18.4.1 Enabled use of formulas in Transaction Status window

As of version 19.04, you can add formulas to the grid in the **Transaction Status** window. To add any formulas to the grid, you must set the **Usage** field in the **Formulas** window to **Transaction Status** for each formula.

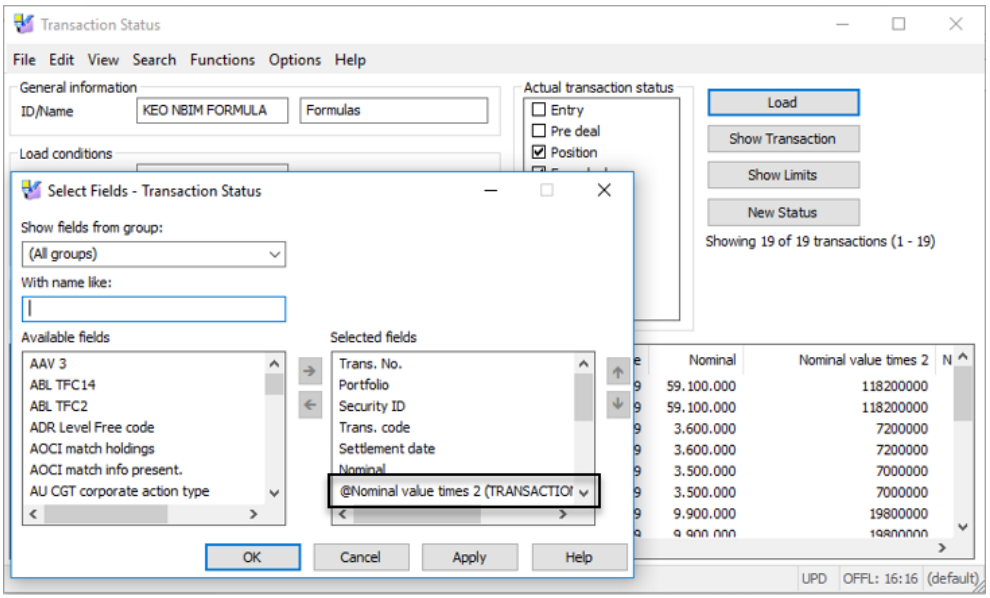
Example

Assume you want to use a formula that multiplies the nominal by 2 in the grid in the **Transaction Status** window.

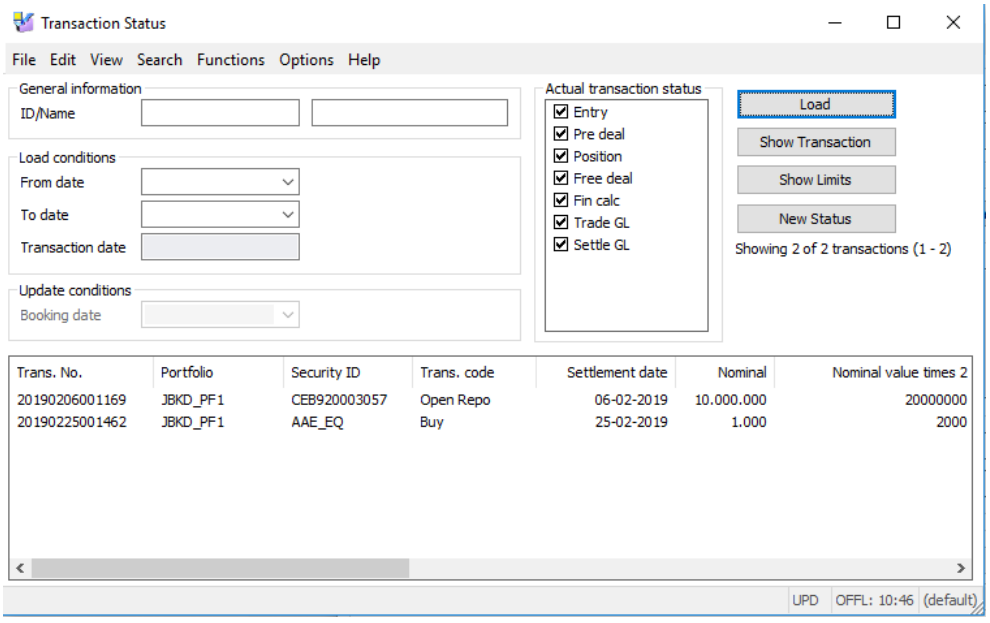
In the following image, you can see an example in which a formula is set up to multiply the nominal by 2 and where the value in the **Usage** field is set to **Transaction Status**. In the **Header** field, the formula is given the name "Nominal value times 2".



Then, in **Select Fields - Transaction Status** sub-window for the **Transaction Status** window, you can find the formulas, which are always indicated with an @ in front of the neader name for the individual formula. In the following image, the **@Nominal value times 2** has been added to the **Selected fields**.



When you have clicked **OK**, the **Nominal value times 2** field is then added as a column in the grid in the **Transaction Status** window. The results of applying the formula are shown for each entry that are affected by the particular field that has been added for the selected formula.



18.4.2 Added new formula function to query partner flags

As of version 19.04, the new formula function getparflag(parik;field) allows you to check for updated data when importing parties data via **Data Format Setup.**

A query can, for instance, check whether a party is an **Issuer** when the formula function returns the selected party's flag as either TRUE or FALSE.

New formula function

The getparflag(parik;field) formula function retrieves the boolean field value of a given party. The parties that can be selected are those available in the in the **Parties** window under the **Allow use as** section on the **Address** tab. And the selected party's boolean value returned is either TRUE or FALSE.

Arguments

Argument	Data type	Mandatory	Internal key	Description
parik	Integer	X	X	Select the party by **Party (IK)**
field	Text	X		Select the name of the field from which to retrieve data

18.4.3 Added new formula function to adjust business day

As of version 19.04, the new formula function adjustbusinessday (date;'busconv';'holical') allows you to check if a specific date is a business day and adjusts the day if it is not, according to the business convention and the bank holidays calendar.

New formula function

The adjustbusinessday(date;'busconv';'holical') formula function checks if the 'date' is a business day, and if it is not, it adjusts it according to the business day convention and bank holidays calendar.

The date argument accepts timestamps which are converted to the corresponding date. If the holical argument is empty or not defined, an 'Empty calendar' will be used that just excludes all Saturdays and Sundays.

Arguments

Argument	Data type	Mandatory	Internal key	Description
date	Date	X		Date to check and adjust
busconv	Text	X		Applicable **Business day convention** setting. Business day conventions are used to find the day where a payment actually takes place in case the scheduled payment day should be a non-business day. For more information on the values in 'busconv', see BusConv
holica	Text	X		Applicable **Bank Holidays** set-up.

Examples

`adjustbusinessday(2019.01.01; 'Following'; '')` returns 2019.01.01.

`adjustbusinessday(2019.01.01; 'Following'; 'CPH')` returns 2019.01.02.

`adjustbusinessday(2019.01.01; 'Preceding'; 'CPH')` returns 2018.12.31.

`adjustbusinessday(2017.12.31; 'Modified following'; 'CPH')` returns 2017.12.29.

18.4.4 Added new .NET formula converting text strings to date format

As of version 19.04, you can apply a new .NET formula function which converts text strings to date format. As a result, you can use the output of the date format to perform further calculations by using other formula functions.

For more information about using .NET formulas, see the **Formulas.Net** windows help (open the window and press F1) and "Create a .NET formula" in the ***Tools*** user manual.

The following table describes the details of the new `ToDate` formula function.

To Date ToDate(Text date, Text cultureId)

Formula function	Description	Parameters	Examples
`ToDate`	Converts a text string for a date, adhering to the specified culture convention, denoted by a BCD 47 ID, to a date value.	**Text date**, **Text cultureId**.	`ToDate("1-5-2019", "da")` is converted to: May 1st, 2019 `ToDate("1-5-2019", "en-us")` is converted to: Jan 5th, 2019

18.4.5 Added new .NET formula GetValue

As of version 19.04, you can apply a new .NET formula function that returns data from the **Formula Values** windows that matches the parameters.

The GetValue(Text definition, DateTime date, Text key) formula finds the formula value definition referenced in the Text definition parameter and the highest date less than or equal to the DateTime date parameter and then returns the numeric value that matches, while taking certain conditions into account (see the following table).

For more information about using .NET formulas, see the **Formulas.Net** windows help (open the window and press F1) and "Create a .NET formula" in the ***Tools*** user manual.

The following table describes the details of the new `GetValue` formula function.

Get Value GetValue(Text definition, DateTime date, Text key)

<table>
<tr><th>Formula function</th><th>Description</th><th>Parameters</th><th>Examples</th></tr>
<tr>
<td>GetValue</td>
<td>Gets the numeric factor value for the specified parameters in the referenced formula value definition - the Text definition parameter, however if the Text definition does not exist, or the user is not authorised to view the definition, an error is shown.

The DateTime date is used to evaluate the valid row in the From date field of the formula value definition. The highest date less than or equal to the DateTime date parameter apply.

The following conditions always apply under the described conditions:

A. If no value records are found the Default value configured in the Formula Values window is returned.

B. If it finds a value record where the perameter Text key matches the Key text, the value from that record is returned.

C. If no value record matches the argument Text key:

a. If a fallback value record with a blank Key text exists, the value of the fallback record is returned.

b. If no fallback record exists, the default value is returned.

It is similar to the APL formula function getvalue('definitionKey';date;'textKey')</td>
<td>Text definition,
DateTime date,
Text key</td>
<td>Examples are based on the following example formula value definition, named Demo, that has its Default value field set to 100.0000000 and the following absolute factor values:

<table>
<tr><th>From date</th><th>Key text</th><th>Value</th></tr>
<tr><td>01-01-1999</td><td>Text 1</td><td>99.0000000</td></tr>
<tr><td>01-01-1999</td><td>Text 2</td><td>71.0000000</td></tr>
<tr><td>01-01-2001</td><td></td><td>95.0000000</td></tr>
</table>

GetValue("Demo", 1999.05.31, "Text 2") returns 71 because of B.

GetValue("Demo", 2001.05.31, "Text 2") returns 95 because of C.a.

GetValue("Demo",1998.05.31, "Text 1") returns 100 because of A.

GetValue("Demo", 1999.05.31, "Text 5") returns 100 because of C.b.

GetValue("Demo", 1999.05.31, "Text 1") returns 99 because of B.</td>
</tr>
</table>

18.4.6 Added seven new Date .NET formulas

As of version 19.04, you can use the following seven new .NET formula functions that manipulate dates. The new date functions are:

- **Add Calendar days**
- **Add Business Days**
- **Add Period**
- **Adjust Business Day**
- **Days Between**
- **Business Days between**
- **Calender Days Between**

You can select the new formula functions in the **Formula Editor** window. You can open this window from business applications that support formulas, such as **Trade Manager** or **Asset Manager**.

For more information about using .NET formulas, see the **Formulas.Net** window help (open the window and press F1) and the ***Tools*** user manual.

.NET formula functions (DateTime):

Add Calendar days AddCalendarDays(DateTime date, Numeric days)

Formula function	Description	Parameters	Examples
`AddCalendarDays`	Adds a number of days to a date.	**DateTime date**, **Numeric days**	`AddCalanderDays(2018-12-31,1)` returns 2019-01-01

Add Business Days AddBusinessDays(DateTime date, Numeric days, Text calendar)

Formula function	Description	Parameters	Examples
`AddBusinessDays`	Adds a number of business days to a date. If the calendar parameter is empty, only week days (Monday to Friday) are added.	**DateTime date**, **Numeric days**, **Text holidaysCalendar** Optional **Text dayCountConvention**, **Text holidaysCalendar**, **Text eomConvention**	`AddPeriod(2019-01-01, -1, "Months")` returns 2018-12-01. `AddPeriod(2017-12-31, -1, "Days", "Business days", "CPH", " " )` returns 2017-12-29.

Add Period AddPeriod(DateTime date, Numeric periodLength, Text periodType, Text dayCountConvention, Text holidaysCalendar, Text eomConvention)

Formula function	Description	Parameters	Examples
`AddPeriod`	Adds a period to a date. The first 3 parameters are mandatory, the rest can be empty. If the calendar parameter is empty, only week days (Monday to Friday) are added. It is similar to the APL formula function addperiod(date; period; 'period type'; 'end of month'; 'day count'; 'holiday cal')	**DateTime date**, **Numeric periodLength**, **Text periodType** Optional: **Text dayCountConvention**, **Text holidaysCalendar**, **Text eomConvention**	`AddPeriod(2019-01-01 , -1, "Months")` returns 2018-12-01. `AddPeriod(2017-12-31 , -1, "Days", "Business days", "CPH", " "` returns 2017-12-29.

Adjust Business Day AdjustBusinessDay (DateTime date, Text businessDayConvention,Text holidaysCalendar)

Formula function	Description	Parameters	Examples
`AdjustBusinessDay`	Checks if the date is a business day and adjusts it if needed according to the business convention and bank holidays calendar. If the calendar parameter is empty, only week days (Monday to Friday) are added. It is similar to the APL formula function adjustbusinessday (date;'busconv';'holical').	**DateTime date**, **Text businessDayConvention**, **Text holidaysCalendar**	`AdjustBusinessDay(2019-01-01, "Following", " ")` returns 2019-01-01. `AdjustBusinessDay(2019-01-01, "Following", " CPH")` returns 2019-01-02. `AdjustBusinessDay(2019-01-01, "Preceding", " CPH")` returns 2018-12-31. `AdjustBusinessDay(2017-12-31, "Modified following'", " CPH")`returns 2017-12-29.

Note

The parameter **businessDayConvention** is used to find the day where a payment actually takes place in case the scheduled payment day falls on a non-business day. The possible values s are:

- `" "` – empty means that the payment falls on the scheduled date without adjustment.
- `"Following"` – means that payment is postponed to the first business day that follows.
- `"Modified following"` – means that payment is postponed to the first business day that follows after the scheduled payment day; unless the resulting day is in the following month, in which case, payment is precipitated to the first business day before the scheduled payment day.
- `"Preceding"` – means that payment is precipitated to the first business day before the scheduled payment day.

.NET formula functions (Numeric):

Days Between DaysBetween(DateTime fromDate, DateTime toDate, Text calendarConvention,Text holidaysCalendar)

Formula function	Description	Parameters/arguments	Examples
DaysBetween	Gives the number of days between two dates. If the calendar parameter is empty, only week days (Monday to Friday) are added. It is similar to APL formula function daysbetween(startdate; enddate; 'day count';'holical';'busconv').	**DateTime fromDate**, **DateTime toDate** **Text calendarConvention**, **Text holidaysCalendar**,	DaysBetween(2019-01-01, 2019-02-01, "Act/Act", " ") returns 31.

Business Days Between BusinessDaysBetween (DateTime fromDate, DateTime toDate,Text holidaysCalendar)

Formula function	Description	Parameters/arguments	Examples
BusinessDaysBetween	Gives the number of business days between two dates. If the calendar parameter is empty, only week days (Monday to Friday) are added. It is similar to APL formula function daysbetween(startdate; enddate; 'day count';'holical';'busconv').	**DateTime fromDate**, **DateTime toDate** **Text calendarConvention**, **Text holidaysCalendar**,	BusinessDaysBetween(2019-01-01, 2019-02-01, " ") returns 23.

Calendar Days Between CalendarDaysBetween (DateTime fromDate, DateTime toDate)

Formula function	Description	Parameters/arguments	Examples
CalendarDaysBetween	Gives the number of days between two dates.	**DateTime fromDate**, **DateTime toDate**	CalendarDaysBetween(2019-01-01, 2019-02-01) returns 31.

18.4.7 Added Matrix Value .NET formulas

As of version 19.04, you can use the following new .NET formula functions that can return matrix values from different types of **Formula Value Matrix Definitions** depending on the specified parameters in reference to a specific matrix and date. The new .NET formula functions are:

- **Get Text Matrix Value**
- **Get Numeric Matrix Value**

You can select the new formula functions in the **Formula Editor** window but only from **Asset Manager**.

For more information about using .NET formulas, see the **Formulas.Net** windows help (open the window and press F1) and "Create a .NET formula" in the ***Tools*** user manual.

.NET formula functions (Text):

Get Text Matrix Value GetTextMatrixValue(Text matrixDefinition, DateTime date, Text row, Text column)

<table>
<tr><th>Formula function</th><th>Description</th><th>Parameters</th><th>Examples</th></tr>
<tr>
<td>GetTextMatrixValue</td>
<td>Gets the text value for the specified parameters in the referenced formula value matrix definition - the matrixDefinition parameter.

If there is no match on the specified date, the values from the newest available date before the specified date are applied; if no value is available in the row or column, the default value as defined in the Formula Value Matrix Definitions window is returned, see Matrix Definitions.

It is similar to the APL formula function getmatrixvalue('id'; date; rowkey; columnkey)

Note
This function is only applicable for matrix definitions with table values of data type Text, and row/column of data type Text.</td>
<td>Text matrixDefinition,
DateTime date,
Text row,
Text column.</td>
<td>Examples are based on the following example matrix definition, dated 2019-01-01:

MyMatrixDefinition1

<table>
<tr><th></th><th>AA</th><th>BB</th><th>CC</th></tr>
<tr><td>AB</td><td>House</td><td>Garden</td><td>Drive</td></tr>
<tr><td>AC</td><td>Cabin</td><td>Lot</td><td>Cycle</td></tr>
<tr><td>AD</td><td>Outhouse</td><td>Patch</td><td>Walk</td></tr>
</table>

GetTextMatrixValue(“MyMatrixDefinition1”, 2019-01-01, “AB”, “BB”) returns Garden.</td>
</tr>
</table>

Get Text Matrix Value GetTextMatrixValue(Text matrixDefinition, DateTime date, Numeric row, Numeric column)

<table>
<tr><th>Formula function</th><th>Description</th><th>Parameters</th><th>Examples</th></tr>
<tr>
<td>GetTextMatrixValue</td>
<td>Gets the text value for the specified parameters in the referenced formula value matrix definition - the matrixDefinition parameter.

If there is no match on the specified date, the values from the newest available date before the specified date are applied; if no value is available in the row or column, the default value as defined in the Formula Value Matrix Definitions window is returned, see Matrix Definitions.

It is similar to the APL formula function getmatrixvalue('id'; date; rowkey; columnkey).

Note
This function is only applicable for matrix definitions with table values of data type Text, and row/column of data type Numeric.</td>
<td>Text matrixDefinition,
DateTime date,
Numeric row,
Numeric column</td>
<td>Examples are based on the following example matrix definition, dated 2019-01-01:

MyMatrixDefinition2

<table>
<tr><th></th><th>1</th><th>2</th><th>3</th></tr>
<tr><td>1</td><td>House</td><td>Garden</td><td>Drive</td></tr>
<tr><td>2</td><td>Cabin</td><td>Lot</td><td>Cycle</td></tr>
<tr><td>3</td><td>Outhouse</td><td>Patch</td><td>Walk</td></tr>
</table>

GetTextMatrixValue (“MyMatrixDefinition2”, 2019-01-01, 1, 1) returns House.</td>
</tr>
</table>

Get Text Matrix Value GetTextMatrixValue(Text matrixDefinition, DateTime date, Text row, Numeric column)

<table>
<tr><th>Formula function</th><th>Description</th><th>Parameters</th><th>Examples</th></tr>
<tr>
<td>GetTextMatrixValue</td>
<td>Gets the text value for the specified parameters in the referenced formula value matrix definition - the matrixDefinition parameter.

If there is no match on the specified date, the values from the newest available date before the specified date are applied; if no value is available in the row or column, the default value as defined in the Formula Value Matrix Definitions window is returned, see Matrix Definitions.

It is similar to the APL formula function getmatrixvalue ('id'; date; rowkey; columnkey)

Note
This function is only applicable for matrix definitions with table values of data type Text, and row/column of data type Text and Numeric respectively.</td>
<td>Text matrixDefinition,
DateTime date,
Text row,
Numeric column</td>
<td>Examples are based on the following example matrix definition, dated 2019-01-01:

MyMatrixDefinition3
<table><tr><th></th><th>1</th><th>2</th><th>3</th></tr><tr><td>AB</td><td>House</td><td>Garden</td><td>Drive</td></tr><tr><td>AC</td><td>Cabin</td><td>Lot</td><td>Cycle</td></tr><tr><td>AD</td><td>Outhouse</td><td>Patch</td><td>Walk</td></tr></table>
GetTextMatrixValue (“MyMatrixDefinition3”, 2019-01-01, “AC”, 2) returns Lot.</td>
</tr>
</table>

Get Text Matrix Value GetTextMatrixValue(Text matrixDefinition, DateTime date, Numeric row, Text column)

Formula function	Description	Parameters	Examples
`GetTextMatrixValue`	Gets the text value for the specified parameters in the referenced formula value matrix definition - the matrixDefinition parameter. If there is no match on the specified date, the values from the newest available date before the specified date are applied; if no value is available in the row or column, the default value as defined in the **Formula Value Matrix Definitions** window is returned, see Matrix Definitions. It is similar to the APL formula function getmatrixvalue('id'; date; rowkey; columnkey) Note This function is only applicable for matrix definitions with table values of data type **Text**, and row/column of data type **Numeric** and **Text** respectively.	**Text matrixDefinition,** **DateTime date,** **Numeric row,** **Text column**	Examples are based on the following example matrix definition, dated 2019-01-01: `MyMatrixDefinition4` **AA** / **BB** / **CC** **1**: House / Garden / Drive **2**: Cabin / Lot / Cycle **3**: Outhouse / Patch / Walk `GetTextMatrixValue("MyMatrixDefinition4", 2019-01-01, 1, "CC")` returns Drive.

.NET formula functions (Numeric):

Get Numeric Matrix Value GetNumericMatrixValue(Text matrixDefinition, DateTime date, Text row, Text column)

<table>
<tr><th>Formula function</th><th>Description</th><th>Parameters</th><th>Examples</th></tr>
<tr>
<td>GetNumericMatrixValue</td>
<td>Gets the numeric value for the specified parameters in the referenced formula value matrix definition - the matrixDefinition parameter.

If there is no match on the specified date, the values from the newest available date before the specified date are applied; if no value is available in the row or column, the default value as defined in the Formula Value Matrix Definitions window is returned, see Matrix Definitions.

It is similar to the APL formula function getmatrixvalue ('id'; date; rowkey; columnkey)

Note
This function is only applicable for matrix definitions with table values of data type Numeric, and row/column of data type Text .</td>
<td>Text matrixDefinition,
DateTime date,
Text row,
Text column</td>
<td>Examples are based on the following example matrix definition, dated 2019-01-01:

MyMatrixDefinition5

<table>
<tr><th></th><th>AA</th><th>BB</th><th>CC</th></tr>
<tr><td>AB</td><td>50</td><td>80</td><td>110</td></tr>
<tr><td>AC</td><td>60</td><td>90</td><td>120</td></tr>
<tr><td>AD</td><td>70</td><td>100</td><td>130</td></tr>
</table>

GetNumerictMatrixValue (“MyMatrixDefinition5”, 2019-01-01, “AA”, “AC”) returns 60.</td>
</tr>
</table>

Get Numeric Matrix Value GetNumericMatrixValue(Text matrixDefinition, DateTime date, Numeric row, Numeric column)

<table>
<tr><th>Formula function</th><th>Description</th><th>Parameters</th><th>Examples</th></tr>
<tr>
<td>GetNumericMatrixValue</td>
<td>Gets the numeric value for the specified parameters in the referenced formula value matrix definition - the matrixDefinition parameter.

The returned value may or may not be interpolated, depending on the interpolation setting in the Formula Value Matrix Definitions window (see the following note about Interpolation below).

If there is no match on the specified date, the values from the newest available date before the specified date are applied; if no value is available in the row or column, the default value as defined in the Formula Value Matrix Definitions window is returned, see Matrix Definitions.

It is similar to the APL formula function getmatrixvalue('id'; date; rowkey; columnkey)

Note

This function is only applicable for matrix definitions with table values of data type Numeric and row/column of data type Numeric.</td>
<td>Text matrixDefinition,
DateTime date,
Numeric row,
Numeric column,</td>
<td>Examples are based on the following example matrix definition, dated 2019-01-01:

MyMatrixDefinition6

<table>
<tr><th></th><th>1</th><th>2</th><th>3</th></tr>
<tr><td>1</td><td>50</td><td>75</td><td>100</td></tr>
<tr><td>2</td><td>55</td><td>80</td><td>105</td></tr>
<tr><td>3</td><td>60</td><td>85</td><td>110</td></tr>
</table>

GetNumericMatrixValue(“MyMatrixDefinition6”, 2019-01-01, 1, 3) returns 100.

With column Interpolation:

GetNumericMatrixValue(“MyMatrixDefinition6”, 2019-01-01, 1, 2,3) returns 82.5.</td>
</tr>
</table>

Get Numeric Matrix Value GetNumericMatrixValue(Text matrixDefinition, DateTime date, Text row, Numeric column)

<table>
<tr><th>Formula function</th><th>Description</th><th>Parameters</th><th>Examples</th></tr>
<tr>
<td>GetNumericMatrixValue</td>
<td>Gets the numeric value for the specified parameters in the referenced formula value matrix definition - the matrixDefinition parameter.

The returned value may or may not be interpolated, depending on the interpolation setting in the Formula Value Matrix Definitions window (see the following note about Interpolation below).

If there is no match on the specified date, the values from the newest available date before the specified date are applied; if no value is available in the row or column, the default value as defined in the Formula Value Matrix Definitions window is returned, see Matrix Definitions.

It is similar to the APL formula function getmatrixvalue ('id'; date; rowkey; columnkey)

Note

This function is only applicable for matrix definitions with table values of data type Numeric, and row/column of data type Text and Numeric respectively.</td>
<td>Text matrixDefinition,
DateTime date,
Text row,
Numeric column</td>
<td>Examples are based on the following example matrix definition, dated 2019-01-01:

MyMatrixDefinition7

<table>
<tr><th></th><th>1</th><th>2</th><th>3</th></tr>
<tr><td>AB</td><td>50</td><td>75</td><td>100</td></tr>
<tr><td>AC</td><td>55</td><td>80</td><td>105</td></tr>
<tr><td>AD</td><td>60</td><td>85</td><td>110</td></tr>
</table>

GetNumericMatrixValue (“MyMatrixDefinition7”, 2019-01-01, "AC", 2) returns 80.

With column interpolation:

GetNumericMatrixValue (“MyMatrixDefinition7”, 2019-01-01, "AC", 1,2) returns 60.</td>
</tr>
</table>

Get Numeric Matrix Value GetNumericMatrixValue(Text matrixDefinition, DateTime date, Numeric row, Text column)

Formula function	Description	Parameters	Examples
`GetNumericMatrixValue`	Gets the numeric value for the specified parameters in the referenced formula value matrix definition - the matrixDefinition parameter. The returned value may or may not be interpolated, depending on the interpolation setting in the **Formula Value Matrix Definitions** window (see the following note about **Interpolation** below). If there is no match on the specified date, the values from the newest available date before the specified date are applied; if no value is available in the row or column, the default value as defined in the **Formula Value Matrix Definitions** window is returned, see Matrix Definitions. It is similar to the APL formula function getmatrixvalue ('id'; date; rowkey; columnkey) Note This function is only applicable for matrix definitions with table values of data type **Numeric** and row/column of data type **Numeric** and **Text** respectively.	**Text matrixDefinition,** **DateTime date,** **Numeric row,** **Text column**	Examples are based on the following example matrix definition, dated 2019-01-01: `MyMatrixDefinition8` **AA** / **BB** / **CC** **1**: 50 / 75 / 100 **2**: 55 / 80 / 105 **3**: 60 / 85 / 110 `GetNumericMatrixValue ("MyMatrixDefinition8", 2019-01-01, 3, "CC"` returns 110. With row interpolation: `GetNumericMatrixValue ("MyMatrixDefinition8", 2019-01-01, 2,3, "AA"` returns 56.5.

Note

Interpolation: In the **Formula Value Matrix Definitions** window, you can specify interpolation, but only for numeric matrix definitions with numeric data type values. You can interpolate **Rows** or **Columns** or **Rows and Columns**.

If you, for example, select **Rows** in the **Interpolate** field, you must select **Numeric** in the **Row data type** field to set up interpolation for a numeric matrix definition, you can specify a row parameter that is between two row values.

In the previous example above, `GetNumericMatrixValue("MyMatrixDefinition8", 2019-01-01, 2.3, "AA")`,

the row interpolation returns 56.5 for the row parameter 2.3, because the function interpolates between the value pair (2, 55) and (3, 60). The formula function finds the nearest higher and lower row value and interpolates linearly between the corresponding values in the **Formula Value Matrix Values** window and returns the result.

For information on bilinear interpolation, **Rows and Columns**, click F1 for help in the **Formula Matrix Definitions** window and look at Example 2.

18.5 Web API

18.5.1 Improved web API authorisation

As of version 19.04, you can enforce authorisation of web APIs in the same way as for data authorisation of other areas in SimCorp Dimension. This facilitates authorisation of web APIs as this can be handled for all APIs in one place, separating authorisation from tasks and commands, so that a user can be assigned different authorisation rights for a web API call and the related action in a window.

Note

All web API calls are now verified through web API authorisation. By default, no users will have authorisation rights to perform any web API calls. This means that you must apply authorisation of the applicable web APIs to the requested users when upgrading to this version. You do this by adding the web APIs to the relevant authorisation profiles as described in the following procedure To apply web API authorisation: below. Alternatively, you can disable the web API authorisation, which is by default enabled, as described in the following procedure To enable or disable authorisation of web APIs: below. However, this may introduce a security risk and it is therefore not recommended.

Before you can apply any web API authorisation, you must ensure that authorisation of web APIs has been enabled in SimCorp Dimension.

To enable or disable authorisation of web APIs:

1. Log on to SimCorp Dimension in a supervisor role.
2. Open the **Security Options** window.
3. On the **Authorisation** tab, select the **Web API** check box to enable authorisation, or clear to disable the authorisation. Note that, for security reasons, it is not recommended to disable this check box.
4. Close the window.

Note

Authorisation of web APIs is enabled by default so that you can easily apply web API authorisation to users as described in the following procedure To apply web API authorisation, however no users are authorised to any Web APIs by default.

To apply web API authorisation:

1. Open the **Web APIs** window from **Maintenance > System Access > Functional authorisation** in the portal.
2. Select the authorisation profile for which you want to authorise web API commands.
3. In the **Web API** field, press F4 to show the list of web API calls available for authorisation. Alternatively, you can start entering the name of the web API to select an available API, or use wildcards (%) to narrow the search in the **Search Values** window. You can, for example, enter %SELECT% if you want to easily grant access rights to all APIs that includes the word SELECT.
4. In the **Search Values** window, select one or more API calls from the list that you want to authorise for the selected authorisation profile. To authorise all calls, click the **Select all** button.

   The list displays all the web API calls that are available in your installation, categorised by the name of the web API call, followed by the action and method, such as **DataRetrieval: SELECT PfcHoldings**. The name of the web API call indicates which Web API this belongs to, in this example, the Data Retrieval API, querying for portfolio calculation holdings.

The window now displays all the Web API calls for which you have applied authorisation.

Note

You can also apply authorisation of web APIs specifically for dashboard users. With a few exceptions to the general web API authorisation:

- You must use the **Dashboard - Web APIs** window instead of the **Web APIs** window when applying authorisation.
- You can only apply web API authorisation of dashboards on read-only web API calls, which provides authorisation to view data but not to modify them in any way.
- You cannot use wildcards to narrow the search of the available web APIs.

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SimCorp provides integrated, best-in-class investment management solutions to the world's leading asset managers, fund managers, asset servicers, pension and insurance funds, wealth managers and sovereign wealth funds. Whether deployed on premise or as an ASP solution, its core system, SimCorp Dimension, supports the entire investment value chain and range of instruments, all based on a market-leading IBOR. SimCorp invests more than 20% of its annual revenue in R&D, helping clients develop their business and stay ahead of ever-changing industry demands. Listed on NASDAQ Copenhagen, SimCorp is a global company, regionally covering all of Europe, North America, and Asia Pacific.

For more information, please visit **www.simcorp.com.**

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