Oracle® Banking Treasury Management
Discount Accrual User Guide

Release 14.8.1.0.0
G45355-01
October 2025

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Contents

Preface

This topic contains the following sub-topics:

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Purpose

This manual is designed to help you get acquainted with the manner in which various classes can be set up in Oracle Banking Treasury Management.

Audience

This guide is intended for Back Office Data Entry Clerk, Back Office Managers/ Officers, Product Managers, End of Day Operators, and Financial Controller users.

Documentation Accessibility

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

Access to Oracle Support

Oracle customer access to and use of Oracle support services will be pursuant to the terms and conditions specified in their Oracle order for the applicable services.

Critical Patches

Oracle advises customers to get all their security vulnerability information from the Oracle Critical Patch Update Advisory, which is available at Critical Patches, Security Alerts and Bulletins. All critical patches should be applied in a timely manner to make sure effective security, as strongly recommended by Oracle Software Security Assurance.

Diversity and Inclusion

Oracle is fully committed to diversity and inclusion. Oracle respects and values having a diverse workforce that increases thought leadership and innovation. As part of our initiative to build a more inclusive culture that positively impacts our employees, customers, and partners, we are working to remove insensitive terms from our products and documentation. We are also mindful of the necessity to maintain compatibility with our customers' existing technologies and the need to ensure continuity of service as Oracle's offerings and industry standards evolve. Because of these technical constraints, our effort to remove insensitive terms is ongoing and will take time and external cooperation.

Related Resources

For more information, see these Oracle Banking Treasury Management resources:

- *The Money Market User Manual*
- *The Securities Repo Manual*

Conventions

The following text conventions are used in this document:

Table   Conventions and Meaning

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
`monospace`	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Screenshot Disclaimer

Personal information used in the interface or documents is dummy and does not exist in the real world. It is only for reference purposes.

Acronyms and Abbreviations

The acronyms and abbreviations are listed in this below table:

Table   Acronyms and Abbreviations

Abbreviations or Acronyms	Definition
AEOD	Automated End of Day
AIF	Alternative Investment Fund
CLS	Continuous Linked Settlement

Table   (Cont.) Acronyms and Abbreviations

Abbreviations or Acronyms	Definition
CIF	Customer Information Files
DV	Derivatives
Dr	Debit
EOFI	End of Financial Input
EOD	End of Day
FX	Foreign Exchange
GL	General Ledger
IRS	Internal Revenue Service
ICCB	Interest Commission Charge and Fee
LCY	Local Currency
LIBOR	London Interbank Offered Rate
MM	Money Market
OBTR	Oracle Banking Treasury Management
OT	Over the Counter Options
RFR	Risk Free Rates

Basic Actions

Table   List of Basic Actions

Action	Description
Approve	Click **Approve** to approve the initiated report. This button is displayed, once the user click **Authorize**.
Audit	Click **Audit** to view the maker details, checker details of the particular record, and record status. This button is displayed only for the records that are already created.
Authorize	Click **Authorize** to authorize the record created. A maker of the screen is not allowed to authorize the report. Only a checker can authorize a record. This button is displayed only for the already created records.
Close	Click **Close** to close a record. This action is available only when a record is created.
Confirm	Click **Confirm** to confirm the performed action.
Cancel	Click **Cancel** to cancel the performed action.
Compare	Click **Compare** to view the comparison through the field values of old record and the current record. This button is displayed in the widget, once the user click **Authorize**.
Collapse All	Click **Collapse All** to hide the details in the sections. This button is displayed, once the user click **Compare**.
Expand All	Click **Expand All** to expand and view all the details in the sections. This button is displayed, once the user click **Compare**.

Table   (Cont.) List of Basic Actions

Action	Description
New	Click **New** to add a new record. The system displays a new record to specify the required data. ⓘ **Note** The fields which are marked in asterisk red are mandatory fields.
OK	Click **OK** to confirm the details in the screen.
Save	Click **Save** to save the details entered or selected in the screen.
View	Click **View** to view the report details in a particular modification stage. This button is displayed in the widget, once the user click **Authorize**.
View Difference only	Click **View Difference only** to view a comparison through the field element values of old record and the current record, which has undergone changes. This button is displayed, once the user click **Compare**.

Symbols and Icons

The list of symbols and icons available on the screens are as follows:

Table   Symbols and Icons - Common

Symbol/Icon	Function
⌐ ⌐	Minimize
⌐ ⌐	Maximize
✕	Close
🔍	Perform Search
▼	Open a list
|◁	Navigate to the first record
▷|	Navigate to the last record
◀	Navigate to the previous record
▶	Navigate to the next record

Table (Cont.) Symbols and Icons - Common

Symbol/Icon	Function
	Grid view
	List view
	Refresh
	Click this icon to add a new row.
	Click this icon to delete a row, which is already added.
	Calendar
	Alerts
	Unlock Option
	View Option
	New
	Enter query
	Execute query
	Copy
	Delete
	Save
	Search
	Advanced search
	Clear all
	Reset

Table   (Cont.) Symbols and Icons - Common

Symbol/Icon	Function
	Export
	Print
	View Details
	Sorting

Table   Symbols and Icons - Widget

Symbol/Icon	Function
	Open status
	Unauthorized status
	Rejected status
	Closed status
	Authorized status
	Modification Number
	Hold
	Reverse

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Defining Discount Accrual Classes

This topic introduce the Discount Accrual User Manual and its functionalities.

In Oracle Banking Treasury Management, you can define the different types of charges that apply on a product as 'classes'. A charge class is a specific type of charge component (E.g. 'Charges for amending the terms of a loan'). When defining a product, you merely have to attach the required classes. In this manner, a contract processed under a particular product acquires the classes (components) associated with the product.

A discount accrual class can be made applicable for loans and contracts processed in Oracle Banking Treasury Management. To apply a discount accrual, you should first define attributes for each of the components.

- [Discount Accrual](#)
  This topic describes how to process and define a discount accrual class and associate the discount accrual components to products.

- [Computation of Net Discount Accrual Amount for a Processing Day](#)
  This topic describes the details on computation of net discount accrual amount, IRR calculation and IRR re-calculation.

1.1 Discount Accrual

This topic describes how to process and define a discount accrual class and associate the discount accrual components to products.

This topic contains the following sub-topics:

- [Processing Discount Accrual](#)
  This topic describes how to process the discount accrual.

- [Define a Discount Accrual Class](#)
  This topic describes the systematic instructions to define a discount accrual class.

- [Associating Discount Accrual Components to Products](#)
  This topic describes the systematic instructions to associate discount accrual components to products.

1.1.1 Processing Discount Accrual

This topic describes how to process the discount accrual.

The following steps are involved in processing discount accrual:

- Defining discount accrual classes

- Associating discount accrual classes with a product

1.1.2 Define a Discount Accrual Class

This topic describes the systematic instructions to define a discount accrual class.

A discount accrual class specifies the accrual parameters for interest and charges. You can define the attributes of a discount accrual class in the **Treasury Discount Accrual Class Maintenance** screen.

1. On the Homepage, Enter **DADTRACL** in the text box, and click the next arrow.

    The **Treasury Discount Accrual Class Maintenance** screen is displayed.

    Figure 1-1   Treasury Discount Accrual Class Maintenance

2. Specify the fields in the Treasury Discount Accrual Class Maintenance screen.

    For information on fields refer to the below table:

    Table 1-1   Treasury Discount Accrual Class Maintenance - Field Description

Field	Description
Class Code	Specify a unique identifier for the class.
Description	Enter a brief description for the class. A description would help you easily identify the class.
Module	The system defaults to the Discount Accrual module to which the class is associated.
Module Description	A brief description of the module is displayed here.
Accrual Preference	Specify whether Discount accrual should be performed for the class.
Discount Accrual Required	Select the Check box if discount accrual should be performed for the class.

Table 1-1 (Cont.) Treasury Discount Accrual Class Maintenance - Field Description

Field	Description
Accrual Frequency	Specify the frequency at which discount accrual should be performed. This can be either Daily or Monthly. For monthly accruals, the discount accrual will be done on the last day of the month
Acquisition Type	The Acquisition Type determines whether the initial cash flows for a C contract can be more (Premium) or less (Discount) or equal (Par) to the contract amount.
	The 'Acquisition Type' is determined by the cash flows of interest, charges and fees for which 'Consider as Discount' option is checked. The drop down list comprises of the following values:
	• **Par**
	• **Par/Discount**
	• **Par/Premium**
	• **Par/Discount/Premium**
	If the incoming cash flows of all the above components are greater than outgoing cash flows considering Incoming flow as Positive (In case of MM contract), the acquisition type is considered as Discount.
	If the incoming cash flows of all the above components are less than outgoing cash flows considering Incoming flow as Positive (In case of MM contract), the acquisition type is considered as Premium.
	If the incoming cash flows of all the above components are equal to outgoing cash flows considering Incoming flow as Positive (In case of MM contract), the acquisition type is considered as Par. NOTE: The acquisition type of a contract can change from premium to par/discount or otherwise depending on the charges getting liquidated during the life cycle of the contract.
Handling of Foreclosure	Specify how foreclosures with respect to the contracts using the class must be handled. You can opt for the completion of pending accruals, or refund. In case the 'Acquisition Type' is 'Par', there are no refunds. Only the pending accruals are completed.
Class Currency Preferences and Day Count Method Details	You can specify the day count methods for each currency using the class. You can define the day count methods for both the Numerator and the Denominator.

1.1.3 Associating Discount Accrual Components to Products

This topic describes the systematic instructions to associate discount accrual components to products.

After building discount accrual classes you can associate the class with loans or contract products.

1. Click **Discount Accrual** in the Product Definition screen (For example, Money **Market Product Definition screen** - MMDPRMNT).

   The **Discount Accrual Preference Association** screen is displayed.

Figure 1-2   Discount Accrual Preference Association

2. To associate discount accrual class with a product, click Default From Class button in the Discount Accrual Preference Association screen. Select the appropriate discount accrual class from the list of classes.

   The attributes defined for the discount accrual class defaults to the product. You have the option to modify the attributes defined for the class, to suit the requirement of the product you are creating. Alternatively, you can choose to define the discount accrual details for the product.

   The system derives the acquisition type based on the following criteria:

   Table 1-2   Treasury Discount Accrual Class Maintenance - Field Description

Product Type	Inflow / Outflow	Acquisition Type
Asset	Inflow > Outflow	Discount
Asset	Inflow < Outflow	Premium
Asset	Inflow = Outflow	Par

   An asset here is a contract (Money Market or Security Repo) and Inflow/Outflow could pertain to the charges and discounted interest associated with a contract. Now, if the acquisition type derived by the system for a contract and the acquisition type of the discount accrual class linked at the product are different, system does not allow saving of a contract.

* [Events and Accounting Entries for Discount Accrual](#)
  This topic describes the events and accounting entries for discount accrual.

- Specifying Status Change Details for Discount Accrual
  This topic describes in which manner the discount accrual is processed in the event of status changes.
- Batch Processing for Discount Accrual
  This topic describes the batch processing for Discount Accrual.

1.1.3.1 Events and Accounting Entries for Discount Accrual

This topic describes the events and accounting entries for discount accrual.

While defining the accounting entries for the Loans and MM modules you must identify the events and accounting entries that are required for discount accrual accounting. One of these is the yield to maturity (YTM) based Discount Accrual (YACR) event. It is meant to indicate the periodic discount accruals for the contract.

The Accounting Roles that should be associated with the event YACR are:

Table 1-3   Accounting Roles

Accounting Role	Acquisition Type	Product Type	Description
EIMDISCRIA	Discount	Asset	Effective Interest Based Discount To Be Accrued
EIMDISCINC	Discount	Asset	Effective Interest Based Discount Accrued Till Date
EIMPREMPIA	Premium	Asset	EIM Premium paid in advance
EIMPREMEXP	Premium	Asset	EIM Premium Expense
EIMINTADJREC	Par	Asset	EIM Interest Adjustment Receivable
EIMINTADJINC	Par	Asset	EIM Interest Adjustment Income

Table 1-4   Amount Tags for the YACR Event

Amount Tag	Description
EIMDISC_ACCR	Net Discount Accrual amount for the processing day
EIMDISC_ADJ	Discount accrual refund amount
EIMPREM_ACCR	Net premium accrual amount for processing day
EIMINTADJ_ ACCR	Interest adjustment amount
EIMPREM_ADJ	Premium accrual refund amount

Table 1-5   Entries Maintained for the YACR Event

Accounting Role	Amount Tag	Dr/Cr Indicator
EIMDISCRIA	EIMDISC_ACCR	Debit
EIMDISCINC	EIMDISC_ACCR	Credit
EIMDISCRIA	EIMDISC_ADJ	Debit
CUSTOMER	EIMDISC_ADJ	Credit
CUSTOMER	EIMPREM_ADJ	Debit

Table 1-5   (Cont.) Entries Maintained for the YACR Event

Accounting Role	Amount Tag	Dr/Cr Indicator
EIMPREMPIA	EIMPREM_ADJ	Credit
EIMINTADJREC	EIMINTADJ_ ACCR	Debit
EIMINTADJINC	EIMINTADJ_ ACCR	Credit
EIMPREMEXP	EIMPREM_ACCR	Debit
EIMPREMPIA	EIMPREM_ACCR	Credit

The account head mapped to the accounting role EIMDISCRIA and account heads mapped to the subsystem specific RIA (Received in Advance) accounting roles should be maintained as the same account.

For discount accrual, you must also maintain the following accounting set-up for the Charge Liquidation event. The charge liquidation event is the event in the life of a contract at which the charge is going to be levied; you would have specified this while building a charge class or while attaching a charge class to the product.

Table 1-6   Accounting Roles for LIQD Event

Accounting Role	Description
component_RIA*	Charge amount Received in Advance

> ⓘ **Note**
>
> The component_RIA will be replaced by the appropriate Charge Rule

Table 1-7   Amount Tags for the LIQD Event

Amount Tag	Description
component_DISC*	Charge Amount to be discounted
component_PIA	Charge amount paid in advance

> ⓘ **Note**
>
> The component is replaced by the appropriate Charge Rule.

Table 1-8   Entries to be Maintained for LIQD Event

Accounting Role	Amount Tag	Dr/Cr Indicator
<Charge rule>_RIA	<Charge rule>_DISC	Credit
CUSTOMER	<Charge rule>_DISC	Debit
<Charge rule>_INC	<Charge rule>_LIQD	Credit
CUSTOMER	<Charge rule>_LIQD	Debit
<Charge rule>_PIA	<Charge rule>_PREM	Debit
CUSTOMER	<Charge rule>_PREM	Credit

Table 1-9   Additional Accounting Entries required for LIQD Event

Accounting Role	Amount Tag	Dr/Cr Indicator
EIMDISCRIA	EIMDISC_ADJ	Debit
CUSTOMER	EIMDISC_ADJ	Credit

1.1.3.2 Specifying Status Change Details for Discount Accrual

This topic describes in which manner the discount accrual is processed in the event of status changes.

You must maintain the following details as part of status maintenance for contracts:

- Whether discount accruals should be stopped or reversed
- The transfer GLs for discount accrual

Table 1-10   Accounting Roles

Accounting Role	Description
EIMDISCRIA	Effective Interest Based Discount To Be Accrued
EIMDISCINC	Effective Interest Based Discount Accrued Till Date
EIMPREMPIA	EIM Premium Paid In Advance
EIMPREMEXP	EIM Premium Expense
EIMINTADJREC	EIM Interest Adjustment Receivable
EIMINTADJINC	EIM Interest Adjustment Income

To recall, at the product level, you maintain preferences pertaining to status change processing through the Status screen (which you invoke by clicking 'Status' button in the Product Definition screen of Money Market or Security Repo). During the contract status change processing, the following are supported by the system based on the preferences maintained:

- All discount accrual accounting roles are made available for transfer
- The balances transferred are
  – Premium TBA to Premium Accrued
  – Discount TBA to Discount Accrued
- Setting of the 'Stop Accrual' flag stops the discount accrual also. This indicates that the YACR event will not be pass any accounting entries.
- Setting of 'Reverse Accrual' flag reverses the following balances:
  – Premium Accrued
  – Discount Accrued
:

For more information, refer to the section 'Aging Analysis for a Product' in the chapter titled 'Product Definition' in the Products User Manual.

1.1.3.3 Batch Processing for Discount Accrual

This topic describes the batch processing for Discount Accrual.

The system provides a batch process (DAATRDLY) as a part of EOD for discount accrual processing. You can trigger the batch process through the Setting up Mandatory Programs screen. The YACR event is initiated, and the net discount accrual amount for the day is computed.

1.2 Computation of Net Discount Accrual Amount for a Processing Day

This topic describes the details on computation of net discount accrual amount, IRR calculation and IRR re-calculation.

Computing Net Discount Accrual Amount

The following details are stored in the system during discount accrual:

- Outstanding contract amount

- Outstanding arrears interest accrued

- Discounted interest to be accrued

- Premium to be accrued

- Discount to be accrued

- Interest adjustment accrued already

- Premium accrued till date

- Discount accrued till date

Catch-Up of discount accrual is done during a contract rollover also. The net discount accrual amount for a processing day is computed as follows:

- • All future cash flows are discounted to the processing day using the IRR effective as of the processing day, and the net present value (NPV) of the contract as of the processing day is obtained. The NPV is calculated based on the acquisition type as follows:

    – If the acquisition type is 'Discount', NPV is given by: NPV = outstanding Money Market contract amount + outstanding arrears interest accrued + outstanding acquired interest – (discounted interest to be accrued – discounted interest accrued) – (discount to be accrued - discount accrued). If the acquisition type is 'Premium', the NPV is given by: NPV = outstanding Money Market contract amount + outstanding arrears interest accrued + outstanding acquired interest - (discounted interest to be accrued – discounted interest accrued) + (discount to be accrued - discount accrued).

    – If the acquisition type is 'Par', the NPV is given by: NPV = outstanding Money Market contract amount + outstanding arrears interest accrued + outstanding acquired interest – (discounted interest to be accrued – discounted interest accrued) + (interest adjustment accrued already + interest adjustment accrued).

    – Outstanding arrears accrued interest is only for arrears (bearing) type contracts.

- The till date discount accrual amount is computed using the following expression: Where

    – TDAn represents the Till Date Discount Accrual for nth Accrual Date

    – NPVn , the Net Present Value of the contract as of nth Accrual Date

    – Pn, the Outstanding Principal of the contract as of nth Accrual Date

    – DTAs, the Discount to be accrued as of current IRR Effective Date

    – AIn, the Current Period Accrued Interest as of nth Accrual Date, and

- – DAs, the Discount Accrued as of current IRR Effective Date
- The difference between the 'Till date discount accrual' amount as of the previous processing day and the 'Till date discount accrual' amount as of the current processing day is the 'Net Discount accrual' amount that is realized as income as of the processing day. The expression used would be, Where \:
  - – NDAn represents the Accrual for nth Accrual Date,
  - – TDAn, the Till Date Discount Accrual for nth Accrual Date and
  - – TDAn-1, the Till Date Discount Accrual for n-1th Accrual Date.

IRR calculation and IRR Re-calculation

Internal Rate of Return (IRR) calculation does not happen in the below mentioned cases:

- Initial stage of a contract
- Payment
- Contract closure

IRR recalculation happens during the following events with new effective date:

- Value dated amendment of a contract maturity date
- Floating interest rate revision
- Partial prepayment to a principal amount for a contract
- New charge on a contract, payable by customer
- Amendment of the Interest to Date
- Amendment of the interest rate
- Partial prepayment to an interest amount

> ⓘ **Note**
>
> The above events pertain to bearing/arrears type of contracts.

For discounted/true discounted type of contracts where the interest is collected in advance, IRR recalculation is done with a new effective date during the following events:

- A partial prepayment to a principal amount
- New charge on a contract, payable by your Customer

> ⓘ **Note**
>
> IRR recalculation is undone during reversal of a partial prepayment.

IRR recalculation is not done during the following events:

- When a payment is overdue
- For a regular payment
- For a full prepayment
- Amendment of a contract amount

Refer to the https://docs.oracle.com/cd/F72699_01/PDF/OTHERS/Calc_sheets/ YACR_calculation.xls sheet for sample Yield Accrual calculation.

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DADTRACL- Treasury Discount Accrual Class
Maintenance, *2*